

GLOBAL CONFERENCE ON
BUSINESS AND FINANCE
PROCEEDINGS

VOLUME 16, NUMBER 2
2021

ISSN 2168-0612 FLASH
DRIVE

ISSN 1941-9589 ONLINE

The Institute for Business and Finance Research

*San Jose, Costa Rica
May 25-28, 2021*

Global
IBFR

TheIBFR.COM

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ENGLISH PROCEEDINGS

12 ANGRY MEN: A BEHAVIORAL BIAS EXERCISE FOR FINANCE STUDENTS

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ABSTRACT

Undergraduate investments and portfolio management courses have traditionally prescribed the optimal choices for rational economic man—a creature who does not exist. Real portfolio choices, especially those by retail investors, are made by “normal” people, and normal people exhibit behavioral biases. In this paper, we use a classic play, 12 Angry Men, to help students recognize the biases that have been highlighted in the professional Chartered Financial Analyst curriculum. This approach is engaging, “messy,” and fun, and it has helped my portfolio management students better appreciate the trade-offs that are necessary when putting theory into practice in the real world.

JEL: G40, M2, A2

KEYWORDS: Behavioral Biases, 12 Angry Men

INTRODUCTION

Investors are not the rational, expected return-maximizing automatons asserted by traditional mean-variance portfolio theory. Instead, they are creatures driven by emotional and expressive desires (Statman, 2017), operating in markets created by their own adaptation to their social, political, and economic environments (Lo, 2017). The curriculum for the premier professional finance designation, the Chartered Financial Analyst (CFA) recognizes this, noting “As a result of identified divergence between observed and theoretically optimal decision making, the global investment community has begun to realize that it cannot rely entirely on scientific, mathematical, or economic models to explain individual investor and market behavior” (Pompian, 2014a). Teaching students how to thrive in this less “rational” world requires novel assignments that go beyond simply teaching them to find a portfolio variance.

In this paper, we present a fun, motivating assignment designed to help students identify the types of behavioral biases addressed in curricula such as that of the Chartered Financial Analyst’s Level III (2014). Students are asked to identify common biases demonstrated by the characters in the play *Twelve Angry Men*. While this play’s film adaptations have been used before for pedagogical purposes, our approach is novel in two ways. First, we focus specifically on an audience of finance students, rather than on general management students, allowing discipline-specific extensions; and second, we use the freely available (and much shorter) 1954 Studio One live TV version of the play (Rose, 1954). Using this version facilitates both the time and resource commitments that students and instructors must devote to the exercise. The paper proceeds as follows. First, we review the pedagogical literature on the uses of *12 Angry Men* in the classroom, as well as the finance-oriented literature on behavioral biases. We then turn to the individual biases exhibited in the play, considering cognitive and emotional biases in turn. Next, we briefly consider the play’s illustrations of group biases, both those depicted within the jury and those evoked in the audience. Finally, before concluding, we describe several possible teaching approaches that allow significant flexibility for instructors.

LITERATURE REVIEW

The exercise described in this paper relates most directly to three strains of research: investigations into behavioral biases, especially in financial affairs; pedagogical research into the use of film in classrooms,

and especially the use of *12 Angry Men*; and, perhaps most interestingly, to studies of jury behavior. From the enormous body of psychological research into heuristics and biases, the CFA curriculum highlights several relevant sets that include papers and books quite accessible to undergraduate finance students. The first set concerns four paradigms of behavioral finance that present alternatives to the construct of “rational economic man”: bounded rationality (including “satisficing; see Simon, 1972), behavioral portfolio theory (e.g., Statman, 2017), adaptive portfolio theory (Lo, 2005), and prospect theory (Kahneman and Tversky, 1979). The second set, outlined in Table 1, describes specific behavioral biases that could affect financial decision-making. Video can be an excellent teaching tool. It can offer “new dimensions on old subjects, provid[e] meaningful embellishments to current curricula, or afford... educative experiences that no other medium can give” (McCambridge, 2003, quoting Hunter, 1990). Despite the initial shock of seeing something in black and white, old films can be especially useful, since “[l]ess-than-familiar classic films allow students to focus on communication patterns and concepts without distraction” (Proctor, 1991). For many who appreciate the pedagogical value of video, *12 Angry Men* has been a staple for years.

Race plays a much more explicit role in the films than it does in the play. In the movies, we are told that the defendant is Hispanic, and we see a brief shot of him in the courtroom. Actually seeing him underscores the fact that he is being judged by a jury of twelve white men, and primes the audience’s suspicion that he is not being judged by a jury of his peers. White-majority juries are, in fact, much more likely to convict Hispanic defendants, rather than white ones (“jury-defendant similarity bias”). Similarly, discrepancies between the jurors’ socioeconomic status and the defendant’s increases the probability of conviction (Devine, *et al.*, 2001). However, demographic differences are not determinative. For example, Hans (2007) reports that first-ballot votes are not reliably explained by demographic factors; even if there are “gaps” in jurors’ initial opinions associated with race, these are often overcome through deliberation (Abramson, 2007). This is obviously what we observe in the play. Perhaps presenting the audience with an apparently monolithic, potentially hostile jury makes this transformation all the more dramatic.

Cognitive Biases

The CFA curriculum classifies behavioral biases as either cognitive or emotional. Cognitive biases are errors in information handling: for example, misuse of statistical base rates or overreliance on trends when forecasting. These biases can be related to the assimilation of information (processing errors) and to cognitive dissonance (selective exposure, selective perception, and selective retention—called belief-perseverance errors). We begin with the processing errors. The cognitive bias of anchoring and adjustment describes both people’s preference for anchors and their tendency to insufficiently adjust those anchors. Anchors are reference values that help with estimates; instead of having to generate an estimate out of whole cloth, one can adjust a given anchor value up or down. These anchors can even be meaningless or random. For example, Kahneman (2011) describes study participants who were asked to estimate the percentage of African countries in the United Nations; people who had just seen a large number come up on a wheel of fortune chose a larger percentage than people who had seen a smaller number on the wheel. In civil trials, Devine *et al.* (2001) note that ad damnum clauses (which specify the damages sought by the plaintiff) act as anchors to awards; similarly, Kahneman (2011) asserts that capping awards at a specific maximum increases judgments that would otherwise be much smaller.

A subtle example of the anchoring and adjustment bias is revealed through the sequence of votes cast throughout the play. Here, it is the audience who anchors. We have not seen the actual trial, so our first impression of the weight of evidence comes from the initial 11-1 guilty vote; this functions as our substitute for the prosecution’s case. But since this vote occurs at the very beginning of the play, we are “primed” to expect much more to the story (Heller, 2006). We then assess juror #8’s “progress” throughout the play as we watch him gradually convince his fellows to change their votes and join him.

The jury's "let's vote now" decision at the beginning of the play means that juror #8—our protagonist—faces a tough room even before that first vote comes back 11-1. But that vote does make things much worse for him. Devine, *et al.* (2001), after reviewing hundreds of academic articles on jury behavior, find that "[t]here are compelling data from numerous studies indicating that the verdict favored by the majority of the jury at the beginning of deliberation will be the jury's final verdict about 90% of the time." In fact, with an initial 11-1 vote, the probability is 92%. Sunstein (2007) summarizes this by putting the odds of one juror's changing the other eleven's minds at "essentially zero." What will probably happen instead is that the prevailing opinion will strengthen as it is echoed around the room.

Thus, we the audience anchor on the strong reflection of the persuasiveness of the prosecution's case and the improbability of jury movement, yet we are primed to expect some drama. Encouraged by juror #8's likeability (which we discuss further, below), we therefore are prone to see each new vote—as the jurors cast one, two, six, nine, and finally twelve votes to acquit—as progress toward justice, and we are grateful to #9 (who says, "He gambled for support, and I gave it to him") for allowing the deliberation to continue (see Abramson, 2007, on the importance of support for minority-position jurors). Our anchoring on 11-1 makes us even more satisfied at the end of the play with the jury's long-shot decision. Having considered this cognitive processing error, we now turn to the belief perseverance biases.

Conservatism is a belief perseverance bias in which someone tries to avoid the cognitive strain of updating her prior beliefs, especially when responding to new information would require assimilation of complex or statistical information. Confirmation bias takes this perhaps a step further: the individual actively protects her prior beliefs by selectively perceiving and retaining consistent information, while downplaying or ignoring contradictory evidence. Hoffman (2007) calls the whole trial process is "the mother of all confirmation bias problems": if "the system" has already determined that the defendant is guilty, how is the jury supposed to decide otherwise? If the system provides direct evidence, like eyewitness testimony, this question becomes even harder. Heller (2006) identifies four ways that belief perseverance biases can "devastate" a defense in a trial with direct evidence. All four biases are present in *12 Angry Men*.

The first two relate to conservatism. Jurors may focus only on evidence supporting their belief in the defendant's guilt, or, if they do do confront exculpatory evidence, they may do so only superficially or skeptically, especially when they are very confident in their initial assessment. As Hay (2007) puts it: "Whenever someone comes forward to suggest [people have] been deceived by appearances or that they've ignored significant details or that there's more to this case than anyone understands..., they're likely to dismiss him as a crank, ignore what he's saying, and cling to their prior views as long as possible." Juror #7 certainly does when someone suggests that "maybe you don't understand the term 'reasonable doubt'," and he responds "angrily": "What do you mean I don't understand it? Who do you think you are to talk to me like that?" In addition to confronting inconsistent evidence with skepticism, jurors confident in their positions will often "truncate their search for alternative hypotheses" (Heller, 2006). There are numerous examples in the play. When #8 starts looking at the floorplan of the apartments, #3, #7, and #10 "barely bother to look at it." Instead, #7 asks #10 to "Wake me up when this is over." Nor does #3 want to look at the knife again: "We all know what it looks like." Ultimately, he and #7 are not interested in continuing examination of *any* evidence: both want to "walk into court right now and declare a hung jury." In some cases, it can be efficient to rush to judgment this way, *if* the judgment is likely to be correct. However, ignoring evidence is a risky strategy for novel, consequential circumstances for which it is not possible to gather more information (Kahneman, 2011).

Heller's (2006) other two trial complications relate to the confirmation bias. In contrast to their skepticism regarding exculpatory evidence, jurors exhibiting the confirmation bias may simply trust the reliability of inculpatory evidence, and they may interpret ambiguous evidence as inculpatory. In the play, when #8 asked how fast the elderly downstairs neighbor got to his door, #4 dismisses his question by saying that his testimony that he got there is "enough, isn't it?" More dramatically, when #8 suggests that the downstairs

neighbor could not hear boy yelling if the el train were passing by, #3 immediately counters: “What d’ya mean? Sure he could have heard it... He said the boy yelled it out. ...Are you calling the old man a liar?” And as for the female neighbor’s wearing glasses: “How do you know what she saw? Maybe she’s farsighted... I think he’s guilty!” As noted, all four of these biases are exacerbated by jurors’ high confidence in their assessment. Part of the reason the jurors are so confident is the nature of the prosecution’s case, which includes direct evidence—eyewitness testimony—from the female neighbor living across the el tracks. “Jurors dramatically overestimate the accuracy of eyewitness identifications... and convict in eyewitness cases even in the face of exculpatory evidence” (Heller, 2006). Error rates for eyewitness identifications are “extremely high,” and are even less reliable—with 60% to 90% false identifications, by far the greatest cause for false convictions—when the act being observed is violent and when visibility is imperfect (Heller, 2006). Nonetheless, eyewitness testimony is compellingly concrete, and it transports a jury in a way circumstantial cannot.

Circumstantial evidence, such as fingerprints or other forensic evidence, requires a jury to make inferences and weigh probabilities. Heller (2006) identifies four crucial differences between direct and circumstantial evidence. First, direct evidence is representational and structurally coherent, providing a tidy representation of the crime itself, in chronological order (compared to the reversed structure of a trial, which flows backward from the crime to its precursors). Second, direct evidence is narrative—it is a story that allows the jury to “see” the event in their minds. Third, as just noted, reliable direct evidence is univocal: it allows only one interpretation—guilt. Circumstantial evidence is polyvocal, and can be interpreted as either damning or exculpating. Finally, direct evidence is unconditional, while circumstantial evidence is probabilistic. Jurors in a direct case can easily see how the crime could have happened as the prosecution says it did. Given how compelling eyewitness testimony can be, it is not surprising that the female neighbor’s statement provides the final argument supporting the three jurors who persist in voting guilty through four rounds of voting. It is not easy for juror #8 to combat such evidence. His approach is therefore very delicate. He is careful to say that “maybe she honestly thought she saw the boy kill his father,” but that actually “she saw only a blur.” His interpretations may not be the most probable, as he recognizes—“It’s possible...I’m just saying it’s possible... Do you think this possible?”—but he just wants to create reasonable doubt. The reason we leave the play thinking he is brilliant is because he succeeds. Even after juror #8 was able to convince #4, whose “only concern is with the facts of this case” (Rose, 1954), there was still one more guilty vote: #3’s. His more emotional biases are more difficult to counter.

Emotional Biases

Landsman (2007) describes the interactions among our jurors “more like a struggle for dominance than rational analysis,” but this is one of the selling points of the play. Angry people are interesting; rational people are not. (As Jimeno-Bulines, 2007, notes, *12 Angry Men* is a better title than *12 Impartial Jurors*; Preet Bharara, 2019, says no one would go see a movie called *12 Angry Mediators*.) Anger actually feeds the narrative, since being angry can affect the way the jurors process information; for example, anger can focus inquiry, making it less likely that the jurors simply accept confirmatory evidence (Statman, 2017). Even simply frowning reduces overconfidence and makes people think harder (Kahneman, 2011). In general, however, biases driven by emotion move people farther from the ideal of rational economic man. In this section, we consider several examples of emotional biases in *12 Angry Men*, starting with overconfidence. People who are overconfident “overestimate their knowledge, underestimate risks, and exaggerate their ability to control events” (Nofsinger, 2014). For the *12 Angry Men* jurors, it means initial verdicts defended with assertions rather than through examination of evidence; as Hay (2007) puts it, the jurors “overestimate themselves,” and “[c]ertitude and comprehension are inverse quantities for the characters.” Not surprisingly, the characters prone to other emotional biases also show flashes of overconfidence, especially juror #3 (described by Rose as “extremely opinionated”), #7 (a “bully”), and #10 (who is “angry” and “bitter”). When #8 asks in Act 1 if the defendant may have lied, #10 “angrily” responds that “of course he lied!” In Act 2, when the jury is wondering which one of them could have

changed his vote, #3—again “angrily”—asserts “I know who it was.” And of course #7, as we noted earlier, defends his immediate vote for guilty: first by denying that it was easy for him to do so—since he understands the (capital) consequences, but ultimately because “I think the guy’s guilty. You couldn’t change my mind if you talked for a hundred years.” Also not surprisingly, the two angry and overconfident men in this group, #3 and #10, are some of the longest holdouts of the jury.

Of all of the biases displayed in *12 Angry Men*, perhaps the one most important to the narrative is regret avoidance. We expect more regret when a bad outcome results from something we did (an error of commission) rather than from something we did not do (an error of omission; see Kahneman, 2011). However, whether a choice counts as action or inaction depends on our perception of the default option. Juror #8 is process oriented. He sees the jury as a deliberative body; for him, the default option is to talk about the case. Other jurors are decidedly more task oriented: they see their job as delivering a verdict (as #10 says, “He got a fair trial, didn’t he?”). #8 is able to shift their default toward deliberation, and he does so by explicitly exploiting regret aversion in multiple ways.

First, juror #8 reframes the decision from something that needs to be done “fast” so that “we can all go home” (#7) to something that needs to be taken seriously: a decision that could “send a boy off to die.” By focusing on the severe and irreversible consequences of the decision—the “terrifying duty of rendering a verdict (Bharara, 2019)—he stressed the “negative affect” of the decision and emphasized the potential for regret. He then subtly reminds his colleagues that this decision is theirs—an important reminder for those jurors (like #3 and #4) who could avoid regret by blindly trusting the neighbor’s testimony (if she was wrong, that was her fault, not theirs; see Statman, 2017). He also invokes guilt, as is obvious by #7’s reaction: “Who says it’s easy for me?” Finally, he persuades the last holdout juror by employing a technique that Kahneman (2011) says is the most useful protection from regret: explicitly anticipating it. (“If you can remember when things go badly that you considered the possibility of regret carefully before deciding, you are likely to experience less of it.”) At the end of Act 3, juror #3 shouts, “I’m entitled to my opinion! It’s gonna be a hung jury!” To which #8 replies, “There’s nothing we can do about that, except hope that some night, maybe in a few months, you’ll get some sleep.” #3 relents, and the play ends. Having reviewed several individual cognitive and emotional biases, we now turn briefly to the biases related to group dynamics.

Group Dynamics in *12 Angry Men*

According to the CFA curriculum, group decision-making can mitigate or exacerbate the biases of members. It can also generate new biases (Pompian, et al., 2014b). There are essentially two main points that the curriculum seeks to deliver; both are illustrated in *12 Angry Men*. The first of these is that the process of reaching group consensus can smother contrary opinions, as “the nail that sticks up gets hammered down.” This is the external influence of the group upon the individual. It is easy to see such dynamics in the play. For example, we hear this from #3: “Somebody’s in left field...It’s not Sunday. We don’t need a sermon”; and, from #7: “You’re alone. What do you think you’re gonna accomplish?” To combat this tendency and ensure that the full range of views is aired, the CFA curriculum suggests that a group’s chair ask each participant for her opinion in advance, then explicitly prompt for all comments during the meeting. Kahneman (2011) agrees that this is the best way to draw out everyone’s information. However, in *12 Angry Men*, a (bored) judge fails even to instruct the jurors to keep an open mind until they have deliberated, and an (indifferent) foreman calls for a vote before any evidence is discussed. Only as juror #8 presses them to talk about the case, and the foreman then suggests “we go once around the table,” do the others become more willing to contribute their own impressions (Marder, 2007). As the jurors provide their unique perspectives, they contribute to a sense of community (Babcock and Sassoubre, 2007), “develop a sense of ‘groupness’ through communication” (Proctor, 1991), and achieve “the emergence of common sense” (Burns, 2007). Viewers will believe the result is just.

This successful outcome is contingent upon the confident, independent actions of juror #8. This brings us to the CFA curriculum's second main point about group interactions: that the individual members need to take responsibility for offering their opinions. This is not as easy as it sounds. People want to fit in, so as a group seeks to enforce consensus, its members seek to conform—preferring to be part of the herd rather than conspicuous outliers. This tendency drives the quick move to consensus, for good or ill, and is called the “social proof bias.” 12 *Angry Men*'s jurors are clearly susceptible to this bias. As Hans (2007) describes their initial deliberations: “The discussion is cursory. The jurors exchange insults and put-downs. The comments about the trial and the defendant reflect judgments and prejudice. In short, the men are really bad jurors.” Two in particular are especially noteworthy here, and are critical foils for juror #8.

On one end of the jury's personality scale is juror #2, a “meek, hesitant man who finds it difficult to maintain any opinions of his own.” His main contribution to the deliberations is to vote guilty, then explain himself by “timidly” offering that “I thought it was obvious.” Juror #2 obviously has not developed a thoughtful rationale to support his initial vote—at least one he can articulate. It may even be too generous to suggest that he is satisficing. Were it not for the insistence of juror #8, juror #2's blasé approach to his responsibilities would have helped to quickly convict a possibly innocent man. At the other personality extreme is juror #3, a dramatic example of what Devine, *et al.* (2001) call “high-authoritarian” jurors: people who are “rigid, conventional, conservative, power-oriented, and deferential to authority.” (Notably, Rose, in his description of juror #3, starts with the power-oriented terms “very strong, very forceful,” then adds “extremely opinionated” and “intolerant.”) Juries with many high-authoritarian jurors are more likely to convict. However, these jurors are more susceptible to the influence of authority figures and to “group conformity pressure.” Juror #8 is the main instigator of that pressure.

As he models the CFA's prescription to be responsible for offering his opinions in the face of colleagues who feel quite differently, he is aided by his very nature. Juror #8's character is critical to the play's outcome, whether one sees him as “Christ-like” (Hay, 2007) or as an “internal enemy” who must be dealt with if the jurors are to escape the hot jury room (Proctor, 1991). He is “generally confident” (Sunstein, 2007), and people are impressed by messages delivered with confidence. Thus, #8 is persuasive when he concludes that “he couldn't have made the kind of wound which killed his father,” or “I say she saw only a blur” (Act 3). No other juror can match this persuasive eloquence (Vidmar *et al.*, 2007). He is also “highly likeable” (Sunstein, 2007). This very “agreeableness” bolsters his willingness to maintain his position when faced with opposition (MacCoun, 2012), as it allows him to appealing to the other jurors' humanity with humility and without ridicule (Garfinkle, 2011).

He is also fortified by his desire to reach an accurate conclusion (MacCoun, 2012). He is rational, has more information than the jurors most enthusiastic about a guilty verdict (Sunstein, 2007), and is able to marshal more arguments and support them with “logic and experimentation” (Garfinkle, 2011; see also Abramson, 2007 and Gertner, 2007). As he builds his case, more jurors are swayed: “the ubiquitous majority effect is mediated by information exchange as opposed to conformity pressure” (Devine, *et al.*, 2001). Because the more “competent” jurors are the least invested in their initial positions—and therefore the most amenable to rational counterargument—juror #8 is able to persuade them by asking the right questions (Sunstein, 2007). As he asks those questions, he reveals himself to be as Rose imagined him: “A quiet, thoughtful, gentle man. A man who sees all sides of every question and constantly seeks the truth. A man of strength tempered with compassion. Above all, he is a man who wants justice to be done and will fight to see that it is.” Less poetically, he is also the perfect embodiment of the CFA curriculum's summary observation on group decision-making: “An individual expressing strong contrarian views within the group can help in avoiding too quick of a move to consensus before all evidence is discussed” (Pompian, 2014b).

CLASSROOM SUGGESTIONS AND CONCLUSIONS

Given time and pandemic constraints, the way I have used classroom time to support this exercise has varied. The best approach for my classroom has been to have students watch the video on their own time, work in teams to identify biases, then come to class prepared with their own chosen clips to show their colleagues. This ensures that everyone is completely familiar with the entire play (which is not an onerous requirement, since the play runs less than one hour and is freely available on the internet) and that everyone is prepared to discuss it. To ensure that all students' views are aired, I ask everyone to prepare initial answers before meeting in teams. Finally, at the end of our classroom session, I introduce Vidmar, et al.'s (2007) arguments supporting the guilt of the defendant and ask students to consider whether their own conclusions were affected by social proof bias, the halo effect, or other biases as they reviewed the evidence through the play. Statman (2017) says that finance knowledge can be divided into financial-facts knowledge, human-behavior knowledge, and information knowledge. Finance professors are unlikely to omit information and facts from their courses, but may be less experienced and comfortable tackling human behavior. Nonetheless, students are unlikely to encounter only rational economic actors in their portfolio management careers, and a financial "consultant's new role is not unlike the role of a psychotherapist" (Lo, 2005). Students therefore must be trained to mitigate or adapt to client biases. *12 Angry Men* is a fun way to begin that training.

Table 1: Examples of Individual Behavioral Biases in 12 Angry Men

Bias	Example
<u>COGNITIVE</u> <i>belief perseverance</i> <u>Conservatism</u> choose to maintain beliefs rather than experience the stress of updating them <u>Confirmation</u> search for/notice information that confirms beliefs <i>representativeness</i> use stereotypes/small samples/patterns to classify new information <u>illusion of control</u> become more confident as become more actively involved with choice (more choices, familiar task, competition) <u>hindsight</u> view outcomes as having been more predictable (once they have happened) <i>processing</i> <u>anchoring and adjustment</u> make comparisons by adjusting an initial anchoring estimate <u>mental accounting</u> compartmentalize goals, addressing each separately and ignoring possible correlations <u>framing</u> make choices based on how question is posed (e.g., "gain" v. "loss" frame) <u>availability</u> assume things more easily recalled are more likely (e.g., more recent, more easily categorized, more resonant with personal experience)	juror #7: "You couldn't change my mind if you talked for a hundred years"; "wake me up when this is all over" juror #10: "Look, what about the woman across the street? If her testimony doesn't prove it, then nothing does." juror #10: "...knowing what he is. I've lived among 'em all my life. You can't believe a word they say."; juror 3: "I think I know him [the old witness] better than anyone here." jurors re-enact aspects of the trial evidence (e.g., neighbor getting out of bed and walking down hall; killer stabbing switchblade downward) the audience sees innocence as more likely after having seen the play the jurors estimate, then adjust, how long it takes an el train to pass a given point and how long it took the elderly neighbor to reach his door juror #5 separates his current life and his jury duties from his prior life in a bad neighborhood; audience initially may not appreciate the diversity of the jury, since there are no obvious visual categorizing clues juror #3 views the evidence through the frame of the defendant's being a "dangerous killer," while juror #8 sees it through the defendant's being 19 years old and a victim of paternal abuse; juror #2 says the boy is guilty because "nobody proved otherwise"; juror #5 says the others should "take a few tips from people who come running here" juror #11 is very concerned with the democratic process underlying jury service, because things were so different in the country from which he came; jurors who have once constructed a narrative of the boy's guilt have that narrative easily available to them, making it less likely that they will abandon their perception of guilt
<u>EMOTIONAL</u> <u>loss aversion</u> prefer to avoid loss than achieve gains, even if must accept more risk <u>overconfidence</u> have a illusion of knowledge; take credit for successes (but see failures as bad luck) <u>status quo</u> prefer to do nothing--it's easier (inertia) <u>self-control</u> prefer smaller payoffs now to larger payoffs later <u>endowment</u> value something more highly if already owned; prefer status quo, but not because of inertia <u>regret avoidance</u> prefer to make no decision than one that might end badly; error of commission worse than error of omission	juror #7 wants to end deliberations quickly so he does not waste his theater tickets juror #10: "Sure he lied!" juror #3 would rather play tic-tac-toe than consider evidence juror #10 displays a lack of self-control when he allows his temper to flare up, satisfying his immediate need for emotional release over the broader goal of group cohesion juror #7 may value his theater tickets more highly since he already has them juror #8 is unwilling to send a boy off to die without some "talk"; other jurors' acceptance of eyewitness testimony allows them to "launder" responsibility (Heller, 2006)

This table gives descriptions of each of the individual behavioral biases covered in the paper, as well as examples from 12 Angry Men.

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THE ROLE OF LEADERSHIP IN MODERN ORGANIZATIONS

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ABSTRACT

Environmental insecurity, the risk of making mistakes, the professionalism of members and the manifestation of leadership are instigators of the emergence of the phenomenon of organizational learning. Beyond a strong brand, the quality of services and products offered, visibility, the social and economic impact that the entity can have, the vision of leadership is reflected in the most real and concrete way in its economic performance. The leadership of the future has the role of developing, implementing and evaluating behavioral codes to be observed by the hierarchical executive levels. This paper aims to present an analysis of leadership in the current context of organizations.

JEL: L25, M12, M14

KEYWORDS: Leadership, Economic Performance, Company, Risk Management.

INTRODUCTION

The issue of leadership, leadership and leadership style has provoked a considerable number of theoretical and experimental research, being one of the central themes of the psychosociology of social groups (Yammarino, 2013). However, against the background of these extremely varied researches, there is also the lack of a rigorous methodological conception, sufficiently consistent in its general aspects, which would allow the integration of research results in an efficient and unitary theoretical vision from an operational point of view (Kotter & Kaskett, 2011; Lee, Willis & Tian, 2018). As a result of the theoretical considerations regarding the interaction of the levels of the social structure, it is important to emphasize that the particularities of the management relationship do not come only from the specifics of the intra-group interactions; many of the traits and attributes of leadership result from the nature of external socio-cultural influences, especially those related to a particular organizational culture, as well as from the particularities of the organization or institution to which the group belongs (Miao & Cao, 2019).

On the other hand, in an extremely competitive environment, employees are encouraged to take calculated risks, accept uncertainty and innovate (Will, 2015). This type of environment requires a shared leadership style based on a non-hierarchical organization. Leadership requires leaders who have the ability to facilitate change and can provide employees and groups with feedback that can help them identify issues and opportunities. Leadership means the involvement of employees in the decision-making process, leaders who can accept criticism without being overly reluctant and who learn from this feedback (Yammarino, 2013). Unfortunately, in an ever-changing environment, not considering the change in organizational culture so that it becomes adaptive and positive means preparing easily, easily for decline. Creating leaders is a constant concern for many companies, they periodically carry out various actions aimed at identifying those managers with true leadership qualities and developing leadership practices.

Analysis of the Impact of Leadership on Modern Organizations

One of the main challenges addressed to the leadership of the 21st century is related to the fundamental change of the organizational landscape, in the sense of increasing the complexity of its dynamics and

turbulence (Mueller, Renzl & Will, 2018). The approach in terms of leader traits has the merit of providing a logical approach to the idea that successful entrepreneurs have undeniable chances of being successful leaders either in terms of certain personality traits and physical characteristics, or as a result of the ability to practice effective leadership. strongly mobilize subordinates to achieve superior performance. Most researchers believe that a functional definition of the concept can be useful in the analysis of leaders and leadership (Schein & Schein, 2010; Lee, Willis & Tian, 2018) as follows:

Leadership is a mutual process. Any aspect such as the framework of action, the members of the group or the leader can influence or can be influenced by the price of another variable of the system. From an interactional point of view, the concept of leadership involves a fluid, dynamic process, which involves continuous adjustments between the three elements.

Leadership is a transactional process. The leader relationship is a form of social exchange; group leaders and members trade their time and energy in exchange for material and social benefits.

Leadership is often a transformational process. The transformative leader intensifies the motivation, trust and satisfaction of the group members by uniting them and changing the values, opinions and needs of the group.

Leadership is a process of cooperation characterized by a legitimate influence, not by absolute power. In a small group, for example, the individual who most influences others is most often appointed group leader. In most cases, the right to lead is voluntarily offered to the leader by some or all members of the group.

Leadership is a process of pursuing goals constantly adapted; he organizes and motivates group members' attempts to achieve individual and group goals.

In general, groups need leaders when interpersonal processes need to be improved or when the efforts of each member need to be better coordinated (Yammarino, 2013). There are several factors that determine the appearance of a group leader, including physical characteristics such as height, weight, age and gender, intelligence, personality traits, task skills, and participation. It seems that the manifestation of leadership depends largely on the perceptions that group members have. Even if leaders change, bringing with them new insights, goals, and development strategies for the entity, organizational culture exhibits timeless and spatial behavior. categories: relationship behaviors and work behaviors (Gong, Huang & Farh, 2009). Relationship behaviors address the attitudes, feelings and satisfaction of group members, therefore it closely corresponds to the functions performed by the socio-emotional specialist. Even in groups that have tasks or problems to solve, leaders often have to meet the personal needs of members. Relationship leadership involves strengthening morale, increasing group cohesion, reducing interpersonal conflicts, establishing the leader / member relationship, as well as expressing care and consideration for all group members. Work behaviors, on the other hand, deal with the actual problem rather than the personal satisfactions of the group members (Will, 2015). Leaders must lead, guide the group towards the successful achievement of the proposed goal. Key aspects of work leadership can be defining problems for the group, establishing a communication network, providing evaluative feedback, planning, motivating action, coordinating members' actions and facilitating the achievement of objectives by proposing solutions and removing obstacles.

Therefore, in the current context of organizations, the leader has the role of building the link between the managerial culture he exercises and the economic performance of the entity, which will be reflected in increasing profit and productivity (Kotter & Kaskett, 2011). Thus, the new type of leader proposed to lead modern entities on performance principles in the environment where the forces of megatrends have an impact that determines continuous change is the altrocetric leader (Hofstede, Hofstede & Minkov, 2010). Opposite the alpha leader, the atrocetric leader is characterized by very strong individual values and inner

strength with impact at the entity level. They are followers of a complex strategic thinking and execution that involves all hierarchical levels, including the entity's stakeholders.

CONCLUSIONS

The role of the leader in modern organizations increases in complexity, mainly being that of mediator by encouraging the manifestations of subordinate behaviors and attitudes, in order to make the best decisions. For the leaders of these entities, new questions arise: How do you effectively manage the human resources of your entity that is going through processes of organizational change?; How are you sure that your entity has the human resources best prepared to cope with these changes? What is the most appropriate attitude towards top managers? By modifying these procedures, by analyzing the employment criteria, as well as by giving the example to others, the organizational culture can be improved slowly but surely. Of course, change agents can identify various ways to reduce resistance to change, such as: informing employees about the changes and their effects, the time needed to implement the change, encouraging employee participation in the change process by initiating a reward system.

In conclusion, successful leaders have proven to be those who have dedicated much of their time to building relationships based on trust and mutual respect. They intuited that the surest way to success is to make others feel that they can control their own destiny, to believe in their ability to mobilize their resources and to complete their tasks, persevering in the effort. improvement and self-realization. When leaders succeed in transmitting their values, the organization develops, and they are appropriated and accepted by other employees as the right way of thinking and acting. It is important to establish links between leaders and their supporters based on a set of mutually shared concepts.

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APPROACHING LEADERSHIP IN THE DIGITAL AGE

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ABSTRACT

In today's economic environment, where the pace of change has never been faster, it is not the performance that needs to be achieved, but rather the need to maintain it at a level that allows the entity to stay in the market. That is why leadership must use in the most efficient way the managerial tools developed in the context of the new era of digitalization in order to maintain the performance of the entity it represents. The results of this study show that performance depends on the digital leader's ability to use appropriate tools, to influence and make the whole entity harmonize, to be receptive to the harmonies transmitted so that the finality of activities is individual performance and consequently performance entity.

JEL: L21, M12, M15, O33

KEYWORDS: Leadership, Digitalization, Organizational Climate, Performance.

INTRODUCTION

Digitization has led organizations to witness a hierarchical dissolution, with the reduction of hierarchical levels and the development of flat, transparent structures that will increase information flows, both internally and externally (Zeike, Bradbury, Lindert & Pfaff, 2019). As a result, we are talking today about a new concept that appeared in VUCA World, an environment in which entities and leaders are challenged to achieve performance. VUCA World is an environment characterized by four forces: Volatility - at the occurrence of unexpected changes in the environment; Unpredictable - to unknown results; Complexity - many interconnected parts no clear cause-effect relationship; Ambiguous - manifesting lack of clarity (Peñarroya-Farell & Miralles, 2021).

The challenges of an entity in this environment are very great, and against the background of the involvement in the economic environment of the largest existing generation, Generation Y, leadership is going through essential changes. Studies show that these four forces acting on the economic environment require the transition from leadership - leaderships - lead-er-shifts new concept that involves a different way to connect with yourself, others, the entity you belong to and then global transposition (Searle & Barbuto, 2013; Burke & Cooper, 2006).

In this context, what the leader can do is to build, to provide a logical and credible vision of where the company should go and what performance is required of its members (Fenton & Pettigrew, 2000). Leaders must thus ensure that they have created the right organizational framework for the company's employees to demonstrate their skills and initiative, to capitalize on their knowledge at the highest possible levels, without the need to build sophisticated or inflexible control systems. Therefore, leadership development programs become a necessity, and through them, the quality of leadership can increase, followed by the organizational commitment of employees and, finally, by organizational performance.

On the other hand, the leader is the one who controls and influences the organization, establishing the cultural framework in which decisions are made, supporting and demonstrating values, establishing goals and responsibilities (Collin et al., 2015). A successful leader understands that the organization is supported by values, beliefs and norms of behavior. These will allow him to rise above the difficulties and give him the tone, character and ability to resist. Thus, the leaders of the digital age will be characterized by curiosity and desire for knowledge, ability to communicate, intelligence, clear and strong values, energy, vision, talent. They will take risks, create new ways for the organization, master the art of forming a team to

increase performance. Of course, each leader can present in his own vision what are the conditions that can favor or hinder improvement.

Leadership and Performance in the Digital Age

Companies everywhere are currently facing an unprecedented level of competition. This situation requires new leadership skills to support the organizational changes needed to evolve in this environment. Thus, it is important for leaders to approach change with a human mindset, to appreciate people and their creative and professional abilities. Especially now, in the case of the digital age. At the same time, the performance of the team is determined by the value that each member brings. The leader and the leadership model he applies have a very important role in motivating teams to perform. A team's performance is high when members are well integrated, when they come to understand and respect their visions and skills no matter how different, and to use them to develop their area of expertise. Therefore, the biggest investment you can make as a leader is investing in people.

Another challenge is the integration of employees from older generations with employees from new generations, who grew up in the digital age. Leaders also need the right people with a digital mindset to help and execute them. This is especially the case if there is an influx of younger, more technological people entering the workforce. Also, the younger generation wants their leaders to be honest and direct and not hide information from them just because they consider them too young, immature or unable to cope with change. The role of a leader is to find and surround himself with better people than he is, and therefore he must be a link between the generations.

Decreasing the hierarchy is another development trend, so that each individual can be a leader. We will work in multidisciplinary teams, on projects, so that taking into account the characteristics of the human resource involved consisting mainly of members of Millennials and Generation Z, who do not recognize any form of hierarchy, the message will be that each individual is an entrepreneur, as his work produces impact and influence, which is the most influential source of motivation (Brown & Harvey, 2006).

According to most authors (Zeike, Bradbury, Lindert & Pfaff, 2019; Collin et al., 2015; Schein & Schein, 2010), digital leaders who want to increase the organization's performance fall into three categories: digital investors (who promote digital models, talent and innovative ideas, building opportunities, partnerships and an ecosystem for innovation); digital pioneers (redefining the future of organizations, building and implementing, based on viable models, an effective digital strategy) and, respectively, digital catalysts (leaders able to lead people through processes of fundamental transformation).

Some consider manager and leader to be synonymous terms and use them alternately, but leadership and management are fact distinct dimensions of the people in the leadership: leadership represents the ability to determine people to act (Yammarino, 2013). The manager, on the other hand, is the individual who ensures the achievement of organizational objectives by planning, organizing and orienting the work towards the finality. In addition, high-performing digital leaders are in possession of specific skills, behaviors and knowledge that make a decisive contribution to their work. Each leader carries with him a certain baggage of knowledge, skills and behaviors that are the result of his own life experience (work, education and social interaction) and each leader has the ability to improve their skills and change certain behaviors to become more efficient leaders. This can be done through continuous and conscious efforts, through practice and training. Leaders, through their innate and acquired qualities, can create truth bridges between the members of the organization, between the individual and overall objectives of the company, contributing to the harmonization of the interests of various categories of stakeholders and to a high degree of satisfaction of their needs and interests.

Therefore, leadership efficiency is reflected by the relationship between different types of leadership and the organizational climate, as well as the relationship between leadership and professional performance. It is practically necessary to be in agreement with the needs of companies (performance optimization) and with those of employees (optimization of the organizational climate).

CONCLUSIONS

In the new e-business paradigm, where, due to technology, vast amounts of information are available to decision-making organizations, it has emerged that organizational performance depends largely on the performance of individuals, and this is influenced by leadership commitment (Westerman, Bonnet & McAfee, 2014). The transition to a digital future will significantly affect every company, regardless of the industry it belongs to. It will be essential to adopt the right strategy and develop the necessary skills so that adaptation to the changing environment is possible and the potential of the digital context is used. These elements will lead companies to fundamental changes in organization, processes and culture. In conclusion, the leaders can lead to better performance and a greater degree of employee involvement, they understand that all these technological changes have a major impact at every level of a company. Digitization works as a catalyst for a new style of leadership. So, in the digital age, leadership is a combination of several elements: adaptive power, tenacity, acceptance and risk management, a vision absolutely necessary to achieve performance. The dawn of the digital age does not necessarily mean the end of leadership in general, but an important reformulation of what we know.

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THE IMPACT OF LEADERSHIP ON ORGANIZATIONAL VALUES

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ABSTRACT

The vision outlines the leaders' conception of what is in it present the organization, what it should look like over a certain period of time and what is the path to follow between the existing situation and the desired one. Organizational values are often a major cause of the difficulties that different leaders face when trying to introduce organizational changes, organizational structure, systems or work procedures. In turn, these values will shape the attitudes and behaviors of managers and employees within the company. In the current pandemic context, this paper discusses a major challenge for leaders, namely creating and maintaining organizational values that are consistent with the company's objectives and the nature of its activities.

JEL: M12, M14, J53

KEYWORDS: Leader, Company, Organizational Values, Managers.

INTRODUCTION

Leadership is increasingly seen not only as a characteristic individual status of a person, as well as a decisive condition of culture; this means that leadership is the result of specific actions, well planned by one or more leaders who want to create a strong managerial culture, characterized by internal harmony around a vision, of values that they have and manage to transmit. and supporters (Searle & Barbuto, 2013). An organization grows when leaders succeed in passing it on values, and these are accepted and appropriated by other employees as the correct way of thinking and acting (Tsoukas, 2005). Organizational diversity is one of the most frequently addressed topics in organizational theory and practice (Weiss, 2001; Goldsby et al., 2021). It seeks to provide a series of explanations for how individuals and groups are different, but also for ways in which organizational leadership can be used by leaders to develop the capacity of organizations to act.

Equally, values are considered the essence of organizational culture (Pfeffer, 2012). They come either from the social environment, as attitudes and beliefs, or from the experience of employees. The system of organizational values allows the classification of situations, people, acts and ideas, from those considered moral to unethical. Based on the system of values promoted at the level of the organization, culture creates norms, considered standards for the values of a group or categories of individuals.

The way of achieving organizational values is sometimes contradictory because there is a conflicting state between the different types of values (Shoham & Fiegenbaum, 2002; Goldsby et al., 2021). For example, an organization's social values often conflict with its financial ones. For an organization to have a strong organizational culture it must adhere to positive values, sacrificing short-term financial advantage for a common, ethical, long-term goal, and this is where the leader comes in.

Analysis of Organizational Values From the Leadership Perspective

According to the literature there are divergences regarding who should generate the new values so that the process of changing an organization is supported (Weiss, 2001; Paton & McCalman, 2008). Opinions are divided, ranging from the responsibility of leaders to the responsibility of the employee community. It is argued that greater employee participation in lawsuits affecting them will lead not only to greater staff satisfaction, but also to increased productivity and performance. In these conditions, it is recommended that

employees participate in the analysis and redesign of company values, so that they regain their personal values and objectives to a very large extent in the organizational ones. Other experts believe that the most important element in an organization is the involvement and attachment of its members to a common vision of the future (Pfeffer, 2012; Deal & Kennedy, 2000). Organizational values are seen as factors that can be important assets for the company or, on the contrary, some destructive factors. However, the vision of the leaders expresses hope, direction to follow and remarkable possibilities for survival and development. According to some authors (Tsoukas, 2005; Searle & Barbuto, 2013), the strong visions of the leader have the following features:

adequacy : they are appropriate for those organizations in the existing context;

idealism: visions set standards of excellence and reflect a series of high ideals;

clarifies the purpose of the organization: they give new meanings, new meanings to the existence of the company and the role of employees within it;

inspires enthusiasm: the vision inspires enthusiasm and encourages employee involvement at the highest levels;

ambition : the vision must be ambitious, to challenge employees to self-improvement, to be intellectually and emotionally involved in the development of the company's activities.

The leader who provides a clear vision is both coherent and credible, and those who lead by a strong set of values have a fundamental source of power. Thus, power can be defined as “the ability to determine that certain things are accomplished, to obtain and use whatever is necessary for a person to be able to achieve his goals” (Weiss, 2001). This definition has more of an operational character. But for this to happen, leaders in the process of evolving the organization will need to adequately stimulate those who are highly involved in the life of the organization. Therefore, as the company gets better results, they will have to be reflected in the motivation of employees. In addition to financial, material motivation, individual or group rewards will also include a signal of trust, appreciation of their value, as well as about what is good or bad for the organization, for organizational values.

Determinant for leaders is the ability to perceive the differences in organizational approach of potential supporters, to take over elements in the organizational vision they build and to subsequently translate into practice the new systems of values, symbols, attitudes and behaviors they have. he wants to find them around them, all of which are strongly oriented towards the realization of precisely established objectives. Organizational culture is also visible in the type of people they are employed, in their aspirations to make a career, the status they expect to obtain, the level of training received, etc. Certain elements of organizational life have a strong impact on the vision of leaders (Searle & Barbuto, 2013). Among these we mention:

communication : information is increasingly a resource vital of a company. Communication problems can occur either because they do not exist desire for cooperation, whether a number of disturbing factors intervene, what causes the sender and receiver to be unable to decode their messages.

Control: it is done mainly through formal structures An important part of control is the interpersonal relationships that take place in this process: the ability to control others and the feeling of being controlled. *Conflict*: it can be perceived as a constructive or destructive phenomenon by most employees of a company. Depending on their frequency and intensity, leaders develop a number of specific mechanisms to deal with such situations. Also, the conflict often offers the possibility of the emergence of leaders, of triggering organizational changes.

commitment : obtaining a high commitment from employees in the direction set by the leader is a strong signal of his authority. A great involvement of the supporters takes place when they are exposed to clear values, precise objectives, ways of action, rewards for the efforts made.

trust : is an important organizational element. For this requires leaders to make their position as clear as possible and to manifest themselves in line with their stated organizational values and actions.

As can be seen, leaders, in the process of communicating the vision they have and convincing supporters to follow it, resort to both rational and emotional arguments (Pfeffer, 2012). Sometimes there can be conflict between them, which generates additional, strong stress on leaders. Consequently, in order to build stable, credible relationships, the leader will hone his skills, such as: active listening; empathy; positive and optimistic attitudes; display, personal involvement, observance of the word; high energy; recognizing some of its weaknesses; sensitivity to the needs, values and potential of others.

On the other hand, within an organization, the group that holds the authority is the one that can promote and impose certain values (Tsoukas, 2005). In most cases, values can be perceived as collective preferences or attitudes. For example, conservative companies promote values such as discipline and preservation of traditions over time, and the rules by which these values are put into practice are strict hierarchy, centralization of decision-making, formal communication, rejection of employees' ideas and proposals. Open companies promote values such as innovation and creativity. Within these organizations, new ideas are respected, the failure of others is tolerated, creativity is stimulated. Research conducted in the field highlights that companies that promote positive, strong values, properly explained to employees, are those that can achieve superior performance with less effort. At other times, many leaders prepare and present official reports to their subordinates to communicate the organization's values and goals.

CONCLUSIONS

Each organization has its own identity because its personality is created, first of all, by the people who work within it, with their own values, beliefs, attitudes. Meeting the values, beliefs, attitudes, habits, norms within the organization, people are the ones who either assimilate them or try to propagate their own. Therefore, some leaders strive to create strong values, knowing their impact on the company's results. Others try the perfect values that generate a philosophy within the organization, assuming loyalty, productivity or profitability. There are also leaders who want to create an organizational culture that corresponds to their own images and values. Creating and maintaining organizational values is a leadership issue, which has its origins in the founders of some companies and later in their successors. They must create that physical, psychological and emotional environment, which will determine the employees to want to follow them, to sign up in the desired direction, participating with all the resources at their disposal. The phenomenon of changing and realigning organizational values to the new requirements of leaders are closely related to their ability to develop a strong organizational vision, attractive to company members. The vision is thus a set of well-individualized values that are to be adopted and applied in the life of the organization, in a certain period of time.

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MANAGEMENT OF THE PROJECT PLANNING ACTIVITY IN THE FIELD OF INFORMATION TECHNOLOGY

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ABSTRACT

Information and communication technologies have changed many aspects of organizations. Its effects are both positive and negative, but we need to understand exactly how an organization is formed and structured to determine the impact of new technologies, which have become vital components in organizations, changing the dynamics of power within them. In general, any action aimed at achieving an objective must be planned and the larger and more complicated it is, the more necessary it becomes to develop a project. The results of this paper strengthen the belief of specialists that without rigorous planning, complex projects in the field of Information Technology cannot be realized, because an estimate of costs and deadlines for the activities involved requires good preparation from the beginning.

JEL: L86, O21, O22

KEYWORDS: Information Technology, Project, Risk Management, Organization.

INTRODUCTION

Increasingly, the management of organizations is par excellence focused on projects in the field of Information Technology considering digitalization (Chen, Su, Azzizi & Wang, 2021). In practice in this field, however, there are often project failures, reflected by significant exceedances of costs and deadlines. That is why it is necessary to improve the management of this type of projects, which cannot take place in the absence of a thorough knowledge of the specific elements of the projects in the field of Information Technology. In addition to the pressure factors acting in any project - deadlines, costs, resources - projects in the field of Information Technology face a number of specific challenges, arising from the speed of technology change and the central role of support provided by communications technology for development any economic and administrative activity (Duncan, 1996). Therefore, project management in the field of Information Technology is considered a key area in project management to ensure the success of the project.

Throughout the realization and commissioning of the projects in the field of Information Technology, between the manager and the decision makers from the beneficiary unit there must be a permanent collaboration and collaboration (Burch & Grudnitski, 1994). Moreover, in order to ensure the management of the project implementation to the beneficiary, it is desirable to appoint a person responsible for it within the beneficiary company. In this collaboration, the conditions and constraints in which the plan for the realization of the project in the field of Information Technology is to be elaborated must be determined. The establishment of the planning, monitoring and reporting methodology can also be considered as a pre-established requirement. Currently, the variant is practiced, which details only the first phases of the project, and for design, programming and testing, it will be limited only to a sketch of the plan. It is known that the management of projects in the field of Information Technology involves a series of features that, identified and efficiently exploited, can lead to major improvements in the implementation of these projects (Grey, 1994). For example, the need to integrate project management processes with the methodologies used is obvious, an integration insufficiently treated so far in the literature. Such integration cannot take place in the absence of a clear differentiation between the responsibilities of the two areas; it is thus found that the existing methodologies either completely ignore the aspects of project management or include a subset of their specific activities.

Achieving Excellence in Project Management in the Field of Information Technology

The concept of universality of management refers to the fact that the functions of management are the same regardless of the field of activity and the hierarchical level of the manager. Currently there is a tendency to carry out a wider category of economic activities, even those traditionally carried out as current activities, in the form of projects, considering that this way of organizing provides results more quickly and efficiently and facilitates better control of resources used (Fridgeirsson, Ingason, Jonasson & Jonsdottir, 2021). The body of knowledge of project management in the field of Information Technology identifies nine categories or areas of knowledge for framing the processes related to this discipline (Burch & Grudnitski, 1994):

the management of the integration of the project activities, which aims at coordinating the different elements of the project;

the management of the project scope, which ensures the inclusion of all the activities necessary to achieve the project objectives, within the processes of initiation, planning, definition, verification and control of the project scope;

project cost management, which ensures the inclusion of the project in the established budget;
the quality management of the project includes the processes that ensure the satisfaction of the needs for which the project is realized;

the communication management in the project aims at ensuring the generation, collection, storage and transmission of information within the project;

risk management refers to the identification and quantification of risk, the definition of risk response and its control.

Throughout the realization and commissioning of the projects in the field of Information Technology, between the manager and the decision makers from the beneficiary unit there must be a permanent collaboration and collaboration. Moreover, in order to ensure the management of the project implementation to the beneficiary, it is desirable to appoint a person responsible for it within the beneficiary company. In this collaboration, the conditions and constraints in which the plan for the realization of the IT project is to be elaborated must be determined.

Once the planning requirements are known, the project manager can proceed to the detailed planning of the project. This presupposes the solution of two problems, namely: the detailed knowledge of the activities and respectively the establishment of the logical succession within each stage, in a first moment, the inventory and the list of activities will be drawn up. The list of activities must be as comprehensive as possible and for its elaboration it is possible to resort to a “brainstorming” session with other project managers and with the management of the beneficiary company. On this occasion, special mention will be made of the mention of the activities and not their succession. In the management of projects in the field of Information Technology, there are specific problems such as:

specifications are unstable and subject to frequent changes;

work schedule and cost planning is based on business criteria rather than requirements;

accurate estimation of costs and durations is difficult;

risk factors are not taken into account or are not treated properly.

The planning and the effective control of the projects in the field of Information Technology is conditioned by the possibilities of the organization to express in numerical form different indicators that characterize the development process and its product. The most important indicators are the implementation effort, the time required to complete the project and the cost of the project. The accuracy of an estimate is also influenced when the estimator is at the same time involved in the process that is the object of the estimate. Experimentally, it has been shown that managers tend to overestimate their ability to solve a problem. Another issue is the understanding of the concept of “estimated value” for the estimator; a definition is often adopted that “the estimate is an optimistic forecast with zero probability”, even if the probability may be very low (Chen, Su, Azzizi & Wang, 2021).

In the activity of elaborating the estimates it is necessary to differentiate between the estimation itself, necessarily based on intuition because the data about the influencing factors are missing, and prediction, which is based on the knowledge of some data or of some probability distributions. In this regard, we must use forecasting whenever we have the minimum necessary information, and only otherwise to make estimates. The solution is to build adequate models and indicators starting from the analysis and design phases. During the project, more and more data will become available, allowing more accurate estimates. The estimates will thus be useful for most projects; an improvement in their management will have a major impact on the efficiency of the company as a whole.

Projects in the field of Information Technology are characterized by a pronounced immateriality of the products made, which leads to major difficulties in estimating the degree of completion of an intermediate or final product. The appreciation risks in this sense have consequences regarding the observance of the project terms, but also the quality of the product as a whole. Quality is another crucial aspect in projects in the field of Information Technology, and can be seen both from the perspective of products (product quality) and from the process of making products (process quality). The difficulty is to find a balance between the quality created, the client's requirements and the costs and deadlines of the project, which are closely correlated with the quality (costs of training, testing and error removal). An often overlooked aspect is the quality of the workforce involved in Information Technology projects and how this is reflected in product quality and costs.

CONCLUSIONS

Strategic planning refers to creating an perspective for a company's future. The manager of a company must look to the future, evaluate business opportunities and position his company so that he is the first to benefit from these opportunities. However, planning, especially in the implementation of projects in the field of Information Technology, seen as a continuous process, can help guide the company in the desired direction, recognize potential hazards and modify plans so as to prevent them. In addition, planning processes and control has a predominantly integrative character. On the other hand, the management of the scope includes the processes by which the inclusion in the project of all the necessary and sufficient elements for the realization of the project is ensured. Decomposition structure of project activities - Work Breakdown Structure is a grouping of project activities oriented towards deliverable results that organizes and completely defines the scope of the project: an activity that is not part of the Work Breakdown Structure is outside the project. Each lower level represents an additional detail of the project activities.

Sometimes a realistic estimate often contradicts managers' expectations. Conflicts can go as far as removing those who communicate such estimates. Managers need to be convinced of the economic benefits of estimating: this could lead to the interruption of projects in the field of Information Technology simultaneously with the decrease of maintenance and troubleshooting costs, by eliminating work under time pressure.

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BIOGRAPHY

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PROJECT MANAGEMENT IN THE FIELD OF INFORMATION TECHNOLOGY BETWEEN NECESSITY AND OPPORTUNITY

Dumitru Alexandru Stoica, Valahia University, Romania

ABSTRACT

In an increasingly unstable, complex and turbulent contextual environment, it resists and develops forms that: innovate more; innovate faster; innovate better; innovate at lower costs. To these four major challenges, the company can respond by promoting a successful management supported by project management in the field of Information Technology. This tool leads to a new organization of the company, much more flexible, more dynamic, more efficient. The project also mobilizes energies in order to create and develop that multidisciplinary structure that better responds to the needs of the market and customers. This paper captures the way in which the management of organizations increasingly uses projects in the field of Information Technology.

JEL: L86, O21, O22

KEYWORDS: Project Management, Organization, Information Technology, Risk Factors.

INTRODUCTION

Today, the complexity of projects requires interactions between different hierarchical levels of the enterprise, and the strategy within the projects in the field of Information Technology must have a cooperative character that mobilizes, valorizes and develops the capacities of the team members within the projects (Chen, Su, Azzizi & Wang, 2021). In order to better allow project managers to plan, organize, coordinate projects, it is necessary to use methods through: motivating actors, valuing competitions, solving problems, leading the team, etc. Both the organization as a whole and each individual have to constantly evolve, taking into account the fact that today everything is going very fast due to the continuous change and the demanding requirements of the market. Solving these complex problems requires multidisciplinary, systematic and more strategically efficient solutions.

Equally, project management in the field of Information Technology is used to solve complex problems that occur in a certain period of the organization's operation, on which its overall results depend (Andersen, 2010). In such conditions, it is necessary to set up, in addition to the organizational structure with a relatively permanent character, another structure, also with an organizational character, but for the activities temporarily involved in solving the respective complex problems. Therefore, the management of projects in the field of Information Technology involves setting benchmarks in relation to which guidelines will be established, observing progress in carrying out tasks and correcting project execution according to the differences between the actual situation and planned milestones.

Considerations Regarding the Management of Projects in the Field of Information Technology

The competitiveness of contemporary organizations, regardless of their nature and size, has its origin in the quality of the strategies they adopt and the way they apply them (Cârstea, 2014). The magnitude of the need and implications of the strategy on the functionality and results of organizations is quite large. In choosing the projects in the field of Information Technology in which it will be involved, the company must consider their strategic impact, take into account the necessary key competencies, how it will integrate new projects with those underway (multiple project management) and determine the resources required for the smooth

running of the projects. There are situations in which a certain strategic element is decisive for decision making (unicriteria decisions), but in most cases decision makers use structured methods of analysis of different alternatives and multiple criteria. We could say that both the development strategy has an impact on the project management, and conversely the project management has an impact on the company's strategy. Each project, as we have seen in previous chapters, has its own strategy. Once the most appropriate strategy has been established in order to carry out the project, it is possible to proceed to establish the steps to be taken until the completion of the project (Kendrick, 2010). Simultaneously with the establishment of the steps, it is necessary to determine precisely what must be achieved, by whom, in what term, what are the costs involved, etc. Unfortunately, it is much more difficult to lead projects in an organization that is not specifically structured for this purpose due to the following aspects:

the difficulty of using the knowledge acquired within a project in subsequent projects;

lack of time allocated to project management by the managers responsible for their implementation, as in such companies the projects are additional activities that overlap with routine functional tasks;

lack of adequate control systems for project management in the field of Information Technology.

In the category of advantages of using management through projects in the field of Information Technology some authors (Haron, Gui & Lenny, 2014; Thomas, 2012) point out:

the possibility of solving complex problems, in much shorter time intervals compared to the classic version and with superior economic results;

facilitating specialized contacts (technical, scientific, managerial) between the members of the project team and between them and the other professionals of the company;

promoting a matrix-type organizational structure, conducive to organizational change and efficiency; creating favorable premises for the training of professional managers.

At the same time, the use of project management in the field of Information Technology has some limitations (Johnston & Wierschem, 2007), such as:

the appearance and manifestation of some double subordinations of the specialists involved in the realization of the project, this being, in fact, a limit of the matrix type organization;

the appearance of some phenomena of asynchronization of the organizational components specific to the management through projects.

It is important, therefore, to understand that the practice of efficient project management in the field of Information Technology means much more than an opportunity. It includes a whole framework of measures of progressive managerial planning, decisions, receptivity, good organization, efficient commercial and financial management, meticulous attention to documentation and a clear understanding of the established principles of management and leadership.

CONCLUSIONS

Information technology has led to a number of organizational changes, especially in the implementation of strategies for optimizing project management in the field of Information Technology. Carrying out these projects involves identifying and taking on multiple risks, related to the specifics of this field of activity. The work under the direct action of the elements of nature, the long duration of execution, the large number

of activities to be conducted and coordinated, the complexity of the production process, the contractual relations between the many parties involved - often with divergent interests - are all arguments in support of the previous statement. Managers need to understand the impact of information technology and applications on the business they run, taking into account the need to select information in real time. Businesses today are increasingly organized, managed and automated around the sets of processes and the relationships between them. These processes include product and service development and production, managing customer interactions, and supporting processes and human resources.

The very implementation of the plan of a project in the field of Information Technology requires a series of specific actions whose planning in time and evaluation from the point of view of expenses and resources is as important as the planning of the constitutive activities of the project. It is known that the beginnings of such a project are creative activities, that they are not the result of tectonic movements or primordial lightning, but result from a series of discussions and consultations. In this phase, the problems must be identified and solutions found. Any problem that is not properly resolved at this time may result in other issues later.

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BIOGRAPHY

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FACTORS THAT CAN EXPLAIN STUDENTS' CHOICE BETWEEN ECONOMICS AND BUSINESS STUDIES

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ABSTRACT

This article confirms that students at economics and business school are not a homogeneous group. The choice of major depends on personal characteristics (Big Five), abilities, expected pay, career opportunities and the desire to contribute to society. Students who are concerned about job security and contributing to society have different personality traits than those who are primarily interested in salaries and career opportunities. The analysis is based on a questionnaire handed out to students at a faculty of a university in Norway. The chosen methods in this paper are factor analysis, comparison of means and the linear binary logistic model. The results of this survey provide useful information to university administrations for student recruitment and designing study programmes.

JEL: I20, J30, J31

KEYWORDS: Personality Traits, Academic Skills, Big Five, Quantitative Analysis, Business Students, Economics Students, Care

INTRODUCTION

Business studies are very popular worldwide, and also in Norway. A significant proportion of the study population chooses subjects in economics, business and management. Both in number and as a percentage, interest in these study fields has increased in recent decades and currently accounts for over 10 percent of the student population. Many students make this decision while attending the upper secondary school, while others gain an interest in these topics later. But the trend might be changing. For instance, there seem to be less interest in business administration as a major in the USA (Hiatt et al., 2018). This article will investigate how personality traits, career opportunities, interest and aptitudes have an impact on students' choice of major at the Faculty of Economics and Management, Norwegian University of Science and Technology (NTNU). Previous research has documented that there are differences among the students depending on their selected specialisation (Opstad, 2019). The author found a substantial gap in attitudes towards mathematics depending on the chosen study programme. This article is a follow-up of this result. The purpose is to see if we can identify other factors that differ depending on the choice of major at this faculty. This is obviously not a homogeneous group of students. Therefore, it would be interesting to see if there are different abilities and expectations from career and working life. Since international research shows that personality characteristics have an impact on the choice of study fields, it is also interesting to see if this is the case for the students included in this analysis.

An important contribution of this article is to acquire more knowledge about the undergraduates' choice of major within economics and business fields. What do the students emphasise in their selection? How do academic skills and personality traits matter in influencing the fields chosen? Information and knowledge about factors that influence students' specialisation will be helpful for university administrations in making studies attractive and to promoting their programmes. The article is structured as follows: Section 2 presents the Big Five personality traits. The next section gives an overview of the previous literature. Section 4 introduces the hypotheses. Then comes the section on data and methodology. After presenting the results, the findings are discussed and analysed in relation to the hypotheses. Finally, the limitations (section 8) and conclusion (section 9) are presented.

The Big Five

The big five personality traits (Costa & McCrae, 1995) is used in many articles around the world and has become a highly recognised method of measuring personal characteristics (Mayfield et al., 2008). The method measures five dimensions: extraversion, agreeableness, conscientiousness, neuroticism and openness to experience.

Table 1: The Big Five model (From Mayfield et al., 2008)

Trait	Description. High Scores Indicate
Neuroticism (N) (opposite of Emotional Stability)	- anxiety, insecurity, moodiness and tenseness.
Extraversion (E)	- talkativeness, sociability and optimism
Openness (O)	- a broad cultural interest, an active imagination and intellectual curiosity
Agreeableness (A)	- altruism, helpfulness, personal warmth and sympathy towards others
Conscientiousness (C)	- determined, well organised, goal-focused, trusted and punctual

Neuroticism is characterised by depression and worries, extraverts are outgoing persons, openness is associated with intellectually curiosity, conscientiousness is linked to achieving targets, while agreeableness is characterised by the desire to help and to contribute without creating conflicts.

LITERATURE REVIEW

Career, Interest and Skills

According to Dudley et al. (1995), the students' selections are based on career opportunities, employment, wages and personal interest. Their interest is linked to job status and reputation and high starting salaries. Mauldin et al. (2000) reported a higher level of starting wages for business students compared with other studies. They found that expected monetary rewards had a significant impact on the choice of study field. Enget et al. (2020) reported that students that rate career opportunities in accounting as high relative to other fields tend to prioritise specialisation in accounting. Kim et al. (2002) discussed different motivations and preferences for selecting different business majors. They reported that students' expectations about work opportunities have a great influence on their priorities. Expectations do not have to be in line with the actual conditions. However, this can lead to future job dissatisfaction.

According to Calkins and Welki (2006), many students choose the business major depending on how easy or difficult they find the subjects. Some hard-working students prefer fields that require greater effort while other students are not interested in putting too much effort into their study and are searching for studies that are easy to get through. The authors reported that another key factor was the reputation of the faculty. Many students prefer to attend faculties and departments which offer high prestige. However, the literature is mixed about this issue. Vangermeersch (2000) concluded in his investigation that the quality of the instruction and departmental reputation may or may not have an influence on students' preferred majors. Leppel et al. (2001) suggested that social image and status matter, especially among male students.

A key factor for the selected major is the students' aptitude. For instance, students with a good background and high academic skills in mathematics and science tend to prefer more quantitative and technical majors (Opstad, 2019). Other students might be uncomfortable applying mathematics and quantitative analysis and try to avoid such tools (Carter, 2006). The undergraduates' choice of business major depends on abilities, skills and success within this field (Cobb-Walgren et al., 2017). However, notice that Hiatt et al. (2018) found that students' attitudes only had a marginal impact on the choice of specialisation. They suggested the students do not have enough knowledge about the long-term outcomes related to the choice of major.

Downey et al. (2011) found many similarities between the different subjects within business and economics studies. The students pick different majors due to factors like advice from others (family, friends and advisors), interest, salaries, job availability and security, difficulty of the major and social image). They reported that the most influential factor for choosing a major is interest in and attitudes towards the fields. This is in line with the findings of Zhang (2007). Other important factors for choosing study fields are job availability and job security (Niculescu, 2006; Opstad, 2021). There is a strong significant relationship between choice of major and the degree of job security and availability (Downey et al., 2011). Downey et al. (2011) found that advice from friends and family also matters for some fields and the impact was strongest for technological fields. Students choosing finance and more technical issues like Management Information Systems (MIS) or Computer Information Systems (CIS) reported high job opportunities in contrast to a management major. On the other hand, students taking finance and MIS/CIS majors reported a lower rate of fit to the abilities required than the average score.

Personality Traits

Since some subjects are more suitable for some students than others, personality traits matter in choosing a major (Lounsbury et al., 2009; Vedel, 2014, 2016). Business students score higher on extraversion and conscientiousness than the average student. However, they score substantially lower in agreeableness than other academic majors. They tend also to have lower scores for neuroticism and openness than other students. This confirms that students who match a particular personality profile tend to choose the same major. The median student in economics and business studies has different personal characteristics than those who study languages and humanities subjects. The differences between economics and natural science students in personality traits are rather small, but it seems that economics students achieve lower scores for the trait openness and higher for the trait neuroticism (Vedel et al., 2015). Lakhal et al. (2012) investigated whether there were personality trait differences depending on preferred major in business studies. Students who choose less quantitative oriented majors like management or marketing tend to score lower for the traits neuroticism and conscientiousness and higher scores in openness and agreeableness compared to students who have selected quantitative oriented business majors like finance. The choice of education is linked to opportunities in the labour market. Personality traits have a high explanatory power for career success (Semeijn et al., 2020). Extraversion and conscientiousness are a positive related to promotion, salaries and career satisfaction while neuroticism is negative correlated to these factors (Eisenbarth et al., 2018). For agreeableness and openness, the results are more mixed.

Hypotheses

Based on the literature review and the purpose of this paper, we postulate the following hypotheses:

Hypothesis1 (H1): There are differences in personality traits among economics and business students;

Hypothesis 2 (H2): There are differences in expected job and career opportunities among economics and business students;

Hypothesis 3 (H3): There are differences in aptitudes and interest among economics and business students.

We could have chosen more specified hypotheses, however since we are unsure of the possible correlation between the variables, in this paper we have chosen the hypotheses in a general form. The focus is whether one can identify differences depending on the students' selected major.

DATA AND METHODOLOGY

The Sample

The data were collected in 2019 (Table 2). Questionnaires were given out in lectures in compulsory subjects to students from three departments at the Faculty of Economics and Management of the Norwegian University of Science and Technology (NTNU). Students at the Department of Industrial Economics and Technology Management (IETM) have an engineering background, and these students have chosen to specialise in economics and administrative issues. This field is very popular and only students with high qualifications gain access. These students have good basic knowledge in mathematics and natural science.

Table 2: the Sample

Department	Males	Females	Total in the Survey
Industrial Economics and Technology Management (IETM)	23	9	32
Business School (BS)	22	33	55
Economics (EC)	14	12	31
	61	57	118

The Business school (BS) also has high entrance requirements, but not to the same degree as in the field of Industrial Economics and Technology Management. The third department includes students who want to specialise in economics (EC with microeconomics, macroeconomics, public economics, etc.). Students from the Business school and Department of Industrial Economics and Technology Management mainly take up careers in the private sector, while many of those studying economics will get future work in the public sector. Economics is more for those who have a particular interest and this direction is not as popular as the other two disciplines. Bachan and Barrow (2006) observed the same. Approximately 30 percent of the students taking exams in the relevant subjects were present when the questionnaires were distributed. Therefore, this is a non-randomly selected sample. The response rate was around 30 percent of all students taking exams in those subjects. The representativeness of the non-randomly selected sample has not been evaluated. Analogous research has previously indicated that the sample will include students with marginally higher qualifications than the mean student (Bonesrønning & Opstad, 2015).

Methodology

There are no standard answers to how the questions should be designed. In this work, inspiration has been taken from a number of previous reported studies (Davies & Tikoo, 2019; Granitz et al., 2014; Malgwi et al., 2010; Siegall et al., 2007). Numerous questions with different dimensions were included in the survey. With the exception of the Big Five personality traits, a factor analysis was conducted. This makes it possible to analyse multiple questions that are connected to the same dimension. The results are presented in Table 2. The factor analysis failed to distinguish between aptitude and motivation. Therefore, they were merged into one dimension.

Table 2: Factor Analysis

Dimension	Items	Loading
Career	I expect a high salary	0.696
	Excellent job opportunities	0.658
	High probability of getting relevant work	0.657
	Great career opportunities	0.605
Development skills	Strategic thinking and planning	0.799
	Develop creativity and new ideas	0.591
	Preparation for leadership roles	0.492
Job security	It offers long-term job security	0.999
	Regardless of the economic climate, I will be guaranteed work	0.571
Contribution/Commitment	The work gives opportunities to help others	0.684
	The work gives opportunities to contribute to society	0.489
Aptitudes/Motivation	It requires skills that I'm good at	0.973
	It suits my ability	0.669
	The job will bring great personal satisfaction	0.518
	I will have varied tasks that reflect my education	0.441
Enjoyment	I expect to have a job that I will enjoy	0.661
Advice	I was influenced by advice from my family	0.670
	I was influenced by the advice of friends and acquaintances	0.584

The descriptive statistics (Table 3) also present some items that are not included in the factor analyses. Apart from the dimension of contribution where economics students score significantly higher, there are only minor differences between the value of BS and EC. Industrial Economics and Technology Management (IETM) has many values that differ from those we found for the other two departments. The methodical choice made is to compare the values of IETM with the other two studies. Table 4 presents the result of pairwise comparisons of measuring an Independent sample t-test.

Table 3: Descriptive Statistics (Seven-Point Likert Scale Where 1 Is Strongly Disagree and 7 Strongly Agree)

	BS	EC	IETM	All	Min	Max	St. Dev	Reliability ²⁾
The studies are demanding and challenging	4.71	4.52	5.33	4.90	1.00	7.00	1.51	
I'm primarily looking at the opportunity to earn money	3.11	3.22	3.48	3.24	1.00	7.00	1.53	
It is encouraging to see the high level of idealism in the sector I plan to work in	4.08	4.10	3.53	3.93	1.00	7.00	1.35	
I want to continue in the job I have chosen even if my salary goes down	3.92	3.63	3.90	3.84	1.00	6.00	1.09	
Career	4.70	4.65	5.72	4.96	1.75	7.00	1.10	0.87
Development	4.92	5.01	6.50	5.05	1.67	7.00	1.10	0.82
Job security	4.76	4.78	5.77	5.05	2.00	7.00	1.26	0.88
Contribution	4.59	5.33	4.68	4.81	1.00	7.00	1.32	0.85
Aptitude/Motivation	5.11	5.03	5.32	5.15	2.20	7.00	0.91	0.75
Enjoyment	5.31	5.30	5.71	5.41	2.00	7.00	1.16	0.52
Advice	2.58	2.48	3.38	2.78	1.00	7.00	1.38	
Extraversion	3.55	3.73	3.59	3.61	2.50	5.33	0.55	0.80
Agreeableness	4.68	4.30	4.19	4.44	2.50	6.00	0.75	0.61
Neuroticism	3.48	3.06	2.96	3.23	1.00	6.50	1.06	0.63
Conscientiousness	4.41	4.29	4.59	4.43	2.75	6.33	0.76	0.62
Openness ¹⁾	4.38	4.49	4.83	4.53	2.00	7.00	1.10	0.62
N	56	32	33	121				

¹⁾Due to low reliability value one of the item was removed²⁾Alfs Cronbach

Table 4: Comparing Students from IETM with the two Other Departments (Equal Variances Assumed)

	Mean Difference	St. Error Diff.	t	Sig.
Career	1.03883	0.20540	5.058	0.000
Aptitudes/Motivation	0.23731	0.18423	1.288	0.200
Enjoyment	0.40530	0.23463	1.727	0.087
I'm primarily looking at the opportunity to earn money	0.33542	0.31341	1.070	0.287
The studies are demanding and challenging	0.95422	0.30249	3.155	0.002
It is encouraging to see the high level of idealism in the sector I plan to work in	-0.55625	0.27946	-1.990	0.049
I want to continue in the job I have chosen even if my salary goes down	0.09612	0.22960	0.419	0.676
Advice	0.83333	0.27363	3.046	0.003
Development	0.35859	0.22213	1.614	0.109
Job security	1.00000	0.24072	4.154	0.000
Contribution	-0.17614	0.27044	-0.651	0.516
Extraversion	-0.02841	0.11186	-0.254	0.800
Agreeableness	-0.35290	0.15004	-2.352	0.020
Neuroticism	-0.36742	0.21384	-1.718	0.088
Conscientiousness	0.22254	0.15528	1.433	0.154
Openness	0.40593	0.22265	1.823	0.071

By using binary logistic regression, it is possible to research the impact of the various independent variables while controlling for other factors.

The following model specification is used:

$$Y_i = a_0 + a_1X_1 + a_2X_2 + a_3X_3 + a_4X_4 + a_5X_5 + a_6X_6 + a_7X_7 + a_8X_8 + a_9X_9 + a_{10}X_{10} + a_{11}X_{11} + a_{12}X_{12} + a_{13}X_{13} + a_{14}X_{14} + a_{15}X_{15} + a_{16}X_{16} + \varepsilon$$

Y_i : Endogenous variable, (1: IETM. 0: Other studies)

a_0 : Constant

X_1 : Gender (1: F, 0: M)

X_2 : Demanding education

X_3 : The ability to make money

X_4 : Idealism in the sector

X_5 : Continues in the case of a decrease in wages

X_6 : Extraversion (Likert scale 1 to 7, 1: strongly disagree, 7: strongly agree)

X_7 : Agreeableness (Likert scale 1 to 7, 1: strongly disagree, 7: strongly agree)

X_8 : Neuroticism (Likert scale 1 to 7, 1: strongly disagree, 7: strongly agree)

X_9 : Conscientiousness (Likert scale 1 to 7, 1: strongly disagree, 7: strongly agree)

X_{10} : Openness

X_{11} : Development

X_{12} : Job security

X_{13} : Contribution

X_{14} : Career

X_{15} : Aptitude/Motivation

X_{16} : Enjoyment

ε : Stochastic error

The SPSS does not give collinearity diagnostics in logistic regression. However, one can obtain the VIF value by running a linear regression. This gave VIF scores between 1.1 and 2.2, but after removing Advice as independent variable to avoid overly high values. Hence, the multicollinearity is not considered as a problem for this analysis.

Table 5: Result of the Binary Logistic Regression. Dependent Variable: Attending IEMT

	B	S.E.	Wald	Sig.	VIF
Gender	0.963	0.919	1.098	0.295	1.631
Demanding education	0.594	0.305	3.793	0.051	1.682
The ability to make money	-0.236	0.282	0.699	0.403	1.510
Idealism in the sector	-0.491	0.287	2.932	0.087	1.397
Continue in the case of a decrease in wages	-0.499	0.425	1.379	0.240	1.466
Extraversion	-1.691	0.885	3.654	0.056	1.303
Agreeableness	-0.503	0.518	0.946	0.331	1.298
Neuroticism	-1.117	0.505	4.903	0.027	1.284
Conscientiousness	0.295	0.476	0.385	0.535	1.204
Openness	1.376	0.520	6.996	0.008	1.483
Development	-0.361	0.473	0.582	0.445	2.026
Job security	0.694	0.457	2.311	0.128	2.047
Contribution	-0.460	0.347	1.755	0.185	1.452
Career	1.768	0.681	6.736	0.009	2.296
Aptitude/Motivation	-0.844	0.683	1.526	0.217	1.770
Enjoyment	0.740	0.572	1.671	0.196	1.806
Constant	-4.379	4.549	0.927	0.336	
N =118, Nagelkerke R Square= 0.629					

FINDINGS

Table 3 showed consistently high values on all variables included in this study except for the variables, I am primarily looking to make money, advice and neuroticism. Comparing IETM with the others indicated significant differences regarding personal characteristics. Students from IETM had significantly lower value on agreeableness (under five percent significant level), neuroticism (under ten percent significant level) and higher score for openness (under 10 percent significant level). The binary regression confirmed the link between the lower value of neuroticism for IETM students (under five percent level) and substantially higher value for openness ($B = 1.378$ and under 1 percent significant level). The regression model did not confirm the link between agreeableness and IETM. However, there was a considerable negative link to extraversion ($B = -1.691$ and significant level under 10 percent). Hypothesis 1 (H1) is therefore confirmed. The career opportunities varied among the students. Students from IETM obtained a strongly significant higher career score both in Table 4 and 5 (significant level under one percent). The companionship of means also gave significant differences in favour of IETM for job security (under one percent significant level) and enjoyment (under ten percent significant level). But these effects were not significant in the binary regression. Notice also that Table 4 showed a significant positive difference for advice. Idealism is significantly negatively correlated both in Table 4 and 5 (under 10 percent significant level). These factors confirm hypothesis 2 (H2). Students from IETM reported that their study was challenging and demanding to a higher degree than the other study fields. The impact was positive for companionship of means (significant level under one percent) and by the binary regression model (significant level around 5 percent). However, the dimension aptitude and motivation did not appear to be significant with the choice of IETM subjects. Hypothesis 3 (H3) is only partly confirmed.

DISCUSSION

In several areas, there are small differences between the students at the Faculty of Economics and Management. Students are seeking jobs that give pleasure other than money in their pocket. Therefore, this question did not get a high score and it is distributed approximately equally among the three departments. Undergraduates choose study fields that are adapted to their abilities and interests, and subjects they enjoy. This is in line with the findings of Calkins and Welki (2006). The motivation is high across the departments. In line with the finding of Kim et al. (2002), advice from parents and friends had only marginal impact on the choice of study fields. There are gender differences between the departments. There is a predominance of males in Industrial Economics and Technology Management, while females are in the majority at the Business school. All in all, the proportion of women is just under 50 percent for the entire faculty (Table 2). The overall impression is that the students have positive attitudes and expect the selected major to provide secure jobs and a good career. The expected prospects are good. Nevertheless, differences between the departments are recorded. Not between business and economics students as one might expect, but between students in Industrial Economics and Technology Management (IETM) and the rest. In many countries, the share of people studying economics has fallen significantly, while interest in business studies has increased considerably. Bachan and Barrow (2006) reported that between 1992 and 2004, the number of graduates in the economy fell by 62 percent, while the increase in business studies increased by 70 percent. The economics programme captures to a large extent candidates who have a special interest in this topic. According to the authors, it is harder for economics students to get work.

Therefore, those who choose this pathway are more interested in the subject than business students. Economics students have ambitions to get jobs in a high professional category, while business students may want jobs in a lower professional category, and that requires less skills. The findings of this report only partly confirmed the analysis of Bachan and Barrow (2006). At some point, there is a distinct difference. The economics students want to contribute more to society and others than business students. However, in many other areas only minor differences are recorded between these two study fields. One possible

explanation is that the admission requirements are significantly higher for business studies than for economics studies. Many business students have career ambitions in the financial sector, among others. This may indicate that the proportion of business students seeking less demanding jobs is lower in this sample than in the analysis of Bachan and Barrow (2006). Another explanation for the fact that there is little difference between the two groups is that about half of economics students prefer to work in the private sector (according to this survey). Like business students, many economics students also want to make a career in the private sector. The research emphasised there are substantial differences depending on the preference between working in the public or private sector (Houston, 2000; Levitas & Vigoda-Gadot, 2020)

One of the important contributions of this article is the evidence that IETM students stand out in relation to others at this faculty. There may be several reasons for this. An important factor is that the students have technical backgrounds and are skilled in theoretical mathematics. Based on previous research (Vedel et al., 2015), this may explain why these students score a significantly higher value for the trait openness and significantly lower for the trait neuroticism compared to the other students. Another important factor is that they were engineering students who want to qualify in economics and management. There is great competition to gain this admission ticket, and these students have a good reputation especially in conducting advanced quantitative analyses. They experience their education as demanding. Since these students expect to follow a successful career and achieve secure jobs with development opportunities, this is probably consistent with the actual situation. An indicator of this is that potential employers including Norwegian Central bank are actively seeking out this environment with the intention of recruiting new employees. The findings of this analysis are useful for the faculty in the planning of study programmes and in the work of recruiting new students.

Limitations

Since the sample was from only one university in Norway, one cannot say how valid the results are in a national or international context. However, it can provide an indicator about how the situation is. The sample for the questionnaire was not randomly chosen. There are different ways to design the questions for capturing the issue discussed in this paper. The focus in this analysis is on the students' expected professional career and not about the students' actual career.

CONCLUSIONS

Economics and business students who participated in this analysis look positively at the future. They expect to get attractive jobs. The difference between business and economics students was rather small. The most marked distinction was that the economics students want to contribute more to society than business students. On the other hand, the students in Industrial Economics and Technology Management (IETM) stood out largely in relation to the rest (economics and business students). This is a very popular study among engineers who want to specialise in economics, business and management. These students scored high in the personality trait openness and low in the trait neuroticism. They expect to follow a career and secure jobs with high wages. There was a marked difference in relation to the other majors. The findings may not be so surprising since these students are very much in demand in the work market.

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A PROPOSAL OF A WELLNESS INSTRUMENT FOR GUANAJUATO STATE

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ABSTRACT

The social wellness has been the utmost premise looking by Guanajuato government. But this implies creating tools in order to measure it. That's the reason this investigation exposes a proposal of wellness questionnaire. The instrument dimensions described are based on a thorough bibliometric analyze, considering the period from 1960 to 2020. The questionnaire was answered by 100 citizens of Guanajuato. And Using the Cronbach's Alpha and Principal Components Analyze the instrument was validated. This Project is valuable because it is a basis in order to identify the most important dimensions of social growth. Besides in nearly future this investigation could be applied by quantify the importance of each dimension and propose public policies to attend them.

JEL: H0, I3

KEYWORDS: Social Welfare, Economic Growth, Public Policies

INTRODUCTION

Since almost a century the efforts has been oriented on improving the economic growth, because of literature has established that there is a functional relation between economy and wellness, so if economy grows this implies wellness growth. However, the nature of wellness has to be analyzed considering Deep and subjective concepts (Randow, Bosley & Ward, 2020). GDP measures almost anything, said Robert Kennedy in 1968, but except measures neither our wit nor our courage, neither our wisdom nor our learning, neither our compassion nor our devotion to our country'. It measures everything in short, except that which makes life worthwhile (Mota, 2016). Along the time social wellness has evolved from a simple number to an integral perspective that includes: life quality, social improvement and happiness (Aedo, Oñate, Jaime & Salazar, 2020). World Economic Forum has opened the debate about incorporating other variables aimed on measuring the social development for example social inequality, alternative energies and healthy life. Diane Coyle said that COVID 19 came to say us that the most important isn't money but the welfare of society (Randow, Bosley, & Ward, 2020). So that is essential figure out the society perception about how they feel in social welfare, thus this investigation contributes to the literature because proposes a validated instrument that will allows quantify the social perception. The instrument was applied to 50 citizens, of Guanajuato state, who are between 20 and 30 years. The statistic validation was using the principal components analyze and the Cronbach's alpha coefficient. The main result obtained is a questionnaire that is capable of measuring how welfare's perception is on Guanajuato state.

LITERATURE REVIEW AND RESEARCH DEVELOPMENTS

The concept of economic growth has been considered a condition related to the capabilities of cover basic necessities but considering a sustainable use of the resources, besides there are job opportunities,

distribution of wealth and a sense of legitimate government (Reyes, 2001). Some authors have established a correlation between economic growth and human development, first one allows getting a better quality of life (Ranis & Stewart). Based on Guerrero (2011), the functional association could be from human development to economic growth, because when population is healthy and educated the growing (in economics terms) will come naturally. So that relation has been considered a very important study area (Jiménez, 2011). Guerrero (2011) mentioned that social development is more than the GDP per capita. It could be understood as a multifactor phenome. Based on Ordoñez (2014) there enough evidence to say that although GDP has growing from 1970 the most population Haven't increased their life quality.

The social welfare it's hardly measurable because of complex nature and have to be quantified indirectly, considering many dimensions. Stiglitz, Sen and Fitoussi, (2009) Said that welfare is related to the freedom society, it's a scenario where people may decide what to do or to be. Fernandez & Gomez (2019) wrote that the multifactor nature of welfare has attracted many investigators in the last years. And there are studies that established trying to measure the welfare based on GDP could be wrong because of the subjective aspects of the social welfare (Pena-Trapero, 2009). During the period from 2000 and 2006 the Mexican president, Vicente Fox, worked on building a solid schema in social rights. Besides a technical committee to evaluate the poverty was created, and the basis of an evaluation methodology were founded. Guanajuato has worked in public policies aimed to getting better social conditions. The social policies applied are based on reducing the inequality gap, the specific tools reported are anti-cyclical policies. Also Guanajuato is distinguished for apply a constant planning, since 1991 until nowadays. As result of that, the Guanajuato Siglo 21 study was realized considering the socioeconomic context and attending the global trends. Some years later (1995-2000) a State Development Plan was created, this included a prospective analyze under the premise "When the Government takes its managerial role society benefits and development comes". Based on this study, 8 main subjects were identified:

- Heterogeneous, democratic and co-responsible society.
- Quality health system
- Competitive, accessible, and better education.
- An economy oriented to build up the social welfare.
- World class infrastructure for population.
- Environment.
- Law system that guarantees the justice.
- An efficient, capable and honest government.

By the next period government (2000-2005) a new study prospective plan was written and called State Government plan 2030. Its results were:

- To serve the elder population.
- To serve the immigrants population.
- Promoting public policies in order to live better.

During the period from 2006-2012 the State Government Plan was presented (Guanajuato PED 2035). It considered the perspective of the last studies and paid special attention at 4 dimensions:

- Social and human development.
- Public management and legal regulations.
- Economy.
- Environment.

The newer plan prospected until 2040 defined 5 main dimensions:

Social and human development.
 Public management and legal regulations.
 Economy.
 Environment.
 Development of regional economy

Some emerging and crucial topics described on state government plan are artificial intelligence, robotics and knowledge society. Another main topic is defining a board where any people can view 200 indices related to sustainable development. Nowadays Guanajuato considers 200 indices for evaluate how the economic trend is going, but the promptly global changes have dictated to propose new ways to evaluating how the population's perception is at social development. In the last decade many related investigations have been published, for example Echarri (2015) proposed an index for measuring the violence in Mexico. Other index was exposed for Gomez (2010) instrument contains 13 question. His instrument values dimensions of education, integral education, social service and human capital. Campos (2010) defined a methodology in order to measuring the job insecurity considering a period from 1995-2010. Garcia (2015) analyzed how efficient has been applied the educational, health and incomes public spend. Rodriguez (2015) published a thorough investigation of literature review of salary inequality in Mexico. Speaking about competitiveness, Castro, Andrade & Hernandez (2018) worked on analyze the context of Guanajuato, they proposed if there're enough competitiveness level, the economic growth come. Also Alejos, Hernandez & Gallardo (2015) published an instrument to measuring the knowledge management.

DATA AND METHODOLOGY

First of all, a bibliometric analyze was realized, the interest subjects were social and human development, and social welfare. The period considered was from 1960 to 2020. Based on the bibliometric analyze, 23 main subjects were identified. After that the instrument was formulated (Appendix 1), using a Likert scale. The instrument has 93 questions and each one has 4 Likert options. The next step was send the instrument to 200 citizens of Guanajuato in order to obtain their real opinions, but just 100 citizens accepted answering the test. It was validated using the principal components analyze in order to identify the correlation between each kind of item respect to the 23 dimensions. So a data matrix was obtained as result of the 100 answered tests, then the principal components were calculated. For calculating the principal components analyze (PCA) a data matrix has to be obtained, in this case the matrix has a dimension of 93x100 thereby Its respective correlation matrix has 93 rows and 93 columns. According to Villalobos (2018) PCA is capable to change a big dataset on a new coordinate system, where each component is naturally independent of another. Before PCA is necessary to calculate the correlation matrix.

$$r = S_{xy} / S_x S_y \quad (1)$$

Where:

r is the coefficient of correlation

S_{xy} is the covariance between the variables x and y.

S_x is the standard deviation of x.

S_y is the standard deviation of y.

After that eigenvalues and eigenvectors have to be obtained

$$M = \lambda V$$

Where

$$V = V_1, V_2, V_3 \dots V_n$$

are eigenvectors associated to the eigenvalues

$$\lambda_1, \lambda_2, \lambda_3$$

further lambda coefficients satisfy

$$\det(M - \lambda I) = 0$$

Where I, is the identity matrix of M.

The first components explain the major variability, it means, the first component explains more variance than the second component. The second explain more variance than third and so on and so forth. The new coordinate system allows to classify the items based on their similar characteristics. When PCA have been calculated, the Cronbach's Alpha coefficient was gotten. Based on Oviedo and Arias (2005) this coefficient measures if each item is related to the others. If Alpha coefficient is between 0.7, 0.9 the instrument has validity. When is under 0.7 the instrument has a poor validity. But if the coefficient is over 0.9 could have a redundancy trouble between items.

$$\alpha = \left(\frac{n p}{1 + p(n - 1)} \right) \quad (2)$$

RESULTS AND DISCUSSION

The first result was to identify 23 subjects that could explain the economic growth and social welfare. Table 1 exposes the 23 subjects.

Table 1: Social welfare Issues

Mental Health At Work Place	Protection For Older People	Gender Equality	Youth Employment	Public Investment
Demand and Access to health services	Poverty	Taxes applied on health	Well paid job	Private investment
Longevity	Economic growth	Human rights	Sustainable development	Insecurity and violence
High quality education	Family, health, economy and welfare	Vulnerable and indigenous groups	Finance system	
Population, fertility and education	Migration	Nutritional health	Industrial innovation	

Table 1 exposes the 23 dimensions found in the bibliometric analysis. The dimensions were used in order to create each question of the questionnaire. It's important to say that the bibliometric analysis was realized on specialist data bases, Scopus, Scielo, Academic Google and Ebsco.

Based on the 23 themes found in the bibliometric analysis and a thought of the current economic and political situation, the questionnaire was written. The questionnaire contains 93 questions, 92 with Likert scale and the last one, is an open question: What is the most important theme that you think must be solved by Guanajuato government? (The whole questionnaire may be consulted on appendix 1). Then based on the 23 themes and 93 questions the instrument was send to 100 citizens of Guanajuato. Considering the answers Principal Components Analysis (PCA) was applied and the results are reported in the next tables. According to Villalobos (2016) PCA is capable to classify a large data set on a new reduced set, where each item maintenances correlation with anyone item of the same set. And the correlation is minimal with members of the other sets.

Table 2: Cluster 1 Obtained of Principal Components Analysis

Group 1	Group 1	Group 1	Group 1	Group 1
84 Do you consider that social spending in Guanajuato has promoted better conditions for education and employment issues?	73 Do you believe that the financial system offers adequate financial products for the needs of society?	64 Do you consider that social entrepreneurship is a well-known concept in Guanajuato?	63 Do you consider that there is enough labor supply to include young people in well paid jobs?	79 Do you considerer that there's enough dissemination of calls for people who have potential to innovate?
81 Do you consider that Guanajuato invests adequately in infrastructure?	92 Do you consider that children in Guanajuato live in an environment without violence?	83 Do you consider that social spending in Guanajuato promotes better living conditions?	3 Do you think that citizens take care of mental problems, for example, depression, anxiety?	
75 Do you consider the financial system has products that would help you living better in retirement?	88 Do you consider that private investment includes caring for the environment?	68 Do you consider that the salaries in Guanajuato are better than in other states of Mexico?	13 Do you think the education system develops better citizens?	

The Table 2 shows 13 items (questions) which belong to group 1, based on Principal components analysis, PCA, this suggests that any item is related on citizen's mind. In general, it is possible to classify the first group as infrastructure, industrial innovation, financial innovation and labor market.

The second group has 19 items, that belong to themes: elder people care, nutritional health, human rights, vulnerable groups (immigrants, women, indigenous) and equality on political life. All items correlated are exposed on table 3.

Table 3: Cluster 2 Obtained of Principal Components Analysis

Group 2	Group 2	Group 2	Group 2	Group 2
91 Do you consider that the level of insecurity and violence in the state allows economic growth?	59 Are there physical health and nutrition campaigns in Guanajuato?	82 Do you consider that social spending benefits vulnerable groups?	40 The families of migrants nowadays live:	57 Are there public policies for health and nutrition in Guanajuato?
39 The amount of money sent by migrants to their communities has:	52 Is there security to express yourself freely?	58 Is there a nutrition program suitable for each person in Guanajuato?	44 Do you think that the opportunities for participation and development in political life are unequal for men and women?	10 Respect for the dignity of the elder people is:
67 Do you think there is enough well-paid job offer?	21 Do you consider that Guanajuato has the transportation infrastructure, medical services, pensions so that elder people can live with dignity?	41 Do you believe that Guanajuato ensures the women rights in all areas?	50 Does Guanajuato ensure the human rights of children?	11 Do you think that access to geriatric services covers the needs of elderly?
60 Are there physical activation programs in Guanajuato at all educational levels and economic activities?	55 Do you consider that vulnerable groups have access to the health system?	18 Does the population know the importance of family planning?	51 Does the political system ensure the protection of human rights?	

Table 3 indicates the items contained in the second cluster, the items are related to elder people health, nutrition, human rights, politic equality and vulnerable groups. Remember that the principal Components analysis algorithm creates groups attending the correlation between items.

The third set has 17 items identified in table 4, the main themes that contains the questions are: family planning, vulnerable groups, climate change, mental health and ethical values.

Table 4: Cluster 3 obtained of Principal Components Analysis

Group 3	Group 3	Group 3	Group 3
53 Does Guanajuato ensures that people with disabilities, older adults, sexual diversity and indigenous people live with dignity?	78 Do universities and research centers generate innovation for society?	1 In 2020 mental health was:	33 Are families in Guanajuato in better health?
54 Is the education of vulnerable groups ensured?	4 Should mental health be a priority for the government?	5 Considering 2020 Do you consider that the health system for Guanajuato was:	19 unwanted pregnancy has:
70 Does society act against climate change?	27 Poverty in your city has:	2 Access to mental health care (psychiatrists, psychologists) is:	
16 Are ethical values developed in the educational system?	29 Foreign investment in Guanajuato has:	20 Do you think that higher education reduces unwanted pregnancies?	
61 Does Guanajuato promote youth entrepreneurship?	23 Are older working adults well paid and treated with dignity?	32 Wealth per family has:	

Table 4 contains the group number three which has 17 items related to family planning, vulnerable groups, climate change, mental health and ethical values. Remember that the principal Components analysis algorithm creates groups attending the correlation between items. And each cluster doesn't have correlation with the others.

Table 5: Cluster 4 Obtained of Principal Components Analysis

Group 4	Group 4	Group 4	Group 4	Group 4	Group 4	Group 4
42 Do you think in Guanajuato the same salary is paid for women who do the same work as men?	38 Support programs for the agricultural sector have:	49 Do you consider that human rights are respected in your city?	12 Do you consider that the law protects older adults?	80 Do you know the research centers located in your state?	35 Do you think that families today live better?	85 Has private investment favored the economic development?
48 Does the health system meet the needs of the population?	86 Do you consider that private investment has favored better conditions in Guanajuato?	46 Do you consider that investment in the creation of hospitals and health centers is sufficient?	14 Do you consider that graduates of the undergraduate level have the competence to enter the labor market?	77 Do research centers generate industrial innovation?	22 Do you think that older adults can live without worrying about food, shelter and clothing?	6 The infrastructure for hospitals and public medical institutions in Guanajuato is:
72 Do you think legislators are working on sustainable development issues?	87 Do you consider that foreign companies promote better living conditions for Guanajuato?	45 Do you consider that enough public spending is allocated to hospitals?	17 Is Guanajuato capable of providing quality education for the entire population?	47 Do you think that the payment of taxes is applied to improve the health services that society receives?	24 physical and psychological health services for the elderly are:	
7 Based on your last visit to a public health institution, the service was:	15 Do you consider that education ensures that students develop the abilities to face global challenges?	8 Do you consider that the health sector in Guanajuato is prepared to resolve health crisis?	66 Do you think that the labor supply has increased?	43 Is there equal employment opportunities for men and women in Guanajuato?	30 Opportunities for a stable, well-paying job have:	
31 Investment in infrastructure has:	74 Do you consider the financial system promote entrepreneurship?	71 Do you think companies act to reduce climate change?	69 Do you consider in Guanajuato the sustainable use of natural resources is ensured?	34 Do you consider that families have a higher income?	56 Can indigenous groups can express their origins without being excluded?	

The fourth group is the biggest, because it contains 32 items correlated each other. It's possible defining older adults, private and public spend, incomes, innovation as the main themes. Attending the definition of PCA each group is not correlated with the others one. So Cluster one is independent of number two, three and four respectively.

Then applying the PCA method, was possible to find the biggest group (set 4) which contains 32 items related to the main themes: older adults, private and public spend, incomes, innovation. Thereby tables 6 shows the 3 smallest groups, 5, 6 and 7. The items are related to migration and financial education, health and inflation and violence and security, respectively.

Table 6: Sets 5 6 and 7 obtained of Principal components analysis

Group 5	Group 5	Group 6	Group 7
28 The level poverty in Guanajuato has:	36 Have the people of Guanajuato financial freedom?	9 Do you consider that currently the ability to reach old age with health has:	89 Do you feel anguish if your family travels through Guanajuato?
26 the number of children in poverty has:	62 Does Guanajuato have an incubation of projects for youth entrepreneurship?	25 The ability to acquire basics goods:	90 Do you consider that women experience fear due to violence and insecurity in Guanajuato?
37 Migration to seek a better life has:	65 Has the quality of life improved with the arrival of international companies?		
76 Do the people of your city have financial education?			

Table 6 shows the 3 smallest groups, set 5, 6 and 7. Set 5 refers to poverty, migration and financial education. Set 6 express questions related to health and inflation. Finally set 7 refers to violence and security.

In order to get a validation of the instrument, the Cronbach's alpha was calculated and the result is reported in table 7.

Table 7: Reliability Analysis Using Cronbach'S Alpha

Raw alpha	0.95
G6 (SMC)	1
Average alpha	0.18

Table 7 describes the results of the application of Cronbach's alpha test, in summary it suggests high reliability. The raw alpha coefficient measures the reliability of the questionnaire, the value could be between 0 and 1 where any value close to number 1 indicates consistency between each item. in this case 95% or 0.95 was obtained, a high coefficient.

Alpha values under 0.5 are unacceptable, values above 0.7 are considered accepted and values over 0.9 are excellent. Guttman's lambda expresses the squared multiple correlation, this coefficient is less sensitive to the number of items and is a good indicator of consistency. The interpretation is pretty similar to Cronbach coefficient, so the number 1 suggests a really good consistency. The average alpha coefficient calculates the statistic association between each item, it's possible visualize that high values of consistency are not related to the correlation of any item.

CONCLUDING COMMENTS

In this Project the explanatory factors of well-being of society were studied, through a bibliometric analysis and considering a period from 1960 to 2020. 23 explanatory dimensions were identified, from them a questionnaire was drawn up consisting of 92 questions with a Likert scale and the last one is an open question. In order to validate the well-being instrument, was sent to 100 citizens from Guanajuato state, for the total of responses, a matrix of 100 rows and 92 columns was created (the data base), then the principal components analysis were applied. The algorithm created 7 groups of ítems (questions) that are correlated with each other, this means, any ítem that belongs to a cluster shows statistical correlation with another from the same set. The clusters could be identified as: Infrastructure, industrial innovation, financial innovation and labor market (cluster 1); elder people health, nutrition, human rights, politic equality and vulnerable groups (cluster 2); family planning, vulnerable groups, climate change, mental health and ethical values (cluster 3); older adults, private and public spend, incomes, innovation (cluster 4); Set 5 refers to poverty, migration and financial education. Set 6 express questions related to health and inflation. Finally

set 7 refers to violence and security. This characterization could be a tool in order to propose public politics based on a current citizen's perception. The quantification of Cronbach's alpha suggests that the instrument proposed has internal consistency, so is capable to measure the phenomena of well-being. Besides it's a new contribution to the study of social welfare and economic growth. As a prospective the instrument exposed will be the basis of a multifactorial analysis in order to quantify how important is any (here expressed) dimension to the welfare of Guanajuato.

APPENDIX

Appendix A: Questionnaire of Welfare

Tema 1 Salud Mental laboral	Consideras que la salud mental de la ciudadanía en 2020: 1. Es mala 2. Regular 3. Buena 4. Excelente	Consideras que el acceso a atención de salud mental (psiquiatras, psicólogos) es: 1. Insuficiente 2. Regular 3. Bueno 4. Muy Bueno	Consideras que la ciudadanía conoce y atiende los problemas mentales, por ejemplo, depresión, ansiedad, etc. 1. desacuerdo total 2. Es indiferente 3. De acuerdo 4. Es indispensable de atender	Consideras que la salud mental debería ser prioridad para los gobiernos: 1. desacuerdo total 2. Es indiferente 3. De acuerdo 4. Es indispensable de atender ese tema
Tema 2 Demanda y acceso a servicios de salud	Con base en las situaciones vividas en 2020, consideras que el sistema de salud para los guanajuatenses es: 1. Deficiente 2. Regular 3. Bueno 4. Sobresaliente	Creas que la infraestructura para atención brindada por hospitales e instituciones médicas públicas en Guanajuato es: 1. Deficiente 2. Regular 3. Bueno 4. Sobresaliente	Con base en tu última visita a alguna institución de salud pública, el servicio fue: 1. Deficiente 2. Regular 3. Bueno 4. Sobresaliente	Consideras que el sector Salud en Guanajuato está preparado para atender crisis sanitarias 1 en desacuerdo 2 parcialmente en desacuerdo 3 Parcialmente de acuerdo 4 totalmente de acuerdo
Tema 3 Longevidad con salud	Consideras que en la actualidad la capacidad de llegar a la vejez con salud ha: 1 Disminuido 2 Se ha mantenido 3 Ha aumentado un poco 4 Es mucho mejor que antes	Consideras que el respeto a la dignidad de los adultos mayores es: 1 No hay respeto 2 Siempre ha sido igual 3 Hay avance, pero muy poco 4 Es mucho mejor hoy que antes	Consideras que el acceso a servicios geriátricos cubre las necesidades de los adultos mayores 1 En desacuerdo 2 Parcialmente en desacuerdo 3 Parcialmente de acuerdo 4 De acuerdo	Consideras que el marco legal asegura la protección de los adultos mayores 1 No, se debe trabajar bastante en ello 2 Parcialmente de acuerdo 3 Si, pero se puede mejorar 4 totalmente de acuerdo
Tema 4 Alfabetización/educación de calidad	El sistema de educación ha favorecido el desarrollo de mejores ciudadanos 1 No, al contrario. 2 Se ha aumentado la cobertura pero se descuidó la calidad 3 Se ha mantenido igual 4 Totalmente de acuerdo se ha mejorado la calidad	Consideras que los egresados del nivel licenciatura tienen competencia para insertarse en el mercado laboral 1 En desacuerdo 2 Parcialmente en desacuerdo 3 Parcialmente de acuerdo 4 De acuerdo	Consideras que la educación en Guanajuato asegura que los estudiantes desarrollen las competencias para enfrentar los desafíos mundiales 1 En desacuerdo 2 Parcialmente en desacuerdo 3 Parcialmente de acuerdo 4 De acuerdo	Creas que el sistema de educación en Guanajuato desarrolla valores en los estudiantes 1 En desacuerdo 2 Parcialmente en desacuerdo 3 Parcialmente de acuerdo 4 De acuerdo
Tema 5 Población orientado a la fecundidad y educación	Consideras que el estado es capaz de ofrecer educación de calidad a toda la población 1 En desacuerdo 2 Parcialmente en desacuerdo 3 Parcialmente de acuerdo 4 De acuerdo	Consideras que la población es consciente de la importancia de la planificación familiar 1 En desacuerdo 2 Parcialmente en desacuerdo 3 Parcialmente de acuerdo 4 De acuerdo	Consideras que el embarazo no deseado ha: 1 disminuido 2 mantenido 3 Crecido ligeramente 4 Crecido notablemente	Consideras que a mayor educación se disminuyen los embarazos no deseados 1 En desacuerdo 2 Parcialmente en desacuerdo 3 Parcialmente de acuerdo 4 De acuerdo

Tema 6 Protección de los adultos mayores	Consideras que Guanajuato cuenta con la infraestructura de transporte, servicios médicos, pensiones para que los adultos mayores vivan con dignidad 1 En desacuerdo 2 Parcialmente en desacuerdo 3 Parcialmente de acuerdo 4 De acuerdo	Consideras que los adultos mayores pueden vivir sin preocupaciones de cómo satisfacer comida, vivienda y vestido 1 En desacuerdo 2 Parcialmente en desacuerdo 3 Parcialmente de acuerdo 4 De acuerdo	Consideras que los adultos mayores que trabajan reciben un trato digno y pago justo 1 En desacuerdo 2 Parcialmente en desacuerdo 3 Parcialmente de acuerdo 4 De acuerdo	Consideras que los servicios de atención a la salud física y psicológica de los adultos mayores es. 1 Se ha descuidado 2 Se ha mantenido 3 Se ha mejorado, pero muy poco 4 es excelente
Tema 7 Pobreza	Consideras que el poder de adquirir bienes de la canasta básica 1 ha disminuido notablemente 2 Se mantiene creo que siempre he alcanzado a comprar lo mismo con el mismo dinero 3 Ahora alcanzo a comprar un poco más 4 Mejoró, compro más con menos dinero	Consideras que la cantidad de niños en pobreza y situación de calle ha: 1 Disminuido 2 Disminuyó un poco 3 aumentó un poco 4 aumentó considerablemente	Consideras que el nivel de pobreza en tu municipio ha 1 Disminuido 2 Disminuyó un poco 3 aumentó un poco 4 aumentó considerablemente	Consideras que el nivel de pobreza en Guanajuato ha 1 Disminuido 2 Disminuyó un poco 3 aumentó un poco 4 aumentó considerablemente
Tema 8 Crecimiento económico	Consideras que la inversión extranjera en Guanajuato ha 1 Disminuido 2 Disminuyó un poco 3 aumentó un poco 4 aumentó considerablemente	Consideras que las oportunidades de conseguir un trabajo estable y bien pagado han: 1 Disminuido 2 Disminuyó un poco 3 aumentó un poco 4 aumentó considerablemente	Consideras que la inversión en infraestructura (camino, puentes, carreteras, etc.) ha 1 Disminuido 2 Disminuyó un poco 3 aumentó un poco 4 aumentó considerablemente	Consideras que la acumulación de riqueza por familia ha 1 Disminuido 2 Disminuyó un poco 3 aumentó un poco 4 aumentó considerablemente
Tema 9 Familia orientada a salud, economía y bienestar	Consideras que las familias en Guanajuato hoy gozan de mejor salud 1 En desacuerdo 2 Parcialmente en desacuerdo 3 Parcialmente de acuerdo 4 De acuerdo	Consideras que las familias en Guanajuato hoy tienen mejores ingresos 1 En desacuerdo 2 Parcialmente en desacuerdo 3 Parcialmente de acuerdo 4 De acuerdo	Consideras que las familias en Guanajuato hoy viven mejor en todos los aspectos 1 En desacuerdo 2 Parcialmente en desacuerdo 3 Parcialmente de acuerdo 4 De acuerdo	Consideras que las familias en Guanajuato pueden vivir sin preocupaciones económicas 1 En desacuerdo 2 Parcialmente en desacuerdo 3 Parcialmente de acuerdo 4 De acuerdo
Tema 10 migración	La migración por búsqueda de mejores condiciones de vida ha: 1 disminuido 2 disminuido un poco 3 se ha mantenido 4 Aumento notablemente	Los programas de apoyo al desarrollo del campo han: 1 disminuido 2 disminuido un poco 3 se ha mantenido 4 Aumento notablemente	El dinero que envían los migrantes a sus comunidades ha: 1 disminuido 2 disminuido un poco 3 se ha mantenido 4 Aumentado	Las familias de los migrantes en la actualidad viven: 1 peor 2 igual que antes 3 Un poco mejor 4 mucho mejor
Tema 11 equidad de género	Creas que en Guanajuato se respetan los derechos de la mujer en todos los ámbitos (escuela, trabajo, hogar, etc) 1 En desacuerdo 2 Parcial desacuerdo 3 Parcial acuerdo 4 total acuerdo	Creas que en el estado se paga el mismo salario para mujeres que realizan el mismo trabajo que los hombres 1 En desacuerdo 2 Parcial desacuerdo 3 Parcial acuerdo 4 total acuerdo	Creas que en el estado las oportunidades de desarrollo laboral son desiguales para hombres y para mujeres 1 En desacuerdo 2 Parcial desacuerdo 3 Parcial acuerdo 4 total acuerdo	Creas que en el estado las oportunidades de participación y desarrollo en la vida política son desiguales para hombres y para mujeres 1 En desacuerdo 2 Parcial desacuerdo 3 Parcial acuerdo 4 total acuerdo
Tema 12 Impuestos orientados a la salud	Consideras que, en tu estado, se ha destinado suficiente gasto público para infraestructura hospitalaria 1 En desacuerdo 2 Parcial desacuerdo	Consideras que se ha invertido suficiente en creación de hospitales y centros de salud 1 En desacuerdo 2 Parcial desacuerdo 3 Parcial acuerdo	Creas que es reciproco el pago de impuestos, (estatales y federales) con respecto al servicio de salud que reciben los ciudadanos 1 En desacuerdo	Consideras el sistema de salud cubre las necesidades de la población en tu localidad 1 En desacuerdo 2 Parcial desacuerdo 3 Parcial acuerdo

	3 Parcial acuerdo 4 total acuerdo	4 total acuerdo	2 Parcial desacuerdo 3 Parcial acuerdo 4 total acuerdo	4 total acuerdo
Tema 13 derechos humanos	Consideras que en tu localidad se respetan los derechos humanos 1 En desacuerdo 2 Parcial desacuerdo 3 Parcial acuerdo 4 total acuerdo	Consideras que tu Estado asegura el respeto de los derechos humanos de la niñez 1 En desacuerdo 2 Parcial desacuerdo 3 Parcial acuerdo 4 total acuerdo	Consideras que el sistema político de tu estado procura la protección de los derechos humanos 1 En desacuerdo 2 Parcial desacuerdo 3 Parcial acuerdo 4 total acuerdo	Consideras que en el estado se puede ejercer el derecho de libre pensamiento y expresión de las ideas, sin riesgo alguno 1 En desacuerdo 2 Parcial desacuerdo 3 Parcial acuerdo 4 total acuerdo
Tema 14 Atención a grupos vulnerables e indígenas	Consideras que en tu localidad se asegura que las personas con discapacidad, adultos mayores, diversidad sexual e indígenas vivan con dignidad 1 En desacuerdo 2 Parcial desacuerdo 3 Parcial acuerdo 4 total acuerdo	Consideras que las personas de grupos vulnerables tienen asegurada la educación 1 En desacuerdo 2 Parcial desacuerdo 3 Parcial acuerdo 4 total acuerdo	Consideras que las personas de grupos vulnerables tienen acceso al sistema público de salud 1 En desacuerdo 2 Parcial desacuerdo 3 Parcial acuerdo 4 total acuerdo	Consideras que los grupos indígenas pueden expresar sus orígenes sin temor a ser excluidos o criticados 1 En desacuerdo 2 Parcial desacuerdo 3 Parcial acuerdo 4 total acuerdo
Tema 15 salud y nutrición	En tu estado se han desarrollado políticas que favorezcan la buena salud y nutrición 1 En desacuerdo 2 Parcial desacuerdo 3 Parcial acuerdo 4 total acuerdo	El sistema de salud mantiene vigente un programa de nutrición adecuado a cada persona 1 En desacuerdo 2 Parcial desacuerdo 3 Parcial acuerdo 4 total acuerdo	En tu estado se generan campañas de cómo mantenerse con buena salud y nutrición adecuada 1 En desacuerdo 2 Parcial desacuerdo 3 Parcial acuerdo 4 total acuerdo	En tu estado se contemplan planes de activación física en todos los niveles y actividades económicas 1 En desacuerdo 2 Parcial desacuerdo 3 Parcial acuerdo 4 total acuerdo
Tema 16 empleo para la juventud	En Guanajuato se promueve el emprendimiento en los jóvenes 1 En desacuerdo 2 Parcial desacuerdo 3 Parcial acuerdo 4 total acuerdo	Guanajuato cuenta con programas de incubación de proyectos que fomenten el emprendimiento en los jóvenes 1 En desacuerdo 2 Parcial desacuerdo 3 Parcial acuerdo 4 total acuerdo	Consideras que hay la suficiente oferta laboral para incluir a los jóvenes en actividades económicas bien remuneradas 1 En desacuerdo 2 Parcial desacuerdo 3 Parcial acuerdo 4 total acuerdo	Consideras que el emprendimiento social es un concepto conocido en la sociedad de tu estado 1 En desacuerdo 2 Parcial desacuerdo 3 Parcial acuerdo 4 total acuerdo
Tema 17 empleo bien remunerado	Consideras que la calidad de vida ha mejorado con la llegada de empresas internacionales al estado 1 En desacuerdo 2 Parcial desacuerdo 3 Parcial acuerdo 4 total acuerdo	Consideras que hay mayor oferta de empleo en tu localidad 1 En desacuerdo 2 Parcial desacuerdo 3 Parcial acuerdo 4 total acuerdo	Consideras que hay la suficiente oferta laboral bien remunerada para que la sociedad viva mejor 1 En desacuerdo 2 Parcial desacuerdo 3 Parcial acuerdo 4 total acuerdo	Consideras que los sueldos son mejores que en otros estados de la republica 1 En desacuerdo 2 Parcial desacuerdo 3 Parcial acuerdo 4 total acuerdo
Tema 18 desarrollo sostenible	Consideras que en tu localidad los gobiernos aseguran el uso sustentable de los recursos naturales 1 En desacuerdo 2 Parcial desacuerdo 3 Parcial acuerdo 4 total acuerdo	Consideras que la sociedad es consciente del cambio climático y ejerce acciones orientadas a combatirlo 1 En desacuerdo 2 Parcial desacuerdo 3 Parcial acuerdo 4 total acuerdo	Consideras que las empresas son conscientes del cambio climático y emprenden acciones para combatirlo 1 En desacuerdo 2 Parcial desacuerdo 3 Parcial acuerdo 4 total acuerdo	Consideras que tus legisladores están trabajando en acciones concretas en temas del desarrollo sustentable 1 En desacuerdo 2 Parcial desacuerdo 3 Parcial acuerdo 4 total acuerdo
Tema 19 sistema financiero	Creas que el sistema financiero ofrece productos financieros adecuados para las necesidades de la sociedad 1 En desacuerdo	Consideras que el sistema financiero propicia el desarrollo de emprendedores (jóvenes o personas que deciden iniciar su negocio)	Consideras que el sistema financiero contiene productos que te ayudarían a vivir mejor en el retiro 1 En desacuerdo 2 Parcial desacuerdo	Creas que las personas de tu localidad tienen educación financiera 1 En desacuerdo 2 Parcial desacuerdo 3 Parcial acuerdo

	2 Parcial desacuerdo 3 Parcial acuerdo 4 total acuerdo	1 En desacuerdo 2 Parcial desacuerdo 3 Parcial acuerdo 4 total acuerdo	3 Parcial acuerdo 4 total acuerdo	4 total acuerdo
Tema 20 innovación industrial	Consideras que en Guanajuato los centros de investigación y universidades generan innovaciones en beneficio de la industria 1 En desacuerdo 2 Parcial desacuerdo 3 Parcial acuerdo 4 total acuerdo	Consideras que en Guanajuato los centros de investigación y universidades generan innovaciones en beneficio de la sociedad 1 En desacuerdo 2 Parcial desacuerdo 3 Parcial acuerdo 4 total acuerdo	Consideras que hay suficiente difusión de convocatorias y apoyo para las personas que tienen potencial de innovar 1 En desacuerdo 2 Parcial desacuerdo 3 Parcial acuerdo 4 total acuerdo	Conoces los centros de investigación que se encuentran en el estado de Guanajuato 1 En desacuerdo 2 Parcial desacuerdo 3 Parcial acuerdo 4 total acuerdo
Tema 21 inversión pública	Consideras que Guanajuato invierte adecuadamente en infraestructura (puentes, carreteras, caminos) 1 En desacuerdo 2 Parcial desacuerdo 3 Parcial acuerdo 4 total acuerdo	Consideras que el gasto social de Guanajuato beneficia a los grupos vulnerables (tercera edad, situación de calle, pobreza extrema, indígenas, etc) 1 En desacuerdo 2 Parcial desacuerdo 3 Parcial acuerdo 4 total acuerdo	Consideras que el gasto social en Guanajuato ha propiciado mejores condiciones de vida para todos los habitantes 1 En desacuerdo 2 Parcial desacuerdo 3 Parcial acuerdo 4 total acuerdo	Consideras que el gasto social en Guanajuato ha favorecido mejores condiciones para la juventud en temas de educación y empleo 1 En desacuerdo 2 Parcial desacuerdo 3 Parcial acuerdo 4 total acuerdo
Tema 22 Inversión privada	Consideras que la inversión privada ha favorecido el desarrollo económico de Guanajuato 1 En desacuerdo 2 Parcial desacuerdo 3 Parcial acuerdo 4 total acuerdo	Consideras que la inversión privada ha favorecido mejores condiciones de vida en Guanajuato 1 En desacuerdo 2 Parcial desacuerdo 3 Parcial acuerdo 4 total acuerdo	Consideras que las empresas extranjeras propician mejores condiciones de vida para los Guanajuatenses 1 En desacuerdo 2 Parcial desacuerdo 3 Parcial acuerdo 4 total acuerdo	Consideras que la inversión privada contempla el cuidado del medio ambiente en sus proyectos 1 En desacuerdo 2 Parcial desacuerdo 3 Parcial acuerdo 4 total acuerdo
Tema 23 inseguridad y percepción de la violencia	Sientes angustia si tu familia transita por el estado de Guanajuato 1 En desacuerdo 2 Parcial desacuerdo 3 Parcial acuerdo 4 total acuerdo	Consideras que las mujeres experimentan miedo y angustia por la inseguridad en el estado de Guanajuato 1 En desacuerdo 2 Parcial desacuerdo 3 Parcial acuerdo 4 total acuerdo	Consideras que el nivel de inseguridad y violencia en el estado permite desarrollar las actividades económicas libremente 1 En desacuerdo 2 Parcial desacuerdo 3 Parcial acuerdo 4 total acuerdo	Consideras que la niñez en Guanajuato puede desarrollarse en un entorno sin violencia 1 En desacuerdo 2 Parcial desacuerdo 3 Parcial acuerdo 4 total acuerdo
Tema 24 Pregunta abierta	Menciona cual es el tema que más preocupa a tu familia y debería ser la prioridad por atender en el estado de Guanajuato			

Appendix A shows the complete questionnaire applied, this instrument was written in Spanish in order to promote rapid response. Note that there are 92 questions with a Likert scale and the last one (topic 24) is an open question. No one reported issues understanding the meaning of any item.

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GENERAL CONSIDERATIONS ON PUBLIC ADMINISTRATION IN THE EUROPEAN UNION

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ABSTRACT

The diversity of public administration systems is given by the particularities of each country, respectively by the historical evolution, the cultural heritage, specific political circumstances. Therefore, the role of public authorities varies significantly from country to country, due to the way in which the political dispute over the impact of decentralization on the role of the state has been resolved. In addition, in recent decades, the local government sector of European Union states has undergone a dynamic evolution. The paper argues that despite their structural differences, public administrations nevertheless have an important common feature, namely that much of the responsibility for organizing and conducting social and economic activities of public interest has been transferred to the authorities.

JEL: D73, H76, H83.

KEYWORDS: Public Administrations, Public Interest, Authorities.

INTRODUCTION

There are two essential component elements in the concept and construction of public administration and indispensable of the public administration, namely the organic structural element and the functional element (Pollitt & Bouckaert, 2004). The structural-organic element designates the totality of those authorities or institutions, reunited, as a rule, in a unitary system corresponding to the executive power that it exercises and to the common attributions to it that they fulfill. The functional element is represented by a certain type of fundamental activity through which the public power is also realized or exercised, also called administrative or executive activity.

Thus, several authors claim that the public administration system is built to carry out activities to organize the execution and enforcement of the law, which refers to the entire population of the country and is applied throughout the state and in its territorial-administrative units (Brewer & Selden, 2000; Hofmann, 2008). However, in the process of realizing the functions of the system, theory and practice have suggested several types of structures, namely: the functional structure that determines the plurality of management; the linear structure (hierarchical-functional), which combines two types of structures and is more widespread in administrative and economic-social practice.

Therefore, due to the fact that the administration, in the sense of activity, is carried out through a multitude of organizational forms that group categories of people (staff), the public administration system is a way of social organization based on relationships that exist between these people (Cardona, 2009). This system of social organization exists and operates within a macrosystem of social organization of the global society, considered at national level or at the level of some territorial-administrative units. In practice, the public sector is the largest sector in the EU. It has about 75 million employees or about 25% of the workforce. Public spending amounts to almost 50% of GDP (European Charter of Local Self-Government, 2013). In most European Union countries, in terms of public administration, the multitude of state authorities and administrative institutions determines their order, in order to perform the functions they have, based on two criteria, namely: the territorial criterion, which it corresponds to the hierarchical structure, and the criterion of material or functional competence, which corresponds to the functional structure.

Analysis of Public Administration in the European Union

The basic function of public administration is to meet the general needs of communities (Ghobadian, 2009). It defines the right and the effective capacity to solve and manage, in the name and in the interest of the local communities they represent, the public needs, in a given legislative framework. It is worth noting that local autonomy in the Member States of the European Union is a form of expression of the principle of administrative decentralization. This is associated with the establishment of a distinct status of local authorities, of their authorities, in relation to the state administration and to the authorities exercising its functions in the territorial administrative units. The essence of this principle is related to local authorities which, in the “European Charter: Autonomous exercise of local power”(European Charter of Local Self-Government, 2013), are defined, taking into account national regulations, as basic local authorities (communes, districts, departments), but also communities to the extent that the States Parties to this Convention do not have recourse to the reservations permitted by the Charter.

By art. 4 of the “European Charter: Autonomous exercise of local power”, the principle of subsidiarity is established, stipulating that these local authorities have, within the law, the full competence to take the initiative for any matter that is not excluded from their competence or which is not attributed to another authority, that the exercise of public power must, in a general way, rest with those authorities which are closest to the citizens and that the powers, competences, entrusted to local authorities must normally be full and complete. Therefore, subsidiarity presupposes that the emphasis, the weight, in making decisions of public interest, to descend as much as possible to the basic level, not to constitute a monopoly or a rule for the state administration. The autonomy of the public administrations presupposes its own management, within which the autonomy is in fact realized (Homberg, McCarthy & Tabvuma, 2015). This management practically induces some specific functions towards the application of the principle of autonomy, namely:

creates the necessary framework for exercising the attributions of the public administration authorities;

requires the establishment of its own revenue base in each administrative-territorial unit, from which to ensure the self-financing of expenditures entered in the budget;

exercises financial control over the formation and use of own funds.

Comparisons between countries based on global statistics on the local government sector can easily lead to erroneous conclusions about its role and real importance, at least for the following reasons:

statistical definitions and classifications, as well as the reality and consistency of the data collected, often vary to an appreciable degree, from country to country;

the administrations of the European Union countries present a great diversity in terms of their size and organizational structures;

the distribution of responsibilities between different levels or types of public administration varies quite a bit from country to country, even within EU countries, and sometimes even within the same country, from one year to the next.

Given this reasoning, it is necessary to understand the difference between public administration authorities and the various local public services of the central specialized public administration (ministries and other specialized bodies) that operate in a certain territorial area and which are structures (territorial) externalities of certain central administrative authorities (Hofmann, 2008).

Therefore, the relations between these authorities are very varied, they express either an accentuated centralization or a differentiated autonomy. For example, following the extreme budgetary pressures generated by the financial crisis of 2008, the Spanish public administration has realized the need for a comprehensive and fundamental change in the public administration. The Public Administration Reform Commission (CORA) was set up under the Spanish Vice-Presidency, in cooperation with high-level stakeholders, to improve the efficiency and effectiveness of public activity and reduce costs, without affecting the quality of services provided. CORA focused on eliminating duplication of administrative measures, increasing their simplification, managing common services and resources and institutional administration. CORA proposed 218 measures aimed at improving and simplifying the functioning of public administrations both at national and local level.

E-government is also an important issue in modernizing public administration (Vandenabeele & de Vries, 2013). However, realizing its true potential, that of providing better services, a more integrated organization and lower costs, is not such a simple process in practice. Austria provides an example in which reconsideration of processes can benefit both citizens and the administration. However, most public administration reforms are politically motivated and organized from the top down. However, a significant example in Belgium shows that positive change can only be achieved through effective management at the organizational level. On the other hand, most Finnish public administrations are reactive in tackling the problems. Preparing to anticipate future developments may be imperative in an increasingly volatile, unpredictable, complex and ambiguous context.

CONCLUSIONS

The public administration system has known and is experiencing an even greater diversity as a result of the way in which the principle of autonomy is applied, but also due to the specific economic, social and political conditions in the context of which it fulfills its functions. Therefore, the public administration authorities constitute in the rule of law a subsystem within the system of public authorities, on the criterion of the separation of the three powers, legislative, executive and judicial, and to which correspond three categories of public authorities. Life has shown that the general progress of society is inextricably linked to the judicious organization of the territory and local government, which promotes the rational placement of public investment in a country, the harmonious development of various areas and localities.

The administrative organization of the territory concerns not only the public administration, but the entire system of public authorities and services. The way in which the administrative-territorial organization is carried out deeply influences the very content of the activity of different public authorities. A proper delimitation of the administrative-territorial units ensures the necessary conditions and the participation of the population in the activity of the public authorities, for the rationalization and simplification of the bureaucratic apparatus.

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ROMANIAN PUBLIC ADMINISTRATION MANAGEMENT: PAST, PRESENT AND FUTURE

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ABSTRACT

Within the public administration reform process in Romania, solving the problems related to public finances, increasing the financial autonomy and ensuring the necessary resources to fulfill the responsibilities of the public administrations, have a special importance. The extremely complex nature of the objectives of the reform process in the field generates specific tasks with great impact on political and organizational options. Therefore, the clear, judicious establishment of the objectives of improving the management of the public administration by implementing the latest community strategies in the field is absolutely necessary. This paper captures the evolution of the concept of public administration in Romania, pointing out the most important moments.

JEL: D73, H76, H83.

KEYWORDS: Public Administrations, Management, Authorities

INTRODUCTION

Administration is an old activity, found in all countries and at all levels of government (Bouckaert, Van de Walle & Kampen, 2005). However, there is some confusion regarding the terminology used, as follows: some use the phrase science of administration and others use the expression public administration. Against this background, the necessary alignment of public administration to the legal rules assigned to individuals and to the management rules applied to the private sector should not lead to ignoring the specifics of public administration. It is an instrument of action financed from public funds, a means by which the state exercises its own functions.

The content of the public administration, as a concrete activity, must be investigated in the complexity of the requirements of the socio-economic life, having the purpose to satisfy, rationally and efficiently, the increasing exigencies of the citizens (Filip, 2007). Scientific and technical progress requires continuous improvements in the development of specific activities, respectively in the structure of the administration, through the use of modern techniques and methods.

Therefore, the activity of administration is found everywhere, in all the complexity of social life. It can be said that in modern society, there is no person who has not made contact with the administration, in general, and with the public, in particular, and has not felt, directly or indirectly, its benefits or exaggerations (by oversizing bureaucracy and formalism).

Therefore, in the short and medium term, the aim will be to find solutions to increase the resources of public administrations, in order to increase autonomy, by creating adequate, flexible, modern economic and financial mechanisms to encourage performance. In the long run, the strategic objective is the sustainable economic and social development of communities, which should provide public administrations with resources comparable to their responsibilities.

The Evolution of the Forms of Accomplishment of the Public Administration Management

In Romania, the period following the adoption of the Constitution of 1923, was particularly productive in terms of substantiating theories and concepts regarding public administration and public office (Alexandru, 2007). However, most authors consider, in accordance with the principles of the Romanian Constitution (Filip, 2007), that the notion of public administration has had and has a double meaning, as follows:

a formal-organic meaning, which concerns its organization;

a material-functional meaning, which aims at the activity.

Moreover, in the post-war literature we frequently encounter the notions of: administration, state administration, public administration, executive activity, executive authority, the authors attributing to them either the same meaning or different meanings (Alexandru, 2007). Other authors, on the contrary, consider that the sign of equality between the state administration and the executive activity cannot be put, defining the state administration as “activity that is carried out for the practical and concrete fulfillment of state functions and tasks of state administration bodies” (Filip, 2007; Pollitt & Bouckaert, 2004; Miao, Eva, Newman & Schwarz, 2019). Currently, the activity of public administration authorities involves the following types of activities:

administrative acts and administrative contracts that are themselves producing legal effects, in the sense that they give rise to, modify or extinguish legal relationships;

technical-administrative operations and exclusively political acts of the public administration that do not produce their own legal effects.

As for administrative acts, they can be grouped into several categories, according to different criteria, as follows:

depending on the extent of the legal effects they produce:

normative administrative acts containing general, impersonal and mandatory regulations that apply in an indefinite number of cases and to an indefinite number of subjects;

individual administrative acts that are manifestations of will that create rights and obligations for the benefit or burden of one or more determined persons.

depending on the number of manifestations of will that it incorporates:

administrative acts that contain a single manifestation of will;

complex administrative acts, which contain two or more manifestations of will.

Obviously, in the range of public administration activities are also administrative operations and material operations (Pollitt & Bouckaert, 2004). Administrative operations refer to the office operations performed by the public administration staff in the administrative process, and the material ones to operations such as, the various activities of medical assistance, training of students, provision of services, etc. The higher number of administrative operations compared to that of administrative acts is explained by the fact that for the elaboration and execution of a single administrative act numerous and varied administrative operations are necessary. In Romania, the support of public autonomy through economic and financial means is motivated at least by the following arguments:

currently, although public administrations have potential, it is not fully capitalized, the degree of self-financing being relatively low, the general characteristic of the management of public authorities being the low level of performance;

the essence of the administrative reform, of the decentralization and of the improvement of the public finance systems must be the efficiency, being urgently necessary to ensure a favorable framework for the increase of the performances of the public administrations.

In the future, the mechanization of the reform is imposed by four main categories of reasons:

economic reasons: low economic growth and decrease of budgetary resources allocated to public administration; the need for the private sector to have a modern, flexible administration open to public-private partnership;

technological reasons: introduction of information and communication technology in public administration;

sociological reasons: citizens, as beneficiaries of public services, are increasingly demanding and no longer accept that their needs be determined exclusively by what the administrations offer them;

institutional reasons: involves a different way of managing services, the strongly hierarchical structure gives way to new organizational types based on decentralized structures.

In the process of elaborating the reform strategy in the public administration, the following principles were taken into account:

separation of political and administrative functions;

creating and consolidating a body of career civil servants, professional and politically neutral;

adopting decisions by the authorities closest to the citizens or the issue to which they refer;

decisional autonomy;

clear definition of the role, responsibilities and relations between institutions;

the transparency of the governing act and of the other administrative acts, which will allow the participants to follow the administrative processes and to obtain information regarding their rights in the relations with the public sector;

orientation of interest for results based on efficiency, effectiveness and quality of public services; simplification of administrative procedures.

The systematically used public administration reform strategy can become a tool to help coordinate cooperation between different government institutions and ensure medium and long-term efficiency (European Committee, 2014).

CONCLUSIONS

The application of a coherent strategy, adequate to the development conditions of the administrative units in Romania could ensure the success of these structural transfers. So far, the multitude of changes of direction, the lack of continuity in the achievement of fundamental objectives, have not been able to create a solid support for the administrative decentralization, and implicitly financial, and the accomplishment of the reform process. Any intervention in the field of public administration reform involves changes in major components, including central government, local government and public services. On the other hand, the development of democracy requires the establishment of a new relationship between citizens and the administration, the growth and strengthening of the role of public authorities and the reconsideration of the partnership with civil society. For full transparency, the public administration should be prepared to encourage the independent audit of financial statements and budget execution, in order to demonstrate in a concrete way how public money is used. In this way, the reform becomes a broad, comprehensive process that changes the approach to the main problems currently facing the Romanian public administration.

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THE ROLE OF THE CIVIL SERVANT IN MODERNIZING THE ADMINISTRATIVE SYSTEM

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ABSTRACT

Just as the public service has an indissoluble link with the civil service, so the civil servant is in a close interdependence with the civil service, one exists through the other, and can only be achieved through the other. Moreover, the quality of public services has often been an issue brought up by most specialists in public administration. In order to provide quality public services, professional development oriented towards continuous performance is necessary. It is useful in this regard, the elaboration of a professional career plan, which you can continuously adapt to the culture of the organization in which you are integrated and to the requirements of the citizens who are only a barometer of the quality of public services. The article is intended to be a very realistic, demanding and critical retrospective of what has accumulated so far regarding the role of the civil servant in modernizing the administrative system.

JEL: D73, H76, H83.

KEYWORDS: Public Administrations, Community Development, Public Interest

INTRODUCTION

According to the Statute for Officials of the European Union, civil servants are the means by which public officials act. Civil servants are natural persons and when they exercise one of the attributions specific to the function they perform, they manifest themselves in the name of the legal person of public law of which the public position occupied by them is part. For the first time in Romania, the notion of civil servant was then taken over by Law no. 188/1999 on the Statute of civil servants, which specifies that the civil servant is the person appointed to a public office by the head of the public authority or institution, in compliance with the law (<http://legislatie.just.ro/Public/DetaliiDocument/50608>). According to the literature, the civil servant is the person who in order to perform a certain activity is invested by appointment, contract or election, in a public office within a public authority organized at central or local level, or in a public service organized as public institution, or in structures assimilating them (Albrecht & Travaglione, 2003; Schott, Neumann, Baertschi & Ritz, 2019). In general, the legal status of civil servants is meant to increase their moral and material interest, to create the necessary conditions for them to exercise their functions, to guarantee the rights and adequate social assistance for those who have dedicated their lives to serving the state and the people (Wright, Moynihan & Pandey, 2012). For these reasons, at the level of all European Union countries, the regulatory framework has been revised and even a Strategy for the development of the civil service has been developed.

Tradition and Values of the Public Function: Theory and Practice

By the statute of the civil servant we mean the totality of the legal norms that regulate the objective legal situation of the civil servants, determining their rights, obligations, legal guarantees, as well as the responsibility of the civil servant. In general, the legal status of the civil servant is meant to create the necessary conditions for the exercise of his / her duties, to guarantee their stability in office, rights and social assistance (Alexandru, 2007). The status of civil servants includes the will of the state to regulate, in an authoritarian way, the legal situation of civil servants, removing any contractual idea in the relations between the civil service and civil servants (Filip, 2007). However, between civil servants and public services there are administrative relations of subordination to the head of the civil service, which begins at

the moment of investing in the respective civil service and ends at the end of the legal relations between the civil servant and the civil service. The redefinition of the civil servant status results from a reconsideration of the following aspects:

motivation of the civil servant according to the individual performances and the rank of his function;

making the civil servant responsible for the degree of satisfaction of the general public interest, the *raison d'être* of the administration;

training and career development of the civil servant in order to be able to fulfill his functions.

Despite the development of civil service law, despite the extent of the use of the public law contract, it is found that the idea of using the private law contract to hire staff in the administration is constantly growing (Miao, Eva, Newman & Schwarz, 2019). The reason for this phenomenon lies neither in the poor development of the civil servant's law, nor in the dogmatic difficulties that would allow the administration to more easily terminate the contract it concluded with its agent, nor in the personnel expenses that occupy most of it in relation to other expenses.

Regarding the deontology of the civil servant through his specific object and his own methods, he is at the intersection between law and morality (Vogel & Willems, 2020). In a *lato senso* sense, it can be defined as the set of rules that outline a certain professional and private behavior. It thus includes norms of behavior, which concern both service relations of all kinds, which can be evoked by the phrase of professional behavior and those concerning his private life. Deontology must thus be found in all forms of expression of the existence of the individual. Hence the need for the official to have the ability to authentically serve the interests of the body to which he belongs, without interference or influence from any national or supranational power.

The legal regime of civil servants also includes the issue of their liability, the purpose of which must be to repress the mistakes made by public agencies (Alexandru, 2007). Through liability, both the preventive and the sanctioning purpose are achieved, constantly analyzed by the legal doctrine. To these two purposes is added a third, namely the educational character, which includes prevention but is not confused with it. The civil servant must carry out his duties, not because he is required to do so, but because he is convinced that they represent his professional purpose. For him there is no more important value than the fulfillment, with a conviction derived from the rational understanding of the phenomena, of his tasks. The legal responsibility intervenes, as the doctrine is constantly expressed, in the field of the committed evil, and, we add, of the one about to commit in view of the criminalization of the attempt in the branch of criminal law. The literature analyzes four forms of legal liability of civil servants: a disciplinary liability, based on violation of the rules of discipline specific to the civil service relationship; a contraventional liability, for the commission, by the civil servant, of some antisocial deeds qualified by law as contraventions; a civil liability, which results from personal acts of the Community official, which he commits due to the weaknesses inherent in the human being; a criminal liability, which occurs when the civil servant has committed deeds provided by the Criminal Code or other special laws (Filip, 2007).

Some authors propose five forms of liability specific to the civil servant, namely disciplinary, administrative (in fact contravention), criminal, material and civil (Perry & Wise, 1990; Miao, Eva, Newman & Schwarz, 2019). Other authors identify two major forms of liability applicable to civil servants, namely: sanctioning liability, which has a repressive, intimidating character, subjecting its perpetrator to an exclusively personal constraint for the act committed and reparative liability, which has the role of recovering damage (Wright, Moynihan & Pandey, 2012; Vogel & Willems, 2020).

CONCLUSIONS

The role of the civil servant has always been to be in the service of the citizen. The citizen is the main consumer of the public sector that sanctions or congratulates the conduct of civil servants and contract staff. The fundamental law - the Romanian Constitution, enshrines two dimensions of the legal status of the civil servant: on the one hand the public law regime applicable to the civil servant, on the other hand the existence and interpenetration in the civil servant regime of some elements of the employee's legal regime. identical or customized shape. Following the analysis presented, we can say, unequivocally, that we can talk about a deontology of civil servants, which is based on the principle that its sole purpose of its activity is to serve the interests of the public institution to which it belongs, which means equally measure, skills, knowledge, health and morality.

Today, the general requirements for civil servants increase substantially, but we must be aware that the instruments of reform and the instruments of public administration are civil servants, and for them to be, in turn, reformed, I believe that two requirements are inherent to be met. The first is a system of penetration in the body of civil servants, very clearly regulated, which would diminish as much as possible the political arbitrariness, the discretionary power of the administration. The second requirement refers to a system for evaluating the performance of civil servants and hence their career development. Also, the aspects regarding the civil service and civil servant characteristic of other European legal systems constitute true models for the process of reform and modernization of the civil service and civil servant in the Romanian system.

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COMMUNICATION AND ATTENTION TO THE CITIZEN: CASE STUDY ROMANIA

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ABSTRACT

The element that best defines the attention to the citizen is the direct relationship between him and the staff of the institution. Another special element is the fact that the citizen, in addition to being a customer, is also the one who supports the public sector through taxes, so, to a certain extent, he is their owner. On the other hand, during this official-beneficiary interaction a communication process was completed. Establishing an effective communication is one of the basic elements in the attention paid to the citizen. Communication always takes place when one person influences the other person's behavior. Without claiming to be exhaustive on this topic, this paper briefly describes the fundamental elements of the communication process in the civil servant-taxpayer relationship, paying special attention to the two basic skills: listening and obtaining feedback.

JEL: D73, H76, H83.

KEYWORDS: Communication, Public Interest, Citizen.

INTRODUCTION

The attention that the client receives from a company or the beneficiary of a public organization is one of the important aspects in perceiving the quality of a service (Müller, 2021). In public services things happen in a similar way, so that the treatment received can be the cause of a high degree of dissatisfaction for the citizen. In other words, the process of communication between the civil servant and the taxpayer will be or will not be appropriate, but the process of communication is more complex than the influence of one individual on the other. The knowledge and understanding of this process will depend on how the process of paying attention to the citizen can be controlled. The basic presentation of the communication process comprises a number of elements, the understanding of which can be facilitated by presenting a situation in which, for example, an official of an administration responds to a citizen's request for formalities to be followed in an administrative matter: the official is the broadcaster; has a determined objective: to ensure that the citizen finally knows the formalities to be followed; emits a message: set of instructions; via a channel (the means used to convey the message): the voice or a set of indications written on a piece of paper or both combined with others, such as gestures that cause an effect: satisfaction when knowing the specified information, anxiety because it does not of course, thanks; to a receiver, the citizen to whom the message was addressed; which gives an answer, which will allow to know if the instructions have been understood. If the official does not receive this answer from the receiver and if he is really interested in communication, he will have to provoke it.

Because of this, it will be less likely that the broadcaster will recognize the status of the situation (Ghobadian, 2009). Only when the receiver has received and interpreted the message does it reflect the effect it has caused, and if the sender captures this effect, the communication process is complete. In addition, the problems generated in the last period, regarding the pandemic, have demonstrated the fact that even in Romania rapid steps can be taken towards the application of modern communication methods, if there is will and consensus regarding their implementation. Therefore, the communication needs specific to the public service system have a uniform character, because they are continuous in time and in general, because they are expressed by natural and legal persons at national level (Porumbescu, Jungho & Oomsels,

2013). In terms of its basic characteristics, the continuity over time of this need makes the reaction of the system to meet the need at a higher level, in correlation with the general level of development of society.

Optimizing The Public Service By Improving the Communication Between Public Official and Citizen

In Romania, the civil servant is identified according to certain criteria, such as: he acts in public institutions (state apparatus); holds a public office by holding a certain position; is appointed by a competent authority; he is chosen according to the law; performs an activity for the smooth running of a public service; is located on all hierarchical levels of state public institutions; the exercise of the service is done permanently; a fixed salary is granted for the position in the organization, for the training and seniority in the work of a civil servant. Regarding the approach of communication between civil servant and taxpayer, there is not much research, most of them focus more on the psychological factors that can influence this communication. Thus, more and more authors believe that in order to achieve effective communication, it is important to perceive the response from the recipient of the message.

The sender of a message has the responsibility to succeed in making the receiver understand the transmitted idea as accurately as possible. If it is claimed that the citizen knows where to go to solve a problem and, in the end, the beneficiary goes to an erroneous subordination, who bears this responsibility? He may not have understood the instructions provided, but the person issuing the message is responsible, who must ensure that it has been understood correctly (looking for the appropriate feedback). For the receiver, the truth is what was understood, not what was meant to be said by the sender, who may not have conveyed the message or exactly how he thought or made it insufficiently compatible. Therefore, obtaining retroactive feeding (blocking the communication process) is an indispensable skill, which the person waiting for the public has the responsibility to put into play.

Another basic skill is that of listening (Hofmann, 2008). Knowing how to listen is the basis of successful communication. And this is certain insofar as the roles of sender and receiver alternate continuously in interpersonal communication. Thus, when a person emits a message he is obviously the sender. If this message has an effect on the receiver, it will emit a response which in turn is received by the sender himself. When the receiver responds, it therefore becomes the sender of an answer. Both will improve communication if they are willing to understand successive messages. Listening is therefore a complex skill, which requires different behaviors, but at the same time it is an attitude. Both skill and attitude are likely to be acquired and perfected. Regarding the attention paid to the citizen by the administration representative (Alon-Barkat, 2020), a number of aspects (elements) can be listed that must be taken into account in order to improve the ability to listen and, implicitly, the ability to communicate:

- to understand the other person's situation, trying to understand how the interlocutor feels;
- to focus on the topic, avoiding deviations from it;

- to ask questions, in order to make sure that he understands the citizen;
- to avoid drawing conclusions in advance;

- not to interrupt the discussion, waiting for the other to finish;

- to control themselves, not to allow their own feelings to interfere in the communication process, which must be completed;

- to reformulate the important points, to ensure that the facts and the position of the beneficiary have been fully understood.

In the satisfactory solution of the taxpayer's request or problem, the fundamental element is the one called personalization of attention (Parent, Vandebecque & Gemino, 2004). Any contact with the citizen must be personalized. Conflicts are likely to occur in activities that involve direct contact with people. Their causes can be various. From a lack of appropriate information, to misunderstandings caused by lack of communication, involuntary errors, disagreements, different perceptions of circumstances, an altered emotional state of one of the interlocutors.. A conflict between a civil servant and a taxpayer can occur in two types of situations (Müller, 2021):

while the process of paying attention to the citizen is taking place, without an initial complaint. Two people come into discussion and, during the interaction, difficulties arise that lead to a state of tension and discussion. A misinterpreted sentence, behavior that is considered rude or out of place, or an attitude that is considered aggressive may be sufficient causes to provoke conflict;

during the submission of a complaint by the taxpayer. In this case, it is possible for the citizen making a complaint to approach the administration with a negative predisposition, therefore a moment of tension is more likely to be generated.

In both cases, it is necessary to maintain control of the situation, in order to avoid reaching more unpleasant circumstances and to succeed, in the end, in solving the problems as adequately as possible. Although it may seem paradoxical, the conflict situation can be a real opportunity to win over the citizen and to finally achieve a positive image of the public institution and its staff. However, the approach needs to be proactive, requiring more iterations, both to identify the next level of satisfaction and to promote the steps needed to move to this level. It is also necessary to take the necessary actions to accelerate the achievement of the next level of communication satisfaction.

CONCLUSIONS

In public administration, attention to the beneficiary becomes an important mechanism for improving the quality of service. In part, because no other means are available, due to a highly regulated quality and due to the degree of dependence and opposing interests: citizen-public institution. In conclusion, in the communication process, the civil servant-taxpayer relationship constitutes the substance of the public administration act. The communication units, respectively the civil servant (as sender) and the taxpayer (as receiver of messages) have clear objectives: the sender aims to inform, to convince, to guide, to capture the interest, to be efficient, and the receiver will strive to be careful, to understand, to remember.

This analysis showed that during this relationship, the taxpayer will try to influence the civil servant, so that he will provide him with information, indicate a step to be followed, admit a document and, including, to admit a complaint to him. On the other hand, the official will claim that the information provided to the taxpayer is relevant, that he understands correctly the steps to be taken and, in the event of a complaint, that it is resolved in the most satisfactory manner for both parties. In the face of the challenges and opportunities brought by the rapid evolution of technologies, demographic changes and rising expectations of citizens, the Romanian Government must learn to continue exploring and exploiting new means to improve the situation of public administration.

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IMPLEMENTATION OF MODERN TECHNOLOGIES IN THE PUBLIC SERVICES SECTOR

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ABSTRACT

All public services should be geared to the needs of the citizen in order to support him during the interaction with state institutions. Customer experience already used in the private sector can also be used in the public environment not only to support citizens, but also employees of public institutions or economic actors in the company. The paper addresses the issue of digitalization of public services as a need to streamline these services. Therefore, the analysis carried out is a good opportunity to reflect on what the public sector should take into account in order to continue the digital transformation measures that generate resilient structures and guarantee the safety of citizens.

JEL: D73, H67, H80, O38.

KEYWORDS: Public Sector, Public Interest, Citizen, Digitalization

INTRODUCTION

The pandemic context has increasingly demonstrated to us the benefits of technology and the digitization of public services, and the development priorities of all states in the near future should also include this essential aspect (Bindu, Sankar & Kumar, 2019). The more the provision of a public service is based on technology or equipment, the less important the issues related to standardization, and the efficiency of the delivery process will increase. In addition, digitization involves reducing the number of interactions with officials in public institutions and optimizing the interaction of the citizen with representatives of public institutions. According to the report of the Romanian Digitization Authority from April 2020, 4 information systems are operational, namely: ghiseul.ro (online taxes and fees), SEAP (public procurement portal for authorities and economic operators), PCUE (catalog of public services in Romania) and SIAE (access to an authentication base for hauliers and haulage authorizations).

The causes underlying the precarious development of electronic public services in Romania are: the lack of an efficient and effective IT architecture, the lack of information systems necessary for central public institutions for the operationalization of electronic public services; the inadequacy of e-government and human resources specialists in the IT departments of public institutions and authorities and, consequently, the skills needed to develop and maintain electronic public services and the lack of a uniform and effective legislative and procedural framework to support electronic public services (Ionescu, 2015). At the same time, further efforts are needed to improve the security of online public services, as well as to increase transparency, cross-border mobility and the availability of electronic identification and electronic documents.

Increasing the Social Efficiency of Public Services Through Digitalization

The digitalization of public administration is based on ensuring the four essential pillars, with a strategic role, of functional digital architectures of public administration, which create the framework for the development of electronic services in a decentralized way at the level of any institution (Zachariadis, Hileman & Scott, 2019). These four measures, which other countries have implemented years ago are electronic identification, interoperability, unique platform for access to online public services and cloud infrastructure. Given the overwhelming volume of information in the public sector, in order to achieve an

efficient system of public e-services, not only the integration aspect but also the collaborative capabilities must be emphasized (Coursey & Norris, 2008). However, the synergy of the digitization of public services cannot be a cause for concern as it will allow Romania on the one hand to provide real-time and up-to-date information to officials on the move, and on the other hand will offer citizens a wide range of selection. between multiple interactions. Specifically, the main advantages that new technologies can provide, contributing to the improvement of results in the public services sector (Scott, DeLone & Golden, 2016), refer to:

the possibility to focus the communications with the taxpayer and to practice an individualized marketing;

increasing the number of citizens served;

increasing the quality of services provided;

real-time control and transparency towards citizens;

ensuring the transparency of administrative acts;

increasing the efficiency of the public services provision process.

In terms of focusing communications and developing individualized marketing, new information technologies allow the processing of information, data on taxpayers in order to move from mass communication to well-targeted messages - differentiated by strict categories of taxpayers - and this at a relatively low cost level compared to the huge investments in traditional communication media (Lee, Chang & Berry, 2011). Also, through new technologies it is possible to develop a professional relationship with taxpayers selected according to different criteria: frequency of use or preference for services. If we analyze the increase in the number of citizens served, the use of electronic networks gives the advantage of removing geographical constraints and traditional barriers to access, by reducing the intensity of interaction with the citizen, replacing face-to-face contact with a virtual contact. However, more accessible and complete information refers to the fact that, through digital platforms, taxpayers will find enough information about the public service they are interested in, which will help them make a decision. Ensuring a quick knowledge of taxpayers' reactions, computerization is very helpful in the field of service quality (Arduini, Belotti, Denni, Giungato & Zanfei, 2010). Centralized oversight of the delivery process can gradually improve its quality and performance. The analysis of the accumulated data can facilitate the monitoring of the provision process and public managers can take measures to counteract or prevent the non-quality of services in real time.

It is also worth noting that new technologies can serve to automate routine operations, which allows the public official to focus on his tasks more efficiently and to develop a quality relationship with the taxpayer (Coursey & Norris, 2008). At the same time, new technologies have the obvious advantage of reducing the cost of interaction with the taxpayer by reducing its intensity or duration, by automating various activities, by encouraging citizens to perform part of the service or by offering the possibility to use less staff. qualified. Analyzing good practices in the European Union and the success of the implementation of digital initiatives, the following measures can be considered a priority:

amending the law on electronic signatures so that all types of signatures are recognized so as to facilitate the exchange of information and documents between citizens, the business community and government institutions;

e-tax: implementation of solutions for accessing, submitting and editing various forms and information related to the payment of taxes;

uniform access to digital infrastructure for citizens, both in rural and urban areas.

Therefore, the creation of digital governance is a major challenge both for citizens and especially for the public sector. Information technology promises spectacular changes in the organization and quality of public services, but these can only take place with the help of the main actors in public administration: simple officials or managers.

CONCLUSIONS

The year 2020 has put at the center of government trends the potential to digitize the interaction between the state and the citizen through artificial intelligence and behavioral sciences. Digitization is a tool of the future that offers efficiency and predictability, including in the case of Romania, the extension of this practice at the level of institutions has already become a priority on the strategic development agenda. Once bureaucracy and congestion are reduced, advanced technology increases and brings transparency through the automation of administrative flows. We are talking about high-performance software solutions that are able to adapt to the requirements of administrations without consuming a lot of resources. All these positive effects of modern information technologies on the activities in the public services sector entitle us to consider them as the solution to the continuous improvement of efficiency and the provision of efficient services. At the same time, governments have a mandate to accelerate the digital development of public services in conditions of adequate cyber security and must consider the governance of these services for the benefit of citizens, to adapt laws and rules to the current virtual environment. In the long run, the strategic impact will lead to a synergy between the key elements that define Romania's digital ecosystem, and the strategic objective is to create a context conducive to innovation, economic and social progress, development of key skills and added value through tools and technologies. digital.

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WAYS OF APPROACHING THE MANAGEMENT OF PUBLIC SERVICES IN ROMANIA

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ABSTRACT

The issue of public service management acquires special significance in an extremely dynamic socio-political environment in which the aspects of financing, content, quality and efficiency of this sector of activity are constantly discussed. Thus, the value system, the structure and the current functioning of the public administration will have to be replaced by a new value system adapted to the needs of the society. The old public system had to make way, progressively, for a democratic, transparent and open system. This paper highlights the fact that through the management process, the occupation of positions with significant administrative responsibilities by leaders with skills, qualities and motivation for administrative work is relevant to the goal of maintaining effective leadership.

JEL: D73, H76, H83.

KEYWORDS: Public Service Management, Public Interest, Authorities

INTRODUCTION

The impact of political change on the public sector of many countries is considerable (Filip, 2007). Thus, the public service consists in the obligation, of legal nature, of those who are in government to ensure the constant development of certain activities. In an organic sense, the public service means a type of organization, a management structure, finally - a set of agents and material means, allocated in order to fulfill a specific interest or specific goals. In the material sense, the public service provides an activity of general interest, a mission of public utility, carried out through two component elements: a purpose and a means. Equally, management is an important area for ensuring excellence in any type of organization (Profiroiu, 2010). However, determining precisely the managerial aspects that need to be emphasized and how public organizations can take concrete steps to ensure positive leadership within them is a difficult task today. The application of managerial theories in public organizations requires the consideration of some clarifications, which can prove useful. In addition, public management is not defined by opposition to traditional rules of public management, although the introduction of new methods in public sector organizations can create a real mess. This explains the sometimes discouraging reactions of those who agree to work in a public service.

Directions For Modernizing the Management of Public Services In Romania

Regardless of the form of organization, public services are based on certain rules, some with the value of principles that substantiate the activity of the body that carries out public service activities and must therefore be respected equally by the organizing public administration and by economic agents. or private non-profit bodies, which have been entrusted with these activities of public interest (Alexandru, 2007). The role of the client in approaching the public service is a specific one, because the realization of some services implies a partnership between the service provider and its user. A superficial treatment of the concept of service delivery system may lead to the perception that the user is a passive part of the system (Calinoiu, 2015). A careful analysis clearly shows the decisive role that the client, in his capacity as co-producer, has in the system of providing public services. Public managers often ask themselves: - How is it possible to increase customer productivity in the service delivery process? or - How could the client be determined to be more involved in the process of making and delivering the service?

The researchers showed that participatory customer behavior can be determined by the cost of the service (Andrei, Profiroiu & Oancea, 2012; Filip, 2007). The client will be more involved in the process of realization and in the delivery of the service if he will benefit from a reduction of the cost of the requested service, so he will save a part of his own money obtaining a better quality service. The involvement undoubtedly implies a certain level of preparation of the co-producing and / or self-producing customer in the service delivery system. Thus, the need to manage the relationship with the client becomes obvious, which implies an extra attention from the managers of the organizations providing public and / or private services. Diagnoses are made on social and customer issues and, in this context, the causes that generate them, the levels of customer satisfaction, their suggestions and the added value they can benefit from are identified. Frequently, in order to attract customers, service organizations use the technique of providing immediate service to the customer and providing advantages consisting of additional services, a priority in the relationship with the organization. According to some specialists, the interest of managers in public institutions must be manifested in the direction of knowing the client (Alexandru, 2007). But public services have several distinct characteristics that considerably influence the process of realization and supply but also their quality:

are intangible;

cannot be easily stored, tested or measured using standard techniques;

the production and consumption of services are not separated in time, because services are consumed as they are produced;

suppose most of the times the transformation of the client into a co-producer, respectively its attraction in the process of realization and / or distribution of the service;

involves the development of a system of customer-supplier relationships known as marketing relationships;

the public service can have immediate solutions for the citizen, as is the case of social insurance;

the service can be performed and provided in part or in full by its support from public funds rather than from direct payment by the beneficiary. members of society through the tax system provide financial support to service organizations, but they may not use these services. when they do, they are not obliged to make a direct payment because the cost is covered by the fund set up. this is the case of public health services;

attracting clients with different degrees of information in connection with the public service offered by public institutions;

normally, any public institution should be concerned with attracting undecided customers through promotion campaigns;

lack of alternatives for some categories of public services, especially for administrative ones.

Public service management tools fall into three interdependent categories: completion tools, control tools and training tools (Matei & Matei, 2012). It should be noted that a single category of instruments does not provide comprehensive solutions to all problems encountered in a local public institution. Such problems can be overcome and solved by ensuring a balance between the three categories of instruments. Along with the tools focused on the organization, there are also the tools that have in view the favoring of the quality

of the services of the public organizations. The quality circle was defined as a framework for the collective formulation of proposals to improve the quality of services provided.

On the other hand, the evolution of the approaches to the management of public services in Romania is distinguished by the identification of new requirements:

efficiency research - which is measured by the combination of service quality, social efficiency and economic efficiency;

recognition of individual responsibilities and their decentralization both in the exercise of the mission of civil servants and in career management;

introduction of modern management techniques, such as: participatory management, project management, quality assurance techniques, crisis management or public marketing.

Considering the presented ones, the raising of the performances of a public organization supposes the establishment of the possibilities of application of the new methods and of their effects on the effectiveness of the public organizations (Papadimitriou & Phinnemore, 2004). Therefore, the application of these modern management methods can substantially contribute to increasing the problem-solving capacity, to raising the quality of services and the economic and social performance of public organizations.

CONCLUSIONS

The public sector is a cybernetic system, made up of subsystems with a structure outlined by organizations, well defined and delimited (public institutions), with a clear mission and object of activity. For a long time, specialists considered that the administration cannot be subject to the logic in which the management operates, because no subsystems can be identified that can be managed autonomously. Therefore, the public service can be defined as that organization of the state or of the local community established by the competent authorities, in order to ensure the satisfaction of certain requirements of the members of the society, in administrative or civil law, in the law enforcement process.

In order to be a public service, there must be a public authority in charge of its organization, respectively the determination of the rules of organization and functioning, the attributions, the right of exploitation, the control of the conditions for exercising this right. Some services are suitable to be provided at the local level, others at the central or intermediate level. Orientation from ex ante public management in the form of various types of planning techniques to ex post management requires a capacity to measure public sector activities. Evaluation requires a set of criteria to analyze the results of public institutions through indicators - efficiency standard, as well as indicators that are less suitable for quantification because public and non-profit institutions have difficulties in developing or developing a clear strategy .

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THEORETICAL ASPECTS REGARDING THE ADOPTION OF THE INVESTMENT DECISION: TRENDS AND PERSPECTIVES

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ABSTRACT

The investments are not limited to the simple expenditure of financial, material and human resources, but aim to obtain useful effects of economic, social, ecological nature. At the same time, investments contribute to the creation of a functioning market economy, compatible with the norms and policies of the European Union, which place special emphasis on sustainable economic growth. This paper focuses on the trends and perspectives of the investment decision-making process. The conclusions reached indicated that the operability of correct decisions over time is an advantage, companies tend to gather more and more information that decision makers can use to maximize benefits. But today, in the context of Covid 19, an ad-hoc decision is one that the decision-maker makes without a certain frequency, having different criteria to determine a rigorous solution every time.

JEL: L21, L22, M10

KEYWORDS: Investment Decision, Company, Investments, Risk Factors

INTRODUCTION

The most important element that can influence the process of economic expansion is the investment process - dynamizing factor, creator of new jobs, creator of possibilities for assimilating technical progress (provided that the investment is directed to those expanding industries, for which provides for the existence of sales markets, for the acquisition of advanced technologies, for the promotion of the invention. The literature presents a series of modern approaches to the strategic decision-making process that can be grouped according to their character and usefulness into two main categories: descriptive approaches and normative approaches (Mason & Weeds, 2010). The descriptive approaches present the decision-making process as it is carried out in reality by the managers, appealing, however, to notions and managerial concepts, in order to capture and reproduce the development mechanism. The normative approaches present the methods and the way in which the management should proceed in order to substantiate, adopt and apply effective decisions. Particular attention must be paid to the types of decisions and the stages of their adoption (Creswell, 2003). Thus, a structured decision involves processing a certain kind of information in a specific way so that the user will get a rigorous response. If the user uses a certain set of input information and processes it properly he will arrive at a rigorous result.

Adoption of the Investment Decision in Risk Conditions

According to researchers, investment is a savings in the consumer fund, an expense made today to ensure future development, and in this case, the investor can not be indifferent to how this economy is spent (Roberts & Henneberry, 2007; Mason & Weeds, 2010). The elaboration of the investment decision is, for the most part, a creative activity, of complex multidisciplinary research, which uses as basic method the scientific analysis and the synthesis of the corresponding information. The investment decisions simultaneously trigger financing operations, consumption of funds related to the project and actual investment operations, materialized in the physical realization of the works and activities established in the respective project, in accordance with the technologies and execution schedule adopted (Chavas, 2004). The calculations, analyzes and evaluations related to the preparation of investment decisions, the

formulation of options, the recommendations of decisions in the field are based on the operation with expected values and financial flows, subject to risk and uncertainty. Most authors (Hillson D. & Hulett, 2004; Sparkes, 2001; Mason & Weeds, 2010) consider that the decision-making process consists of several stages:

identifying the decision to be taken: It is necessary to identify the causes that determine the need to adopt the decision, as well as its possible consequences;

information on the issue to be addressed by the respective decision: All decisions require information on the situation that requires a decision to be taken. It is recommended that all possible sources of information be taken into account during this stage;

identifying alternatives: During the previous stage the decision makers will discover the existence of one or more alternatives, possible variants of decision. The stage of identifying alternatives depends essentially on the quantity and quality of information that decision makers have at their disposal and is influenced by the creativity, imagination and intuition of decision makers;

analyzing each alternative: Based on the available information, following a cognitive process, each alternative is analyzed in terms of possible results that that alternative can generate. Within this stage, a set of criteria is defined that will allow the evaluation of the results for each alternative. The criteria must be compatible, applicable to any decision-making option;

choosing the alternative to be applied: Once all the alternatives have been analyzed, the decision maker or decision makers choose the most appropriate alternative for the purpose, the one that best meets the established performance criteria. Decision-makers may go back to previous steps to clarify certain issues related to an alternative;

implementation of the decision (alternative chosen at the previous stage): This stage requires the prior performance of operations necessary for the implementation of the decision. Of these, the most important are: informing all those involved in the implementation of the decision on the need and implementation, clearly establishing the responsibilities of each employee involved in the enforcement action and the resources they have at their disposal and not least. explaining the consequences of the decision;

analysis of the consequences produced by the adopted decision: In this stage, the expected results of the decision are compared with the actual results, establishing the causes or factors that caused deviations (if applicable).

From another perspective, the desire for investment can be stimulated by the Government through several measures that it can adopt:

low taxes, at least in the first years (the decrease of the profit tax can have as effect the increase of the liquid capital, the increase of the investments and therefore the increase of the national income);

reducing the interest rate (increasing high-performing investments and, finally, increasing national income);

developing a banking system that is able to support investors through long-term loans;

promoting legislation that encourages competition, encourages the participation of foreign capital and discourages disruptive actions (laws that promote job security, non-discrimination, fair pay).

the existence of a sufficiently large market to which the Government should contribute by directing expenditures towards products belonging to the industries of the future (the increase of government

expenditures will contribute to the increase of demand, to the increase of investments and therefore to the increase of national income).

Regardless of the phases or stages completed, they are not necessarily linear because the decision maker finds a way to go to the previous phases / stages in order to substantiate some solutions (Buckley, Devinney & Louviere, 2007). Thus, in a decision-making process it is assumed that any decision maker has the interest to identify those options and strategies that ultimately lead to minimizing losses and maximizing the benefits associated with the risks generated.

CONCLUSIONS

In the evolution of human society, investments are those that give an impetus to the progress of an entire economic and social system. They represent an important and particularly dynamic component of the process of economic and social development that has depended, over time, on the evolution of economic and financial achievements of any economic process and stimulates the other components of the system, which determines economic growth as a whole. The elaboration of an investment strategy requires a lot of skill on the part of the one who elaborates it, because any investment implies risks, knowing that the highest risk rate can lead to the highest profits, but also to the biggest losses. Not always the strategy to get the highest profit is good. Attention must be focused on those who buy, because the quality of the product is given by the desire of the buyer, what he wants, the real quality of the product.

The investment decision is also based on the cost-benefit analysis that helps companies to establish a more efficient method of choosing the evaluation criteria. Thus, most entities use for this analysis, the philosophy of the entity or the location of the investment in order to assess the investment risk that underlies the investment decision. The conclusion based on the research highlighted the fact that in the investment decision-making process it is necessary to take into account a number of common factors for all situations, such as: inaccuracy of figures used in the study, type of investment made, source of funding used, the duration of the investment objective.

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RISK MANAGEMENT IN COMMERCIAL TRANSACTIONS: A PROSPECTIVE ANALYSIS

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ABSTRACT

A common feature of managing risk-related systems and processes in business transactions is the consequences that can alternatively be either losses or gains, where, in the presence of competitors, the loss of one entity may be the opposite of the gain of another. Therefore, the risk seems to be associated with consequences that involve losses for those who take it. In this article, a study was conducted on risk management in commercial transactions in order to achieve a proper dimensioning of practitioners' acceptance of the concept of risk.

JEL: L21, L22, M10

KEYWORDS: Risk Management, Commercial Transactions, Business

INTRODUCTION

The risk can be considered to be the more or less conscious assumption of the results of the choice made, and can come either from the indeterminacy (non-existence of information) of the result of the action, or from the ambiguous nature of the information we have at a given time. From the perspective of a commercial transaction, the risk is expressed by the figure that shows the dispersion or volatility around a certain environment. Most authors consider that risk management aims to build an apparatus that first allows the identification and quantification of risks and then, depending on the attitude towards risk, to make a decision on ignoring, assuming or avoiding them (Bârsan-Pipu, 2003; Coşa & Nastovici, 2000; Schwartz & Carroll, 2008; Heusinkveld, Sturdy & Werr, 2011). Identification depends very much on the information system. The quality of information a company has can be improved by increasing research spending (for example, research on the likely market share of a particular product in a given geographic area). Therefore, it is important to appreciate the need for perfect information in relation to the costs of obtaining this information. Instead, quantification involves the use of mathematical tools (quantitative methods) and, especially, the development of skills to interpret the results thus obtained. The process of risk analysis involves the calculation of probabilities which raises the issue of economic forecasting. In terms of economic forecasting, they range from simple extrapolations based on past events to forecasts or simulations for the entire economy. At both the micro and macro levels, predictions involve the construction of mathematical models.

Transactional Risk Management Practices in Contemporary Society

A business perspective is essential to address transactional risks that do not carefully fit the lawyer's concerns to change the guilt. Understanding transactional risks makes sense why a good contract really needs representations, guarantees, conditions, modification, rights and all the other techniques for drafting a contract. Otherwise, these drafting techniques are just a taxonomy that gives a nice formality to a contract and then serve as triggers for risk transfer. Even the use of enterprise risk management analysis does not eliminate all trading risks. Some risks are non-transferable. Some are common business risks. This is why the indemnity provisions are supported by the insurance. Regardless of the category of risks that affect them, the attitude towards the risks associated with commercial transactions can be classified into two main types (Bârsan-Pipu, 2003), depending on the reaction they have to this phenomenon:

proactive attitude: is based on allocating important resources to anticipate unwanted future events. One such example is to prevent competition by entering a market with a new product first, which competitors can find difficult to achieve;

reactive attitude: considers the approach and solution of different problems as they arise. One such example is to wait for the competition to develop a new product, and then (if successful) to copy it legally.

In practice, however, risk assessors may not have a very precise understanding of how to assess or express them. Efforts to responsibly assess and share risk information and risk management plans can degenerate into compliance exercises in which boxes are ticked and vague descriptions or summaries are produced, with little real information on the degree of risk remaining or what to do in connection with these. A useful challenge for risk analysts is therefore to develop and apply more useful technical methods for enterprise risk analysis, taking into account the substantial economic and economic benefits of improving risk assessment, communication and management, so that negative incentives are created when such information remains private may be outdated.

Moreover, when the opportunities to reduce the risks associated with commercial transactions have related consequences, due to uncertainties about common elements (such as the effectiveness of counterterrorism or cybersecurity countermeasures used in IT systems and the stability of the currency or solvency of banks and insurers used). in financing), then methods for optimizing the selection of a portfolio (subset) of risk reduction opportunities can often achieve significantly greater risk reductions for the resources spent than the rules for scoring priorities (Schwartz & Carroll, 2008). The requirements that grading systems must meet before they can be adopted and recommended in standards are not very strict. In the applications examined in the previous sections, there does not appear to be any requirement for risk rating systems to produce effective risk management decisions (or even that they should not produce the lowest possible value decision) before they are standardized for widespread use. In all these applications, the common elements found in several risky systems create related vulnerabilities, critical issues, consequences or threats. Priority lists generally do not produce effective risk management decisions in such settings. Given the interest in risk management shown by the vast majority of companies in the market, it can be concluded that, in general, the use of risk management techniques can generate value (Heusinkveld, Sturdy & Werr, 2011). On the other hand, the implementation of relevant theories for obtaining a unit of risk measurement requires the construction of mathematical models and their testing in order to establish the best methods or principles that can be applied.

CONCLUSIONS

Starting from the description of the risk, it becomes clear that there are several dimensions that need to be assessed, namely: the probability of occurrence and the level of consequences - impact and severity of impact. It becomes obvious that the time factor must play an important role when we refer to the probability of occurrence of a certain unpleasant event, which is why the evaluation of the frequency of production in a fixed time horizon is mandatory. Neither the identification of risks nor the determination of losses are simple problems for an entrepreneur and it is no coincidence that a strong arsenal is involved in the study of risk, from which the mathematical side must not be missing. Rarely and only with great indulgence can we say that a competent study of risk can be done in the absence of knowledge of a notion that we encounter under the name of probability distribution. In addition, the imperfections of the markets as a result of the emergence of Covid 19, such as taxes and bankruptcy costs, lead to a significant emphasis on the management of commercial risks. For this reason, risk management can increase the value of the company by reducing the probability of bankruptcy. Thus, by identifying risk-generating factors or identifying the origin of significant risks, managers can have an objective tool to substantiate their strategic decisions in order to minimize losses associated with risk factors.

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BIOGRAPHY

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DIGITAL TRANSFORMATION MANAGEMENT - A NECESSARY LUXURY

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ABSTRACT

Today's companies need to be able to be efficient in their core business as well as innovative in their digital technologies. Many companies will radically change their business models during the digital transformation. Thus, digitalization, its technologies and, ultimately, digital transformation have reached great importance in all areas - and will probably become even more relevant in the future. The share in the classic added value will decrease. Therefore, there will be more and more companies that will generate essential parts of their performance in the virtual space, but also the recruitment of human resources will be digitized more and more. The results of the analysis in this paper show that it is important for companies to find the right strategy to dedicate themselves to digital transformation.

JEL: L22, M11, M16, O31

KEYWORDS: Digitalization, Virtual Space, Digital Transformation, Risk Factors

INTRODUCTION

Nowadays, everyone is talking about digitalization and this aspect has contributed to its transformation into a megatrend (Klein, 2020). However, digitization in a narrower sense is initially understood as the pure conversion of the analog into digital data. However, successful companies tend to defend their products and services when the existing business model is threatened by technological developments. Moreover, if digitalisation and digital transformation are so important in many areas and may become even more important in the future, then there must be reasons for this. No company relies on new technologies unless it expects some benefits from them. On the other hand, in combination with digital transformation, data has special roles because it creates an inaccessible added value: customer data has been obtained correctly from the point of view of data protection legislation and is usually surprisingly often quite comprehensive and high quality (Căpuşneanu et al., 2021). This allows companies to perform accurate evaluations and analyzes that end with high quality sales and marketing activities.

Many companies are currently facing the challenge of coping with new digital technologies (Tolstolesova, Glukhikh, Yumanova & Arzikulov, 2021). Anyone with experience and knowledge about these technologies will generally have very good opportunities as a specialist in what is currently a fairly empty job market for IT specialists. Advancing the digital transformation will further fuel this situation in the labor market and intensify competition for IT specialists. Therefore, companies must continue to invest in employees, training and employee retention in general. But if the changes that a company has to react to occur at shorter and shorter intervals, then in the management of employees must insist on encouraging initiative, adaptability and flexibility.

The Need To Adopt Digital Transformation Technologies

The digital transformation technologies that companies have at their disposal are presented in the DIGITAL Economy Monitoring Report

(https://unctad.org/system/files/official-document/der2019_en.pdf). According to the report, any company will be able to use the following technologies to survive in the digital economy:

Big data: consolidating and evaluating large amounts of data from different sources and using them to optimize corporate strategies and processes;

Cloud Computing: use of IT infrastructure via the Internet;

Industria 4.0: intelligent, networked systems with which the entire value chain can be optimized, in the context of this report, also the network between companies and cross-locations of previously individually operated processes or systems;

Blockchain: decentralized shared database containing a growing list of data records about transactions that cannot be modified;

Intelligent services: digitization of services for individuals and business processes;

Artificial Intelligence: software systems that can act independently and learn.

In practice, digital transformation in companies is not usually something that happens quietly in the background of a company (Lee, Kao & Yang, 2014). Companies need to learn to rethink things and get things done quickly. Elevated structures, processes and hierarchies are checked, adjusted or even eliminated. Even the skills that employees and the company have accumulated over the years may become obsolete and new skills may be needed. Thus, everything is examined, but this means greater vigilance for companies when it comes to conservation and renewal. Several authors point out that the digital transformation is about existence: if the changes are not maintained, the company could already be obsolete tomorrow (Hoffmeister, 2015; Klein, 2020; Kirbac & Tektas, 2021). Therefore, companies have no choice but to follow the path of digital transformation if they want to survive in the market. Properly, however, companies can hardly make a reliable forecast of what digital transformation will ultimately cost. It should not be overlooked that the increased use of digital transformation technologies promotes the growth of networks connecting people and companies around the world. Throughout this network, globalization and market transparency are decisively promoted. As a result, companies will survive in the market only if they can develop decisive advantages over others. Some advantages of using digitization and digital transformations for a company are:

obtaining a much larger amount of information about competition, partners and customers;

increasing the competitive capacity because the virtual environment allows companies to access customers, which are traditionally approached only by multinationals;

the possibility of much easier interaction with customers and, hence, much faster adaptation of products and services to customer requirements;

the market no longer has geographical limits.

Consequently, the use of digital technologies can play a decisive role here, as these technologies ensure higher productivity and increased profitability compared to companies that do not rely on these technologies.

New development tools are needed to make it possible to manage the structure of business applications and the complex relationships between modeling, construction and deployment to identify component reuse. In addition, significant benefits from reusing components can be obtained from design and programming, but the latter vision is based on reuse at the time of operation: locating and implementing a service-independent call that is taken over by a component when operating the business application. (or a selected component)

that implements it. In order to exist, the company must be modern and live with current technologies, with a properly prepared workforce, with products demanded by the market, to the liking of contemporary consumers in accordance with the laws and regulations of the public environment. The extent to which a company quickly adapts the company's processes to the concrete market conditions determines the company's agility. A company is all the more agile as it is able to change the offer as well as the attributes of products or services depending on the evolution of the market and the legal, fiscal, economic environment. Because there are no magic formulas to guarantee a successful digital transformation, a few questions remain for reflection: To what extent can companies or management ensure the functionality of the digital transformation? Is it necessary to establish a corporate culture that leaves room for creativity?

CONCLUSIONS

Evolutionary innovation focuses on the gradual introduction of new technologies, while the disruption aims at fundamentally changing the market through new technologies and undermining existing business models. The goal is to show how companies can work to ensure that the digital transformation in their own company is successful. Therefore, companies need to check again and again and, if necessary, even reinvent themselves. Digital transformation technologies will ensure a change of mentality towards flat hierarchies, and communication channels in companies have often been significantly simplified, but technology has also played a role in this development. Due to the increasing orientation of companies' processes, communication will also be more oriented towards business processes than classical hierarchical structures. Digitization and its technologies also give many companies the opportunity to cooperate faster and more efficiently than they did a few years ago. Domestic companies can thus use synergies and jointly provide services that would have been difficult to accept for a single company. Therefore, the provision of services by companies will take place more and more in networked, collaborative value creation systems, and the innovative capacity of employees will become even more important in the next few years. In other words, digitalization and digital transformation are a reality and it will continue to integrate into everyday life, influencing our habits, affecting our attitudes and stimulating certain behaviors of choice and / or consumption.

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CONSEQUENCES OF ELECTRONIC COMMUNICATION IN VIRTUAL ORGANIZATIONS

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ABSTRACT

The diversification of information and communication technologies, the strong improvement of the price-performance ratio, the miniaturization and standardization, the ubiquitous calculation and the unified communication allow new forms of support and control of the performance processes within the organizations. As a result, especially during the pandemic, new ways of internal and inter-company cooperation have emerged, which are discussed in the literature and practice, for example as a network organization, business web or virtual organization. At the same time, information and communication technologies - especially digital media - open up new freedoms and new possibilities for action for informal exchange, especially at the level of employees. In this context, the results of the present study show that informal free spaces that are opened by digital media must, of course, be used appropriately if a new reality of informal exchange and informal work coordination is to be pursued.

JEL: M11, M12, O31

KEYWORDS: Digitalization, Virtual Organization, Communication, Collaborative Work

INTRODUCTION

Information and communication technologies have been the most powerful means of formalizing the operational process and communication processes in the last period of time (Mowshowitz, 2002; Katona, 2021). It is known that in virtual organizations the operational use of information and communication technology and the way it is used are of decisive importance for the respective characteristics of the relationship between formal and informal relations. In addition, different forms of formalizing communication within the organization are: establishing contexts in which informal exchange is explicitly necessary, the natural occurrence of contexts in which communication is considered explicitly legitimate, contexts in which it is tacitly tolerated or even such contexts in which the exchange is deliberately overlooked. All these changes were deeply felt during the pandemic by virtual organizations.

According to the researchers (Majchrzak, Rice, King, Malhotra & Sulin, 2000; Cresswell, 2014), communication practices can be formalized by incorporating them into formal structures. It is not just the degree of formal adjustment of operational processes (determined by organizational decisions). It also depends on the rules, the practices, the actors who implement these processes in their actions. The formal structuring of an operational process with technological means of communication requires the appropriate formal use to become a formally regulated process.

Digitization is therefore a form of formal pre-structuring of operational processes, which complements, extends and goes beyond the formalization of communication that can be achieved through explicitly set rules of conduct and procedural rules for operational activity (Cresswell, 2014). The formalization of the communication and work processes supported by IT can consist, however, in the simple specification of the respective objectives and their processing using information technology. It is therefore necessary to use the term digitization as a generic term that includes all forms of operational use of information and communication technologies, as well as their use as a flexible means of communication.

The Impact of Digital Communication on Workers in Virtual Organization

Most authors believe that theoretical approaches to virtual organization can be divided into two main categories: those that have a predominantly structure-oriented perspective and those that have a predominantly process-oriented perspective (Algesheimer, Dholakia & Gurău, 2011; Zimmermann, P., Wit, A. & Gill, 2008; Kahai, Huang & Jestice, 2012). The perspective focused on the structure focuses on the level of manifestation of the virtual organization, on the constituent elements of the virtual organization and their properties, and the perspective focused on processes focuses on behavior and operations. Thus, in these virtual organizations there is a tendency towards decentralization, de-hierarchization and flexibility of operational processes, which aims to hire employees as experts or specialists. Also, the specific skills and experience of employees who work in virtual organizations and who are close to the action should be used to be able to react in a timely and appropriate manner to the situation and circumstances that are difficult to plan in their complexity.

Therefore, information and communication systems favor the decentralization of responsibility, because the openness and indeterminacy of complex processes of cooperation, often between departments, make it difficult to pre-structure the organization accurately. On the other hand, other authors state that communication through digital media especially during the pandemic proved to be probably the virtual form of informal communication (Katona, 2021; Mowshowitz, 2002). Therefore, the possibility of such cooperation and communication relations is evaluated with skepticism, because it is very difficult to use the technically transmitted information in an appropriate situational way. The central idea is based on the fact that communication and face-to-face discussions are characterized by the social dimension that opens the most comprehensive possibilities to understand the thinking and action of the interaction partner.

In relation to those presented, the virtual communication of employees from a technical point of view is a decontextualization compared to the communication between those present (Ou, Davison, Zhong & Liang, 2010). It is known that the interaction between those present consequently allows opportunities for informal exchange - tacit (social) agreement, spontaneous (temporal) reaction, natural reference to common (factual) experiences - that virtual communication cannot offer. Replacing face-to-face communication with communication using the virtual environment therefore means losing opportunities for informal exchange. At the same time, most studies show that the disadvantages of virtual work may be related to the psychological side, affected by increased routine, overtime or the perception of the number of working hours as higher, decreased clarity of roles due to degradation of information within telecommunications, social support lower from the organization, low social position, fewer career opportunities, misunderstandings due to cultural differences (Cresswell, 2014; Mowshowitz, 2002; Katona, 2021). The advantages of virtual work are: greater work autonomy, more money in the short term (due to decreased need for transport, food and clothing), wages above the market average to compensate for the increased degree of risk and insecurity.

This particular dynamic in virtual organizations is caused by the practices of organizational culture in a constantly changing media environment. This is the complex interaction between technology and application, which can be seen especially in the mediation of symbolic processes (such as communication between employees). However, informal organization, fostered by the new possibilities of digital communication, directs this spontaneity into communication channels of the virtual organization and therefore reduces the specific problem-solving potential that informal exchange has on the spot due to the problem, situation and experience.

CONCLUSIONS

A virtual community can be only an informal structure (especially in the case of communities of interest) but can also be formed on the basis of formal, structured relationships, thus having the appearance of an

organization (in the case of communities of practice). However, these virtual organizations are usually created to add value by giving customers the opportunity to access the same service or transaction via the Internet. Because information and communication technology is such a powerful tool for formalizing operational processes, it is crucial for understanding the changes associated with operational reality in order to be able to identify and thus address the other side of the distinction. Since virtual organizations are based on information sharing and knowledge, there is a need for increased trust between partners, especially due to the fact that each partner contributes with its core competencies.

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MANAGEMENT DIAGNOSIS OF HUMAN RESOURCES IN THE DIGITAL ERA

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ABSTRACT

Recent years have brought a new approach to human resource management and the digitization of HR processes. The digital revolution is making recruitment much more transparent, and information within companies about employee payroll and ranking is much easier to obtain, and the search for talent takes it to another level. There is a need to create a digital human resources strategy, as a key component of the business strategy. This research demonstrates that digitization allows the automation of repetitive processes, regardless of the scale at which it happens to intuit trends in human resource management. As such, companies need to be prepared to meet this complex challenge of planning future workforce capabilities in the digital economy.

JEL: M10, M11, O15

KEYWORDS: Human Resource Management, Digitalization, Digital Employee, HR Processes

INTRODUCTION

The new world of work is characterized by changes and technological possibilities, such as big data, automation, robotics and artificial intelligence. In addition, work processes and content are becoming increasingly digital, flexible, networked and mobile. However, most authors believe that the content of the work and thus the job profiles of some professions will change as digitalization progresses (Chesley, 2014; Palm, Bergman & Rosengren, 2020; Kirbac & Tektas, 2021). This implies that without proper competence in the treatment of digital technologies, the so-called digital competence or digital media competence is no longer possible. Structural changes in the labor market remain volatile to some extent. It is all the more important for companies to involve more and more experienced people. Other authors advocate a digital humanism that is friendly to technology and people (Kossek, 2016; Jamal et al., 2021; Ter Hoeven & Van Zoonen, 2015). At the same time, the human resources department is also facing its own digital transformation and should, at the same time, accompany digital change in organizations. No matter how the effects of digitization will look, it is and will remain that people understand the changes and want and can help shape them.

From Personnel Management to Digital Human Resources Strategies

Thanks to digital technologies, communication and cooperation are becoming increasingly linked not only between employees, but also between the various departments of the company and with customers (Palm, Bergman & Rosengren, 2020). In turn, these changes in cooperation have consequences for the type of leadership, which tends or needs to become less hierarchical and more cooperative. Above all, staff development and training and continuing education in organizations are needed to help educate and promote employees so that people can ultimately help change digital work and the organizational world competently and successfully. The second challenge is the digital transformation of the HR function itself (Jamal et al., 2021). What this means is the digitization of all HR processes, from HR marketing and staff selection to staff evaluation and staff development. Personnel psychology, as a scientific and application-oriented discipline, deals more and more with people in the context of work and organization and is a central basis for the area of human resources in organizations.

The current or future employee is seen as a customer, and the company tries to market itself and its products or services in an attractive way. The purpose of staff marketing is to increase the attractiveness of the employer. This is becoming increasingly important in times of shortage of skilled workers. In this context, it should be mentioned what is known as employer branding, which aims to develop an attractive employer brand. The work of the human resources manager will be redefined by disruptive digitalization trends such as:

mega digital trends, which include: Big Data, the use of their mobile devices and mobile applications, social media, cloud computing;

combining the profession with personal life, in the context of more and more employees present in the virtual environment;

the employee begins to be perceived as the first consumer of the employer's brand.

In addition, a paradigm shift can be anticipated in future recruitment, especially in terms of human-technological organization (Kirbac & Tektas, 2021). From a technical point of view, there is a wider range of digital options for recruiting employees. From an organizational point of view, a change in the role of the recruiter can be assumed, and the recruitment processes could be carried out in the future in other organizational forms. The recruiter's roles are also changing and expanding to become a social media expert, service provider, career counselor, data researcher and trend researcher. Staff evaluations are also becoming more digital. Associated performance management and target agreements have also changed in their approach. Feedback can also be given digitally through an application at any time and continuously and from different perspectives.

CONCLUSIONS

The human resources department is an essential component in any organization. With major responsibilities in recruiting and managing relationships with employees throughout their activity in the company and even years after the termination of their employment contract, complex activities of organizing training and staff development programs and burdened above and compliance with the rules and legal requirements, HR tasks are far from simple. The digital economy has multiple implications at the organizational level, so the HR dilemma will no longer be limited to efficiency. Concerns are expected to shift to the changing nature of the organization and employees, who are increasingly digital thinking and acting. HR will also need the ability to integrate the right people into dynamic organizational contexts and will be essential to help current leaders and employees develop new digital skills to be able to drive transformation. This puts people at the heart of the digital transformation of organizations.

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THE HEALTH SERVICES SYSTEM IN ROMANIA

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ABSTRACT

The expansion of the health services sector is the basis for increasing concerns, on the one hand, for outlining and clarifying the content of phenomena and processes specific to this sphere of activity, and on the other hand, for deepening mechanisms and designing analysis and action tools that characterize the practical approach. profile organizations. This paper aims to highlight certain features of the health services system in Romania. The research results show that the Romanian health system has failed to reduce the gaps that differentiate it from the rest of European countries in terms of quality of health services and health system performance, gaps reflected in the suboptimal levels of health services system.

JEL: C51, I15, M31.

KEYWORDS: Health Services System, Romania, Health Reform

INTRODUCTION

The health system, consisting of all institutions, organizations, units and specific services, has the competence to ensure, through its material and human resources, conditions to protect individuals against the effects of the disease, and allows the development of social actions for prevention, treatment and recovery (Ciumaş C., Făt C.M. & Văidean, 2008). This system is composed, in turn, of numerous subsystems and component structures, between which links and functional relationships are established, which ensure the fulfillment and solution of health care problems for the population.

Summarizing the definitions presented by most authors, it can be concluded that the health service can be defined as the utility obtained by the consumer as a result of interconditioned activities based on the provider-client relationship and which materializes in a physical, mental and social well-being (Vlădescu, Scîntee, Olsavszky, Hernaández-Quevedo & Sagan, 2016; Dumitrache, Nae, Simion & Talos, , 2020). In the last 20 years, the Romanian system has been in a continuous so-called reform process (Zamfir, Dumitrache, Stoica, & Vârdol, 2015). Thus, the reform attempts did not bring the long-awaited improvements of the medical act, the system also suffering from the massive reduction of the number of specialists, one of the main threats to the health of the population is, besides the extremely difficult economic situation, the deplorable state of the medical sector. public health. Therefore, quality assurance strategies in health services in Romania mean a new way of approaching primary health care, focusing on the consumer. This can be achieved by developing integrated primary care services within a medical practice group, which brings together several doctors together with health and auxiliary medical staff.

Analysis of the Health Services System In Romania

Due to the heterogeneity of services in general, and health in particular, many authors have proposed various classifications of them, taking into account a number of criteria, such as: nature and characteristics of services, degree of use of equipment and staff, intensity of service provider - consumer (Bistriceanu, 2002). The grouping on different criteria of the health services allows their scientific analysis, the taking over of some concepts and models specific to the services as a whole, as well as the substantiation of some specific methods, techniques and concepts.

The measure of access to services is an element of equity and social solidarity and a measure of the right of the citizen who pays for health insurance (Vlădescu, Scîntee, Olsavszky, Hernaández-Quevedo & Sagan,

2016). But in addition to access to these services, the extent to which the services provided are of equal quality. the changes at the level of the Romanian health system must be seen, both in terms of the health of the population and in terms of reform in the field.

In Romania, the health reform, by introducing social health insurance, since 1998, aimed at unitary reconstruction of the legislative and organizational framework, payment of services based on efficiency and increasing their quality, ensuring better accessibility of the population to health services, shifting the center of gravity of health services to outpatient care, increasing the quality of medical services, introducing competition between providers and decentralizing the health system, by increasing the role of local authorities, professional associations, funding institutions and the community (Bistriceanu, 2002).

In other words, the analysis of the problems faced by the Romanian health system must also start from the presentation of the health status of the population, which reaches alarm levels at most demographic indicators. In addition, the system has a strong social orientation, with a small collection base, because the people who contribute to the system are few, compared to the beneficiaries of the system. Access to specialized services is conditioned by the recommendation of the family doctor, paraclinical and laboratory investigations are allowed only in relation to the diagnosis and can be prescribed only by certain doctors, reimbursed and free prescription drugs are limited in number of drugs and amount prescribed. In the current pandemic context to ensure a physical and emotional balance at the individual level (Onofrei, Cigu, Gavriluta, Bostan & Oprea, 2021), health services perform the following functions:

the function of health promotion : the steps initiated at macroeconomic or microeconomic level seek in the first permanent information on the means of maintaining health, reducing and avoiding the causes of disease;

the function of disease prevention is achieved by financing various services for prevention and early detection of diseases;

curative function: health services provided by various organizations and medical staff aim to treat various ailments, prevent complications, recover or at least alleviate the patient's suffering;

the health rehabilitation function aims at the recovery of the individual following an illness by providing him with specific services.

Although significant progress has been made in directing the system towards far-reaching reform, many of the features of the old system persist and some vital capabilities have not been created to enable the new system to function effectively. For example, the health care delivery network is heavily polarized towards inpatient care. It should also be taken into account that the Romanian health system is the modified revision of the Bismarck model, having as influences the Semasko and Beveridge models. However, the performance of the Romanian health sector must be measured in relation to four different dimensions: health outcomes; the receptivity of the beneficiaries; fairness and financial protection and its financial sustainability.

CONCLUSIONS

The current state of the attempt to complete the program of reform and adaptation of the National Health Strategy to the standards of the European institutions calls for more effective coordination of efforts to support this process. Consequently, the decision-makers, as a result of their responsibilities and responsibilities, must develop the necessary programs and action plans with a clear specification of the objectives, activities, deadlines and responsibilities involved. At the same time, another major component of quality in the health system is the use of international clinical guidelines, which are algorithms that

provide practitioners with instructions on diagnosis, management and treatment in specific areas of health care. Therefore, a long-term strategy for the health sector is needed; this should combine a measured increase in public funding for this sector with a strong boost to private funding. The strategy should also include measures to increase the efficiency of the health sector, as well as compensatory measures for the poor.

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THE ROLE OF FINANCIAL-ACCOUNTING REPORTS FOR THE NATIONAL HEALTH SYSTEM

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ABSTRACT

Due to the multitude of users and implicitly to the varied need for information, the Romanian National Health System must provide, through financial-accounting reports, an overview of the activity, supplemented by additional information necessary to meet the demand from different users. The results mentioned in this research highlight the need to find new directions in which to develop processes, techniques and other measures that will contribute in the future to streamline the exploitation of accounting information in the Romanian National Health System as a determinant of performance and to build a reputation.

JEL: H51, I15, M41.

KEYWORDS: Financial-Accounting Reports, National Health System, Accounting Information

INTRODUCTION

The role of economic information is to ensure stability in the conduct of an entity's activities (Naranjo-Gil, 2004). The content of the economic information is determined by the multitude of primary data processed, with reference to the resources engaged, to the activities carried out and to the expected results in a performing economic entity. That is why the spectrum of economic information is wide. What narrows this spectrum and channels the informational content to stakeholders in order to substantiate decisions are the characteristics that an economic information must respect. The effectiveness of managerial work in the health system can be achieved through a modern managerial tool, which managers at different hierarchical levels use in their activity (Yoon, 2020). Thus, managerial tools consist of all the appropriate management systems, methods and techniques used by managers at different hierarchical levels. In the organization of managerial work we must start from the fact that the raw material of the manager is information. The economic and accounting information must be as comprehensive, complete, objective as possible, provided periodically, in a form that allows quick and correct decisions to be made, to be presented to management as soon as possible, to be accurate, relevant and to have the lowest possible cost (Busse, Geissler, Quentin & Wiley, 2011). The managers of the health units also need situations through which they can plan an optimal allocation of the human, material and financial resources necessary to achieve the strategic objectives.

Managerial Decisions Based on Financial-Accounting Reports

The accounting information system is defined in the literature as: a set of human and capital resources in an organization that deals with the preparation of accounting information (Cardinaels & Soderstrom, 2013; Valieva, Yarullin, Zhelonkin & Mayorskaya, 2021). In other words, the information system comprises a set of technical and informational means aimed at collecting, processing, storing, accessing and transmitting accounting data and information to the management system in particular. This accounting information is necessary for the management of the entities to carry out the planning and control of their activity. Reporting is a process that allows managers to find out what is happening in health facilities through information circulated in records, reports, research or inspections (Arbab Kash, Spaulding, Gamm & Johnson, 2014). The process of disseminating accounting information must be dynamic, rational, the result of negotiations and compromises between the entity and external factors. The importance of financial-accounting reports

is manifested by their functions: the function of centralizing data and information, the function of informing the activity carried out by the entity, the function of analysis and forecasting. At the same time, the reporting norms represent the reference system in which the services and products offered by the entity must be included. The conceptual framework of accounting is oriented towards accounting information which must give a true picture of the economic reality described by a correct application of accounting conventions. It describes the fundamental objectives assumed by accounting. Regarding the objectives of the financial-accounting reports for the national health system, they are diverse, in a permanent correlation relationship with the users' information needs as follows:

providing the information necessary for making economic decisions;

providing information for evaluating real and potential cash flows;

providing information on how to efficiently manage the resources of the health institution;

providing information about the activities of the unit that can be described and measured.

Therefore, the accounting of economic and financial transactions involves compliance with certain conformities that mark the configuration and sequence of procedures to be followed to accurately reflect the result for the year. Basically, we are talking about the accounting processes carried out throughout the entire year in which the transactions take place, but also about those applicable at the end of the year, when the annual financial statements are prepared and published. The second aspect that has a significant impact on the configuration of accounting information is the specifics of the economic-financial transactions of each economic entity (Fiondella, Macchioni, Maffei & Spanò, 2016). From this perspective, there are a number of freedoms in choosing methods or procedures for accounting for transactions that will reflect their specificity and which, in the context of applying accounting principles, will generate certain models. Those who design and use the accounting methods are subject to the constraints generated by the obligation to comply with compliance and at the same time have some freedoms of action, but also these in an accepted framework.

Hospital managers are primarily interested in the information in the internal activity reports, but also in the information contained in the financial statements, even if they have access to additional financial and management information, which helps them in the planning, decision-making and decision-making processes. Control. If external reports containing information common to all users are to be prepared and presented in accordance with certain general considerations, the form and content of internal reports may be determined by management so as to meet its own needs. The general financial statements meet, together with the requirements of the managers, the requirements of those users who are not in a position to request specific reports. They are intended to provide common information for all categories of users, so they must be developed and presented with their needs in mind.

Accordingly, the modeling of accounting for transactions in the National Health System has various and complex features, determined by the specifics of these transactions, especially those related to customers, suppliers, diversity of relationships with suppliers or outsourcing of services. It follows that we cannot speak of universally applicable models, but of a diversity of models corresponding to the diversity of the economic-financial transactions of each health unit, including from the perspective of the vision and professional competence of their management.

CONCLUSIONS

In the effort to achieve competitiveness, hospital institutions are permanently under the impact of the influence of the internal and external environment, constituted in the main sources of information to be

processed. As such, the thorough organization and efficient use of accounting as a system for informing and assisting managerial decision, correct assessment of the role and place of information sources and diagnostic analysis in management activities while identifying and counteracting risks, are effective ways to ensure increased efficiency in the process of using accounting information.

The analysis of those presented shows that it can be attached to the minimum set of mandatory components for presenting the financial-accounting situation of the hospital institution and a financial analysis prepared by management on financial performance and financial position and on major risks and uncertainties. Such a report presented by management is an opportunity to explain the current financial situation and forecasts of its activity. This report should provide investors, in an ideal situation, with the opportunity to evaluate the company from a management point of view, providing information on both the historical and current situation and its prospects. The management thus has the opportunity to expose the dynamics of medical services in Romania and to analyze the financial statements. In addition, the harmonization of accounting aims at an economic environment in which there are no borders, in which accounting information is comparable between countries and can be used as such by international users. It can be seen that the accounting information market has an increasingly international character, and the users of accounting information are more and more sophisticated. Users can also assess the ability of the unit in the National Health System to generate cash or cash equivalents and the need to use them, using information on changes in financial position.

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THE INFLUENCE OF ORGANIZATIONAL CULTURE ON MANAGEMENT

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ABSTRACT

Within the important changes involved in any effective process of adapting to the competitive environment, taking into account the organizational culture must be an essential component of the management process. The present paper highlights the fact that between the organizational culture and the improvement of the performances of the managerial system there is an extremely close relationship. The conclusions of the study state that a company with a strong, effective organizational culture can be saved from the consequences of an unfavorable economic or social environment.

JEL: G38, M12, M14.

KEYWORDS: Organizational Culture, Performance, Managerial System

INTRODUCTION

Organizational culture is important because individuals act on the values they share, their behavior having a significant impact on the activities within the organization (Balthazard & Cooke, 2004). Another aspect that demonstrates a strong and success-oriented organizational culture is the concern for innovation, by identifying ideas for improving the activity, ideas coming from employees. Managers have the role of fostering increased initiative and creativity among teams and focusing on the company's objectives. The topics of excellence are: quality, costs, deadlines, investments, working conditions, efficiency, environmental protection, IT optimization, initiative and creativity. On the other hand, a particularly important role in ensuring the effectiveness of an organization is played by the specific organizational culture (Strese, Meuer, Flatten & Brettel, 2016). The impact of organizational culture depends on the way in which it supports the achievement of objectives, on its area of penetration among employees, but also on the degree of appropriation and acceptance.

Improving Management Performance and Developing Organizational Culture

Currently, there is a growing need for studies on organizational culture in the conditions in which the current dynamism of the external environment requires major changes in organizations (Jankelová, Skorková, Joniaková & Némethová, 2021). According to studies (Aldulaimi, 2015; Kargas & Varoutas, 2015), some organizations have failed in their work because, although they have adopted the most appropriate strategies, they have failed to implement them due to the inertia of their organizational culture. In managerial practice, it is considered that there is a direct relationship between the organizational culture and the reward system of initiatives. Before supporting the values of the organization, it is necessary not only reward, but also gratitude, interesting work. Thus, many organizations use the reward system to encourage behavior appropriate to that organizational culture. Indeed, business progress begins with creating a culture of leadership throughout the organization. To implement this culture in the organization, first of all, a team of managers must be formed to create the same terms of reference regarding high performance, after which a coaching program must be developed, designed to individually support each manager in high performance language.

Nevertheless, it can be said that a positive organizational culture, which is based on values, such as: care for employees, creating an innovative environment, open to change, care for consumers and providing high

quality products and services, is what plays an important role in the performance of that organization. Organizational culture also influences and changes attitudes, beliefs, and behaviors (Aldulaimi, 2015). If they correspond to the organization's strategy, we can talk about efficiency and performance. Organizations need to develop strong, strategically appropriate cultures that aim to change and adapt to the environment. Thus, many specialists are of the opinion that the success and achievement of established economic and social objectives depend to a large extent on the efficiency of the management of that organization, ensured by a successful organizational and managerial culture (Balthazard & Cooke, 2004; Strese, Meuer, Flatten & Brettel, 2016).

Therefore, the organizational culture, through its elements, also contributes, along with the factors listed above, to increase the competitiveness of the organization. To the extent that organizational culture means respecting norms and ethics, maintaining and improving interpersonal relationships, teamwork, preserving and perpetuating tradition in the field, creating and transmitting the strongest values and beliefs, competitiveness is sustained. Managers, through their activity, must continuously take into account the impact of organizational culture on policies, objectives and improving the performance of the management system. Not taking into account the role of organizational culture means losing, every day, a part of your identity. Organizational culture, through its forms of manifestation (symbols, behavioral norms, rituals, ceremonies, histories, prestige and authority of managers and employees), influences and determines a series of behaviors and attitudes, so that employees can realize their full potential. dispose, in order to achieve the proposed purposes.

In addition, modern management systems try to better align the interests of employees with those of the company, try to reward teamwork, make work more interesting and promote values and norms. In this sense, the role of the organization's managers is extremely important. In order to understand the real reasons that determine employees to achieve high results, it is necessary for the manager to know and explain the starting point of the motivation. What is visible to the manager is the behavior. A manager able to know the expectations and the hierarchy of values of those he works with can influence the behavior in the desired direction, in order to support innovation and creativity. It is more interesting to follow and analyze the content of managerial ethics in the context of the influence of organizational culture on management. This is a relatively young branch of applied ethics that refers to the conduct and actions of managers within organizations and how decisions influence individuals or social groups. Not all managers are aware of the importance of ethically analyzing their own decisions. Often, decisions involve more or less a certain degree of routine, so managers no longer analyze the ethical implications of their decisions. In practice, many organizations conduct evaluations of management decisions to determine the extent to which they comply with ethical standards. There is also the possibility to resort to audits on social issues, carried out by companies specialized in the field.

CONCLUSIONS

The task of organizational culture is to mobilize the energy of employees to meet the objectives underlying the organization's strategies and policies. Managers, through their decision-making role, are those who establish actions and delimit essential behaviors in achieving the objectives within the organization. Regardless of the way in which it is analyzed, it is observed that the organizational culture plays an important protective role for employees, in particular, and for the organization in general. Based on time, the organizational culture structures and imposes values that, gradually, become elements on the basis of which the actions of employees and managers, their behavior and decisions are based. For success, the organization needs both leadership qualities and a great predisposition to what is different. Early recruitment of future managerial talent, career changes through planned transfers to gain experience are steps to ensure that the right people are really available when needed.

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PERSPECTIVES FOR THE DEVELOPMENT OF HUMAN RESOURCES MANAGEMENT IN ROMANIA

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ABSTRACT

In the context of the digital age, it is necessary to redefine the role of the human resources department, which must provide the top management of companies with the necessary tools to react in an increasingly competitive market. Thus, human resource management becomes the main tool and means by which organizations can ensure their competitive advantage, and strategic decisions of managers must reflect in an increasing proportion the commitment to the digital transformation of human resource. The paper presents the strategic role of human resources management which is highlighted by the high degree of integration of human resources strategy in the overall strategy, human resources activities must be understood in close connection with other processes at the organizational level.

JEL: M54, O11, O15

KEYWORDS: Human Resource Management, Strategic Decisions, Digitization

INTRODUCTION

Human resources are unique in terms of their development potential as well as their ability to know their limits (Garavan & McGuire, 2010). They are strongly marked by the time factor necessary to change mentalities, habits, behaviors; they can represent one of the most important investments of the organization, whose results become more and more evident in time; it is a special human potential that must be understood, motivated, trained. In this sense, the managerial practice in the field proves that organizational changes are full of difficulties and pitfalls, involve risk through the unforeseen dose, and often even the behavior of those who strive to accept or make changes generates resistance to change (Obrad & Gherheș, 2018).

Therefore, human resource management contributes to the modeling of human capital so that it contributes to the performance of the organization, and human resource managers in the context of new technologies have been forced to redefine traditional human resource practices, not just the recognition of to some rights obtained by the staff, but also to aim at the insurance promotion and necessary training, balancing salaries in relation to the inflation rate and increasing them in stages or according to skills. Most specialists say that human resources are an essential element for the competitiveness and performance of organizations (Mankin, 2009; Becker & Huselid, 2006; Armstrong, 2014). This importance of human resources gives decisions and management activities in this field a strategic importance, thus being able to speak of a strategic management of human resources.

Human Resource Management Development - Present and Perspectives

Human resource development involves managerial development and providing learning opportunities for managers to increase their ability to work with people, as well as career management, consisting of identifying employee needs, planning and career development for those with potential (Darvish, Moogali, Moosavi & Panahi, 2012). In other words, a better integration of human resources management in the strategy at organizational level is another potential direction for developing resource management in Romanian companies. However, the mere existence of this strategy does not provide stability in human resources. Thus, the managerial strategies applied within the Romanian companies can be characterized in

terms of the following features: difficulties in planning due to lack of vision, lack of innovations and unstable evolution of organizations.

However, lifelong learning and training in the digital age are also becoming more individual, independent and informal (Strohmeier, 2007). On the one hand, this means that employees are increasingly able and willing to organize their own advanced training courses. Digital systems make this possible accordingly. Artificial intelligence, in particular, will be able to support the student more in his individual learning process through so-called adaptive learning systems and learning analysis. And knowledge can often be available for free on the internet or accessed from external providers. The standardization imposed by the European Union will be considered a good gained and appreciated later. Certifications, quality standards, rules and procedures, although initially rejected, will later be assimilated, but without this meaning their implementation. Another interesting perspective for Romanian companies is the fact that skills management is considered an expression of the strategic way of thinking in order to obtain the competitive advantage of the organization. The knowledge, skills and abilities of employees, creativity, individual initiative are the main tools with which organizations in Romania can strengthen their competitive advantage. Moreover, the orientation of Romanian companies towards this direction of action is favored by the use in the process of recruitment and selection of human resources of the criterion regarding professional knowledge or competence.

On the other hand, multinational companies are one of the most important sources for the development of human resources management in Romania, because they facilitate the transfer of managerial know-how. These companies are also considered an established factor, offering salaries much higher than the national average, career development opportunities, training programs, appropriate working conditions and other forms of employee motivation, such as which they can benefit from. From this point of view, they present a high degree of attractiveness for Romanian employees, in some situations they accepting employment in such companies, in positions that do not fully reflect their level of competence, but which offer them multiple development opportunities. , compared to those in domestic companies. In addition, the elimination of the dysfunctions that intervene at the level of online recruitment and selection activity is possible by outsourcing these activities to specialized companies, in order to increase the quality level of human resources that Romanian companies have.

CONCLUSIONS

The human resources area is experiencing its own digital transformation with all of its challenges. These experiences and the knowledge acquired with them can in turn be passed on to the employees and managers in the company. That would be the ideal case for multiplying learning and knowledge in the digital transformation. These different predictions illustrate the uncertainties and ambiguity that exist regarding digital change and its effects on people and work. However, the promotion of investments in the field of human resources represents, for the Romanian companies, the main development perspective in a digital economy as well. The main consequence of increasing the volume of investments in the field of human resources is the promotion of skills management, as an expression of the strategic way of thinking and acting, in order to obtain the competitive advantage. Concluding the development of an efficient human resources management requires a coherence of several activities specific to the field. The use of the full potential of human resources can be ensured only through an efficient management, based on strategic principles, which stimulates their permanent development. In such a report, the status of a good management of human resources increases, and its analysis has major values.

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USE OF CAMPSITES IN NORWAY. WHAT IMPACT DOES CHANGE IN EXCHANGE RATE AND INCOME HAVE?

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ABSTRACT

The price level in Norway is very high and this has put limits on the number of visitors. However, the last decade there has been significant fluctuations in the exchange rate, and this has probably affected the travel pattern. This article will examine this by focus on camping tourism the last twenty years. Furthermore, we want to see how increased income has affected its use, especially tents and caravans. The analysis is based on aggregated annual data. This limits the ability of advanced quantitative methods. This research shows that the use of campsites is sensitive to the fluctuations of the exchange rate. Taking into account the time lags in the planning, this study suggests the elasticity with regard to the exchange rate is above 1.0. Furthermore, a trend is recorded where tents and caravans have become less popular especially among domestic users. One explanation may be income development. The results are relevant for the planning of campsites.

JEL: L83, Z32

KEYWORDS: Tourism, Tourist Inflow, Exchange Rate, Campsites, Income

INTRODUCTION AND BACKGROUND

Camping is a heterogeneous market where it is possible to travel with a low-cost budget, (travel with public transportation and using tents) or stay at luxuries camping huts or arriving by nice campers. Although many offers are aimed at family people, there are also opportunities for younger and older visitors. Staying in campsites is cheaper and more flexible than staying in hotels. Travel and Tourism contributed sustainable to the GDP worldwide. According to World Travel & Tourism Council this part was 8 percent for Norway in 2018 compared to 10 percent of global GDP. There is a rich literature about this issue. However, few papers have analyzed the marked of campsites. Although hotels dominate when it comes to overnight stays, there is a significant proportion of visitors staying in campsites (21 per cent in 2019, Statistics Norway). Statistics from World Travel & Tourism Council show a considerable growth in tourism industry in Norway. The sector's contribution to GDP grows from 6.4 to 8.0 percent from 2013 to 2019. As a comparison, the change in Sweden was 10.4 to 8.2 percent in the same period. This segment growth in 2019 was 4.5 percent in Norway compared to 3.5 globally. Even the sector is dominated of domestic travel spending, there has been a sizeable growth from foreign visitors the last years.

Figure 1. The Compositions of Tourism Stay 2019 and Growth 2013-2019

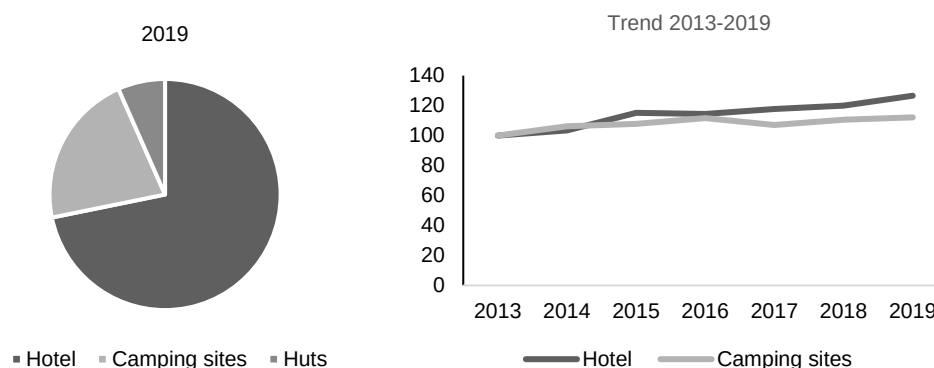


Figure 1, compositions of tourism stay 2019 and growth 2013-2019. (Source: Statistics Norway).

No doubt the hotels are the most important accommodation method for both Norwegian and foreign tourists (Figure 1). Most of the growth since 2013 is related to staying at hotels (26%), but there has also been a significant growth of the use of campsites (12%). The purpose of this paper is to find more about link between currency rate and the use of campsites. Since 2010 the Norwegian currency has varied considerably and since 2013 the value of the currency has fallen markedly. We will investigate how this has affected the foreigners' use of Norwegian campsites. Staying in campsites is less comfortable than staying in hotels. It is interesting to see if the prosperity development has influenced the use of campsites and especially tents and caravans.

THEORY AND LITERATURE BACKGROUND

Camping tourism is an important fragment of the tourist sector (Mikulić et al., 2017). One reason might be the search for a closer contact with the natural environment (Blichfeldt & Mikkelsen, 2015). This form of tourism is flexible and mobile, and one can combine it with recreational interest like mountain climbing or fishing. Although many people prefer to stay by using simple tents. According to Norwegian Law, anyone who wants to, can set up a tent in outfield, i.e. not on cultivated land, and spend the night there. This applies regardless of who owns the area (Low about outdoors. 01.07.1957§9). When, as in Norway, there are opportunities for free accommodation, how can the camping industry survive? One explanation is that there is not enough space to offer a place where one can set up a tent free. Furthermore, customers demand parking space, toilet facilities, activities, service, comfort and opportunities to buy food.

Service and Attractiveness

Important competitive factors are activities, quality, service and comfort. According to Grzinic et al., (2010) the campsites strive to improve the infrastructure and the quality of their services. It is challenging to meet the expectations by today's travelling visitors. With higher standard of living and more experienced travelers, the need and demand for service quality has escalated (O'Neill et al., 2010). The quality issue is an important factor to attract customers and to ensure that they are satisfied. Brunson & Shelby (1990) report different levels of attributes. Firstly, there are necessity attributes, which include minimum standard for satisfying the customers. One must also facilitate the conditions for campers, and embellishment matters. Lee (2020) divides the tourism attractiveness into following categories:

Attractions (natural or man-made)

Accessibility (Internal access like jogging or external access like transport)

Amenities (provision of lodging and catering)
Complementary services (Security and information)

The Importance of Income, Prices and Exchange Rates

Empirical studies confirm economic factors like income, prices and exchange rate have substantial impacts on the demand on tourism (Dogru et al., 2017; Peng et al., 2015; Xie, 2020; Stabler et al., 2010; Xie & Tveterås, 2020). A key factor for explaining the growth in demand in the tourist sector the last decades are increased income and wealth among the consumers. By using Danish data, Jensen (1998) have estimated price- and income elasticities. It is not easy to determine the value of income elasticity with high precision, but he suggests in general the income elasticity is substantial higher than one for foreign visitors. Crouch (1996) hinted the income elasticity of international tourism is around 1.5. Peng et al. (2015) confirm high values on income elasticities, but they emphasized significant variations depending on the seasons, by origin and travel destinations. Hence, there is a wide range of income elasticity values.

There is substitution between different kind of accommodations, and this might have impact on the income elasticities. When the tourists become richer, they can afford to stay longer, consume more, and have a higher standard of accommodations. This will have impact on the demand for campsites, especially use of tents and camping wagons. The income elasticity for using campsites might therefore be lower than for staying at hotels, but there seem to be few studies about the issue to compare the income elasticity of hotels and campsites. Crawford (2007) suggested that the income elasticity for camping might be rather inelastic. If so, an increase in income has small impact on the demand. Brox and Kumar (1997) reported recreational camping might even be an inferior commodity. It means the demand declines if the income increases. Higher income implies less demand.

The demand of international tourism depends on relative prices between different destinations. Therefore, the exchange rate is an important factor. The growing competition between different destinations has caused an increase in the range of alternative attractions and availabilities. The results have been more price-sensitive tourists than in the past (Peng et al., 2015). Jensen (1998) reported a significant price elasticity below -1.0. But the research documented a huge range of price and exchange rate elasticities (Stabler et al., 2010). According to Dypedal et al. (2003) foreign tourists must cope with a high price level of goods and services in Norway compared to other countries. This is a key problem for attracting visitors. Due to high price level, many prefer to stay in other countries for instance Sweden. Lower value for the Norwegian exchange rate can help to lower or eliminate this price gap. Data from Canada (Chadeeand, & Mieczkowski, 1987) showed that one percent depreciation of the currency was corresponding to 1.26 percent increase in foreign tourist flows. Previous research shows a substantial variation of the impact of change in the national currency. For instance, Agiomirgianakis et al. (2014, 2015) reported a considerable stronger effect. One percent appreciation of the exchange rate reduced the tourist arrival with 6 percent in Turkey for the period of 1994-2012 and around 5 percent for Iceland (from 1990 to 2014). The level of the currency is the key factor to explain the extend of tourism in Iceland (Rannversdóttir & Jóhannsdóttir, 2019).

Most of the studies find that exchange rates have a significant impact on the tourist flow. The connection between changes in currencies and visitors and depends on the kind of tourism and the destinations. It explains the mixed results. Studying the tourist inflow into Czech Republic and Croatia, Vojtko et al. (2018) concluded the tourist response of one percent depreciation of the national currency varies between 0.22 and 3.26 percent. Increased value of the currency leads many visitors to prefer shorter stay and cheaper accommodation (Fleisher & Rivlin, 2009). This can especially be the case for high cost destinations. Since most of the visitors have planned, booked and paid the accommodation in advance. The values when the decision was taken, may therefore be more relevant than the actual values of tourist consumption (Stabler et al., 2010). Due to lack of information about future changes the expectation of changes will not be an important factor. Aalen et al. (2019) report a time lag of between four to nine months for response

of change in currency rates in hotel stays in Norway. They estimated the price elasticity for holiday travelers to be around minus 1.6 percent.

Besides of price elasticities and exchange rate elasticity, the time cost elasticity is an important factor for determining the demand. This elasticity is related to the fact that every holiday trip is an alternative cost similar to the welfare and traveler would have received by choosing the best alternative option. The time costs will naturally vary with the traveler's age and life situation. The tourism market consists of different market segments. How to carry out the segmentation will depend on the purpose of the study. A dividing in different sections will give different elasticities. Stabler et al. (2010) described that for some travelers there might be a close relationship between past and current destinations due to information and habits. For other travelers the corresponding correlation is negative since one is seeking new experience.

METHODOLOGY

Research Questions

Based on the previous research we postulate two research hypothesis:

*There is a strong relationship between currency and tourist inflow to campsites in Norway.
Over time, the proportion of travelers staying in tents or caravans goes down due to higher incomes and more alternatives.*

Since we operate with aggregated data, there are limitations in the ability to quantify the exchange rate elasticity. Even so, we will make some suggestions.

Sample and Methodology

The sample is based on administrative data publicly available in official statistics at Statistics Norway and the Central bank. The data are at an aggregate level. This limits the possibility of behaviour or microeconomic analysis and advanced statistical methods. Possibilities were further reduced because the figures from 2010 to 2012 are not comparable to subsequent years, i.e. 2013 to 2019. Hence there are too few observations for regression models. Therefore, we have another approach in this paper by applying unsophisticated statistical methods (correlation coefficients between key variables etc.) This research focuses on trend development and characteristics of campsites. The analysis is based on public statistics from Statistics Norway. For research question number 1 and 2 we are applying data from 2000 to 2019.

Descriptive Data

There has been a substantial change in the composition of stay at campsites (Figure 2). Numbers of season contracts increased from 2000 to 2014, and after 2015 there has been a considerable fall. A season contract means the expenses are paid on seasonal basis and regardless of actual use of the camping site. There is significant variation of use of tents/caravans from year to year. From year 2000 to year 2013 the trend was a decrease in the use of this form of accommodation, but from 2013 there was a substantial increase in the use with a peak in 2017, and then fall back again. Otherwise, one noticed the rise in using campers.

Figure 2: Composition of Stay at Campsites 2000- 2019

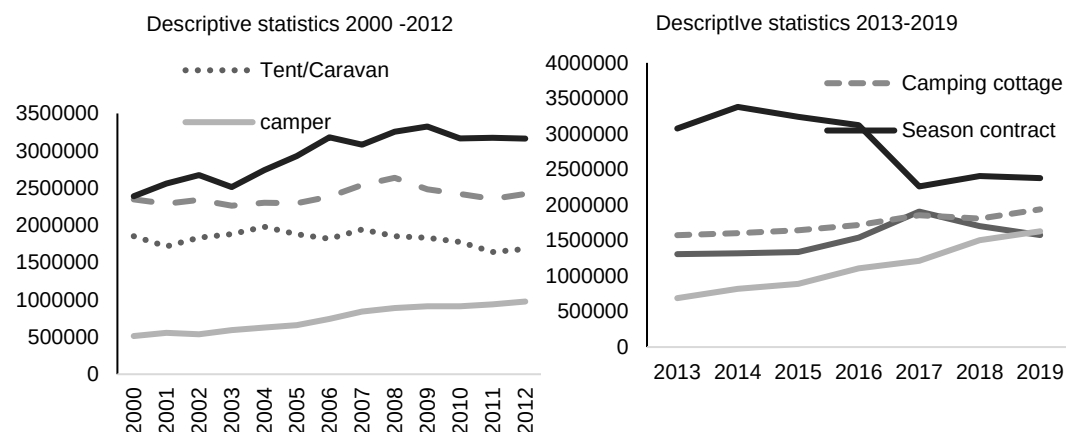


Figure 2, Composition of Stay at Campsites 2000- 2019. 2000-2012 And 2013-2019 Is Not Comparable Due to in the Way of Registration. Therefore, the Figure is Divided into Two)

Figure 3: Seasonal Composition of Stay at Campsites

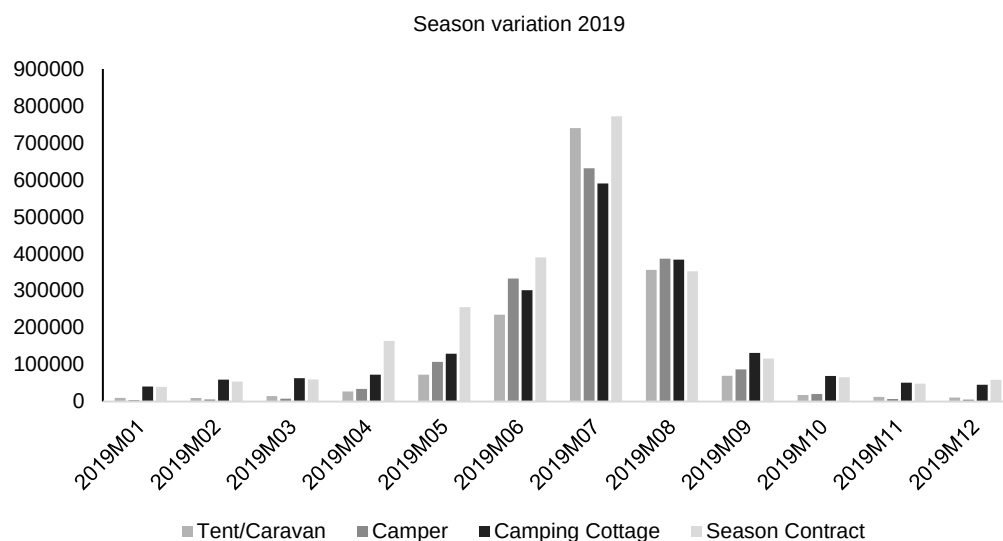


Figure 4: Domestic and Foreign Visitors Campsites 2000.2019

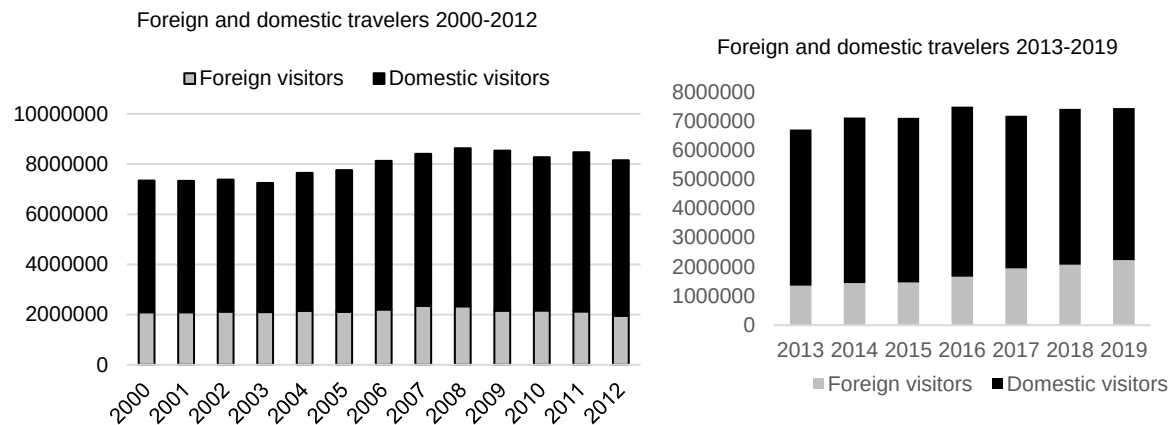


Figure 4: Domestic and Foreign Visitors Campsites 2000.2019 (2000-2012 and 2013-2019 Is Not Comparable Due to in the Way of Registration. Therefore, the Figure is Split into Two)

The stay at campsites is very seasonal regardless of the type of accommodation (Figure 3). The explanation is the climate and when people take vacation. There is a peak in July, and there is a considerable use if the campsites in June and August. The rest of the year there is a lot of spare capacity and many campsites are closed. The domestic tourists dominate as visitors at campsites. The proportion was quite stable around 75 percent from 2000 to 2015. Notice, the numbers of domestic visitors have decreased the last years. Despite this, the number of overnight stays at the campsites has not fallen. This means that the increase in foreign demand has occurred at the same time as domestic demand has declined (Figure 4).

FINDING AND ANALYSIS

The Connection between Currency and Tourist Inflow for Campsites.

Figure 5: Currency and Foreign Inflow From 2000 to 2010

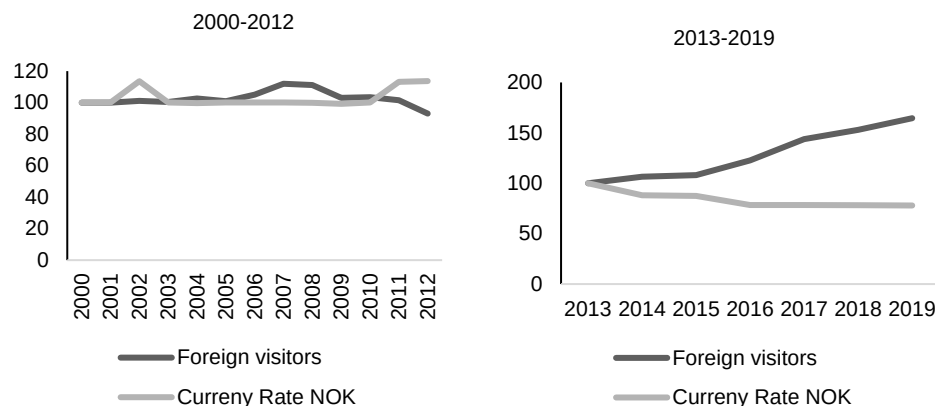


Figure 5: Currency and Foreign Inflow From 2000 To 2010. The Inflow of Foreigners Was Stable with Almost No Change from One Year to Another

So was also the exchange rate of euro (ca. 8.00 NOK), except for 2002. The value of Norwegian Krone was so strong this year with a value of euro around 7.50. However, there was no fall in the foreign inflow this year. The reason might be that the strong currency was only temporary and was not expected. Due to the time lag, the decision to travel to Norway was probably to large extent taken before the appreciation of NOK. Another factor may be that the summer temperature this year was higher than normally, and this could attract extra visitors. Notice, there was a slightly increase in in foreign travelers in 2007-2008 (Figure 5). One reason might be the pleasant summer weather especially in 2008. Despite the international finance crisis 2008-2009, tourists were still coming to stay at Norwegian camps, but there was a substantial fall of 7.5 % in numbers overnights from 2008 to 2009. Due to the time lag, this makes sense. Even the finance crises started in 2008, many were determined to have their holiday in Norway. This was probably planed months in advance. The worse economical did there have minor impact on the vacation in 2008. But the crises were a reality in 2008, this had probably a considerable impact on the inflow of foreign tourist. This explain the decrease in foreign visitors from 2008 to 2009.

The appreciation of NOK after 2010 was expected and to last due to higher oil price and this caused good prospect for the Norwegian Economy since it is closed related to oil price. Even so there were only minor changes in visitors in 2011 (because of time lag), but in 2012 the fall was around 10 percent. From 2013 to 2019 the number of foreign overnights at campsites increased with 65 percent (from 1.35 million to 2.23 million) while the value of euro changed with 26 % due to depreciation of NOK (from 7.81 NOK to 9.85). The main reason for the depreciation of NOK was the considerable fall in oil price in 2014 and the price stayed low the whole period 2014 - 2019. The rise in number of visitors measured in percent twice as high as the fall in the value of the Norwegian currency. This indicates the exchange rate elasticity is significant above 1.0. By a partial comparison, we suggest the value to be around 2.0. There is also a strong correlation between the two variables (Pearson correlation coefficient is 0.891 and with significant level of 0.007). Due to aggregated data, this is an uncertain estimate with low validity and reliability. To get a better predictor, better data and more advanced methods are needed.

The nominal exchange rate matters, but a key factor is also the price level and the real exchange rate. It means one must take into account the development of the price level in the origin country and the visited country. Change in real exchange rate is change in nominal exchange rate plus inflation abroad minus domestic inflation. Table 1 compare the development for Norway and Germany since many visitors are German. It is based on the figures presented in Dybedal (2003) for 2000. Then the price level in Germany was 698 compared to 1000 I Norway. Hence, visitors experience Norway as expensive. Table 1a) shows the development in the euro exchange rate and the consumer price index since the year 2000. Despite higher inflation in Norway than in Germany from 2000 to 2010 (22.1% vs. 16.8%), the euro rate went down. As a result, German guests face even a higher price in Norway than Germany in 2010 compared to 2000 (Table 1b). This is important factor in understanding the level of foreign visitors during this period. Since then, the development has changed in favour of the Germans. While the price level in Germany accounted for 65.9 per cent of the price level in Norway in 2000, the percentage was 72.6 in 2015. This percent rose further to 79.9 in 2019. Although inflation from 2000 to 2019 has been significantly higher in Norway (46.8%) than in Germany (31.8%), the real euro exchange rate has been higher due to a weakened nominal exchange rate (NOK).

Table 1 A): Development of Prices and Exchange Rate in Norway and Germany with 2000 as Basis

	2000			2010			2015			2019		
	Exc rate	Inflation	Price NOK	Exch Rate	Inflation	Price NOK	Exc Rate	Infla-tion	Price NOK	Exc Rate	Inflation	Price NOK
Norway	1,0	100	1000	1	22,1%	1221	1	32,5%	1325	1	46,8%	1465
Germany	8,11	100	698	8,01	16,8%	805	8,95	25,2%	964	9,85	31,8%	1117

Table 1b): Relative Price Level Norway and Germany

	2000	2010	2015	2020
Norway	1000	1000	1000	1000
Germany	698	659	726	799

The relative price or cost level has increased from 69.8% to 79.9% in the period 2000-2019. In the longer term, the development of the relative cost is an important explanation factor in illuminating the development of the tourist flow. In terms of inflation itself, there are small changes from year to year, while the nominal euro exchange rate can fluctuate a lot in the short term. Therefore, a weakening of the domestic exchange rate can affect the demand in the short run. It attracts more visitors. According to Stabler et al. (2010) many tourists decide under lack of information. This can contribute to a larger focus on changes in the nominal exchange rate than inflation rate in short term. The result in this analysis may indicate this effect. A depreciation of NOK implies that it will be more expensive for Norwegians to have vacation abroad. Therefore, one could expect higher domestic use of the campsites. Our data do not indicate such a connection and this issue has not been analyzed more closely in this article.

The Link between Travelers Staying in Tents or Caravans and Economic Growth

The economic growth of GNP in Norway from 2000 to 2019 was 35 percent. It means the annual rate is between 1.5 and 2.0. This explain some of the growth within the domestic tourist sector where growth has been stronger in segments other than camp sites. There have also been significant changes in the mode of accommodation at the camp sites. The proportion who arrive in campers or overnight stays in cabin cottages have risen steadily during this period (see Figure 2). In this section we will investigate if there is a link between prosperity and the use of cabins/campsites. By partial comparing of those two variables, other factors that simultaneously might have impact to this relationship are being neglected. An alternative to GDP is to use GDP per capita. Since there has been some population growth, the economic growth rate would have then been slightly lower. An interesting period to study is from 2000 to 2010 since there was steady economic growth and quite stable exchange rate and proportion of foreign tourists (Figure 5) and it was low compared to the domestic visitors (Figure 4). It makes it easier to analyze how the domestic growth affected the use of tents and caravans. During this period, GDP increased by 17 per cent and the number of overnight stays using a tent/camper van fell from 1.85 million to 1.77 million (Figure 6). The proportion who used this accommodation method at the campsites dropped from 26 per cent to 21 per cent. This shows that this form of stay has over time become less attractive. An important factor is the development of prosperity. Customers demand more comfort and the campsites answer to this is to build more camping cabins and providing space for campers.

Figure 6: Growth in GNP and Use of Tents and Caravans At Campsites From 2000 To 2019

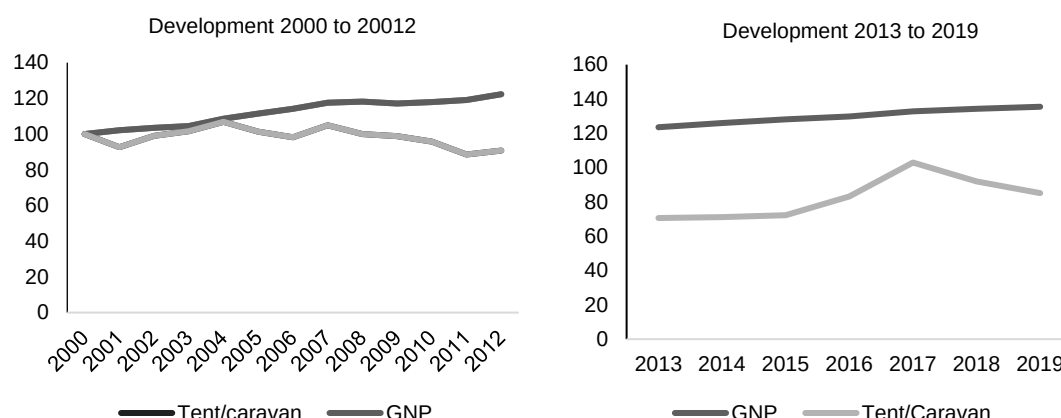


Figure 6: Growth in GNP and Use of Tents and Caravans At Campsites From 2000 To 2019. (The Vertical Axis Measures The Level Based on the Basis of 100 In Year 2000, 2000-2012 and 2013-2019 Is Not Comparable Due to in the Way of Registration. Therefore, the Figure Is Divided into Two)

This may indicate that the demand for overnight stays with tent/caravans is inelastic or even an inferior good in related income. Demand of this segment falls as income rises. Much of the same tendency with decline in use of tents and caravans also applies after 2010 (Figure 6). However, the development is uneven. This is a significant fall from 2010 to 2012. But, in the period 2014 to 2017, the spending of tents and caravans increased and then fell again. It is not easy to give any good explanation for this, but two factors that can contribute are the numbers of foreign tourists and the use of season contract. In the period 2010 to 2012 there were fewer foreign tourists, while after 2015 there has been a large increase (Figure 5). Foreign visitors have probably different preferences than domestic visitors. Foreigners experience Norway as an expensive country to visit and this can lead them to search to a greater extent for cheaper accommodation. A lot of customers with season contract use probably caravans. The fall of such contracts after 2015 (Figure 2) might have impact on number registered customers using tents/caravans. Notice, there is also an increase in the use of season contracts from 2000 to 2010 and this may be a contributing factor to the fall in the use of tents/caravans during this period. Therefore, one should be careful not to draw clear conclusions in this study. However, the overall impression is that tents/caravans have become less popular in the period from 2000 to 2019 with an absolute drop in registered use of about 20 per cent (Figure 6).

Limitation

The data are at an aggregated level in a limited period. One depends on available statistics. This set limitations of using statistical methods and to draw conclusions about the use of campsites linked to price, exchange rate and income.

CONCLUSION

In the period 2000 to 2019 there have been large fluctuations in the exchange rate and a significant increase in income. This analysis indicates those factors have impact on the use of campsites. The study suggests that a fall in the domestic exchange rate of one per cent leads to an increase in foreign visitors to the campsites of more than one per cent. In other words, the currency exchange rate elasticity is more than one. During the period there has been an increase in the use of campsites, but at the same time there has been a decrease in the use of tents and caravans. This may indicate that the development is moving towards more lucrative overnight stays also at the campsites and that tents/caravans are losing ground. An important factor is probably the development of prosperity.

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THE FACTORS THAT IMPACT THE EFFECTIVENESS OF HUMAN RESOURCES MANAGEMENT

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ABSTRACT

There are numerous factors that contribute to the evolution of the personnel function and to the constitution of the human resources management through the preoccupations that it determines related to: the scientific organization of the work; the evolution of qualifications; the existence of overstaffing of workers; organizing the work schedule of the workers; establishing the socio-economy. The results of the analysis highlighted the fact that human resources management aims to increase the efficiency of the enterprise by capitalizing on its human potential.

JEL: M54, O11, O15

KEYWORDS: Human Resource Management, Personnel Function, Factors

INTRODUCTION

Personnel policies have undergone a change in their content as the conceptions of the relationship between man and his work have evolved, especially in recent years due to digitalisation (Stacho & Stachova, 2015). It should be emphasized that many authors have highlighted a number of aspects related to the recognition of human belonging to a social group and the consideration of his professional, intellectual, psychological motivations (Williams, 2013; Mankin, 2009; Armstrong, 2014). However, at the center of his concerns the psychological theory of organizations has highlighted issues related to: interpersonal communications in terms of the effects of different communication networks, obstacles and distortions that occur; informal relations, respectively those that are not provided in the official organization; psychosocial phenomena that occur in small groups and social conflicts.

Following various psychosociological analyzes and factors influencing the effectiveness of human resource management, it has emerged that the relationships between people in their work are extremely varied for at least two reasons: work itself differs from one worker to another; diversity of human motivations (Williams, 2013). Thus, the motivations of individuals are very diverse, being related to the nature of their aspirations, their personality, socio-educational context, work environment, cultural level and income. In addition, this heterogeneity of motivations raises in front of the company problems regarding the establishment of different variants of social policies, differentiated according to the categories of workers.

The Role of Analysis the Evolution of Human Resources Management

During the evolution of human resources management, four stages can be individualized in the evolution of the personnel function, which correspond to different policies of the company management in relation to workers, representatives and their organizations, respectively: liberal phase, psychosocial phase, contracts stage, stage of integration (Armstrong, 2014). These stages also represent stages in finalizing the content of human resources management. The liberal phase corresponds to Taylor's system and is characterized by an individualistic approach from an economic, legal and social point of view (Dessler, 2005). The salary differs in relation to the intensity of the labor demand from the enterprises and the labor supply from the workers, reaching a balanced salary. Socially, workers are considered to have exclusively physiological characteristics, and the motivations are purely material in nature. Due to these characteristics,

the liberal phase aimed to determine the way of salary so that the salary is as significant as possible. The psychological phase aims to develop personnel policies to humanize work, paying special attention to the psychological characteristics of individuals, and the Contract Stage starts from the fact that both the internal climate of the company and the efficiency of workers can be improved, by reducing the number of sources of conflict over a given period, as a result of commitments in collective agreements signed by unions (Becker & Huselid, 2006).

The integration stage, parallel to the specific elements of the contract stage, according to contemporary personnel policies, seeks possibilities for staff integration (Mankin, 2009). In terms of human resources management, integration is defined as the totality of procedures, methods and techniques that aim to bring together or coincide, in their compatible and complementary content, the individual interests of workers with the company's objectives. As methods, techniques and procedures for integrating employees in the general policy of the company are: management by objectives, employee shareholding, employee interest systems, quality circles, identification of a company culture, development of a company project, training and training system. professional promotion. During these stages, the personnel function evolved, but at the same time it was impacted by a series of factors (Darvish, Moogali, Moosavi & Panahi, 2012) such as: the improvement of the working conditions must be of priority concern to the managements of the economic units, so as to ensure the facilitation of the work, conditions of security and hygiene of the work;

developing the attitudes and culture of an organization;

the degree of manifestation of authority and personal attributes of the leader;

the necessary supervision from the supervision and management staff;
coping and defense mechanisms of the individual.

On the other hand, in the conception of human resources management, the personnel function of the enterprise has a double purpose:

achieves the integration of social objectives in the general objectives of the company, by correlating the needs of human and social development with economic restrictions;

coordinates different aspects of the actual management of human resources; in this respect, the following subdomains are specified in the specialized literature: personnel administration; personnel management, calculation of personnel costs; vocational training; social development; information and communication, improving working conditions.

Summarizing the above, even if it is done on an empirical level or even if managers are not aware of them, human resources activities are ubiquitous in any organization, regardless of its size.

CONCLUSIONS

It is considered that the objectives of human resources management are part of the objectives of the organization and are subordinated to them. Today the relationship between the objectives of human resource management and the fundamental objectives of the organization are much more complex than a simple relationship of subordination.

In the conditions of an unprecedented technological progress and an intensification of the competition, the theory and practice of the management formulated a new approach vis-à-vis the management of human resources. Thus, in the general management of the organization, human resources are evaluated as the most important resources, and the development of their potential as an important strategic task in order to achieve

business success. Human resource management is the natural consequence of this concern and consists of a series of activities designed to influence the performance of the company's staff.

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CONFLICT MANAGEMENT - METHODS OF SOLVING DIVERGENCE

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ABSTRACT

Today, the modern perspective on conflict is based on the idea that the success of the organization does not depend entirely on its structure or the clarity of the tasks set, but on creativity and adaptability. In addition, from this perspective on the organization a conflict is a response, an indicator of how things are going in the organization. Very few existing models distinguish between conflict resolution strategies and the consequences of applying these strategies in conflict situations. The paper presents the synthesis of conflict resolution methods emphasizing the importance of selecting a suitable conflict resolution strategy.

JEL: D74, M54, O15

KEYWORDS: Human Resource Management, Strategic Decisions, Conflict Management

INTRODUCTION

It is a recognized fact that conflict management is one of the most difficult tests for managers and for the validation of their professional qualities. Thus, one of the important tasks of the human resources manager is to learn the necessary knowledge to be able to manage the conflict and to maintain it at optimal levels, which will ensure the efficiency of the company or the structure it leads. On the other hand, a new perspective on conflict, much more balanced and weighted, has begun to take its place among conflict specialists and theorists. This (conflict) is no longer seen only as a negative process, which must be eliminated as soon as possible, but also as a factor in stimulating the positive energies of the parties involved in the conflict. Therefore, in the new sense, conflict can have both destructive and constructive effects. Based on these observations, resolving the conflict involves identifying the factors behind the conflict and the ways in which the conflict can be resolved, while the settlement of disputes is concerned only with the finalization of discussions on disagreements between the parties. Therefore, the purpose of conflict management is to intervene in such a way that the effects of the conflict are as beneficial, constructive as possible.

Conflict Analysis From a Human Resources Perspective

There are several theoretical approaches to the typology of conflict, the most common of which is that which defines the conflict according to the effects it generates. Thus, functional or constructive conflicts are those conflicts whose effects lead to increased performance, and maintaining these conflicts at a controllable level leads to better staff motivation. Also, dysfunctional or destructive conflicts are those conflicts that harm the organization and create difficulties in achieving its objectives. On the other hand, most managers believe that all conflicts must be eliminated regardless of their type. This approach to conflict is due to the traditionalist way of understanding the rules of harmony. According to these norms, the conflict must be eliminated completely, especially as labor conflicts are generated by the dissatisfaction of the professional interests of economic and social character of the employees. Employees and units have the obligation to resolve labor disputes through good understanding or through the procedures established by law. All conflict theories can be conceptualized and classified as follows:

theories of individual characteristics that explain the conflict in terms of the nature of the persons involved in the conflict;

structural theories understand conflict as a product of the way society is formed and organized;

procedural theories see in conflict a process of social interaction between individuals and groups;
formal theories try to understand the conflict in mathematical and logical terms.

However, the analysis of conflict management was made from several perspectives depending on the way in which the sources of the conflict were viewed, namely: intrapersonal conflict management; interpersonal conflict management and interdepartmental conflict management. Regarding the management of intrapersonal conflict, two solution strategies are used: cognitive strategies and behavioral strategies. Cognitive strategies aim to control the negative feelings associated with a conflict, which allow the person involved in the conflict to exercise their activities and include: repression, fantasizing or even denying reality and rationalization. In contrast, behavioral strategies include the following strategic reactions: escape, retreat, and aggression. Although an organization has a relatively stable framework of human interaction (due to the relationship rules imposed by an organization), interpersonal conflict is a pervasive element of its life. Under these conditions, the techniques of intervention in an interpersonal conflict are closely related to the above assumptions and include the following:

procedures that refer to the perceptions of the parties: identification of problems, definition of alternative ways; designing possible solutions;

procedures that refer to information: increasing the frequency, openness and accuracy of communication in the organization;

interaction procedures: providing observations on the process to help the parties involved in the conflict become more effective, conceptualizing the steps that will need to be followed to resolve the conflict.

Conflict between departments is a direct consequence of the differentiation and complexity of activities in an organization. In order for a conflict between departments not to turn into a destructive one, it is necessary for the management to have at its disposal methods through which it can manage these conflicts, such as:

avoiding conflict by physically separating departments;

trying to reach a compromise between the representatives of the departments involved in the conflict;

appealing to a third party outside the organization to mediate or arbitrate the conflict.

However, all the methods presented also have limits, despite their operational utility in managerial practice. Therefore, specific conflict situations are resolved but the causes that led to these conflicts are not eliminated.

CONCLUSIONS

In conclusion, the issue of conflicts extends over most organizational theories. Most people understand that both facets of their interaction - harmony and conflict - mark social interaction. Therefore, conflict is the engine of stimulating relationships in an organization. It challenges creativity, stimulates innovation and encourages personal development and improvement.

Although the progress made in the study of conflict has been significant, there is still a need for systematic theorizing and research into the causes and conditions underlying conflicts, both at the social and organizational levels. Therefore, in the end, it is up to people's mentality when dealing with conflict

situations. It must be concluded that tolerance and communication are the factors of success for relationships between people to add value to the organizations in which they work and that conflict resolution is a group process.

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INFORMATION SECURITY RISK AUDIT IN ORGANIZATIONS

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ABSTRACT

Information protection has become a significant concern for many organizations. Establishing a security program is the process by which security is provided to the company. It involves five steps: establishing the main steps and the staff responsible for ensuring security, defining the requirements for improving security, informing staff about the security measures imposed, auditing and monitoring security. The auditor should verify the extent to which existing controls in the organization ensure the confidentiality, integrity and availability of information resources. This paper focuses on the importance of the audit service from the perspective of determining security risks and compliance with the minimum security requirements imposed by industry standards.

JEL: M42, M48, O33.

KEYWORDS: Security Risks, Audit, Cyber Threats, Risk Factors

INTRODUCTION

The problem of security is felt today as an acute need, although its implementation often occurs as a result of significant data loss, fraud or information theft (Bozkus Kahyaoglu & Caliyurt, 2018). In this context, it is necessary to realize that the security of information systems is primarily a human problem and not a technical one, which requires awareness and motivation of the human factor in this regard. Security control ensures the protection of the organization against unauthorized access to the organization's resources, both by its employees and by the people outside of it (Hong, Chi, Chao & Tang, 2003). Thus, the audit follows the existence of concrete measures regarding: the confidentiality and integrity of communications and data; confidentiality and non-repudiation of transactions; preventing, detecting and monitoring unauthorized access to the system; management and administration of the computer system or any other activities or technical measures undertaken for the safe operation of the system. In most cases, the information presented in the audit report represents aspects that lead to the danger of the security state of the system and that can lead, under certain conditions, to the non-observance of the optimal security conditions. The preparation of the audit opinion and of the audit report is performed by documenting the operations undertaken within the audit mission and performing the tests undertaken as well as the results obtained.

General References Regarding Security Risk Audit

Security is not perfect, no matter what measures are taken. There will always be an unthinkable loophole through which the system can be attacked. Security is a protection of the information and processes of an information system against disasters, human error and fraudulent manipulation so that the impact on the organization is minimized (Onwubiko & Lenaghan, 2009). The requirements of information technology security are often reflected in the following terms:

assurance: the fact that the system works as expected, meets the requirements of users;

identification / authentication: the process by which the computer recognizes the presence of a potential user of the system;

responsibility: users are responsible and must justify their actions;

access control: access to information resources may be restricted to different categories of users;

securing the electronic transfer: by ensuring the confidentiality, integrity and authenticity of the transmitted message and its non-repudiation;

continuity of services: ensures the availability of data and processes of system users.

All these properties can be accomplished by using public cryptographic keys (Hong, Chi, Chao & Tang, 2003). Today, special attention is paid to the development of legal standards and rules for resolving the main weakness of public key encryption systems – joining a public key of a user with that user's identity. The auditor should verify the extent to which existing controls in the organization ensure the confidentiality, integrity and availability of information resources (Pereira T. & Santos, 2010). Confidentiality is intended to protect information against unauthorized access. The most important aspect in this case is the identification and authentication of system users. The integrity of the information refers to its protection against unauthorized changes (accidental or intentional); unauthorized access to the organization's strategic information often leads to fraud. But availability means ensuring the accessibility of the computer system whenever authorized individuals within the system request it.

Another important activity carried out by the auditor during the missions is penetration testing at the level of the internal infrastructure and of the one exposed in the Internet (Frost & Choo, 2017). Thus, the purpose of an external penetration test is to identify, evaluate and fix security vulnerabilities that could affect the external interface of the IT infrastructure, which could lead to compromise of access control systems in the system and implicitly allow unauthorized access to data and company internal information. At the same time, the internal penetration test reveals vulnerabilities in the internal infrastructure and offers recommendations to counteract them in order to create a solid and secure internal network, without compromising its use. The auditor will also verify the system of restrictions imposed by the network administrator – a system that must ensure an adequate filter of users in data processing and last but not least, will analyze the network design and security tools used within it. It refers to the methods by which an authorized user accesses files, directories, ports and even protocols. In this sense we can speak on the one hand, of an access control in the system (physical control), and on the other hand of an access control to its resources (logical control). In order to meet current and future cyber security challenges, good user access management requires knowing at all times who has network access, what is it doing, how long has it been accessing system resources. Users' access to a system requires its identification, authentication and authorization in the system. The auditor will check that procedures are established for their periodic change, and that the confidentiality and transparency of the passwords, plus the access to encrypted files is being protected.

CONCLUSIONS

The integrity of the information held by a company is vital for that company to survive, to develop and, at the same time, to ensure a closed and secure circuit of the flow of information within the organization. During the audit missions, a number of vulnerabilities were found, such as incorrect management of user rights by the network administrator, failure to disconnect users after a number of failed logins, incorrect password management, inefficiency of the user control mechanism, lack of a logbook, lack of memorizing the last successful or unsuccessful login, the lack of a file access control system depending on the level of authorization that can lead to unauthorized access, and improper access to network resources. Internet network vulnerabilities can also lead to surprise attacks by network users leading to unauthorized access to the private network with the necessary consequences. The auditor of such an organization, who uses Internet

services, will verify the existence and configuration of specific tools such as: firewalls, VPN (Virtual Private Network), intrusion detection tools (Intrusion Detection System), encryption techniques and PKIs..

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PRACTICES FOR ASSESSING INFORMATION SECURITY RISK IN ORGANIZATIONS

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ABSTRACT

It is unanimously accepted by information security experts everywhere that risk assessment is part of the risk management process and the security policies applied. This paper analyzes the way in which the information security risk assessment harmoniously combines the principles of management with those specific to risk analysis and offers a practical tool for making correct and timely decisions regarding the management of information security risks.

JEL: M42, M48, O33

KEYWORDS: Security Risks, Company, Management of Information

INTRODUCTION

The beginning of the new millennium finds the modern society in an informational structure based on the acceleration of information and communication technology; the essential condition for the success of the information society is the adoption of information and communication technology in all fields of activity (Hakak, Khan, Imran, Choo & Shoaib, 2020). Security technologies, meant to eliminate risks and limit losses are: access control, firewall, antivirus programs, file encryption, digital identification, physical security (Georgieva, Farooq & Dumke, 2009), which are intended to limit access to information. In addition to restraint technologies, system security must be managed, monitored and maintained. To do this, the following operations must be performed: prevention, detection and response to intrusions.

Attacks on information in computer systems can take many forms (Cárdenas, Amin, Lin, Huang, Huang & Sastry, 2011). A first classification of the attacks can be made taking into account the place where the attack is carried out. We distinguish two categories of attacks: local and remote. A second classification can be made according to the way the attacker interacts with the information resulting from a successful attack. There are two categories of attacks: passive and active. In order to assess the level of security offered by an information system, companies can use different assessment methods, including conducting intrusion tests. On the other hand, the four component stages of the risk management process in general are represented by assessing risks, coordinating the decision-making process, implementing controls and measuring the effectiveness of the program (Ani, He & Tiwari, 2017). Conventional units or qualitative scale are usually used to assess the risk impact (for example, negligible, non-essential, essential, large, or catastrophic impact).

Information Security Risk Assessment: Stakes and Limitations

The separation of the stages of identification, analysis and risk assessment contributes to a better coordination of the consolidated risk management process (Marvell, 2015). Basically, risk management focuses on the treatment, acceptance and communication of risk, which are activities generally specific to management. An essential element, included in the assessment of an organization's security risk, is the classification of information according to its importance and the level of protection it requires, plus the establishment of security mechanisms to be ensured by a computer system. The general criteria for classifying the information to be evaluated at the level of an organization can be:

value - if information is valuable to an organization or its competitors, then it must be classified;

age – the older the age of a set of informations, the higher it leads to its loss of value;

moral wear and tear - when information is replaced by new ones or when radical changes have taken place in an organization, the classification of information becomes obsolete and will be replaced by another.

Whatever the classification method, the steps for risk assessment involve a certain order of priority and include:

specifying the criteria according to which the information will be classified and labeled;

specifying and documenting any exceptions to security policies;

specifying the controls applied to each classification level;

specifying information declassification procedures;

creating an organizational level of awareness control programs on the line of information classification.

As a result of the identification and evaluation of the risks, the companies elaborate a strategy to control the security of the information system (Sion, Yskout, Van Landuyt & Joosen, 2018), it requires the following steps:

the analysis of the stage infrastructure that implies an identification and evaluation of the resources of the information system that are to be protected: operating system, applications, network infrastructure, information processed by the system;

analysis of existing security policies, practices;
analysis of possible system threats.

Most of the times, with the risk assessment, the threats are classified into categories as follows:

integrity / accuracy of information: deliberate alteration of information;

access control: incorrect use of passwords, improper configuration of the network, unauthorized physical access;

legality: non-compliance with internal regulations and legal requirements for data protection;

general elements such as human error, fraud, theft, embezzlement, sale of confidential information, unauthorized use of computers.

These threats exist anyway, they cannot be controlled, eradicated or redirected, but only monitored. Therefore, organizations need a detailed report on procedures and techniques of manifestation, and the conclusions will be the basis for assessing the vulnerabilities of the system itself. Adopting security controls to protect IT resources without proper risk assessment generates overprotection of resources, making security an obstacle to the conduct of operational processes or inadequate protection that will expose the organization's key resource to various threats. Risk assessment aims to reduce them and involves the adoption of prevention measures in case of their occurrence, and implementation requires a number of costs at the organizational level that must be correlated with the size of damage to exploit vulnerabilities so that management factors decide the risks to be prevented, limited or accepted.

CONCLUSIONS

Risk management can be defined as the totality of methods for identifying, controlling, eliminating or minimizing events that may affect system resources. It includes: risk analysis, cost-benefit analysis, mechanism selection, security assessment of measures taken, security analysis in general. Risk analysis involves a process of identifying security risks, determining the extent of risks, and identifying areas of high risk that need to be secured. Risk analysis is part of the set of measures called risk management, and also a result of a risk analysis process. The professional approach to information security risk assessment and ensuring the consistency of security in the exchange of information between the components of the information system will increase the capacity to identify and prevent risks in information systems.

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ETHICAL ISSUES RELATED TO INFORMATION SECURITY RISK

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ABSTRACT

Given that cyber security is a complex, multidimensional business risk, it is also important to address ethical issues. The aim is to stimulate thinking about the ethical approach to data security, integrity and availability. The first important step in determining ethics in a given situation is to obtain the circumstances, identify ambiguities, and gather all additional information. This article analyzes some aspects of recognizing the ethical principles involved in data security. Only by recognizing and analyzing ethical principles can one act consistently, wisely, and responsibly.

JEL: L86, M15

KEYWORDS: Ethical Principles, Business Risk, Data Security

INTRODUCTION

The new rules of the information society apply both at the economic level, directing the new economy, but also at the political, social, administrative, cultural levels, transforming reality into a new form of virtual perception (Florea & Florea, 2020). The terms used in modern society include e-business, e-commerce, e-government, e-health, both in Europe and in Romania. On the other hand, if we take into account the statistics of the last fifteen years, it can be strongly argued that computer-assisted crime cannot be considered harmless at all and that the phenomenon is constantly growing (Herman, 2004). Therefore, what concerns all modern societies now is not only how to use more efficiently and continuously develop the field of information technology, but also to improve the legal framework in which to carry out interactions in this field. In addition, ethical behavior in the digital age and in that of security companies is an essential component of users' trust in security systems (Sokolova & Matwin, 2015).

The Importance of Adopting Codes of Ethics Regarding Information Security Risk

Ethics on information security risk is not based on unanimously accepted basic principles (Davis, 2012). There is a measure of doubt, especially from people of scientific and technical background who expect precision and universality. Ethical pluralism recognizes or admits that there may be several ethically justifiable positions in a given situation. However, conflicting responses do not prevent anyone from applying ethics in data security. There are several steps to make and justify the ethical choice in data security:

understanding the situation: learning the aspects of the situation, asking questions for interpretation or even clarification;

finding out the different theories for ethical motivation: in order to make an ethical choice, it is necessary to know how the choices can be justified;

list of the ethical principles involved: what are the different theories that can be applied in this case and whether one theory can include another.

At the international level, a series of associations such as the Association for Computing Machinery (ACM) or the Data Processing Management Association (DPMA) carry out their activity, which also elaborates codes of ethics for their members. These codes of ethics are in fact a primary consultancy and include responsibility or experience in the field of computers. For example, the Association for Computing Machinery code states that a member, when working with data concerning the individual, must take into account the principle of personal privacy and pursue: minimizing the data collected; limiting unauthorized access to data; ensuring data security; correct and safe data removal.

Regarding the activity of government agencies and cryptography specialists, with all the subjectivity of ethics, we can say that they take those actions for the security and for the improvement of some systems (Macnish & van der Ham, 2020). Instead, everyone else acts destructively, which can only have negative consequences. In general, large security companies have mandatory codes of ethics for all employees because the most important asset is customer trust and this asset is not worth the risk. Also, in the IT security industry there are mandatory codes of ethics to be able to enter into professional associations, mandatory to be able to exchange technology and aim at practices related to ethical behavior. However, a classification of the major principles involved must be made. Thus, due to the options, each person defines his own set of ethical practice. It should also be noted that the subtle infiltration of digital technology in organizations has led to the development of ethical theory that the best way to understand and solve ethical issues raised by communication and information technology (ICT) is to implement a set of ethical principles that constitutes an ethical system (Shou, 2012). Consequently, the interpretation of the practical uses and effects of technology in ethical language has added a symbolic element in the development and use of technology.

CONCLUSIONS

Ethics is rejected or misperceived because it has no patterns or depends on fundamental truths. Ethical pluralism recognizes or admits that there may be several ethically justifiable positions in a given situation. But studying the ethics of information security risk can produce two positive results. The first, in which ethics, already believing that we know what is good and what is bad, can help us justify our choice. Second, ethics can help us identify the implications so that we can make a rational judgment. In practice, the possession of information represents a risk for those who hold it and the way in which it is managed must take into account: relevance; credibility; denial of risk, ethics and information; reaction time. Moreover, the existing codes of ethics, although not standardized, still present certain ethical principles to which professionals must aspire. Decisions can vary, depending on the fine differences between two situations or the change in a person's perspective according to their experience.

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CURRENT CHALLENGES REGARDING THE RISK OF INFORMATION SECURITY IN THE DIGITAL ECONOMY

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ABSTRACT

Anyone operating a digital system or a digital business model can be sure that they will be the target of an attack at some point. The threat is growing every day, and the cybercrime industry is now at least as sophisticated as the rest of the IT industry. The aim of this paper is to demonstrate once again that digital solutions must not only be functionally convincing, but also meet increased security requirements. The results of the analysis also show that an attack becomes much easier when an attacker is already on the other side of the security mechanisms.

JEL: L86, M15

KEYWORDS: Digital System, Digital Solutions, Data Security.

INTRODUCTION

Digitization has opened up significant potential risks, and studies show that millions of new devices that are connected to the Internet and often run on a digital technical basis produce billions of security gaps (Hess, Matt, Benlian & Wiesböck, 2016; Mazzone, 2014). Security measures are diverse and require technical expertise. Most companies will need to bring in experts. Increasingly, cyber security is becoming a collective term for concepts and measures needed to ensure the functional and operational security of systems, information security and data security, backup and protection (Sion, Yskout, Van Landuyt & Joosen, 2018). The principle of design security can be applied not only to software development, but also to hardware (Morakanyane, Grace & O'Reilly, 2017). Like security, design security (operational security) and design confidentiality (data protection) can be implemented if the aim is to minimize information security risks.

Insights Into the Risk of Information Security in the Digital Economy

Cybercrime causes billions of damage every year. Studies have shown that despite the technical sophistication of cybercriminals, the easiest way to access systems is to monitor employees when they enter their password or simply sit at the computer when it is unnoticed and the system is open (Reis, Amorim, Mela & Matos, 2018; Ardolino, Saccani & Perona, 2015). That is why it is better for companies to find the optimal level of security for the user and application in validated experiments and learning cycles. One of the main challenges facing companies today is keeping the software up to date. System and software vendors for users are constantly working to develop their systems and close security gaps as quickly as possible. But this only helps if upgrades, patches, and improved firmware arrive on users' computers and devices in a timely manner. Obsolete and obsolete software should be uninstalled immediately. Unfortunately, there is much too much latency. Cloud system users have an advantage. Cloud providers typically have fast, standardized upgrade processes. Moreover, software manufacturers incorporate some security features into their products. A high-performance firewall, a virus scanner and intrusion detection are the minimum requirements for a productive server.

Another challenge that companies must address is the safe handling of data. In this regard, all those involved should be aware that data is a sensitive asset for both the company and customers and partners and should

therefore be specifically protected. Whenever possible, critical data should be transmitted and stored in encrypted form. Security for servers, devices (IoT) and other infrastructures is another cornerstone of the information security system in the digital economy. Many IoT devices and server applications still run with the default password assigned by the manufacturer. Security features and possible gaps should be researched and compared before purchases. There are a number of security companies on the market that offer hacker-friendly attacks. The system is bombarded with a variety of different types of attacks and the behavior of the system is documented. In this way, operators receive an accurate profile of server behavior in the event of an attack and recognize gaps. As a solution to all these challenges, companies can implement self-developed software as a security measure. The main advantage is that if the software is developed internally, log files can be accessed for all important activities and thus deviations and attacks can be identified. Mass testing of software with previously developed tests is the best way to check functionality and discover security gaps. Another solution could be pair scheduling and code review. In extreme programming, two developers work together on the same code and support and control each other. This leads not only to fewer errors, but also to better solutions.

CONCLUSIONS

As computers became more networked, the importance of security grew rapidly. Many vulnerabilities have shown that security was considered far too late. Security was sometimes just an add-on when development was largely completed. In most companies, the information security management system is a task for managing the development of rules and processes to ensure information security and allows an acceptable level of protection to be achieved. This system comes in response to the likelihood that an attack will occur at some point, despite sophisticated measures. To this end, an contingency plan should be available to ensure the continuation of business operations (business continuity).

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INFORMATION PROTECTION AND SECURITY IN MODERN ORGANIZATIONS

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ABSTRACT

Information technology has now reached the opportunity to provide organizations with unparalleled capabilities in the field of data management, which can be used to gain competitive advantage. Information protection and security cannot be ignored by managers because they play a critical role, and a change in any of these components often leads to significant changes over the others. The purpose of this paper is to perform analyzes and develop considerations on information protection and security in modern organizations.

JEL: L86, M15

KEYWORDS: Information Protection, Security Policies, Risk Security

INTRODUCTION

The environment in which modern organizations perform is based to a very large extent on information and implicitly on elements of its processing technology (Dhillon, G. & Backhouse, 2001). Due to the benefits that information technology brings, we are witnessing a deeper and deeper integration of these elements in the other components of an organization, which makes these elements directly influence the development of organizational processes, but especially their efficiency. In the most general sense, the security of computer systems ensures the protection of information stored in these systems, prevents loss, accidental or intentional modification and unauthorized reading, ie what is expected of them, even if users do not do what they should do (Von Solms, 2006; Whitmore, 2001). However, the protection of moving data refers to the implementation of a set of measures to ensure their security during the transfer. Communication lines are an essential element as they are used for the delivery / access of services, and ensuring the security of the data within them is a critical element for the security of the whole system. The state of cyber security can be achieved by applying proactive and reactive security measures that include security policies, standards and models, by managing risk and by implementing solutions for the protection of networks and information systems.

Securing Information Systems in Modern Organizations

Protection and security mechanisms are implemented in the operating system to implement various security policies (Hershey & Silo, 2012). A security policy defines a set of requirements that must be met by a computer system. Instead, the security mechanisms have the role of authenticating the subjects and authorizing their access to different objects. In addition, the security policy must specify how the protection state can be implemented (Perkel, 2010). This is done by defining a set of rules that represent the policy of changing the state of protection. The implementation of the idealized model implies the departure from certain hypotheses, so that the system can be built effectively and at a reasonable cost. The key components of the implementation are: subject authentication modules, resource monitor and protection status representation. The last two components are new elements in the implementation of protection systems. Therefore, a system security policy specifies how resources should be shared between members of the organization and with external users of the organization (Von Solms, 2005). The mechanism consists of specific tools and steps provided by the system to implement the policy. Establishing a precise policy is

difficult since it requires a precise set of requirements to be specified in completing an unambiguous package of laws to control user activity.

Another extremely used information protection technique is cryptography, and with the development of the use of the Internet, its importance has increased (Coles-Kemp, 2009). As long as the information is not in the processing phase, or is in the file system and is transmitted over a network from one computer to another, then, for protection, it is encrypted. Because files are stored on devices shared by n users, a user's file may be read, executed, and modified by other users, despite the fact that the file owner wants the information in that file to be personal. On the other hand, encryption has gained rapid and important development in modern computing systems. In computer networks and computer systems, it is very difficult to create a mechanism where the information is inaccessible to the unauthorized. The information is encrypted in a form in which its informational content is unintelligible without a decryption phase. The key point of encryption is to be able to perform efficient encryption so that, theoretically, the information cannot be decrypted by unauthorized users.

There are extremely many encryption algorithms, some of which are extremely simple and it is possible to define its own encryption mechanism by each user. An encryption function can be a simple mathematical function that satisfies some requirements. The most important of these requirements is that the function is bijective in order to give us the possibility to reverse the process and recover the original information that was the basis of the encryption process. Of course, advanced methods are far from available to every user and are patented by powerful companies working in this field.

CONCLUSIONS

Information systems can become powerful tools to make organizations more competitive and efficient. Information technology can be used to redesign and reshape organizations, to transform their structure, reporting and control mechanisms, current work practices, document flow, products and services provided. To ensure the security of information systems, it is not enough to accumulate tools; we must have a real security policy. In most cases, the implementation of data security policies within organizations imposes limitations that have a negative impact on processes and limit their effectiveness.

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BIOGRAPHY

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A CASE STUDY OF ACCOUNTING STANDARDS CODIFICATION 842 LEASE ACCOUNTING

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CASE DESCRIPTION

The inception of Accounting Standards Codification (ASC) 840 in 1977, involving the off-balance sheet treatment of most leases, resulted in decades of controversy. Recent US GAAP (Generally Accepted Accounting Principles) changes introduced significant modifications to lease accounting for public companies. The new ASC 842 rules became effective for periods beginning after December 15, 2018. The new rules require capitalization of all non-cancellable leases with terms greater than one year in duration. Liabilities created by the lease contract now become a balance sheet debt item resulting in a significant financial statement effect. Indeed, this recharacterization may produce a significant negative impact on a firm's debt ratios and covenant agreements. The combined effects of these changes may significantly affect the way entities conduct business. This case study focuses on differences in the treatment of leases under old lease accounting conventions and the new lease rules under US GAAP. The case requires students to examine the impact of these differences on financial statements and selected financial ratios. Students begin with GAAP financial statements under the old lease requirements and prepare a balance sheet, income statement and cash flow statement, reflecting the new lease rules. Designed for use at both the undergraduate and graduate levels, this case study may be appropriate for an Intermediate Accounting II, Accounting Theory, Financial Statement Analysis, or an International Accounting class.

JEL: M40, M41, M49

KEYWORDS: US GAAP, Ratios, Capital Lease, Operating Lease, Financing Lease

INTRODUCTION

This case study demonstrates the implications of Accounting Standards Codification (ASC) 842 on financial statements and firm's debt ratios. ACS 840 regulated accounting of leases from 1977 through 2018. ASC 842 superseded ASC 840 for financial statements fiscal periods beginning after December 15, 2018. The case study highlights accounting changes made and discusses the new lease reporting requirements. We illustrate differences between ASC842 and ASC 840 with examples. Professors of undergraduate and graduate-level courses can use this case study to facilitate student understanding of the ASC 842 pronouncement on leases. The next part of the study discusses the literature and provides some background information on lease accounting rules. The following sections contain the case information and questions for students. The final section concludes the case study. The paper closes with some teaching notes for professors.

CASE INFORMATION

Peter Telecom Corporation, a publically traded NASDAQ company (symbol PTCOM), services and repairs telecommunication equipment. The company is based in Jacksonville, Florida, and become public on January 1, 2015. Peter Telecom Corp. operates in the United States and Latin American countries. Its stock sells for 35 US Dollars per share, and its 2015, 52-week price range was \$29.50 to \$37.15. Their financial statements, presented here for the year ending December 31, 2015, were prepared using ASC 840, US GAAP rules. Given a high need for capital investment in the industry, the controller wants to identify the

impact ASC 842 lease rules on the financial statements. Specifically, the controller wants to see the impact of these changes on the balance sheet, income statement, cash flow statement, and the various debt-related financial ratios.

CONCLUSION

This case study examined financial implications of the new lease rules ASC 842 under US GAAP. The paper compares previous ASC 840 lease rules with the new ASC 842 lease rules and examined its impact on financial ratios, borrowing capacity, and covenant agreements. The new lease rules became effective for periods after 2019. The results here indicate ASC 842 will negatively affect US companies. Students recommend actions that US companies may take to help ease the burden of the new lease requirements. Future research might study the effects of new IFRS rules on non-US GAAP reporting companies worldwide.

MITIGATING RISK AMIDST CATASTROPHIC EVENTS: A FOCUS ON SHAREHOLDER AND OPERATING AGREEMENTS

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ABSTRACT

Risk management has traditionally encompassed the systematic identification, analysis, strategy and response to a myriad of factors that impact the sustainability of a business. Effective risk management strategies attempt to foresee and manipulate future outcomes by proactively, rather than reactively, addressing variables that may adversely impact the profitability of an organization. Responses to possible risks necessitate the creation of contingencies that outline the execution of pre-determined action plans that would be triggered if the anticipated risks were, in fact, to arise. This paper provides a discussion of risk reduction techniques associated which can mitigate catastrophic macro risk events such as the COVID-19 pandemic.

INTRODUCTION

At different times in history, society has faced financial, banking and health challenges. Earlier health crises such as 2016 Ebola, 2002 SARS and the 1918 Spanish influenza affected markets and forced the introduction of new risk control mechanisms. Financial crises such as the 2008 housing bubble, the European Sovereign Debt Crisis, the 2015 Chinese Stock Market Crash forced risk management changes. Risk management during and after the COVID-19 pandemic will change too (Martinez Arroyo et al., 2020).

This paper extends the extant literature by providing a primer in risk management with special emphasis on applications to the COVID-19 Pandemic. The remainder of the paper is organized as follows: In the next section we discuss the existing literature and commonly used risk control measures. Next, we discuss the role of shareholder agreements to mitigate risk. The paper closes with some concluding comments.

LITERATURE AND BACKGROUND

Responses to business risks utilizing traditional risk management principles include one or more of the following: Avoidance, mitigation, transfer, and acceptance. We structure this section around these four principles. Businesses manage risk formally by acquiring insurance coverage or informally by personally accepting risk. Thus, risk management involves considering safety, potential for profit and/or losses, and corporate reputation. Risk avoidance occurs where a business seeks to eliminate the possibility of a risk altogether through the discontinuation of activities associated with the specific risk identified. A business chooses to eliminate a hazard or activity that, if they are adversely impacted by that activity, would lead to a decline in profit or increased exposure to liability.

To avoid risk associated with COVID-19, companies changed work schedules, locations, and technology. Some businesses require employees to work from home thereby avoiding the risk of COVID-19 exposure in the workplace. Others, limit their operations to avoid risk, such as operating a restaurant by delivery only.

Risk mitigation, also known as optimizing risk, occurs when an organization seeks to reduce potential losses due to an activity they are engaged in and wish to remain in. In risk mitigation, businesses seek to limit the

impact of a risk such that, if a problem occurs, it will be managed to reduce the impact. Many examples of risk mitigation around the COVID-19 pandemic exist.

Risk transfer constitutes the underlying tenet of insurance coverage. Risk is offset and shifted from the insured to the insurer, as a voluntary arrangement between two parties and a mechanism to reduce or limit the potential liability of the insured. The insured safeguards itself from the implications of financial risk and future contingencies. The insurance company accepts strictly defined financial risks from the insured.

Business Interruption coverage has been available to firms for many years. This insurance covers the loss of income a business suffers after a disaster. The income loss covered may be due to the disaster-related closing of the business facility, due to the rebuilding process after a disaster or the loss of income directly resulting from the disaster. The extent to which this type of insurance covers business owners in the event of COVID-19 losses is an active issue and working its way through the courts.

Alternative risk transfer occurs when traditional insurance coverage is waived or unavailable. In these instances, the risk of liability is accepted by the client. Risk acceptance, also known as risk retention, occurs when a business recognizes and identifies a potential risk, but acknowledges that exposure and assumes the risk.

Businesses seek to strike a balance between potential costs of remediating a risk if it were to arise versus the expense of preventative measures to avoid it altogether in relation to the statistical likelihood of it even occurring.

SHAREHOLDER AGREEMENTS

In the last four decades, the number of pass-through businesses tripled. This expansion can be attributed at least in part to the advent of limited liability companies. Over 50 percent of labor forced works for pass-through companies. In addition, sole proprietorships, S-corporations, LLC's and closely held businesses make over 60 percent of net business income in the U.S. Investorships represent approximately 8 percent of all pass-through-taxation companies (Pomerleau, 2015).

Companies often use investors to bring in new capabilities, access new markets, access new intellectual property, infrastructure and to reduce risk. However, investor shareholders also bring management challenges including investors' differences on what the main objectives for their relationship, poor communication, weak governance, and inability to identify and change when faced with rapid market or economics changes (De Backer and Rinaudo 2019)

As the pandemic continued from its beginnings in 2020 and persists into 2021, many business owners seek to mitigate their risk of survival by offsetting the potential losses involved with business failure. They sometimes do this offering shareholder interest to key employees and investors. Owners see the possibility for a lifeline and injection of capital, along with a way to transfer a portion of their risk if their business did not survive the pandemic.

A business relationship is much like a personal relationship. The parties involved need to have clearly communicated understandings. In business, those understandings should be in writing. 'What happens if' scenarios should be spelled out.

CONCLUSION

This article provides a primer on how effective risk management strategies attempt to foresee and manipulate future outcomes by proactively, rather than reactively, addressing variables that may adversely

impact the profitability of an organization. Applying traditional risk management principles, which include avoidance, mitigation, transfer, and acceptance help mitigate risk. In addition, many majority businesses owners have responded to the additional pandemic-related risks by recruiting additional shareholders to mitigate risk and help to ensure survival.

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BIOGRAPHY

James Henry Dunne, J.D., is a professor of law, human resources and management at New York Institute of Technology. In addition to his faculty position, he is a licensed and practicing attorney in the state of New York with much of his practice dedicated to providing legal counsel to small and medium sized businesses. In addition, James is the President of Service Dynamics, a consulting company focused on customer service training, human resources development, business marketing, management operations, and brand management.

Peter Harris is a professor at New York Institute of Technology (AACSB Accredited). He has published over 120 papers in peer reviewed journals on topics relating to accounting, finance, risk management, taxation, and ethics. He also serves on the editorial board of several Cabell listed journals and is also an ad hoc peer manuscript reviewer. Previous to teaching he worked at Ernst and Young, LLP.

Terrance Jalbert is Professor of Finance at University of Hawaii Hilo. He also serves as an arbitrator for the Financial Industry Regulatory Authority (FINRA). His research appears in journals including *International Journal of Finance*, *Journal of Emerging Markets*, *Journal of Applied Business Research* and *Journal of Financial Education*.

MAIN STREET RETAILER RESPONSE TO GOVERNMENT RESTRICTIONS ON OPERATIONS

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INTRODUCTION

The COVID-19 pandemic has caused many retail businesses to re-evaluate and respond to risk in ways that had not been foreseen prior to the year 2020. With legislative limiting measures imposed by state governments on numbers of patrons permitted on site, to limits on hours of operations, and additional restrictions that varied by state and county, businesses were forced to adapt to profound and unpredictable changes while trying to outlast the impacts of the pandemic on society and their bottom line. These legislative measures seemed to change constantly, so businesses had to respond with periodic adjustments to modes of operation throughout 2020 and well into 2021, while assessing risk measures to avoid such challenges from impacting their businesses in the future, whether COVID-19 lingers, or if other similar devastating issues were to arise.

This theoretical case study is intended to explore the ability, or inability, of a business to withstand the effects of these legislative changes, and to discuss and debate various alternative measures taken by businesses to mitigate risk while attempting to breakeven so that the business could survive the global pandemic that was thrust upon nearly all businesses globally, beginning in March 2020.

CASE FACTS

On February 1, 2019, YYZ Corp., a privately held company, entered into an agreement with a commercial realty holding company to lease space for a coffee shop, selling fresh pastries, premium coffees, and various herbal teas, for consumption on site, to go, and packaged for future use in home.

The lease was for an 800 square foot operation at \$20 per foot at this Main Street location. After renovations, the operation opened March 1, 2019. The owner, Alex, planned to work on premise to support the manager and staff, on a periodic / part-time basis, since he intended this business to be an investment and something to stay engaged as he headed into his retirement years.

The coffee shop thrived from March 1, 2019 to March 1, 2020, exceeding projections, due to its location and abundance of foot traffic on Main Street. In early-March 2020, the global COVID-19 pandemic began to take its toll on the business and foot traffic slowed significantly.

Soon after, the Governor of the state in which YYZ was located began mandating limits on patrons, social distancing measures, requirements for take-out and delivery only, limits on hours of operations, mask mandates, and more. In addition, due to supply chain issues brought on by the pandemic, cost of inventory, supplies, and ingredients rose significantly.

Since YYZ only had minimal opportunity to set up seating outside (just 3 small café style tables) to comply with restrictions, revenue took a sharp decline. In addition, employees were resistant to continuing to work due to fears of COVID-19 transmission and the fact that they were provided pay through the federal PPP program.

Variables for Consideration

Open daily (7 days)

7am to 7pm

24 seats

Pre-COVID daily customer count average = 290 per day

Start-up / Pre-opening Costs

\$5500	Legal fees for startup
\$3250	Staff training
\$3500	Permits
\$5500	Website development + online ordering system
\$6000	Promotion and signage
\$45,000	Construction + FFE (furniture, fixtures, equipment)
\$7500	Computer Hardware
\$2250	Security and monitoring
\$9500	Point of sale system

800 square feet x \$20 per foot = \$16,000 = (\$16,000 ÷ 12 = \$1333.33 per mo.)

YYZ Statistics (prior to COVID-19)

Average transaction spend per patron = \$4.80

Cost per transaction = 14%

Payment processing cost (credit transactions) = 2.75%

Inventory and supplies (paper, plastic, cleaning) = 8%

YYZ Statistics (amidst COVID-19)

Average transaction spend per patron = \$3.95

Cost per transaction = 19%

Payment processing cost (credit transactions) = 2.75%

Inventory and supplies (paper, plastic, cleaning) = 12%

Recurring Costs

\$900	Monthly accounting and bookkeeping
\$1333.33	Monthly rent (1 st year); 3% annual increase in year 2
\$700	Monthly utility: Electric, gas and water
\$6000	Annual insurances
\$	4 employees per day (@6 hrs each x \$15 per hr)
\$60,000	Annual management salary (1 general manager)
\$400	Monthly website and social media
\$1050	Monthly internet + cable + phone + music licensing + POS service plan

COVID-19 Expenses (12 months)

\$4500 Equipment to meet COVID-related government mandates.

Stimulus (effective 3/2020)

\$600	Unemployment per week per employee
\$1200	One-time stimulus check

Governmental Relief Programs

Families First Coronavirus Response Act (FFCRA)

Payroll Protection Program (First and Second Draw)

Work Opportunity Tax Credit (WOTC)

New Market Tax Credit (NMTC)

Discussion Questions

- 1- How do staffing levels (hourly and salary) impact breakeven?
- 2- How might this business reduce operating costs during the pandemic (other than staffing levels)?
- 3- What monthly expenses can be reduced or eliminated?
- 4- Which governmental relief programs best suit this operation?
- 5a- How can this business create new revenue streams?
- 5b- How impactful will these new revenue streams be on breakeven?
- 6- How do mandates about take-out and curbside delivery impact perceived value by consumer?
- 7- How has COVID impacted Risk Management strategy moving forward?
- 8- Additional Considerations?

USE OF CAMPSITES IN NORWAY. WHAT IMPACT DOES CHANGE IN EXCHANGE RATE AND INCOME HAVE?

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ABSTRACT

The price level in Norway is very high and this has put limits on the number of visitors. However, the last decade there has been significant fluctuations in the exchange rate, and this has probably affected the travel pattern. This article will examine this by focus on camping tourism the last twenty years. Furthermore, we want to see how increased income has affected its use, especially tents and caravans. The analysis is based on aggregated annual data. This limits the ability of advanced quantitative methods. This research shows that the use of campsites is sensitive to the fluctuations of the exchange rate. Taking into account the time lags in the planning, this study suggests the elasticity with regard to the exchange rate is above 1.0. Furthermore, a trend is recorded where tents and caravans have become less popular especially among domestic users. One explanation may be income development. The results are relevant for the planning of campsites.

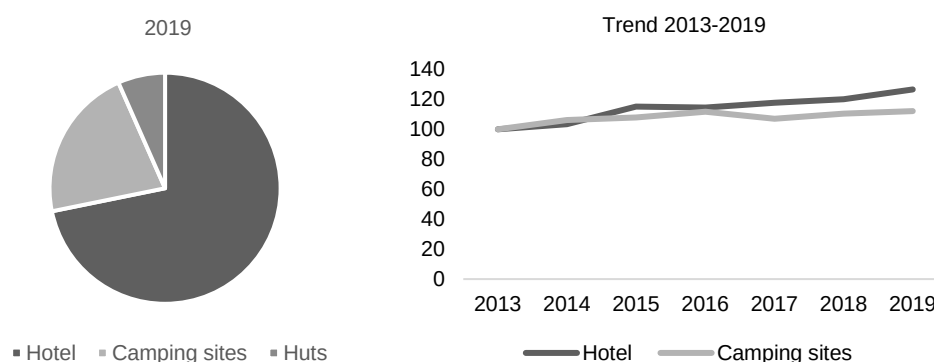
JEL: L83, Z32

KEYWORDS: Tourism, Tourist Inflow, Exchange Rate, Campsites, Income

INTRODUCTION AND BACKGROUND

Camping is a heterogeneous market where it is possible to travel with a low-cost budget, (travel with public transportation and using tents) or stay at luxuries camping huts or arriving by nice campers. Although many offers are aimed at family people, there are also opportunities for younger and older visitors. Staying in campsites is cheaper and more flexible than staying in hotels. Travel and Tourism contributed sustainable to the GDP worldwide. According to World Travel & Tourism Council this part was 8 percent for Norway in 2018 compared to 10 percent of global GDP. There is a rich literature about this issue. However, few papers have analyzed the marked of campsites. Although hotels dominate when it comes to overnight stays, there is a significant proportion of visitors staying in campsites (21 per cent in 2019, Statistics Norway). Statistics from World Travel & Tourism Council show a considerable growth in tourism industry in Norway. The sector's contribution to GDP grows from 6.4 to 8.0 percent from 2013 to 2019. As a comparison, the change in Sweden was 10.4 to 8.2 percent in the same period. This segment growth in 2019 was 4.5 percent in Norway compared to 3.5 globally. Even the sector is dominated of domestic travel spending, there has been a sizeable growth from foreign visitors the last years.

Figure 1: The Compositions of Tourism Stay 2019 and Growth 2013-2019. (Source: Statistics Norway).



No doubt the hotels are the most important accommodation method for both Norwegian and foreign tourists (Figure 1). Most of the growth since 2013 is related to staying at hotels (26%), but there has also been a significant growth of the use of campsites (12 %). The purpose of this paper is to find more about link between currency rate and the use of campsites. Since 2010 the Norwegian currency has varied considerably and since 2013 the value of the currency has fallen markedly. We will investigate how this has affected the foreigners' use of Norwegian campsites. Staying in campsites is less comfortable than staying in hotels. It is interesting to see if the prosperity development has influenced the use of campsites and especially tents and caravans.

THEORY AND LITERATURE BACKGROUND

Camping tourism is an important fragment of the tourist sector (Mikulić et al., 2017). One reason might be the search for a closer contact with the natural environment (Blichfeldt & Mikkelsen, 2015). This form of tourism is flexible and mobile, and one can combine it with recreational interest like mountain climbing or fishing. Although many people prefer to stay by using simple tents. According to Norwegian Law, anyone who wants to, can set up a tent in outfield, i.e. not on cultivated land, and spend the night there. This applies regardless of who owns the area (Low about outdoors. 01.07.1957§9). When, as in Norway, there are opportunities for free accommodation, how can the camping industry survive? One explanation is that there is not enough space to offer a place where one can set up a tent free. Furthermore, customers demand parking space, toilet facilities, activities, service, comfort and opportunities to buy food.

Service and Attractiveness

Important competitive factors are activities, quality, service and comfort. According to Grzinic et al., (2010) the campsites strive to improve the infrastructure and the quality of their services. It is challenging to meet the expectations by today's travelling visitors. With higher standard of living and more experienced travelers, the need and demand for service quality has escalated (O'Neill et al., 2010). The quality issue is an important factor to attract customers and to ensure that they are satisfied. Brunson & Shelby (1990) report different levels of attributes. Firstly, there are necessity attributes, which include minimum standard for satisfying the customers. One must also facilitate the conditions for campers, and embellishment matters. Lee (2020) divided the tourism attractiveness into following categories:

Attractions (natural or man-made)

Accessibility (Internal access like jogging or external access like transport)

Amenities (provision of lodging and catering)

Complementary services (Security and information)

The Importance of Income, Prices and Exchange Rates

Empirical studies confirm economic factors like income, prices and exchange rate have substantial impacts on the demand on tourism (Dogru et al., 2017; Peng et al., 2015; Xie, 2020; Stabler et al., 2010; Xie & Tveterås, 2020). A key factor for explaining the growth in demand in the tourist sector the last decades are increased income and wealth among the consumers. By using Danish data, Jensen (1998) have estimated price- and income elasticities. It is not easy to determine the value of income elasticity with high precision, but he suggests in general the income elasticity is substantial higher than one for foreign visitors. Crouch (1996) hinted the income elasticity of international tourism is around 1.5. Peng et al. (2015) confirm high values on income elasticities, but they emphasized significant variations depending on the seasons, by origin and travel destinations. Hence, there is a wide range of income elasticity values. There is substitution between different kind of accommodations, and this might have impact on the income elasticities. When the tourists become richer, they can afford to stay longer, consume more, and have a higher standard of accommodations. This will have impact on the demand for campsites, especially use of tents and camping wagons. The income elasticity for using campsites might therefore be lower than for staying at hotels, but there seem to be few studies about the issue to compare the income elasticity of hotels and campsites. Crawford (2007) suggested that the income elasticity for camping might be rather inelastic. If so, an increase in income has small impact on the demand. Brox and Kumar (1997) reported recreational camping might even be an inferior commodity. It means the demand declines if the income increases. Higher income implies less demand. suggests that recreational camping is likely to be an inferior commodity The demand of international tourism depends on relative prices between different destinations. Therefore, the exchange rate is an important factor. The growing competition between different destinations has caused an increase in the range of alternative attractions and availabilities. The results have been more price-sensitive tourists than in the past (Peng et al., 2015). Jensen (1998) reported a significant price elasticity below -1.0. But the research documented a huge range of price and exchange rate elasticities (Stabler et al., 2010).

According to Dypedal et al. (2003) foreign tourists must cope with a high price level of goods and services in Norway compared to other countries. This is a key problem for attracting visitors. Due to high price level, many prefer to stay in other countries for instance Sweden. Lower value for the Norwegian exchange rate can help to lower or eliminate this price gap. Data from Canada (Chadeeand, & Mieczkowski, 1987) showed that one percent depreciation of the currency was corresponding to 1.26 percent increase in foreign tourist flows. Previous research shows a substantial variation of the impact of change in the national currency. For instance, Agiomirgianakis et al. (2014, 2015) reported a considerable stronger effect. One percent appreciation of the exchange rate reduced the tourist arrival with 6 percent in Turkey for the period of 1994-2012 and around 5 percent for Iceland (from 1990 to 2014). The level of the currency is the key factor to explain the extend of tourism in Iceland (Rannversdóttir & Jóhannsdóttir, 2019).

Most of the studies find that exchange rates have a significant impact on the tourist flow. The connection between changes in currencies and visitors and depends on the kind of tourism and the destinations. It explains the mixed results. Studying the tourist inflow into Czech Republic and Croatia, Vojtko et al. (2018) concluded the tourist response of one percent depreciation of the national currency varies between 0.22 and 3.26 percent. Increased value of the currency leads many visitors to prefer shorter stay and cheaper accommodation (Fleisher & Rivlin, 2009). This can especially be the case for high-cost destinations. Since most of the visitors have planned, booked and paid the accommodation in advance. The values when the decision was taken, may therefore be more relevant than the actual values of tourist consumption (Stabler et al., 2010). Due to lack of information about future changes the expectation of changes will not be an important factor. Aalen et al. (2019) report a time lag of between four to nine months for response of change in currency rates in hotel stays in Norway. They estimated the price elasticity for holiday travelers to be around minus 1.6 percent. Besides of price elasticities and exchange rate elasticity, the time cost

elasticity is an important factor for determining the demand. This elasticity is related to the fact that every holiday trip is an alternative cost similar to the welfare and traveler would have received by choosing the best alternative option. The time costs will naturally vary with the traveler's age and life situation. The tourism market consists of different market segments. How to carry out the segmentation will depend on the purpose of the study. A dividing in different sections will give different elasticities. Stabler et al. (2010) described that for some travelers there might be a close relationship between past and current destinations due to information and habits. For other travelers the corresponding correlation is negative since one is seeking new experience.

RESEARCH QUESTIONS

Based on the previous research we postulate two research hypotheses:

There is a strong relationship between currency and tourist inflow to campsites in Norway. Over time, the proportion of travelers staying in tents or caravans goes down due to higher incomes and more alternatives. Since we operate with aggregated data, there are limitations in the ability to quantify the exchange rate elasticity. Even so, we will make some suggestions.

Sample and Methodology

The sample is based on administrative data publicly available in official statistics at Statistics Norway and the Central bank. The data are at an aggregate level. This limits the possibility of behaviour or microeconomic analysis and advanced statistical methods. Possibilities were further reduced because the figures from 2010 to 2012 are not comparable to subsequent years, i.e. 2013 to 2019. Hence there are too few observations for regression models. Therefore, we have another approach in this paper by applying unsophisticated statistical methods (correlation coefficients between key variables etc.) This research focuses on trend development and characteristics of campsites. The analysis is based on public statistics from Statistics Norway. For research question number 1 and 2 we are applying data from 2000 to 2019.

Descriptive data

There has been a substantial change in the composition of stay at campsites (Figure 2). Numbers of season contracts increased from 2000 to 2014, and after 2015 there has been a considerable fall. A season contract means the expenses are paid on seasonal basis and regardless of actual use of the camping site. There is significant variation of use of tents/caravans from year to year. From year 2000 to year 2013 the trend was a decrease in the use of this form of accommodation, but from 2013 there was a substantial increase in the use with a peak in 2017, and then fall back again. Otherwise, one noticed the rise in using campers.

Figure 2: Composition of Stay at Campsites 2000- 2019. 2000-2012 And 2013-2019 is Not Comparable Due to in the Way of Registration. Therefore, the Figure Is Divided into Two)

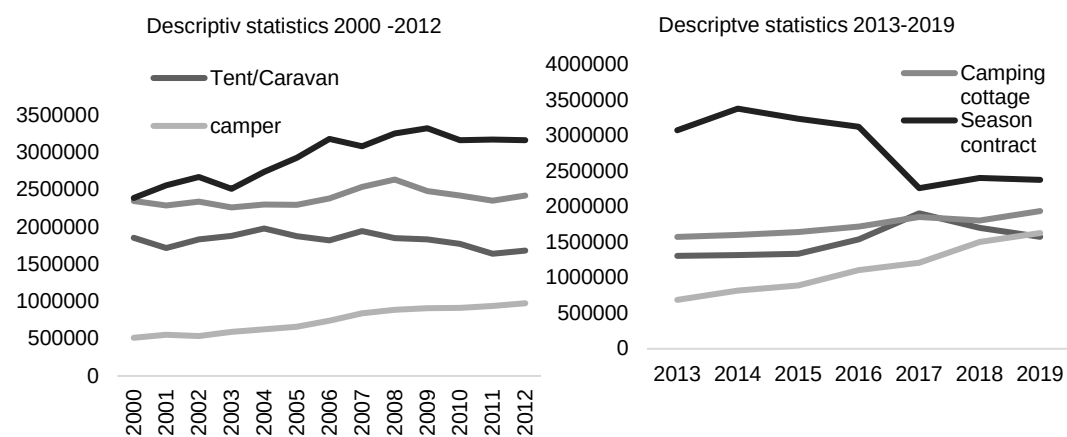


Figure 3: Seasonal Composition of Stay at Campsites

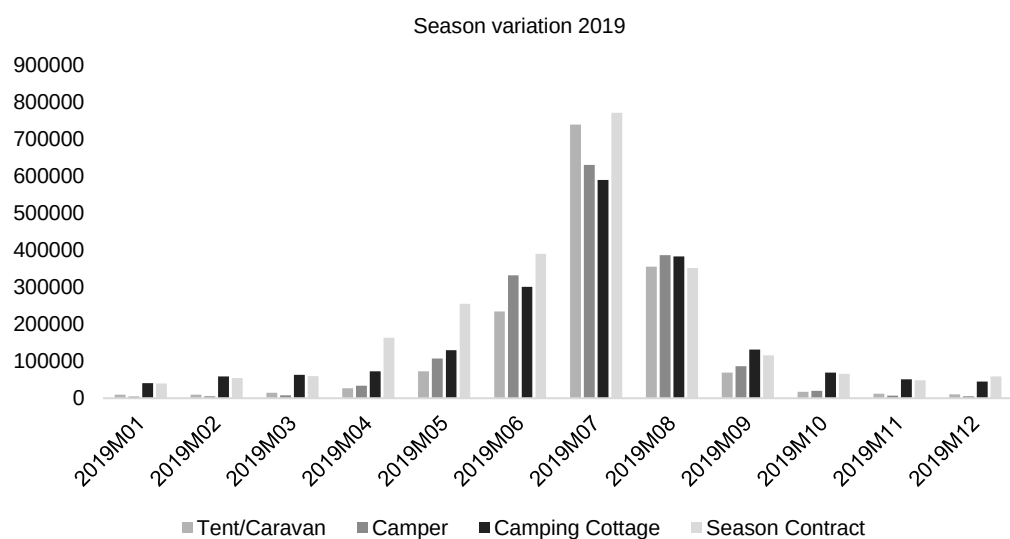
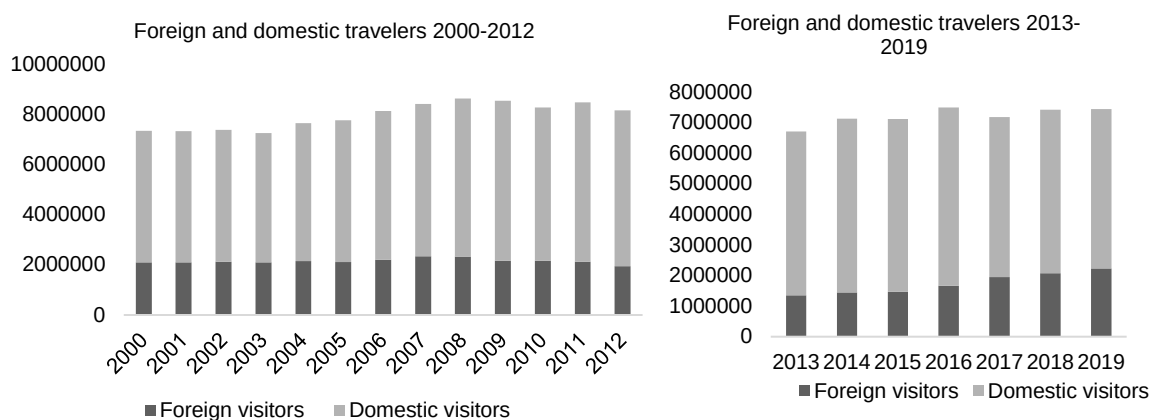


Figure 4: Domestic and Foreign Visitors, Campsites 2000-2019 (2000-2012 And 2013-2019 is Not Comparable Due to in the Way of Registration. Therefore, the Figure is Split into Two)

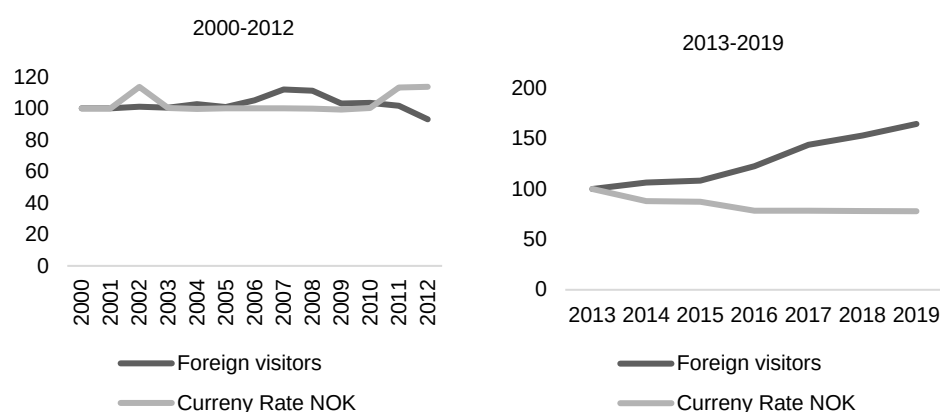


The stay at campsites is very seasonal regardless of the type of accommodation (Figure 3). The explanation is the climate and when people take vacation. There is a peak in July, and there is a considerable use if the campsites in June and August. The rest of the year there is a lot of spare capacity and many campsites are closed. The domestic tourists dominate as visitors at campsites. The proportion was quite stable around 75 percent from 2000 to 2015. Notice, the numbers of domestic visitors have decreased the last years. Despite this, the number of overnight stays at the campsites has not fallen. This means that the increase in foreign demand has occurred at the same time as domestic demand has declined (Figure 4).

Finding and Analysis

The connection between currency and tourist inflow for campsites

Figure 5: Currency and Foreign Inflow



From 2000 to 2010 the inflow of foreigners was stable with almost no change from one year to another. So was also the exchange rate of euro (ca. 8.00 NOK), except for 2002. The value of Norwegian Krone was so strong this year with a value of euro around 7.50. However, there was no fall in the foreign inflow this year. The reason might be that the strong currency was only temporary and was not expected. Due to the

time lag, the decision to travel to Norway was probably to large extent taken before the appreciation of NOK. Another factor may be that the summer temperature this year was higher than normally, and this could attract extra visitors. Notice, there was a slightly increase in in foreign travelers in 2007-2008 (Figure 5). One reason might be the pleasant summer weather especially in 2008. Despite the international finance crisis 2008-2009, tourists were still coming to stay at Norwegian camps, but there was a substantial fall of 7.5 % in numbers overnights from 2008 to 2009. Due to the time lag, this makes sense. Even the finance crises started in 2008, many were determined to have their holiday in Norway. This was probably planed months in advance. The worse economical did there have minor impact on the vacation in 2008. But the crises were a reality in 2008, this had probably a considerable impact on the inflow of foreign tourist. This explains the decrease in foreign visitors from 2008 to 2009.

The appreciation of NOK after 2010 was expected and to last due to higher oil price and this caused good prospect for the Norwegian Economy since it is closed related to oil price. Even so there were only minor changes in visitors in 2011 (because of time lag), but in 2012 the fall was around 10 percent. From 2013 to 2019 the number of foreign overnights at campsites increased with 65 percent (from 1.35 million to 2.23 million) while the value of euro changed with 26 % due to depreciation of NOK (from 7.81 NOK to 9.85). The main reason for the depreciation of NOK was the considerable fall in oil price in 2014 and the price stayed low the whole period 2014 - 2019. The rise in number of visitors measured in percent twice as high as the fall in the value of the Norwegian currency. This indicates the exchange rate elasticity is significant above 1.0. By a partial comparison, we suggest the value to be around 2.0. There is also a strong correlation between the two variables (Pearson correlation coefficient is 0.891 and with significant level of 0.007). Due to aggregated data, this is an uncertain estimate with low validity and reliability. To get a better predictor, better data and more advanced methods are needed.

The nominal exchange rate matters, but a key factor is also the price level and the real exchange rate. It means one must take into account the development of the price level in the origin country and the visited country. Change in real exchange rate is change in nominal exchange rate plus inflation abroad minus domestic inflation. Table 1 compare the development for Norway and Germany since many visitors are German. It is based on the figures presented in Dybedal (2003) for 2000. Then the price level in Germany was 698 compared to 1000 I Norway. Hence, visitors experience Norway as expensive. Table 1a) shows the development in the euro exchange rate and the consumer price index since the year 2000. Despite higher inflation in Norway than in Germany from 2000 to 2010 (22.1% vs. 16.8%), the euro rate went down. As a result, German guests face even a higher price in Norway than Germany in 2010 compared to 2000 (Table 1b). This is important factor in understanding the level of foreign visitors during this period. Since then, the development has changed in favour of the Germans. While the price level in Germany accounted for 65.9 per cent of the price level in Norway in 2000, the percentage was 72.6 in 2015. This percent rose further to 79.9 in 2019. Although inflation from 2000 to 2019 has been significantly higher in Norway (46.8%) than in Germany (31.8%), the real euro exchange rate has been higher due to a weakened nominal exchange rate (NOK).

Table 1 A): Development of Prices and Exchange Rate in Norway and Germany with 2000 As Basis

	2000			2010			2015			2019		
	Exc rate	Infla- tion	Price Nok	Exch Rate	Infla- tion	Price NOK	Exc Rate	Infla- tion	Price NOK	Exc Rate	Infla- tion	Price NOK
Norway	1,0	100	1000	1	22,1%	1221	1	32,5%	1325	1	46,8%	1465
Germany	8,11	100	698	8,01	16,8%	805	8,95	25,2%	964	9,85	31,8%	1117

Table 1b): Relative Price Level Norway and Germany

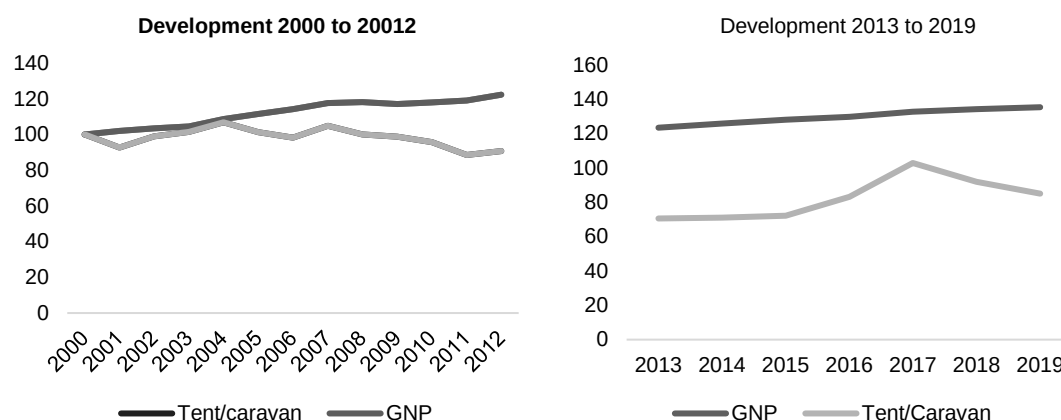
	2000	2010	2015	2020
Norway	1000	1000	1000	1000
Germany	698	659	726	799

The relative price or cost level has increased from 69.8% to 79.9% in the period 2000-2019. In the longer term, the development of the relative cost is an important explanation factor in illuminating the development of the tourist flow. In terms of inflation itself, there are small changes from year to year, while the nominal euro exchange rate can fluctuate a lot in the short term. Therefore, a weakening of the domestic exchange rate can affect the demand in the short run. It attracts more visitors. According to Stabler et al. (2010) many tourists decide under lack of information. This can contribute to a larger focus on changes in the nominal exchange rate than inflation rate in short term. The result in this analysis may indicate this effect. A depreciation of NOK implies that it will be more expensive for Norwegians to have vacation abroad. Therefore, one could expect higher domestic use of the campsites. Our data do not indicate such a connection and this issue has not been analyzed more closely in this article.

The Link between Travelers Staying in Tents or Caravans and Economic Growth.

The economic growth of GNP in Norway from 2000 to 2019 was 35 percent. It means the annual rate is between 1.5 and 2.0. This explain some of the growth within the domestic tourist sector where growth has been stronger in segments other than camp sites. There have also been significant changes in the mode of accommodation at the camp sites. The proportion who arrives in campers or overnight stays in cabin cottages have risen steadily during this period (see Figure 2). In this section we will investigate if there is a link between prosperity and the use of cabins/campsites. By partial comparing of those two variables, other factors that simultaneously might have impact to this relationship are being neglected. An alternative to GDP is to use GDP per capita. Since there has been some population growth, the economic growth rate would have then been slightly lower. An interesting period to study is from 2000 to 2010 since there was steady economic growth and quite stable exchange rate and proportion of foreign tourists (Figure 5) and it was low compared to the domestic visitors (Figure 4). It makes it easier to analyze how the domestic growth affected the use of tents and caravans. During this period, GDP increased by 17 per cent and the number of overnight stays using a tent/camper van fell from 1.85 million to 1.77 million (Figure 6). The proportion who used this accommodation method at the campsites dropped from 26 per cent to 21 per cent. This shows that this form of stay has over time become less attractive. An important factor is the development of prosperity. Customers demand more comfort and the campsites answer to this is to build more camping cabins and providing space for campers.

Figure 6: Growth in GNP and Use of Tents and Caravans At Campsites From 2000 To 2019. (the Vertical Axis Measures the Level Based on the Basis of 100 in Year 2000, 2000-2012 and 2013-2019 Is Not Comparable Due to in the Way of Registration. Therefore, the Figure is Divided into Two)



This may indicate that the demand for overnight stays with tent/caravans is inelastic or even an inferior good in related income. Demand of this segment falls as income rises. Much of the same tendency with decline in use of tents and caravans also applies after 2010 (Figure 6). However, the development is uneven. This is a significant fall from 2010 to 2012. But, in the period 2014 to 2017, the spending of tents and caravans increased and then fell again. It is not easy to give any good explanation for this, but two factors that can contribute are the numbers of foreign tourists and the use of season contract. In the period 2010 to 2012 there were fewer foreign tourists, while after 2015 there has been a large increase (Figure 5). Foreign visitors have probably different preferences than domestic visitors. Foreigners experience Norway as an expensive country to visit and this can lead them to search to a greater extent for cheaper accommodation. A lot of customers with season contract use probably caravans. The fall of such contracts after 2015 (Figure 2) might have impact on number registered customers using tents/caravans. Notice, there is also an increase in the use of season contracts from 2000 to 2010 and this may be a contributing factor to the fall in the use of tents/caravans during this period. Therefore, one should be careful not to draw clear conclusions in this study. However, the overall impression is that tents/caravans have become less popular in the period from 2000 to 2019 with an absolute drop in registered use of about 20 per cent (Figure 6).

Limitation

The data are at an aggregated level in a limited period. One depends on available statistics. This set limitations of using statistical methods and to draw conclusions about the use of campsites linked to price, exchange rate and income.

CONCLUSION

In the period 2000 to 2019 there have been large fluctuations in the exchange rate and a significant increase in income. This analysis indicates those factors have impact on the use of campsites. The study suggests that a fall in the domestic exchange rate of one per cent leads to an increase in foreign visitors to the campsites of more than one per cent. In other words, the currency exchange rate elasticity is more than one. During the period there has been an increase in the use of campsites, but at the same time there has been a decrease in the use of tents and caravans. This may indicate that the development is moving towards more lucrative overnight stays also at the campsites and that tents/caravans are losing ground. An important factor is probably the development of prosperity.

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AMERICAN REGIME INSTITUTIONALIZATION, SEGREGATION, INTEGRATION AND ASSIMILATION: THE SOCIAL IDENTITY DYNAMICS OF UTILITARIAN COOPTATION

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ABSTRACT

The study highlights how authoritarian populist leaders manipulate the anti-Semitic and other stereotypes in scapegoating to overcome intra-core group polarization and mobilize political support. Alignment by two heretofore adversaries against a common third target as a perceived source of shared threat can generate a positive “ally” stereotype in shared mutual perception among the other former adversaries. Part of the anti-Semitic stereotype is the conspiratorial component, i.e., the advanced minority has higher socio-economic status because of ingroup hidden manipulation of significant components of the polity. Despised lower status ethnic ingroups, stereotyped as backward and childlike by the core, are prone to be perceived as being instruments for manipulation by the envied higher status outgroup. This analysis thus shows how the Holocaust was an essential element of the wartime German regime. It mobilized societal resources around scapegoating which was part of the normative active and coercive and utilitarian control mechanisms characterizing the Nazi regime. Authoritarian populist regime enthusiasts can join the coercive apparatus to gain esteem and material benefits. Normative active control utilizing racist xenophobia was a means by which to generate support externally. Inferences from Great Power mid-twentieth century authoritarian populism are applied to the analysis of the US Trump phenomenon.

JEL: H12, H56, H63, I38, K38, N11, N51, O15, O51, P11, P16

KEYWORDS: Achievement, Ascription, Nationalism, Political Regime, Social Identity, Social Competition, Social Creativity, Social Mobility

INTRODUCTION

The American nation state, as with any nation state, is metaphorically analogous to a geologic formation, such as a particular mountain, which has its core foundation. The dynamic processes within this core, while interacting with the external environment, generate a new geological formation layer upon it. These interactive processes continue, adding layer upon layer, which can be examined by partitioning a portion of it to delve beneath the surface. By utilizing theoretical ontological frameworks to explain what is identified as a particular mountain, so can the analyst portray the existence, evolution and processes of the twenty-first century American nation state. American state institutions have evolved from its colonial settler foundation, but that foundation is critical for explaining what exists and functions as evident in behavior today. This analytical perspective characterizes the methodological approach of process tracing (Collier, 2011, Hall, 2013, Kittel and Kuehn, 2013, Ricks and Liu, 2018). “Evidence that testifies that the sequence so identified is a causal mechanism needs to come from elsewhere, and in particular, from fully-fledged social theories” (Ruzzene, 2014, 365).

This study applies the political psychological theorization of nationalism in Cottam and Cottam (2001) to proffer causal sequence relationships in its process tracing. It outlines the collective value and attitudinal trend dynamics in the development of the American polity that produced the Trump phenomenon, i.e., the ascendance of white populist reactionary nationalism. The Trump administration displayed behavioral

tendencies suggesting a collective emphasis upon mobilizatory populist conservative reactionary public political participation. Concurrent with it was a noted predisposition to demonize “out groups” [sic] as sources of threat undermining traditional American values that allegedly made America “great” in the past (Fording and Schram, 2017, 670). These minorities had made inroads in reducing their political, social and economic marginalization significantly through the social justice movements that peaked in the postwar era (King, 2017). Their gains emerged concomitantly with the increasing globalization of the American political economy contributing to minority population demographic proportion growth. Globalizing trade, investment and finance flows reduced relative monetary income receipts for less skilled and less formally educated sectors of white society. These conditions primed their receptivity to scapegoat portrayals of the growing minority Other (Narayan, 2017). The Nazi German regime is a European case approximating the Weberian ideal-typical model of an authoritarian populist political regime. Cottam and Cottam (2001) define fascism as a political regime type, not as an ideology. They identify the defining characteristics of the phenomenon of fascism. Its essence is the agency of state terror and a demagogic manipulation of symbols as the means by which an aspiring elite establish and maintain totalitarian control over a society. Fascism offered, 1) an appeal to traditional values, 2) glorification of the group as a nation, 3) opportunity for individual success with its basis in merit rather than in social status (Hamilton, 1971, xxi, cited in Cottam and Cottam, 2001, 135). This conceptualization of fascism, rather than as a doctrine, focuses on collective behavior patterns. Characterizing a fascist regime is an aspiring elite seeking to establish totalitarian control which agencies of state terror exercise together with a demagogic manipulation of symbols.

Cottam and Cottam (2001) argue that in 1939, among Nazi Germany, Fascist Italy and Imperial Japan, Imperial Japan most closely approximated this Weberian ideal-type definition. Even here, Japan diverged insofar as the aspiring elite in Japan was the Japanese military, and it was the core element in the ruling elite. It was an institution which had solidly established itself, having deep cultural roots, rather than being a vanguard of a counter-elite. Elite alteration away from the traditional aristocratic ruling class was underway, to be sure, but nothing comparable occurred to the elite replacement which occurred in Germany and Italy. Still, the level of control which this military elite exercised was totalitarian, and the primary means of elite control was state terror along with a demagogic manipulation of romantic symbols. But even here a difference was evident; strikingly less obtrusive was the Japanese internal propaganda effort in comparison to Germany and Italy.

Evaluating the Trump phenomenon according to the criterion of an aspiring elite leading it implies of course challenging the establishment elite. Trump’s core enthusiasts’ focus on so-called culture war issues reflected hostility to this establishment elite, as did their rejection of anthropogenic climate change as a scientific fact. “Framing the discussion in terms of reliable facts, however, can miss how movements that promote distrust in science often put emphasis on *cognitive authority*. After all, a defense of established expertise is also a conservative act, shoring up the power of existing institutions and recognized authorities” [sic] (Edis, 2020, 6). White self-describe evangelical voters were at the core of Trump’s support. “The blend of cultural references, and the people who brought them [to the January 6, 2021 Washington, DC insurrection], made clear a phenomenon that has been brewing for years now: that the most extreme corners of support for Mr. Trump have become inextricable from some parts of white evangelical power in America. Rather than completely separate strands of support, these groups have become increasingly blended together” (Dias and Graham, 2021, para. 5).

Elite elements in this proto-fascist movement occupied senior positions in the G.W. Bush administration. As in the Japanese case, the white Christian nationalist elite has long been part of the postwar American establishment (Hummel, 2018). This aspiring elite harnessed American white evangelical antipathy towards Barak Obama and Hillary Clinton to propel the Trump campaign. “While evangelical Republicans’ levels of religiosity or faith are relatively uncorrelated with evaluations of Trump in 2016 and Romney in 2012, there is a strong negative correlation with Clinton and Obama evaluations” (Margolis, 2020, 91). Their leaders in turn disregarded Trump’s historical lack of evident religiosity to utilize him to gain preeminence

over the governing institutions of the American state. “Borrowing Max Weber’s framework, white Evangelicals have turned away from the charismatic authority of the Church in favor of the rational-legal authority of the state” (Martí, 2019, 5). They emphasized influence over judicial appointments. They sought and gained this control to “fight against forces they view as tainting the purity of American identity, forces that include immigration, nontraditional gender roles, and same-sex marriage” (Ibid., 4-5).

Proto-fascist tendencies towards exploitation of terror as a governmental control mechanism displayed themselves almost immediately. The Trump administration ramped up of family separations as well as deportations of undocumented residents. Of the 13.7% of the foreign-born US population in 2018, almost one-quarter were “unauthorized” (“Facts on US Immigrants,” 2018). They are mostly Hispanic, the largest ethno-racial minority in the US at 18% of the population. This nascent terror was by its nature a family affair; a majority of unauthorized US residents share households with authorized family member residents (Passel and Cohn, 2018). Their symbolic scapegoating was evident in the “visual cruelty” of Trump’s expansion of the border wall (Schuessler, 2021, para. 15). Women also became targets of incipient terror. Legal efforts intensified to grant American civil rights protection status to the embryo at the point conception under the “fetal personhood” campaign (Gersen, 2019). Successful efforts would effectively move towards not only abortion, but any impregnated female behavior deemed as unacceptably reckless for the wellbeing of the fetus becoming a punishable crime (“How a Stillbirth Becomes a Crime,” 2018). Nearly one-quarter of American women have undergone at least one abortion (Guttmacher Institute, 2017).

Hitlerian Germany allocated significant resources to the Holocaust when those resources could be devoted to the military and military support efforts in its life and death struggle to avoid conquest. The question emerges as to why. The answer is that the Holocaust was the manifestation of the essence of the regime. Specifically, it mobilized societal resources around scapegoating as part of the normative active and coercive and utilitarian control mechanisms characterizing the Nazi regime (Cottam and Gallucci, 1978). Coercion was obvious; it was part of the terror generation mechanism. It employed utilitarian control in that Nazi regime enthusiasts could join the coercive apparatus to gain esteem and material benefits which became limited under wartime material sacrifices. Normative active symbolic appeals of romanticized self-versus-other including racist xenophobia was a means by which to generate support among Germans. It also appealed among many Europeans in occupied German-occupied Europe. It generated opportunities for individual social mobility and social creativity, i.e., intergroup social integration. Heretofore hostile groups could more readily psycho-socially integrate by allying against the mythologized, conspiratorial scapegoat, the Jewish-Capitalist-Bolshevik-Masonic global conspiracy. These social identity integrative dynamics occurred within the larger context of Nazi German social competition with its battlefield enemies. The latter, e.g., the American and Soviet regimes, displayed essentially different types of political regimes/control systems (Cottam and Gallucci, 1978) Nationalism associates with stereotyping and affect. Mobilizing around a charismatic leader to enforce a secular mythology, i.e., a “Big Lie,” is part of this intense ingroup mobilization vis-à-vis outgroups (Adams, 2019, 238). German Nazi propagandist Josef Goebbels exploited this tendency, with the mythology of the global conspiracy among international Jewry being a core component (King, 2018). Hence, the Holocaust, despite the diversion of resources it required that could have been used for warfighting, was critical for the German Nazi wartime regime. The Trumpian Big Lie was the stolen election involving a cosmological conspiratorial mythology of globalists, universal human rights advocates and communities of color and liberal Jews in league with corrupt white politicians. The QAnon phenomenon is another manifestation of demonizing, right-wing authoritarian populist “apocalyptic crisis discourses” (Rensmann, 2017, 125).

Cottam and Cottam (2001) note that the basis for strong negative attitudes towards nationalism derives from this close association of fascism, i.e., authoritarian populism, and nationalism. If nationalist symbols were not available, then the ability of an elite seeking to maintain totalitarian control in part through manipulation of nationalist, stereotypical symbols would in fact be unlikely. In addition, an insistence on the exercise of greater influence in the world arena and an aggressive advancement of national grandeur interests are most

likely to occur in association with fascism. Yet, an association of nationalism with liberal humanitarianism is a far more frequent occurrence, and the outcome of the action is far more acceptable.

LITERATURE REVIEW

American Political Authoritarianism and Liberal Symbolism

Effective liberal neo-corporatist regimes provide institutionalized routes for integration of potentially conflictual societal constituencies (DeDominicis, 2021). The American civil rights and other New Left social movements functionally aim to promote opportunities for social mobility and social creativity amidst changing individual and societal values. Discontent leads to mobilization for collective action to change policies, perceptions and attitudes to provide social creativity opportunities with real, concrete benefits. Rebuffs may lead to social competition. The core group countermobilizes for collective reactionary pressure as it appears to be less prosperous with less status in a globalizing, diversifying and pluralizing world. White male core group grievance movements react for not receiving or losing the ascriptive status dignity their core enthusiasts habitually assume is their due (Clark, 2020). Traditional values are under threat, including from abortion rights because it challenges the traditional white male patriarchal family model. Women who are invested in self-identity terms in a relationship with a man who occupies this position may be offended by other women who challenge this self-identity conception by their very activity. Traditional conservative clergy articulate these traditional notions and they lead these conservative populist reactive social movements. Amidst the Covid-19 pandemic, American religious conservatives protest against the extended state governor-ordered shelter-in-place orders. They suppress church service attendance as a non-essential social gathering function while abortion providers, liquor stores and cannabis dispensaries remain open (Liptak, 2020).

Notably Covid-19 vaccine hesitancy has been a persistent issue among the African and Hispanic American communities, and also among Trump enthusiasts in the WASP Republican party core (Otterman and Wilson, 2021). The stereotyping of so-called backward minorities in a direction conforming with the imperial stereotype by the core and advanced groups is reciprocated by the former. In conditions of social stability, the backward minority will tend towards perception of the perceived threat from core and advanced in terms of the imperial stereotype (Cottam and Cottam, 2001). Collective behavior patterns that conform with it include a tendency to avoid interaction with the perceived superior culture imperial threat to self-identity satisfaction. The pharmaceutical-medical-scientific complex assuming transnational global leadership in confronting the pandemic is arguably perceived as an imperial threat to ingroup national self-identity.

The American national political control system significantly relies functionally on a parochial community focus founded in early modern colonizing rural political economy utilizing enslaved labor. This legacy remains in the proliferation and continued prominence of county authorities in immediate community regulation--coercive and otherwise—education, welfare and services provision. The American symbolic idealization of so-called “small government” represents the collective cognitive-affective accommodation to this legacy. “Of the seven states with 100 or more counties, five are former slave states. Texas has far and away the most with 254; Georgia 159 and Kentucky (a state with two-thirds Georgia's land area and much, much smaller than Texas in both size and population) 120” (Hutton, 2014, 4). Traditional American authority parochiality resonates with the current decentralization mantra of neoliberal policy discourse. “Neoliberal economics and suburbanization have renewed the scope of county government in some places, often in ways that echo the nineteenth century” (Hutton, 2014, 1). This symbolic idealization of American romantic self-identity symbols derives from the self-justificatory function of motivated reasoning. “[T]he South is idealized for “authentic” American values, jeopardized elsewhere by economic and social change: close-knit families and communities, good manners, warm hospitality, hard work, honesty, firm religious beliefs, and an ethic of mutuality so strong that it could even soften the harsh edges of racism. Displacing

these dynamics onto the exceptional South is to underscore their centrality to U.S. history” (Edwards, 2009, 535). Early commodity-trade based global capitalism incentivized institutionalization of slavery, parochialism and consumption as the basis for gaining status among white settlers in colonial America. European-Americans raised their social status through increasing consumption income within the larger framework of an American ascriptive racial caste hierarchy that superseded European class hierarchy. American colonists engaged in motivated reasoning articulated rhetorically in Puritanism to justify enslaving other humans in order to maximize exploitation of resources for their material benefit. The evolution of America’s Puritan Calvinist religious ethical rhetorical forms reflected the core influence of the institution of slavery that continued to legitimate white supremacy (Zafirovski, 2020). The racial pagan other was everywhere, so the threat was everywhere, i.e., simultaneously universal and parochial, focusing social interaction awareness in the immediate vicinity. Religion evolved accordingly, as American Calvinism, unadulterated by aristocratic institutional influences, became both universalistic and parochial, like the universal Church in medieval Europe. It served to legitimate the parochiality-focused system of racial caste-based authority norms.

The American Regime Security Apparatus

The authorities may also reactively aim functionally to stabilize the regime through mobilization of the core group coercive apparatus to increase reliance on coercion. These bureaucratic coercive apparatuses as well can provide utilitarian economic and participation opportunities (Cottam and Gallucci, 1978). The security services have traditionally been a route for social mobility for assimilating migrant communities who face prejudicial discrimination. Nineteenth-century, Catholic Irish immigrants, confronted prejudicial discrimination and stereotyping as backward and brutish, prone to criminality. To this day, a slang term for a police wagon is a Paddy wagon (Painter, 2008, 13). They exploited opportunities for social mobility by joining local police forces, focused disproportionately on marginalized groups, including the Irish. It was both “a reflection of a racial and class hierarchy and also a way of giving power to groups that feel like they don’t have access to the top of the American economy” (Muhammad, 2020, para. 14).

Police unions have again come under intense criticism for their resistance to increasing police personal liability for use of force in interaction with civilians. WASP reactionary populists tend to evoke the “blue lives matter” mantra against Black Lives Matter, while police forces have substantially increased their minority group member composition. Police forces and the state institutional coercive apparatus have become associated with American white supremacy. This association allows the public to grant legitimacy to the police union as an exception to WASP reactionary populist suspicion of organized labor. After the 8/9/14 police killing of Michael Brown in Ferguson, Missouri, AFL-CIO head Richard Trumka equated police unions with any other union, while AFL-CIO member turnout to protest the killing was “unsurprisingly meager” (Roediger, 2016, 229). “I doubt the possibility of a world without policing in the sense that societies inevitably define and enforce norms, which makes policing basic to cultural and structural relations” (Ward, 2018, 169).

The dispersal of the US security apparatus both geographically and institutionally as a legacy of this parochial, slavery-based political economy continues in its ramifications. A US National Public Radio report noted that since 2008, many American localities have increased fees and charges on those convicted of misdemeanors, e.g., traffic violations, aside from felonies. The politically and economically marginalized have been increasingly shouldered with growing fines and fees, including extraneous local government service charges. This trend is a response to failure to increase taxes to pay for public goods like community security and public health. These negative policy trends build upon historic marginalization to further reinforce institutionalization of marginalization in a positive feedback loop. This report further notes that local authorities in Ferguson, Missouri had issued so many arrest warrants for failure to pay these assigned fees so that the average household had 3.6 warrants. To counter these trends one economist advocates

American state governments no longer allowing local policing and judicial authorities to keep all fees and charges gathered through these means (“Fine and Punishment” 2021).

DATA AND METHODOLOGY

The process tracing methodological approach in this analysis portrays the evolution of the American state from its settler colonial beginnings to explain current political cleavages and polarizations. The police killing of Michael Brown in Ferguson on August 9, 2014 was a catalyst for mobilization publicizing the Black Lives Matter social justice movement. This economist’s policy recommendation would disincentivize reliance on functionally reinforcing the marginalization of the historically subjugated for exploitative value extraction. American Gramscian legitimation of the current system portrays the marginalized as poor because of their inferiority. As argued above, European settler colonial religiosity legitimated enslavement and expropriation as due to the subjugated lacking God’s grace.

RESULTS AND DISCUSSION

The *New York Times* reported on the scientific and political authorities’ challenge of communicating the inherent uncertainty in Covid-19 pandemic information amidst its rapidly evolving crises. One issue raised was the public’s “trust” in the scientific information and its source if the uncertainty was explicitly recognized in this communication. The findings of the Cambridge University study covered in the report indicated that explicitly communicating uncertainty does not affect the degree of the public’s “trust” in the information (Roberts, 2020, para. 26). Whether or not the public believes the facts and figures issued by scientific authorities is another form of the question of whom do particular public constituencies trust. Through trust, a public constituency grants legitimacy to the authority to lead them in making binding decisions. In a time of crisis, stereotyping and affect associated with ingroup solidarity values become salient. The modal WASP primary intensity self-identifier will tend, like nationalists generally, to orient towards becoming more tribal in both perception and behavior. They do so in responding to an intensely perceived challenge, i.e., threat or opportunity, to the ingroup (Oliver, 2020, para. 16). Concomitantly, their collective prevailing view perceptions will tend towards stereotypes of outgroups. Government policy achievement failures overseen by their leader is more likely to be dismissed as lies/fake news propagated by enemies or explained as part of conspiracies against the group and leader.

A Path Forward

Social justice reforms, e.g., affirmative action programs, functionally aim to break this self-reinforcing cycle of segregation and marginalization of traditionally, ascriptively marginalized minorities. International human rights treaties emerged amidst the growing awareness of ultimate interdependency within the international community in that structures of internal oppression increasingly impact external state actors. The Nuremberg trials underscored for the global audience that international peace and security requires worldwide recognition of legal limitations on state agent abusive behavior towards their respective subjects (Cassese, 2005). Avoiding nationalist backlashes against alleged external state internal interference in the internal affairs of a state is an imperative. The external pressure for internal social justice in the target state must appear to be unbiased. The justification for explicit or implicit imperialism has always included utilization of broadly appealing religious or ideological symbols, including today the defense of human rights. The global audience typically comprehends this behavior pattern, which Hans J. Morgenthau (1978) labelled nationalistic universalism. It still serves a purpose in terms of mobilizing allies and appealing for domestic support for external adventures.

Cottam and Cottam (2001) note that intervention in the name of human rights in the allegedly sacred internal affairs of a target state can generate a nationalist backlash within the target. Human rights as part of a proclaimed so-called responsibility to protect risks intensifying ethnic intergroup polarization. It can rise to

potentially genocidal levels if it is perceived as propagandistic cloak for ultimate ulterior nationalistic motives. The identified oppressed minority group risks even greater persecution because it is viewed as de facto fifth column traitorously serving the cloaked, real imperialist aims of the external initiator state. An essential requirement is the creation of a perception among the target people and government that irresistible, unbiased global public opinion pressure in the area of human rights exists. It is causing interceding governments to apply this pressure. The government applying the pressure must conclude that the price of abandoning the human rights campaign is greater than they can pay as a consequence of that pressure being sufficiently strong. The target government and people must understand that the governments applying the human rights pressure lack the decisional latitude to abandon the human rights campaign.

“The central point is that success in the advocacy of human rights in international relations in the long run requires the existence of an international ideological pressure group capable of placing irresistible pressure on a number of states simultaneously” (Cottam and Cottam, 2001, 264). This analysis proposes that creation of a supranational identity community, with representatives occupying its superordinate institutional representational positions. It is part of the strategic formula prescription to create this international human lobby pressure group. Progress implementing this formula equates with creating a diverse human rights constituency. It would place pressure on transparent legislative, executive and judicial processes which demonstrate a variety of access points. “The issue of human rights must be separated from nationalistic values, and this can only be done if it is not associated with a particular country as advocate and if support for particular human rights stances is internal, external and diffuse enough so that no single actor is targeted, all are expected to live up to certain expectations, and no single actor can be identified as interfering in another’s internal, and untouchable, affairs” (Ibid.).

CONCLUSION

This study has analyzed American political regime polarization trends that increase polity vulnerability to authoritarian populism. This study analyzed these political trends through process tracing utilizing the public record. It applied a social identity-based political psychological conceptualization of nationalism to analyze the Trump phenomenon in comparative, diachronic and synchronic perspective. Cross-partisan perception of a great power foreign adversary generates additional political incentivization for the securitization of the American polity.

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ACKNOWLEDGMENT

This article was written with the support of the Catholic University of Korea research fund.

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COFFEE'S CONSUMER BEHAVIOR STUDY DURING COVID-19 CONTINGENCY THROUGH TEXT MINING ANALYSIS

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ABSTRACT

The coffee industry is one of the most important sectors of the Mexican national economy. In a world where technology is constantly developing, users of social networks daily share opinions, ideas, and emotions related to their consumption habits and preferences. In this research, the application of opinion mining techniques is established, using an SVM polarity algorithm and the detection of topics through the LDA algorithm, to take advantage of the existing mass of data within Internet platforms. Besides, the information related to the Facebook social network of a company dedicated to the production and distribution of coffee is analyzed., to know through the opinions of the users the perspective of the users on the products and services within the market. The results obtained from our approach allow us to discover areas for improvement to promote better customer satisfaction in the service area.

JEL: M100

KEYWORDS: Administration, Social Media, Consumers Behavior, Text Mining, SVM, LDA.

INTRODUCTION

Due to the contingency caused by the COVID-19 virus, the distribution chains of products and services, as well as how services are provided to the end consumer, have been greatly modified. Regarding the social distancing measures that have been established in most countries, both large corporations and small businesses have had to adapt to new ways to continue their business activities. One of the main tools to continue with commercial activities has been social networks. In the case of this research, we have collaborated with a regional company whose main activity is coffee production. This company has created a business branch dedicated to the distribution of its product, but adding the service factor, by opening a cafeteria near its production plant. Although the main business line of this company is industrial processes, through this service business line, it seeks to create a brand identity with greater influence, as well as to exploit the added value generated by the service sector. However, due to the pandemic, the cafeteria has had to close its doors to the public, providing its services only through the Drive-Thru window. Thanks to the collaboration of the company, it has been possible to use its official social network from Facebook, to collect information about the users who are subscribed to its network. Through a questionnaire distributed by social networks, many opinions regarding the products and services of the cafeteria have been obtained, made by the brand's consumers. This database has been analyzed through two algorithms (SVM and LDA), to identify the general behavior of users and their opinions regarding the company's products and services during the contingency.

BACKGROUND AND CONCEPTUAL DEVELOPMENT

The term text analysis describes a set of linguistic techniques, machine learning, and statistical modeling and structure the textual information content sources for business intelligence through exploratory data analysis (Nafees et al., 2018). The latter term is now used more frequently in business settings, while text mining is used in some of the earliest application areas, dating back to the 1980s, especially life science research and government intelligence. (Aggarwal, 2015). Text mining technology applies today to a wide variety of government needs, research, and trade. All these groups can use text mining for record management thus finding documents relevant to their daily activities. Within the text mining context, a new approach has been proposed to exploit the opinions generated by consumers, it is called opinion mining or sentiment analysis. Organizations can use opinion mining tools for a variety of applications, including (Shayaa et al., 2018): Identify brand recognition, reputation, and popularity at a specific point in time or overtime.

Tracking consumer receipt of new products or features.

Evaluate the success of a marketing campaign.

Identify your target audience or demographics.

Collecting customer feedback from social media, websites, or online forms.

Carrying out market studies.

Categorization of customer service requests.

In this research, we have used the RapidMiner software, which allows the development of data analysis processes by chaining operators in a graphical environment. In RapidMiner it is possible to perform SVM analysis as well as LDA. This software has been used in research due to its practical design and as well as its ease of use.

Polarity algorithm

The RapidMiner software has been used to develop a model that allows us to know if the comments dictated by the community are positive or negative and if they correspond to a defined topic. This software allows establishing a functional data analysis model employing two algorithms, the SVM that works as a polarity algorithm and the LDA as a topic selection algorithm. The SVM (Support Vector Machine) algorithm was developed within the field of computational science, although it was originally developed as a binary classification, its application has been extended to multiple classifications and regression problems. SVM has turned out to be one of the best classifiers, which is why it is considered one of the benchmarks within the field of statistical learning and machine learning (Vazquez et al., 2016). The LDA (Latent Dirichlet Allocation) algorithm is a generative probabilistic model of a collection of different compounds. It uses natural language processing and topic modeling, among others. In terms of topic modeling, compounds are documents and parts are words or phrases (Lettier, 2019).

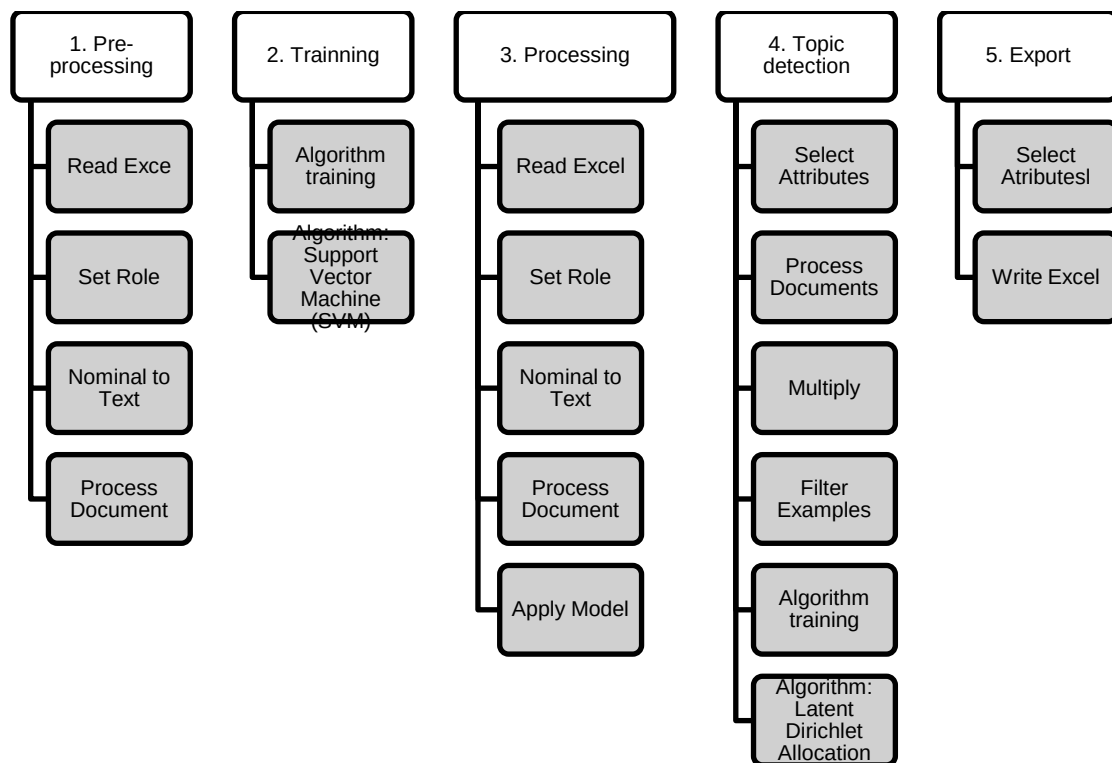
The LDA model analyzes the information as a whole and chooses topics from there. If documents are compared individually, it could be the case that certain topics will not be selected, and only when the whole body is viewed will certain topics begin to be noticed. The LDA algorithm determines if a text talks about a particular topic. (Park & Ramamohanarao, 2009). Through these algorithms, it is sought to identify consumer opinions as positive and negative, as well as to group opinions into two large groups using the LDA algorithm. In an environment where a large amount of data is ordered, the use of algorithms can be an advantageous alternative to determine the conditions on the opinion of consumers.

Related work

Multiple authors have applied sentiment analysis in different contexts. Zhao & Li (2009) developed a data extraction method, which considers an ontological vision to find the relationship between the various

concepts. Nevertheless, an ontological vision could be limited to linguistic issues. On the other hand, Yidong (2012) shown how opinion mining establishes a revolution for the development of science. Sixto et al. (2013) propose a methodology based on machine learning to analyze customer opinions in online portals for hotels, to classify them as positive or negative. Takashi et al. (2016) use a quantitative evaluation method to analyze the morphological content of publications on the social network Twitter. Basu (2019) presents an artificial intelligence focused on predicting the popularity that a movie will receive. The database is based on 150 movies collected from IMDB. All these authors have had one objective, to automate the classification of information, to make it understandable to end-users. Methods: Data and variables An opinion mining approach is developed using a polarity model using RapidMiner software on the information generated by social media users on the coffee company's page. Firstly, an analysis of the polarity of the comments is carried out, to detect positive and negative comments. Subsequently, the LDA algorithm must be used, to identify whether the topics referred to by consumers refer to situations related to the characteristics of the company.

Figure 1. Opinion Mining Model with the SVM & LDA algorithms



Algorithm training To train the algorithm, a first survey has been carried out. The objective of this survey is to obtain answers that can be identified as positive or negative because we need to show positive and negative data to the SVM algorithm. Subsequently, the responses of the consumers to the training of the model were introduced, establishing which texts were positive and which were negative. It is based on that it is performed a second survey, in which obtained responses that could be positive or negative. The user of social networks has also given its opinion on different topics of interest to the company. Through this series of questions, 336 phrases were generated by social network users. Then, they were processed through the SVM-LDA algorithm. The results obtained by our model were the following.

RESULTS AND DISCUSSION

Figure 2 displays the identification of 5 negative opinions and 331 positive opinions performed by our model. The reasons for this result will be addressed in the discussion. Two topics are identified, according to the standardized programming of the model. 63 responses related to topic 1 and 268 responses related to topic 0.

Figure 2: SVM Analysis

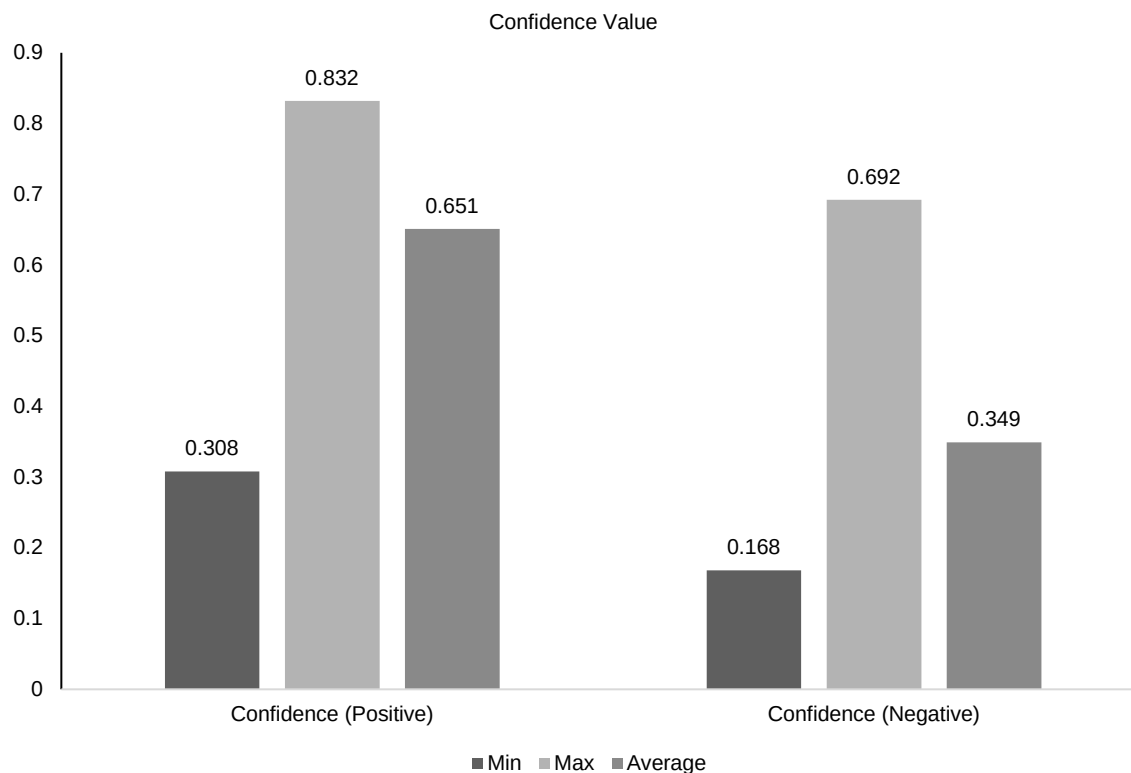
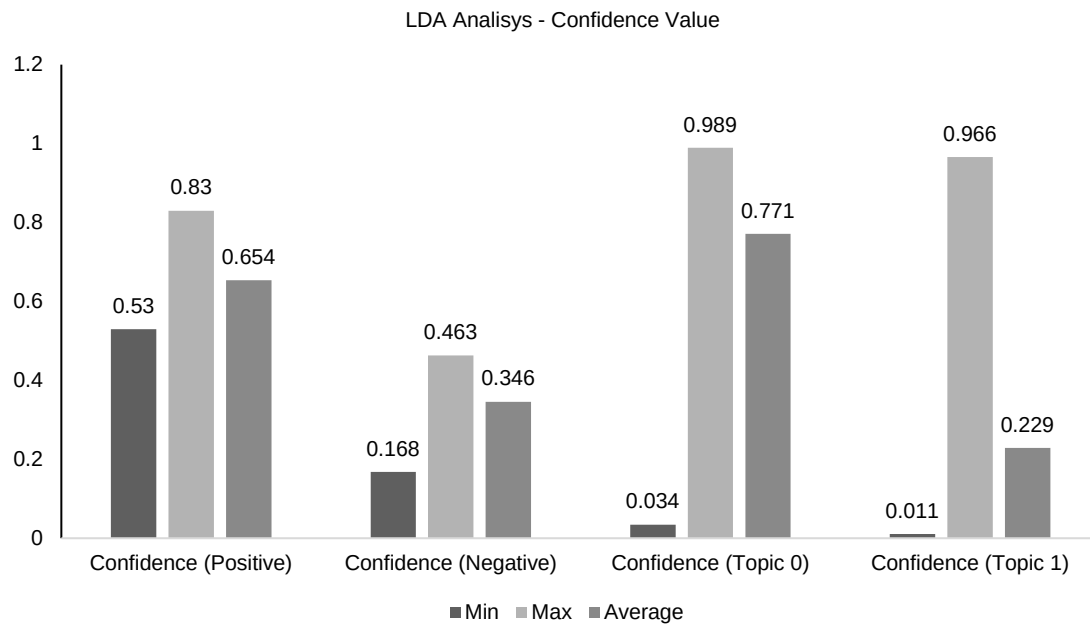
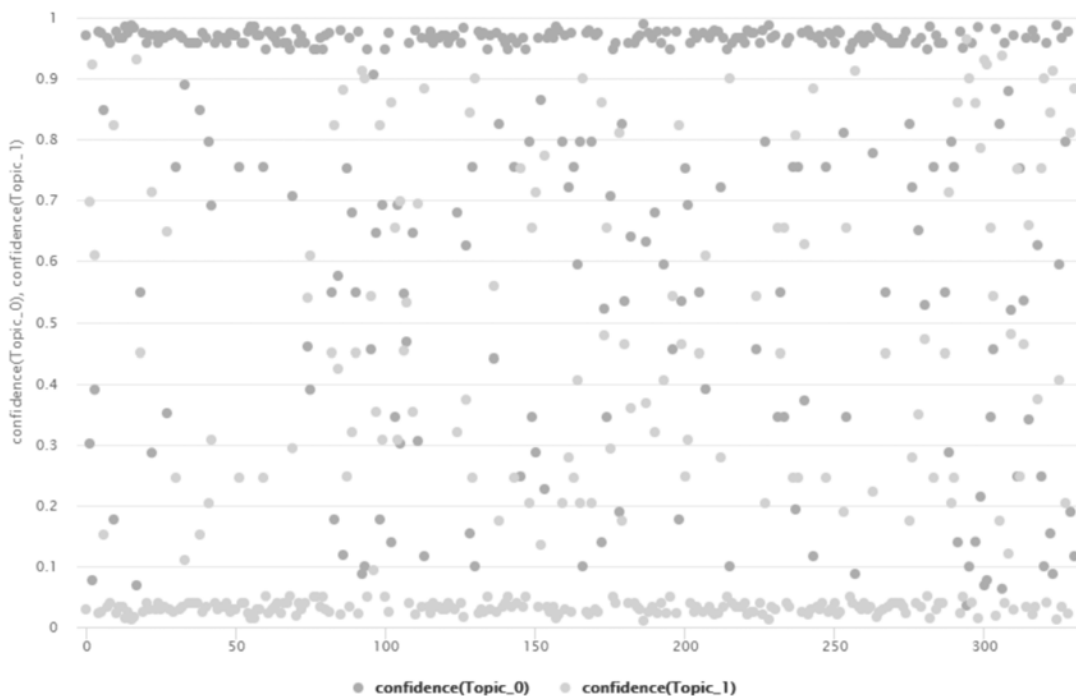


Figure 3: LDA Analysis



In Figure 3 the confidence intervals are shown to define whether the answer corresponds to topic 1 or topic 0. It is important to emphasize that this study was carried out in the Spanish language so that the grammatical rules of the language tend to differ. A list of stop words in Spanish has been used to try to reduce the differences.

Figure 4: LDA Dispersion Analysis



CONCLUSION

This research has aimed to employ new technologies in text analysis to better identify the polarity of the opinion's customers of a coffee service. However, this research has faced great challenges that were not expected at the beginning. The first of them was the difficulty in classifying topics on the available sources of information. The company has a busy page social networking, however, this work, in particular, tries to investigate specific about the first coffee house on the outskirts of its production plant. It was difficult for the public to identify which of the multiple coffee shops our investigations were referring to. This is because one of the main branches of the coffee shop business is the distribution of supplies for the sale of coffee in independent coffee shops. Another challenge we encountered was the diffusion capacity of our tools, as well as learning to train our algorithms. In the first instance, users refused to give negative opinions to the cafeteria's products and services due to the existing bias due to the instrument used. Although users were explicitly told that we required negative opinions, they refused to give them or declared that those opinions were non-existent. However, the greatest challenge faced by this investigation was one of the historical events that have largely marked the events of the world: The pandemic caused by COVID-19, which has stopped the flow of goods, from people and products and services around the world. Due to this problem, the cafeteria has closed its doors for more than a year, they only give their service through Drive-Thru. This change has prevented consumers from gradually attending the cafeteria, thus slowing down consumer interaction with the branch.

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THE EVOLUTION OF LEGISLATION AND PUBLIC INSTITUTIONS MANAGING THE FIELD OF IMMIGRATION IN ROMANIA

Ioan Puhace, Valahia University, Romania

ABSTRACT

The paper presents an introspection into the history of immigration in Romania to understand the role of the state and its institutions, since the establishment of the modern Romanian state, in regulating the entry or exit of foreigners from the country and how public authorities monitored the activities of foreigners here. Managing the movements of foreigners from the borders and inside the country, the activities they carried out in the country and especially the risks to which the young Romanian state was exposed were some of the important obligations of public order institutions, attributions that were perpetuated and increased in importance. with the development of public institutions, the legislative framework, the Romanian community and the state in general. Also, successive regulations, regardless of the historical order, have highlighted the interest of public authorities to safely manage the activities of foreigners in the country, to harmonize and integrate them culturally, socially and economically with the majority community in this country. historical space and to reduce the risks of actions to the detriment of the Romanian state.

JEL: D73, F22, K37, O15.

KEYWORDS: Immigration, Public Institutions, Legal Regulations, Authorities.

INTRODUCTION

Effective protection of persons employed outside national borders cannot be ensured through the exclusive efforts of the state of origin (Silasi & Simina, 2008). The authorities of the country where the economic migrants work (the host country) must give their support to safeguard the fundamental rights and freedoms of immigrants. In accordance with the Community legislation in force, there are major differences between the regime applicable to EU citizens and that applicable to third-country nationals as regards access to the labor market and the recognition of professional qualifications (Fassman & Munz, 2002). As a result of the mutations produced in the Romanian society, doubled by the numerous changes in organizational and structural plan, the premises were created for the modification of the normative framework that regulated the legal regime of foreigners in Romania (Constantin et al., 2004). The legislative process went through a series of stages, but starting with 2000, the legislative framework was modernized and updated annually, so as to correspond to the needs of the Romanian authorities to manage the admission of foreigners on the national territory and the legal regime applicable to them.

The Evolution of the of Legislation and Public Institutions Managing the Field of Immigration in Romania

The first regulation on immigration in the history of the modern Romanian state is the Law on Aliens of 1881, which was later supplemented by the Regulation of 1900, which stipulated as a necessary document for foreigners wishing to enter the Kingdom of Romania "Free Pass Ticket". Subsequently, by the Law of March 17, 1908, the old Directorate of Administration, Personnel, General Police and Statistics was abolished and two distinct directorates were created: one of an administrative nature called the Directorate of General Administration, Personnel and Litigation and a new directorate, called Police and General Security Directorate. The latter included in its internal organization, two sections: the General Security Section and the Police Section. In order to improve a number of administrative matters, on August 2, 1929,

the law for the organization of government ministries, including the interior ministry, was approved. The aim was to give the central administration a clearer, more structured and more efficient competence. Starting with 1938, the extensions of stay in the country passed to the competence of the inter-ministerial commission, which was active at the General Directorate of Police. A delegate from the Capital Police Headquarters also took part in its work. The Aliens Control Service executes the decisions to send foreigners across the border at the expiration of the term of stay in the country. He also received and resolved correspondence concerning foreigners. The composition of this service included four offices, one for each police station, which kept track of foreigners within the sector, monitored their presence and sought to leave the country at the end of the term. If the foreigners exceeded the legal term of stay in the country, they were sent to court according to the law and crossed the border.

In the context of the political and social changes that marked the Romanian society after 1989, the Directorate for Passports, Aliens Records and Border Crossing changed its name several times, depending on the evolution and reorganization of the Ministry of Interior, but the normative framework on the regime foreigners remained in force for another 11 years (2001). However, in 2001 a new normative act was adopted regarding the aliens 'regime, respectively Law no. 123/2001 regarding the aliens' regime in Romania, followed by the Government Decision no. 476 for the approval of the Methodological Norms for the application of Law no. 123/2001. Taking into account the obligation of national states to treat foreigners in accordance with certain standards enshrined in international law, as well as Romania's efforts to become a member of the European Union, in 2002 by Emergency Ordinance no. 194 new legislation on the legal regime of aliens was adopted. This ordinance regulated the entry, stay and exit of foreigners from Romania as well as a series of restrictive measures in case of violation of the legal regime. According to this normative act, the entry of foreigners from third states on the territory of Romania was allowed once certain conditions were met and on the basis of obtaining a visa to enter the country in advance. This law has undergone periodic amendments and completions aiming to transpose the Romanian *acquis communautaire* in the field into Romanian legislation.

The deepest transformation of the structures responsible for the implementation of the legislative framework and the application of the aliens regime in Romania took place in 2007 by merging the Aliens Authority with the National Office for Refugees, reorganization following which the Romanian Immigration Office was established as a specialized structure. the Romanian Public Office for Immigration had legal personality and was subordinated to the Ministry of Interior and Administrative Reform, more precisely in the direct coordination of the Secretary of State, Head of the Department for Public Order and Security. The new public institution was created for the unitary and more efficient management of immigration and asylum issues at national level, ensuring Romania's institutional capacity to fulfill the obligations of a member state of the European Union, implementing Romania's policies in the fields of immigration, asylum and integration of foreigners. of relevant legislation in these areas. With the establishment of the institution and taking over the attributions of the National Office for Refugees and the Authority for Foreigners, the attributions of the Office for Labor Migration from the Ministry of Labor, Social Solidarity and Family for issuing work permits to foreign employees were taken over.

In 2012, the Romanian Immigration Office was reorganized and became the General Inspectorate for Immigration. The need for a single structure with competences in the field of migration and asylum was mainly determined by: the change in illegal immigration and asylum flows and the increase of the level due to the events that affect the public security that take place worldwide; increasing the accommodation and removal capacity of illegally found aliens; increasing the capacity to process asylum applications, as well as improving the accommodation conditions for asylum seekers; expanding the areas of implementation of integration programs for foreign citizens who have a right of residence in Romania; the need to increase the absorption of Community funds in the field of migration, asylum and integration of aliens; continuing and intensifying preparations for Romania's accession to the Schengen Area; ensuring active, coherent and unitary participation in the decision-making process at European level in these dynamic areas; continue the

process of harmonizing internal legislation and procedures in the field of migration and asylum with the constantly evolving EU acquis; appropriate and unitary implementation of community documents with direct applicability at national level.

Currently, the General Inspectorate for Immigration is organized and operates based on Law no. 118/2012. The institution exercises its attributions, which are given to it by law, for the implementation of Romania's policies in the fields of migration, asylum and integration of foreigners, as well as of the relevant legislation in these fields. It actively participates in multiple collaborative activities at international and European level such as: International Center for Migration Policy Development, Salzburg Forum, Conference of Directors General of Migration Services, EUROMED, Khartoum process, Prague process, Budapest Process, European Bureau Asylum Support, FRONTEX. Internally, the National Strategy on Immigration best highlights the active role of this institution in cooperation with other central public institutions, representatives of civil society, local public authorities and Romanian citizens or immigrants.

CONCLUSIONS

The evolution of the legislation and institutions that once managed the issue of foreigners in Romania is important to be known by all those who are interested in immigration, by those who work in the field, by researchers, but also by those who, at some point it has to deal with the various problems posed by immigration and asylum. Although they have evolved more slowly - different historical arrangements - compared to EU member states in Western Europe, we can still say that today the legislative and institutional framework is modernized, is in full accordance with the *acquis communautaire* and other European requirements and Romania is involved active in EU migration, asylum and integration management projects. The development of flexible and effective policies and systems in the field of migration, in accordance with the needs of the Romanian economy and society, implies at least the following:

determining a set of relevant indicators regarding the particularities and evolution of migratory flows, the problems faced by economic migrants in Romania, the reintegration of Romanians returning to the country, after an international professional experience, as well as other aspects of interest in the field;

prompt operation of related legislative-institutional and procedural changes, taking into account the evolution of indicators on migration and migrants, Romania's economic and social interests, the provisions of the *acquis communautaire* and the various international commitments of our country.

In conclusion, so far, we can talk about insufficient assistance for integration provided to people who have acquired a form of social protection in our country. In this regard, the European Commission against Racism and Intolerance notes that the Romanian authorities still rely heavily on the UN High Commissioner for Refugees, non-governmental organizations, the EU and other governments to fund programs for asylum seekers and refugees. Under these conditions, there are growing prospects for Romanian communities to understand that a well-managed immigration of modernized public institutions can support the development of local communities in the sense that their members want.

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BIOGRAPHY

Ioan Puhace is PhD students at Valahia University, Romania and their field of research is management.

THE CHALLENGES OF MIGRATION AND LOCAL GOVERNANCE IN ROMANIA

Ioan Puhace, Valahia University, Romania

ABSTRACT

In this article, the author proposed an analysis of how local public administrations manage the migration process in Romania. Trends in recent years in the field of emigration and immigration raise serious questions as to whether or not public, central and local authorities identify solutions to reduce this phenomenon or integrate immigrants into local communities. We also wanted, through this study, to identify how involved are 9 of the largest local public institutions in the country in migration management and how viable they are as partners of civil society or central public institutions in integrating immigrants in the community. The study presents eloquent statistics on Romanian emigration and immigration in Romania and highlights a lack of reaction from local public authorities in identifying migration management solutions within local communities..

JEL: D73, F22, O15, R23.

KEYWORDS: Local Public Authorities, Emigration, Immigration, Integration, Management.

INTRODUCTION

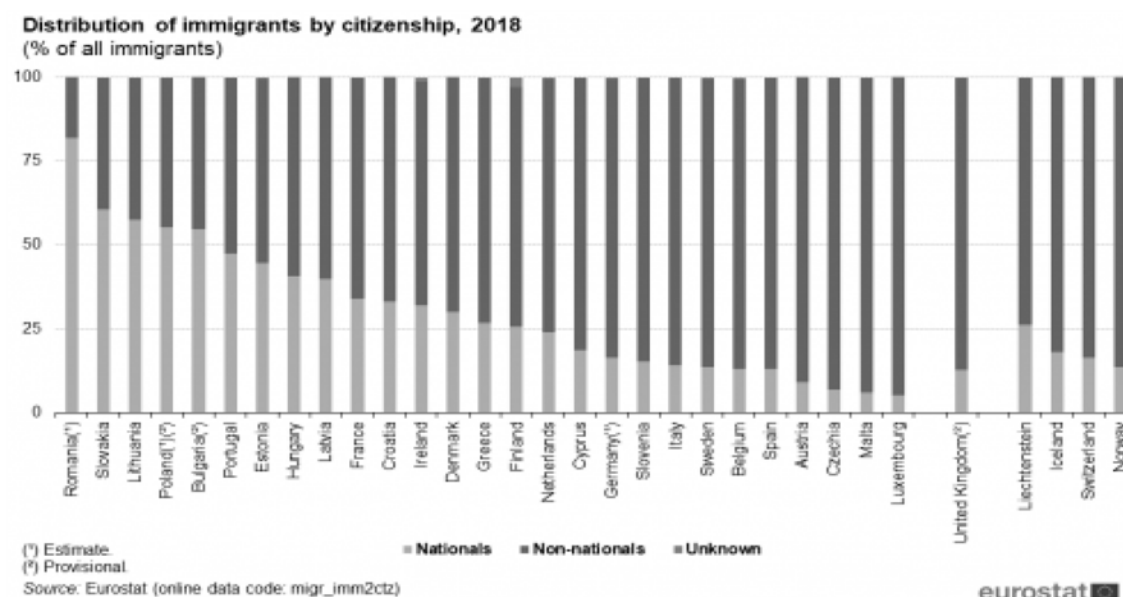
Migration management in Romania, in the two known forms - emigration and immigration - is an area with few values known by the representatives of local administrative structures and is still neglected, although the problems generated, especially emigration, tend to permanently affect the development of communities. our local (Fassman & Munz, 2002). The active workforce, but also Romanian children, go to the more developed areas of the world in the hope of a living environment more favorable to their aspirations. On the other hand, depopulated local community is left behind, without aspirations and even more, without the strength necessary for its own development (Silasi & Simina, 2008). We have often wondered if there is anyone who could reduce this exodus and what should he do? In my opinion, the answer is to the local public authorities, to the way they manage the life of the local community, how they can influence the choices of the young generation and concretely support the return of those who left. In the sense of this statement, we conducted a study to identify how the issue of migration is currently managed at the level of local communities. To conduct the study we consulted data and information from national development strategies, legislation related to the field, local development programs on the official sites of local municipalities, especially those where the presence of immigrants or the departure of Romanians should be among the big factors. risk to be taken into account for community development. To the same end, we have expressly requested large local public administration structures in the country to provide data on the inclusion of emigration and immigration issues in the local development agendas of the communities they manage.

The Current Trends in Romanian Emigration

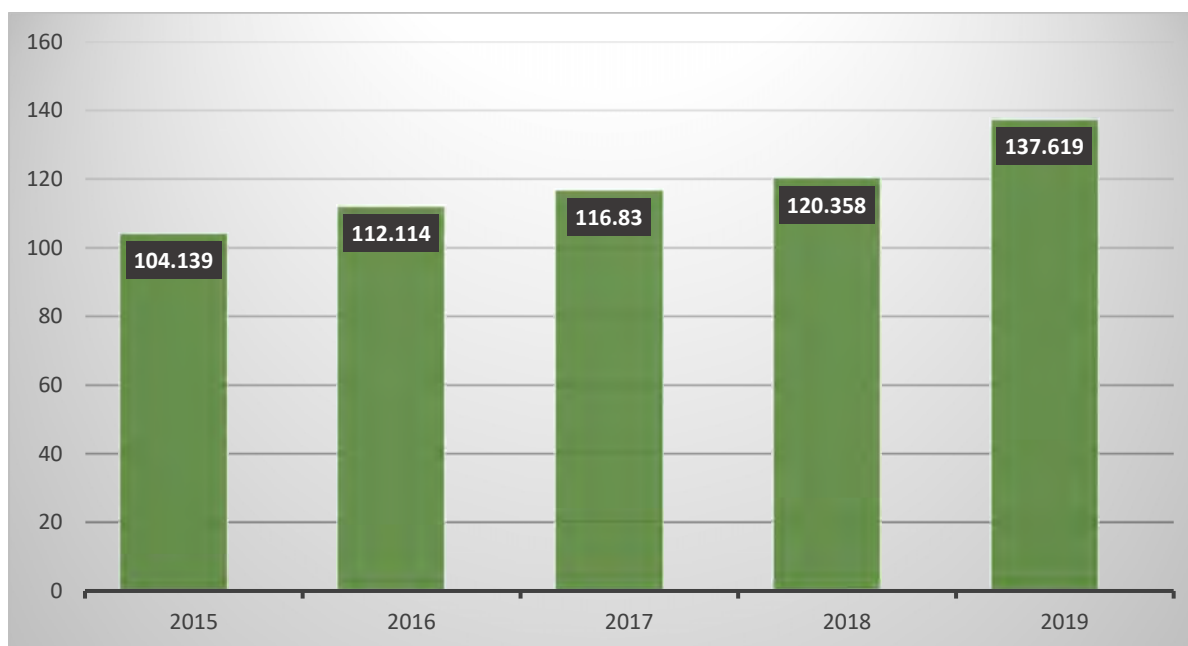
The research was based on a numerological projection of the active labor force of Romanians who went abroad to work in 2015 and the trends manifested in recent years in the field of emigration of highly qualified people, these aspects highlighting how serious the problem is for local communities in Romania. The reality, based on the statistical data of the National Institute of Statistics and Eurostat shows that, for more than a decade in Romania there has been a massive depopulation. In addition to natural causes (death), emigration is the most active factor contributing to this depopulation. In 2018, according to statistical data

provided by Eurostat, at the EU level. the largest share of national emigrants, destined for other EU Member States. was registered by Romania (82% of all emigrants), followed by Slovakia (60%), and Lithuania (57%). These were among the few EU-27 Member States where the share of emigration of their own citizens was more than half of the total number of emigrants (Figure 1).

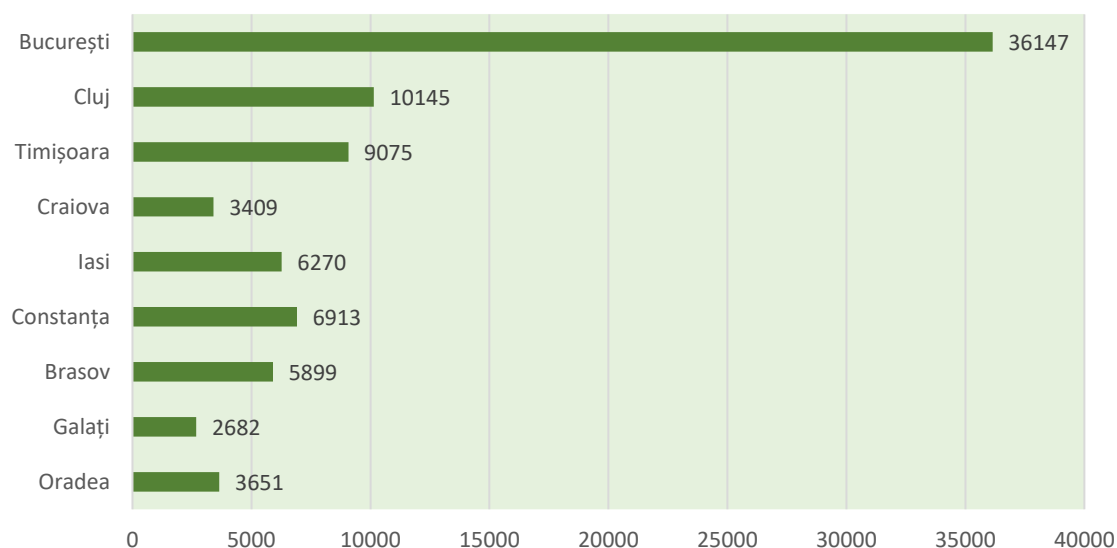
Figure 1: Distribution of Immigrants by Citizenship, 2018 (% of Total Immigrants)



Another trend of Romanian emigration manifested in the last 5 years is the departure of specialists and highly qualified staff (Constantin et al., 2004). Doctors, teachers, engineers, IT specialists emigrate to the U.E. member states, but also to the USA, Canada, Australia. The analysis regarding the demographic scenarios explains the fact that in Romania the effect of such an exodus of brains, of qualified and educated people, would have a particularly serious economic and social impact for the development of the country. Regarding immigration, according to statistical data provided by the General Inspectorate for Immigration, on 01.01.2020 there were 137,619 foreigners registered in the records of this institution, ie 0.7% of the country's population (Figure 2).

Figure 2: The Evolution of Immigration In Romania 2015-2019 (<https://insse.ro/cms/>)

The settlement of immigrants on the territory of Romania occurs unevenly, most of them settling in the Bucharest-Ilfov area, but also in large cities and university centers such as Timisoara, Cluj, Constanta, Iasi, Craiova, Brasov. In the category of immigrants we find foreigners who arrived for the purpose of studies, work, family reunification or refugees (Figure 3).

Figure 3: Disposition of Immigrants in the 9 Municipalities (<http://igi.mai.gov.ro/>)

Therefore, the integration of immigrants into the local community is essential for the security and development of these communities. At the central level, the General Inspectorate for Immigration is the

public authority designated to manage the admission, residence and development of integration programs for foreigners. Along with it, the Employment Agency, the Labor Inspectorate, the Ministry of National Education, the Ministry of Health are institutions that collaborate at the central level and implement the legal framework for respecting the right to work, health or education of immigrants. An important role is given, through legislation and to civil society represented by non-governmental organizations, which participate, as partners in the integration activities of immigrants, being supported by European funds in the field of migration and asylum. Non-governmental organizations must play a very important role in the management of emigration and immigration issues.

At the local level, the management of community issues is managed by the local public administration which includes local town halls and councils. Their objectives are achieved through the totality of the activities carried out, in regime of public power, of organization of the execution and of concrete execution of the law and of provision of public services, in order to satisfy the local public interest. At the local level, the mayor is the one who elaborates the draft strategies regarding the economic, social and environmental state of the administrative-territorial unit and submits them to the approval of the local council. Therefore, both emigration and immigration of active labor from any locality in Romania can be analyzed, influenced or determined by the response of local public authorities to the problems generated by emigration and immigration. From the analysis of the documents that establish the strategies and directions of action in case of emigration and immigration, elaborated at the level of the central institutions of the Romanian government and their implementation at the level of local decision structures - we found a *de jure* and *de facto* non-involvement of local structures in the effective management of problems caused by emigration and immigration.

CONCLUSIONS

The study highlights a series of conclusions that, although difficult to recognize, they are real for today's Romanian society, namely: both the Romanian emigration and the immigration of foreigners to Romania is in a continuous statistical increase and has become a factor with exponential risks for the development in the next years of the Romanian society; programs and strategies developed at national level do not identify local public administrations as an active participant in the implementation of strategic objectives and the main factor in managing the process of integration or reintegration of migrants at the level of local communities; decision-makers at the level of central structures must attract local public administrations in projects with integrated participatory management to support the development of local communities and through a positive approach to migration.

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<https://insse.ro/cms/>

<http://igi.mai.gov.ro/>

<https://ec.europa.eu/eurostat>

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WHO SUPPORTS GOVERNMENT DISASTER AID?

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David Nickerson, Ryerson University

ABSTRACT

Despite its obvious economic and political importance, almost no empirical research has ascertained what factors influence the support of the American public for government disaster aid. We regress probit models on respondent data from the 2006 General Social Survey and data on previous disasters and aid in each respondent's county of residence to measure the socioeconomic, demographic, political and environmental determinants of public opinion of aid. While our results are consistent with some previous research findings from other social sciences, we also find inconsistencies that have significant implications for prior research in economics, political science, social psychology and sociology.

JEL: H12, Q54, Y80

KEYWORDS: Disasters, Government Aid, Public Policy, Survey Data

INTRODUCTION

The increasing liability assumed by the United States federal government for private losses from the increasing incidence of domestic natural disasters is an increasingly important issue in both public policy and research in economics, political science, sociology and other disciplines. Even prior to the estimated \$7 trillion in economic losses arising from the current covid pandemic, since 2010 estimated annual losses from FEMA-designated major disasters in the U.S. have averaged over \$40 billion per year, a cumulative increase exceeding five hundred percent over the last decade (CRED, 2020; FEMA, 2020; Statista 2020). Over this same period annual government aid expenditures have averaged over \$12 billion while the government share of total expenditures on disaster compensation and recovery has increased from approximately 25% to 45% since 2000. Congressional appropriations for federal disaster aid in 2018 alone constituted approximately 18% of that fiscal year's federal budget deficit, with over \$139 billion obligated through emergency appropriations in addition to annual appropriations to the Disaster Relief Fund (CBO 2020; FEMA, 2020).

Surprisingly, while both economic efficiency and equity have been used as rationales for public aid, this paper is one of the first to rigorously measure the socioeconomic, demographic, political and environmental determinants of public opinion about such aid. Our results provide new and significant insights into the formation of public opinion about federal programs of disaster aid while simultaneously yielding a number of important implications for current disaster research in economics, political science, social psychology and sociology.

The paper is organized as follows. The methodology of survey research into disasters and the salient research on disasters and related aspects of individual and collective behavior from a variety of disciplines in the social sciences is reviewed in Section 2. Section 3 contains a detailed discussion of our data set and econometric method. Our results are presented and discussed in Section 4.

LITERATURE REVIEW

Significant social support is an essential requirement of a sustainable government program of disaster aid. A favorable opinion of aid provides strong political incentives to elected officials while a sufficient level

of public trust in government programs leads to individual cooperation with the actual distribution of aid to affected households and communities.

Studies in political science indirectly measure, on an ex post basis, public opinion about aid by the electoral success of an incumbent government's implementation of aid to an affected region prior to a national election. Based on aggregate voting, disaster aid has been found to positively affect the chances of reelection (Healy and Malhotra, 2009, Manacorda, Miguel and Vigorito, 2009, Rubin (2020) and many others. An alternative, ex ante approach, most often used by decision scientists, social psychologists, and sociologists, involves statistical analyses of samples of household opinions about aid obtained through large-scale surveys. Results from this second approach indicate that support for government aid is most often positively correlated with higher household income, homeownership, majority ethnic status (white), female gender, educational level, age, Democratic party membership, greater personal risk tolerance, and previous experience with both disasters and aid (Kunreuther et al., 1979, Havens, et al., 2002, Coleman, 2014 Yoshino, 2015, and Baccini and Leeman, 2020). Political conformity with the local electorate and trust in government and social institutions also play a major role (Coleman, 2004, Yoshino, 2015, Suhay 2015, Perez-Truglia, 2018).

DATA AND METHODOLOGY

Although survey data is extensively used by disaster researchers in political science, social psychology, sociology and by a small but increasing number of economists, a variety of undesirable properties can arise from survey design and sampling methods, both of which can bias statistical analyses of such data (Bourque, Shoaf and Nguyen (1997), Stallings (2007), Henderson et al. 2009, and Donner and Diaz, 2018). In addition, the common use of proprietary surveys precludes any assessment of design and sampling flaws (Viscusi and Zeckhauser (2006), Kriesel and Landry (2011), Cole et al. (2017) and Andor, Osberghaus and Simora 2020, among many others.)

We use public data from the 2006 General Social Survey (GSS), funded by the National Science Foundation and administered on a biennial basis by the National Opinion Research Center of the University of Chicago, which avoids many of these sources of bias (NORC, 2021). Details of its design, questions and sampling procedures as well as the data compiled from it are freely available. In addition, it uses in-person interviews, identifies the location of each respondent by county, and is regularly reviewed by researchers from a variety of disciplines to identify and mitigate remaining and potential design and sampling flaws (Marsden and Smith, 2016)

Dependent Variables

Each edition of the GSS poses a set of attitudinal questions about significant topics in the areas of politics, social trends and government policies. One such topic, unique to the 2006 edition of the survey, concerned expenditures by the federal government for disaster recovery. Our three dependent variables are the respective individual responses to three specific questions about the allocation of federal disaster aid to individuals and communities and the appropriate level of expenditures on total aid:

Q1: Do you think it should or should not be the government's responsibility to help individuals affected by natural disasters?

Q2: Do you think it should or should not be the government's responsibility to help rebuild communities affected by natural disasters?

Q3: Would you like to see more or less government spending on natural disasters? Remember that if you say "much more", it might require a tax increase to pay for it.

The first two questions involve the degree of support for the respective allocation of aid to individuals and communities while the third concerns the difference between the magnitude of total government aid deemed appropriate by the subject. Answers to the first two questions are coded 'yes' or 'no,' while the third question required subjects to select one of five ordered responses: (1) "Spend Much Less," (2) "Spend Less," (3) "Spend the Same as Now," (4) "Spend More" or (5) "Spend Much Less."

Independent Variables

Our independent variables are sorted into four categories: socioeconomic, demographic, political, and environmental. The socioeconomic variables are household income and homeownership. Demographic variables are comprised of ethnicity, gender, marital status, educational level, and age. All data are reported by the respondent. Data for all variables in the first three categories are taken directly from the 2006 GSS.

The first socioeconomic variable for each respondent, "*Income*," is measured in terms of twenty-five ascending dollar intervals and was treated as approximately continuous. The second, "*Homeownership*," is based on inference from an underlying probit estimate (Husted and Nickerson, 2021). The demographic variables are measures of ethnicity ("*Black*," "*Hispanic*," and "*Other*"); gender ("*Female*"), marital status ("*Married*"), educational level ("*College Graduate*") and respondent age ("*Age*"). Apart from age, measured in years, all of these variables are binary-valued with respective coding of "variable name = 1." The first political variable, "*Republican*," is a measure of the respondent's political ideology through his party affiliation, and is coded -1 (Democrat), 0 (Independent) and 1 (Republican). The impact on opinion of political and social conformity (Di Palma and McCloskey, 1970, Suhay (2015), Perez-Truglia, 2018) is captured by "*Republican*Co Dem Voters/GOP Voters*," which measures the interaction between party affiliation and the ratio of Democratic to Republican voters in the respondent's county. Personal experience is known to affect opinion (Grothmann and Reuswig, 2006; Kouabenan, 2009; Brown and Ferris, 2020) and we capture this effect through three aspects of the respondent's county environment. The first, "*Co Disaster Risk*," is taken directly from FEMA's "National Risk Index for Natural Hazards" (FEMA, 2029). Our measure of prior experience with disasters, "*Co Number of Disasters 04 + 05*," taken from the SHELDDUS disaster database (SHELDDUS, 2020), is the number of FEMA "major" disasters affecting the respondent's county over the two years prior to administration of the 2006 GSS. Experience with county-level government disaster aid, "*CO PC Disaster Aid 04 + 05*," is drawn from data on real per capita aid obligated by FEMA to each county suffering loss from each specific major disaster occurring in the same two years (FEMA, 2015).

The Econometric Model

Econometric estimation of the influences of our independent variables on public opinion about the magnitude of disaster aid requires an ordered response model to accommodate the ordinal nature of the data. We use the ordered probit model owing to its consistency with the method of most other survey studies of disasters. Consistency also drives our use of the ordinary probit model with the binary-valued dependent variables representing respondent opinion about the allocation of disaster to households and communities.

RESULTS AND DISCUSSION

The maximum likelihood estimates and significance levels for the regression coefficients from our probit and ordered probit models appear in Table 1, where each column corresponds to a regression for our respective dependent variables, "*Household*," "*Community*," and "*Expenditures*." These variables respectively correspond to the frequency of response to each of the three questions, Q1, Q2 and Q3, asked of respondents to the GSS. The coefficients for our independent variables are ordered by category: (1)

socioeconomic (*Income, Homeownership*); (2) demographic (*Black, Hispanic, Other, Female, Married, Female*Married, College Graduate, Age*); (3) political (*GOP, CoDem/CoGOP*); and environmental (*Co Disaster Risk, Co Number of Disasters 04+05, PC Disaster Aid 04+05*). Estimates in the first two columns are marginal coefficients for Q1 and Q2 while those in the third column are ordinary coefficients for the ordered probit regression for Q3. These last coefficients are interpreted in terms of support for total government aid expenditures. A pseudo-goodness-of-fit measure, “adjusted R²” is also reported for each regression.

The coefficients in these three regressions are consistent with some of the hypotheses and results from previous studies in economics, political science, sociology and psychology but inconsistent with others. The implications for these studies of the statistical insignificance found for some variables are as important to note as those for the coefficients found to be significant. Below we summarize, in order of category, our results and their respective implications for prior studies in economics and other social sciences.

Of the two socioeconomic variables, household income exerts a significant negative influence on public approval of aid to communities and to increasing total aid expenditures, while homeownership is insignificant in all three regressions. While the income results are consistent with higher-income households regarding disaster aid in general and aid to communities as inferior goods, the insignificant influence of income on aid to households appears to be inconsistent with an adverse reaction by richer households, who normally have private insurance coverage, to uninsured households which procure government coverage at no marginal cost ((Kriesel and Landry, 2011, Landry and Jahan-Parvar, 2011, Petrolia, Landry and Coble, 2013). Our results for both variables also contrast sharply with most sociological research, which finds that both higher income and homeownership positively affect charitable attitudes (Havens, et al., 2002).

The most striking results among the demographic variables are the strong support for government aid displayed by Black and Hispanic respondents. Black respondents in particular strongly support increasing aid expenditures as well as allocating that aid to both households and communities. In particular, the frequency with which Black respondents support increasing expenditures is a remarkable 36.4 percentage points higher than that of white respondents. While we might conjecture that this results from a Bayesian updating of beliefs about loss severity resulting from the temporal proximity of Hurricane Katrina, losses from which were particularly concentrated in black neighborhoods of New Orleans, an equally plausible explanation arises from the “worthiness of aid” evidence found by Fong and Luttmer (2011), which suggests a systematic difference in the collective perceptions of black and white respondents regarding the relative merit of black or poor disaster victims. Our evidence also contradicts the findings of sociologists, including Havens, et al. (2002), Brown and Ferris (2002) and Rooney et al., (2005), who consistently find Blacks to exhibit less or similar degrees of charitable behavior toward welfare recipients than whites. Other remarkable results are the significant disapproval of older respondents to all facets of government aid, the disapproval of aid to communities expressed by college graduates, and the insignificant influence of marital status. In particular, the strong negative effect of age contrasts with the consistently positive correlation of age with altruistic attitudes found in previous studies

Table 1: Support for Government Disaster Aid

	Household	Community	Expenditures
Income	-0.0118 (-1.33)	-0.0198** (-2.04)	-0.0850** (-2.33)
Homeownership	0.00737 (0.40)	0.0139 (0.65)	0.0390 (0.49)
Black (b)	0.0687*** (4.67)	0.0813*** (5.32)	0.364*** (3.51)
Hispanic (b)	0.0546*** (2.81)	0.0356 (1.03)	0.466*** (2.75)
Other (b)	0.0450** (2.23)	0.0315 (1.07)	0.0958 (0.71)
Female (b)	0.0354** (2.06)	0.0302 (1.63)	-0.0371 (-0.48)
Married (b)	-0.00123 (-0.07)	0.000994 (0.05)	-0.0491 (-0.65)
Female*Married (b)	0.0250 (1.34)	-0.000997 (-0.04)	-0.0269 (-0.25)
College Graduate (b)	0.00483 (0.30)	-0.0474** (-2.29)	-0.0526 (-0.71)
Age	-0.0401** (-2.14)	-0.0447** (-1.65)	-0.229*** (-2.65)
GOP	-0.0308*** (-3.73)	-0.0324*** (-3.54)	-0.225*** (-5.85)
CoDem/CoGOP	0.0150 (1.18)	0.00738 (0.49)	0.00462 (1.83)
CoGOP *(CoDem /CoGOP)	-0.00764 (-0.75)	-0.00610 (-0.40)	0.00681 (0.13)
Co Disaster Risk	-0.0141 (-1.43)	0.00741 (0.70)	0.0503 (1.07)
Co Number of Disasters 04+05	0.0108 (0.81)	-0.0139 (-1.00)	-0.0276 (-0.44)
Co PC Disaster Aid 04+05	-0.000471 (-0.32)	0.00191 (1.46)	0.00238 (0.41)
Observations	1237	1233	1237
Pseudo R²	0.083	0.096	0.040

Table 2 presents our probit regression estimates. The coefficients in the column entitled “Household” can be interpreted as the marginal impact of each of the named independent variables on the frequency (probability) with which respondents approved of the allocation of aid to households suffering loss from a major natural disaster. Those in the column entitled “Community” have the analogous interpretation with respect to the frequency with which respondents approved of aid to affected communities in the aftermath of a disaster. Those for the column “Expenditures” are coefficients for our ordered probit, interpretable as support for greater expenditures. Those independent variables marked (b) are binary-valued (dummies). As an example of these interpretations, every additional year of respondent age lowers the frequency of approval of aid to households by 4.01 percentage points, while black respondents approved household aid by 6.79 percentage points more than whites. The significance level of coefficients marked *, ** or *** are respectively 10%, 5% and 1% and unmarked coefficients are insignificant.

by social psychologists and sociologists (Havens et al., 2002, Bekkers and Wiepking, 2007; Wiepking and Betters, 2012), but it is consistent with recent research by political scientists on the positive relation between aging and the retention of conservative social and political ideology (van der Brug, 2010; van Hield and Briebels, 2011) and potentially consistent with recent studies by Andreoni (2001) and Wiepking and James (2011), which find a strictly concave relationship between age and social compassion

Our results for political influences show that Republican voters are strongly opposed to both the allocation of aid and to increased expenditures on aid, in keeping with a politically conservative ideology regarding both government spending and the responsibility of households exposed to disaster risk to privately finance their recoveries from losses, a result also found by Viscusi and Zeckhauser (2006). Neither the relative concentration of voters of one party in a respondent's county nor the effect of such concentration on Republican voters are found to be significant. While the latter result is consistent with those found by Riemann et al. (1993), Jost et al. (2018) and other psychologists, our result contrasts with previous studies regarding the strong influence of political and social conformity (Di Palma and McCloskey, 1970; Coleman, 2004; Suhay (2015); Levitan and Verhuist, 2016; Perez-Truglia 2018).

Finally, our estimates provide mixed support for the hypotheses of several previous studies regarding the impact of personal exposure to risk on the support of the average respondent for aid and for both his previous experience with disasters and with government aid. Also found by Viscusi and Zeckhauser (2006), and implied by the results of Cole et al. (2017) and Esteban et al. (2017), the insignificant influence of personal risk could indicate that the realism of the traditional economic assumption that household preferences reflect only self-interest is somewhat questionable. Finally, the insignificance of respondents' previous experiences with both disaster and government aid on support for aid is both surprising and inconsistent with traditional results from most behavioral economists and decision scientists, including those of Kunreuther et al. (1979), Kunreuther (2006), and Botzen, Kunreuther, and Michel-Kerjan (2019), and particularly with the results from most research in political science, as characterized by Healy and Malhotra (2009), Manacorda, Miguel and Vigorito (2009), Fuchs et al. (2014), and Rubin (2020).

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CROSS LEVERAGING SCRUM AND SIX SIGMA

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ABSTRACT

The Agile methodology is an iterative development and prototyping framework widely used in a variety of industry projects as a lightweight development method that can satisfy rapid changes of business and system requirements. Short iterations (sprints) are used that are required for efficient product delivery. SCRUM is a framework composed of several subprocesses and practices to develop and implement complex products. SCRUM aims to improve product development and project management techniques to improve the product or service, the team, and the working environment in a locked stepwise approach called “sprints.” The Lean Six Sigma methodology has a wealth of proven tools and practices that can be leveraged in the different SCRUM builds. This paper attempts to identify such tools and map them to SCRUM framework constructs.

JEL: M00

KEYWORDS: Agile Methodology, Extreme Programming, Lean Six Sigma Methodology, SCRUM Framework, Software Development, Sprint

INTRODUCTION

The Agile Methodology comprises a set of software development practices and procedures based on iterative and incremental progressive steps towards a final product or service. The principal characteristics underlying the series of agile methodologies include adaptive planning, iterative and evolutionary development, rapid and flexible response to change, and promotion of team communication (Maher, 2009; Begel & Nagappan, 2007).

The Agile Manifesto defines the approach of agile software development. In 2001, some of the manifesto's members set up the Agile Software Development Alliance or Agile Alliance as a nonprofit organization that refined the philosophies captured in their manifesto into a collection of twelve principles (Wikipedia, 2021; Agile Manifesto, 2012). The manifesto features a set of principles and ideals that any of the agile methodologies should exemplify among other things, the importance of team members and their interactions, the necessity for constant delivery of incremental software features, strong partnership with customers, and fast response to unforeseen or unplanned changes. The twelve principles behind the agile manifesto are stated in several sources (Wikipedia, 2021; Agile Manifesto, 2012).

Agile software development takes the view that production teams should start with simple and predictable approximations to the final requirement and then continue to increment the detail of these requirements throughout the life of the development. This incremental requirement refinement further improves the design, coding, testing, and implementation at all stages of production activity (Kumar & Bhatia, 2012; Maher, 2009; Begel & Nagappan, 2007).

Since the early 2000s, the Agile methodologies emerged as a counter approach to conventional ways of software development and implementation and presenting the need for an alternative to traditional heavy documentation-driven software development methods (Ilieva, Ivanov & Stefanova, 2004; Highsmith, 2000; Brooks, 1987).

The agile methodology includes a family of lightweight methods that include “SCRUM, Crystal Clear, Extreme Programming (XP), Adaptive Software Development (ASD), Feature Driven Development

(FDD), and Dynamic Systems Development Method (DSDM) Crystal, Lean Software Development”, among others (Srivastava, Bhardwaj & Saraswat, 2017; Wang, Sang & Xie, 2009). The Agile family of routines divides developmental tasks into small increments with minimal planning called “iterations”. These iterations are short time frames running from one to four weeks. Each iteration requires a team working through a full software development life cycle. This includes the traditional “waterfall” steps of planning, analysis of business and system requirements, a design phase, coding, unit and system testing, and final acceptance. This atomization approach diminishes the overall project risk by delivering functionality fast and allows for a swift adaptation to unforeseen or unplanned changes (Srivastava, Bhardwaj & Saraswat, 2017). Most of the agile implementations use formal daily face-to-face communication among team members comprising an interaction or sprint. In this brief communiqué, team members report to each other their previous day's work progress and obstacles, what they anticipate doing next (today), and what are difficulties they may face. The direct work between customer or domain experts with the development team creates a frictionless learning environment about the problem at hand (Srivastava, Bhardwaj & Saraswat, 2017; Sharma & Hasteer, 2016).

THE SCRUM FRAMEWORK

Agile consists of a family of methodologies. The SCRUM framework is the most renowned and widely used methodology providing benefits to many companies. SCRUM is straightforward and effective for managing challenging and complex projects. SCRUM is SUCCESSFULLY used at many firms with success when compared to traditional SDLC waterfall models (Srivastava, Bhardwaj & Saraswat, 2017; Wang, Sang & Xie, 2009; Mahalakshmi & Sundararajan, 2013).

The term SCRUM is mentioned for the first time in Takeuchi & Nonaka's (1986) paper as a key teamwork style of a breakthrough process for rapid product development. The SCRUM framework was first introduced by Ken Swaber in 1995. It became part of Agile since it contains the same concepts. A SCRUM is a cohesive team, with everyone acting collectively in pursuing the sprint deliverables. It completed the project within time and with minimal cost (Swaber, 2015; Wang, 2011; Outi Salo, Abrahamsson, 2005). SCRUM is a process framework that embodies various subprocesses, and techniques on complex products. SCRUM intends to give efficacy to product management and development techniques to continuously improve the product, the team, and its working environment (Correia, Gonçalves & Misra, 2019; Misra & Correia, 2014). The core of SCRUM is a small effective group of people, highly malleable and adaptive. Their flexibility and adaption are strengths that would continue operating singly, or as a network of teams developing, releasing, operating, and sustaining the work and products of thousands of people. They cooperate and interoperate through complex development architectures and target release environments. In the SCRUM terminology, a SPRINT is a set of development activities that are undertaken during a pre-determined timeframe, usually from one to four weeks. The interval depends on the complexity of the product, on the risk assessments, and the needed degree of skills and expertise. The speed and the intensity of a SPRINT are determined by its agreed duration (ft n il Ionel, 2008). The risk is assessed continuously and permanently, and adequate measures are taken for each risk event. The SCRUM framework has several actors as well as a defined process. The latter consists of a Product Owner, a SCRUM Master, and the SCRUM Team (Swaber, 2015; Cervone, 2011; Schwaber, 1997). There are also a series of “standardized” artifacts like a Product Backlog, a Sprint backlog, and a Burndown chart (Srivastava, Bhardwaj & Saraswat, 2017; Cervone, 2011; Mahalakshmi & Sundararajan, 2013). It also has a series of periodic, structured meetings like the Sprint planning meeting, the Sprint, a Daily SCRUM, a Sprint Review meeting, and a (postmortem) SCRUM retrospective meeting (Mahalakshmi & Sundararajan, 2013; Singh, 2008; Schwaber, 2002; Highsmith, 2000).

Some of the stated advantages of the SCRUM framework are its product and customer orientation by optimizing delivery cycle-time, increase product quality, short-term deliverables utilizing frozen schedules,

fixed Sprints, and acceptance and expected changes (Srivastava, Bhardwaj & Saraswat, 2017; Sharma & Hasteer, 2016).

However, there are some stated disadvantages and states shortcoming to the SCRUM framework starting with light documentation, reliance on strong team performance, lack of team commitments or interfering priorities, risk of scope creeping due to clear end-dates, adapting the SCRUM framework to large projects, among others (Mahalakshmi & Sundararajan, 2013; Sharma & Hasteer, 2016; Highsmith, 2000).

Due to the popularity of SCRUM, “numerous tools have jumped on the bandwagon and have started to recognize themselves as the best Scrum tools” if they fit with your project needs, effectively achieving the sprint goals, and are budget-friendly (Wilson, 2019; Ardakani, Hashemi & Razzazi, 2018). Some of these tools include software pieces like nTask, Jira, Targetprocess, VivifyScrum, QuickScrum, Yodiz, to mention a few (Wilson, 2019; Pillai, Pundir & Ganapathy, 2012). They are all tools to automate some of the tasks and deliverables like the Product backlog, the burndown chart, and the Activity log. However, aspects like team formation and development, tools for brainstorming requirements for the Product Owner, prioritization of requirements, and the Sprint Backlog, (Ma’arif, et al., 2018; Sharma & Hasteer, 2016; Qurashi & Qureshi, 2014). These areas with little depth and breadth of tools to assist are where Lean Six Sigma tools and methodology can be leveraged (Correia, Gonçalves & Misra, 2019; Misra & Correia, 2014; da Cunha, Dantas & Andrade, 2011; Fehlmann & Santillo, 2010).

LEAN SIX SIGMA METHODOLOGY

For over forty years, Six Sigma and Lean Six Sigma have been proven methodologies for process improvement, variance reduction, and waste elimination. They have been implemented in thousands of manufacturing, transactional and service companies, as well as the military. The Six Sigma methodology offers to corporations and businesses instruments to enhance their business processes’ capabilities. Performance improvement and process variation decrements lead to an increase in customer satisfaction and loyalty, process defect reduction, revenue uptick, better employee morale, and superior quality of products or services. The term “Six Sigma quality” is utilized to indicate a process is under control (that is, within process limits $\pm 3\sigma$ from the centerline in a control chart, and requirements-to-tolerance limits $\pm 6\sigma$ from the centerline) (What is Six Sigma? 2015).

Later, Six Sigma merged with (Toyota’s) Lean Manufacturing methods, creating a larger tool chest, as well as an evolving definition and reach (iSixSigma.com, 2012):

A vision and philosophical commitment to consumers to offer the highest quality for their requirements, at the lowest cost.

A metric that demonstrating quality levels at 99.9997% performance for products and processes; (Neuscheler, 1998)

A benchmark of product and process capability for comparison to “best in class”.

A practical application of statistical tools and methods to help measure, analyze, improve, and control our process.

However, the major contribution of (Lean) Six Sigma to the enterprise is the departure from the old philosophy stating, “High quality implies high costs”, to a goal of process improvement by reduction of cycle time, “Muda” elimination, and reduction in variation achieving product or service lower costs and higher quality, measured in terms of a higher process capability (concerning customer requirements).

LEVERAGING LEAN SIX SIGMA IN THE SCRUM FRAMEWORK

The purpose of this work is to point out a series of tools readily available in the Lean Six Sigma methodology and easily integrable into the SCRUM framework. There have been several attempts in creating a hybrid from SCRUM and Six Sigma (Correia, Gonçalves & Misra, 2019; Misra & Correia, 2014; Pillai, Pundir & Ganapathy, 2012; da Cunha, Dantas & Andrade, 2011; Begel & Nagappan, 2007). The attempt presented in Table 1 is to keep Agile's SCRUM framework intact and propose Six Sigma tools that would improve the efficiency and efficacy of the framework by offering proven techniques to the different SCRUM constructs.

Table 1. Lean Six Sigma Tools and SCRUM Support

SCRUM Construct	Lean Six Sigma tools and techniques
Product Owner	SIPOC, QFD, VOC
Sprint Planning	CTQs, VOC, Kano Customer requirements, Project Charter, and Risk assessment.
SCRUM Master	Ishikawa diagrams, affinity diagram, PDAC steps, communication plan.
SCRUM Team	Tucker's Team formation; 7 R's of change management; Lewin change management.
Product Backlog	Pugh matrix, XY Priority matrix
Product Increment	Impact matrix, Fault Tree analysis, WBS
Sprint Backlog	Kaizen event, Process maps
Daily SCRUM	Cause-Effect Diagram, 5 Why's
Sprint Review	Cause-Effect Diagram, Impact matrix
Sprint Retrospective	SPC charts, Communication Plan

CONCLUSION

This paper keeps Agile's SCRUM framework intact and proposes a series of Six Sigma tools that would improve the efficiency and efficacy of the SCRUM framework by offering proven techniques and tools to the different SCRUM builds. The purpose is to add some depth and structure with known, proven tools derived from Lean Six Sigma with the sole objective to enhance such a popular development framework.

BIOGRAPHY

Gustavo Diaz is an Associate Professor at Broward College Supply Chain Management Program, Associate Professor at, College of Business at the University of Phoenix, and an ASQ- certified Six Sigma Black Belt. Gustavo is also an independent quality and process optimization Consultant for the South Florida Manufacturers Association. He is a senior member of the American Society for Quality and a member of The International Society for Process Improvements (ISPI).

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NUDGE THEORY AND VOTER BEHAVIOR: HOW ELASTIC ARE AMERICAN VOTERS TO DECREASES IN THE COST OF VOTING?

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ABSTRACT

The study evaluates the influence of election policies and behavioral nudges on voter registration and voter turnout rates during national elections within the United States. Conceived by Richard Thaler and Cass Sunstein (2009), Nudge Theory expounds on the decision-making mechanisms of humans and illustrates how elastic people are to “nudges” or subtle suggestions. This paper intersects the field of behavioral economics with political science in order to test the effect of nudges designed to facilitate voter registration. Panel data is collected for every county in the United States for the 2014, 2016, 2018, and 2020 national elections. The treatments theorized to influence voter participation include policies concerning automatic voter registration, online registration, and same-day registration. These effects have been measured while controlling for income, unemployment, and education attainment. Panel data across four elections allows a difference-in-difference model to test a range of voter registration policy changes affecting voter behavior at the county level. Results indicate that nudged counties are associated with higher registration shares on average for several of the observations. Specifically, we find that for each of the nudge policies, implementation in 2016 was associated with the highest increase in voter registration.

JEL: D720

KEYWORDS: Agenda Setting, Congress, Constitution, Democracy, Election, Electorate, Government, Legislature, Liberty, Lobbying, Majority Rule, National Government, Politic, Political, Political Process, Politician, Politico Economic, Presidential, Regional Government, Representation, Representatives, Rights, Veto, Voting

INTRODUCTION

This research investigates the role of policies employing nudges on increasing voter registration during national elections in the United States. Nudge Theory asserts that subtle changes in the presentation of choices can influence decision-making and encourage people to make decisions that would not have been made otherwise (Thaler and Sunstein, 2009). Skekloff (2014) attempts to apply the concept of behavioral nudges to voter participation. While Skekloff (2014) had limited access to empirical data considering that the voter facilitation policies embodying nudges had not yet been implemented in many states, his theory has sparked interest in the application.

The three voter policies evaluated in this paper are automatic voter registration, election-day registration, and online registration. By altering the choice architecture of the decision to vote through increasing the ease at which one can vote, these policies are considered to be nudges. The implementation of automatic voter registration has taken place in 20 states, while election-day voter registration has been implemented in 40 states, and online voter registration has been administered in 21 states (NCSL, 2021).

In order to evaluate the effect of voter facilitation policies that function as nudges on voter participation, panel data for every county in the United States for the 2014, 2016, 2018, and 2020 national elections is collected. Although the voter facilitation policies are implemented at the state level, county data is preferred

in order to control for demographic compositions of counties. Additionally, income, unemployment, and education attainment will act as control variables .

To empirically test the changes across counties, a difference-in-difference model is employed in order to distinguish the changes in registration across treated and untreated counties as opposed to evaluating the changes in registration and turnout over time. This method is utilized in order to control for external factors affecting voter participation that are not related to Nudge Theory.

By establishing empirical support for the theory that nudges such as voter facilitation policies can increase voter participation, this research seeks to contribute to the literature in both the fields of behavioral economics and political science.

LITERATURE REVIEW

This section considers subsisting literature on nudge theory, behavioral economics, and voter policies.

Nudge Theory

In an analysis of decision-making, Thaler and Sunstein (2009), evaluate the role of environmental factors in influencing choices. “Nudges,” they argue, can be internal forces, but can also be external factors such as subtle suggestions or changes in the way that choices are presented. To exemplify, the authors illustrate the application of nudging in a school cafeteria. In the scenario, particular food items are ordered in a way that will encourage the selection of certain food choices over others. Thaler and Sunstein (2009), explain that the cafeteria staff could place healthier options in more visible positions in order to increase selection. A parallel effect may be observed in grocery stores and convenience stores, where consumers are nudged to purchase certain kinds of foods over others (Schwartz, 2005).

Following the introduction of Nudge Theory by Thaler and Sunstein (2009), it quickly gained popularity with academics and policymakers (Sunstein and Reisch, 2017). Sunstein and Reisch (2017), discuss the expanding application of Nudge Theory to business, academia, and policymaking. “The Economics of Nudge,” provides examples of Nudge Theory in action and illustrates that nudges can allow people to make decisions that will leave them better off than they would be in the absence of the nudge. The authors address the controversy of Nudge Theory, such as the argument that it employs manipulative tactics by contending that the theory is employed under the condition that people have the freedom to make decisions as they choose (Sunstein and Reisch, 2017). Moreover, agents must always have the option to opt-out of a nudge.

Nudge Theory and Voter Policy

Prior to the development of Nudge Theory, voter policies embodying nudges had already been developed, even though the connection to nudging was not yet articulated. The implementation of the National Voter Registration Act of 1993 resulted in the enactment by several states of policies such as allowing for mail-in registration, allowing registration to occur at motor vehicle agencies and at public assistance agencies. The Federal Election Commission reported that voter registration in states that adopted the National Voter Registration Act of 1993 had increases in voter registration of 1.82 percent (FEA, 1997). These findings sparked interest in voter mobilization policies and serve as a foundation for the role of nudging in increasing voter participation.

Jonathan Skekloff (2014) in “A New Generation of Voting: Promoting Youth Voter Turnout through Applied Behavioral Economics,” argues for the application of Nudge Theory to voter participation by analyzing the role of rationality and self-interest in deciding to vote. Applying behavioral economic concepts to voter participation, Skekloff (2014) asserts that nudges such as framing voter participation as a

reflection of social identity, increasing the availability of information surrounding voting, and increasing the extent to which people believe other citizens are voting leading to increases in voter participation. Skekloff's combination of behavioral economics concepts with an argument for policy application has inspired the development of our paper as we seek to evaluate how effective policy nudges can be in increasing voter participation.

Subsisting Empirical Testing

A more recent analysis of the role of nudge policies in voter participation was conducted by the Brennan Center for Justice (2021). The Brennan Center provides a foundation for our analysis by conducting one of the first empirical comparisons between states that do implement particular policies and states that do not. Using a political science technique known as matching, the researchers compare the increases in voter registration for counties that fall in states with automatic voter registration to counties that fall in states without automatic voter registration for the United States national elections from 2013 to 2017. Statistically, this method employs a difference-in-difference model, similar to the method we use. The report finds that states with AVR observed increases in registration ranging from 9 to 94 percent (Brennan Center, 2021). Our intent is to extend the difference-in-difference analysis to more recent election years, from 2014 to 2020 and to extend our analysis to the implementation of two other nudge policies: online registration and election-day registration.

DATA AND METHODOLOGY

To apply Nudge Theory to voter behavior, we illustrate several of the behavioral economic theories that serve as underpinnings for Nudge Theory, namely, a rudimentary model of cost-benefit behavior, a model of utility maximization, and a rational-choice model. These three theories have been well documented in previous behavioral literature and serve as a foundation for our modeling of voter participation as a function of nudges.

Cost-Benefit Analysis

An economic cost-benefit analysis of decision-making enables one to make better decisions as they seek to determine which choices will produce the greatest benefit at the lowest cost, offering a partial explanation for why some people choose not to participate in elections and others do. As supported in Terry Minnis and Niyati Shah (2020), over half of the survey participants reported that they did not participate due to access limitations associated with registering which can be considered as opportunity costs. The resource most likely to be associated with registering to vote and participating in elections is the time and effort required. This is because during the time that one could spend registering or waiting in line at the polls could also be spent performing other tasks of varying importance. Thus, one of the primary goals of the three policies we explore in our econometric model is to reduce the opportunity costs associated with registering to vote by making the registration process easier, through allowing one to register online, on election day, and through automatic processes conducted by the DMV.

Utility Maximization

Utility maximization models further illustrate the behavioral mechanisms behind participating in elections by considering the extent to which one derives utility, or satisfaction from participation. As discussed in Gerber, Green, & Larimer (2008) utility derived from voting can be a result of feeling as though one is adhering to social norms by being a good citizen, or from feeling as though one has satisfied an obligation. In order for one to maximize utility, by definition, the optimal

point of utility occurs when one has obtained their desired set of options at the lowest cost. To simplify, a standard utility model often depicts a tradeoff between two competing goods. In a model of voter participation, the two “goods” can be the social norm fulfillment and the completion of a task that one feels obligated to do. The constraint on satisfaction is the cost associated with registering to vote, measured in the time and subsequent opportunity cost of doing other things, as well as the feelings of dissatisfaction resulting from engaging in a tedious process. While increasing the utility derived from voting is more dependent on the individual voter’s ability to increase their desire to vote, the cost constraint of voting can be reduced by lowering the costs of registering and participating.

Rational Choice Theory

Conventional rational choice-modeling (Becker, 1990) assumes that an individual agent always behaves in a way that seeks to maximize their atomic self-interest, rendering social obligations and values irrelevant. While behavioral analyses conducted by authors such as Dan Ariely (2010), reveal that humans are in fact far less rational than the rational choice model assumes, the model still is useful for our analysis. Moreover, although people may not always behave rationally, it is possible that nudges, if implemented with the best interest of citizens in mind, can help to increase the ability of people to behave in their own self-interest.

Nudge Theory

These behavioral models can then help illustrate the nature of nudges as it relates to voter participation. We are interested in estimating the ability for nudges to reduce the costs associated with registering to vote, to maximize the utility gained from registering, and to make agents closer to fulfilling the assumption that serves as a fundamental principle in economics, which is to act as rational beings in pursuit of self-interest. While these behavioral concepts are imperfect and require substantial simplifying assumptions, they still serve as useful tools for dissecting and describing the mechanisms of decision-making. Additionally, we acknowledge that the nudges considered are not expected to be necessary factors in encouraging voter participation. Rather, there are other driving forces behind voter participation such as party loyalty, culture, habit, and concern for legislation. However, we seek to consider whether nudges can be sufficient in influencing people to register who would not have otherwise.

We recognize that counterfactual analysis is limited as it is difficult to argue with certainty whether someone would have refrained from registering to vote in the absence of nudge interference. However, a difference-in-difference model provides us with the ability to compare changes in registration in counties that will receive nudges from changes in counties that never receive nudges over the same time periods pre and post nudge. Thus, we are able to estimate the impact of nudges by analyzing changes to the pre-existing differences in these counties that occur after any nudges.

Data Sources

Data for population and education attainment is collected from the U.S. Census Bureau (2021). Population data is recorded annually while education attainment is reported as the average of every five-year period (2014-2019). Data on income and unemployment are collected from the Bureau of Economic Analysis, and data and information on the specific state-level legislation embodying the nudges are collected from the National Conference of State Legislatures (2021). Data on county-level voter registration and turnout rates is collected from Dave Leip’s Election Atlas (2021), a comprehensive data source for a wealth of election data. The most recent release of annual population, income, and unemployment data was published

in 2019. We intend to update our modeling using 2020 data, which is expected to be released in the summer of 2021. Observations for Alaska, North Dakota, and Washington D.C. are excluded from this analysis due to missing data. Table 1 presents the list of variables we use in our model, as well as description and sources for each.

Table 1: Variable Description

Variable	Description	Source
LnShare	the natural log of registration divided by population multiplied by 100,000	Registration: Dave Leip's Election Atlas (2021) Population: U.S. Census Bureau (2021)
i.Year	2014, 2016, 2018, 2020 (0 if observations fall outside of said year, 1 if observations fall within said year)	U.S. Census Bureau (2021)
Automatic Voter Registration	a dummy variable for the implementation of automatic voter registration (0 for no, 1 for yes) state receives a 1 for every year if it enforces the policy, regardless of year of implementation	National Conference of State Legislatures (2021)
Samedayreg	a dummy variable for the implementation of election-day voter registration (0 for no, 1 for yes) state receives a 1 for every year if it enforces the policy, regardless of year of implementation	National Conference of State Legislatures (2021)
Onlinereg	a dummy variable for the implementation of online voter registration (0 for no, 1 for yes) state receives a 1 for every year if it enforces the policy, regardless of year of implementation	National Conference of State Legislatures (2021)
Treated	implementation of each policy for each year (D=0 or 1 for year of implementation & for subsequent years)	National Conference of State Legislatures (2021)
Lnincome	the natural log of income which is the change in average income per county over time	Bureau of Economic Analysis (2019)
Lnunemployment	the natural log of unemployment which is the change in the total number of people unemployed per county over time	Bureau of Economic Analysis (2019)
Education	the number of people with a bachelor's degree or higher per county	U.S. Census Bureau (2021)

In Table 1, our variable names are presented on the left, variable descriptions are featured in the center, and our data sources are listed on the right.

Econometric Methodology

The difference-in-difference model is designed to evaluate the changes in registration between counties across all four elections analyzed. The difference-in-difference model was selected in order to control for any events contributing to voter participation aside from the treatments selected. In particular, the introduction of the coronavirus in the year 2020, as well as the high levels of political polarization preceding the election might have impacted voter behavior. By establishing a model that differentiates counties belonging to states that have implemented these policies from states that haven't, we aim to prevent external variables from skewing our results.

Difference-in-difference Model

$$Y_i = \alpha + \beta T_i + \gamma t_i + \delta (T_i \cdot t_i) \quad (1)$$

Where:

Y_i : dependent variable

α : constant

βT_i : treatment

γ_{ti} : time dummies

$\delta(T_i \cdot t_i)$: treatment*time

After substituting our treatment variables into the equation, we arrive at:

$$\text{LnShare} = \alpha + \gamma_{ti} + \text{AVR} + \text{Samedayreg} + \text{Onlinereg} + (\text{Policies} * \gamma_{ti}) \quad (2)$$

It is important to note that for the interactive treatment variables, counties receive a value of 1 for all the year of implementation as well as the subsequent years within the time period. To exemplify, if Georgia implements AVR in 2016, the treatment variable for counties within the state will receive a 1 for 2016, and a 1 for all subsequent years. This specification is created in order to ensure that the effect of the policy for a particular election year is captured with consideration of its continued prevalence in subsequent years. Moreover, creating dummy variables that only captured the year of implementation would only allow us to capture a limited period following the implementation of the policy and its enforcement. Thus, our dummies instead intend capture the effect policy during the year that it is implemented as well as the years following. In order to further control for omitted variables and statistical bias, variables including income, unemployment, and educational attainment are included.

Final Regression Model

$$\text{LnShare} = \alpha + \gamma_{\text{Year}} + \beta_{\text{AVR}} + \beta_{\text{Samedayreg}} + \beta_{\text{Onlinereg}} + \delta(\text{Policies} * \text{Year}) + \beta_{\text{lnincome}} - \beta_{\text{lnunemployment}} + \beta_{\text{education}} \quad (3)$$

RESULTS AND DISCUSSION

The difference-in-difference model offers strong statistical support for our hypothesis, especially in presidential election years. We find that the most significant relationship between voter mobilization policies and increases in registration share occurs with the implementation of automatic voter registration in 2016. Same day registration also increases registration substantially in those counties in 2016, with smaller but significant impacts in 2018.

We use a Breusch and Pagan Lagrange multiplier test (Breusch, T., & Pagan, A., 1979) and find that we are unable to reject the null hypothesis of no heteroskedasticity. Thus, we use robust standard errors in attempt to prevent heteroskedasticity from disturbing our error terms. Additionally, we intend to reduce the probability of omitted variable bias as we continue to collect data as it becomes available. Our initial regression analysis utilizes the natural log of registration as a dependent variable, as opposed to our final model that employs registration share. This model can be found in the appendix in Table 3. Due to the concern that our registration variable was serving as a measure of population, as opposed to the number of registrants as a proportion of population, we created our registration share model that is featured in Table 2.

As shown in Table 2, counties that implemented automatic voter registration had 6.4 percent higher registration share on average compared to counties that did not adopt it for 2016. In 2018, counties that implemented automatic voter registration had 0.08 percent higher registration shares on average compared to counties that did not adopt it, however this finding was not statistically significant. Further, in 2020, counties that implemented automatic voter registration had 1.5 percent higher registration shares on average compared to counties that did not adopt it, however this finding was not statistically significant. These findings are consistent with the Brennan Center's (2021) analysis of the positive impact of automatic registration on registration.

Table 2: Generalized Least Squares Difference-in-Difference Model of Changes in Registration Share

The sample includes 11,261 observations from 2,843 counties within the United States					
Residual Squared: within 0.1960, between 0.0499, overall 0.0698					
Variable	Percent change in Natural Log of Registration Share	Standard Error	Z Score	P > Z	95% Confidence
2016 ***	2.3	.0011969	19.54	0	.0210423 .025734
2018 ***	1.2	.0022902	5.25	0	.0075461 .0165236
2020 ***	5.6	.0032953	17.00	0	.0495626 .06248
Automatic Voter Registration ***	-3.3	.0080171	-4.17	0	-.049138 -.0177115
Online Voter Registration ***	4.5	.009465	4.76	0	.0264568 .063559
Same Day Voter Registration	0.07	.0062059	1.14	.255	-.0050969 .0192297
2016 Automatic Voter Registration ***	6.4	.0044539	14.39	0	.0553784 .0728372
2018 Automatic Voter Registration	0.08	.0094553	0.87	.386	-.0103374 .0267267
2020 Automatic Voter Registration	1.5	.0077899	1.93	.053	-.0001962 .0303398
2016 Online Voter Registration **	0.08	.0026872	3.23	.001	.0034255 .0139593
2018 Online Voter Registration ***	-1.2	.0024541	-5.02	0	-.0171391 -.0075192
2020 Online Voter Registration ***	-2.1	.0053574	-4.04	0	-.0321706 -.0111701
2016 Same Day Voter Registration ***	4.8	.0098836	4.88	0	.0288384 .0675812
2018 Same Day Voter Registration ***	2	.0043869	4.62	0	.0116487 .0288449
2020 Same Day Voter Registration	1.8	.0443307	0.42	.675	-.0683201 .1054533
Natural log of income ***	7.6	.0144526	5.32	0	.0485625 .1052155
Natural log of unemployment ***	-2.5	.0027039	-9.27	0	-.0303653 -.0197663
Education***	0.02	.0004857	4.94	0	.0014487 .0033527
Constant ***	10.6	.0892419	119.63	0	10.50109 10.85091

In Table 2, significance levels are denoted by * $p > 0.05$, ** $p < 0.01$, *** $p > 0.001$. We observe that for our nudged counties, represented by the policy variables with a specified year, registration share was higher and statistically significant when nudged with automatic voter registration for 2016, higher when nudged with online voter registration in 2016, and higher when nudged with same day registration for 2016 and 2018. Additionally, our control variables, including the natural log of unemployment, natural log of income, and percentage of adults with a bachelors degree or higher by county are also statistically significant. While higher rates of unemployment were associated with lower registration shares on average, higher incomes and education levels were associated with higher registration share on average. Our within residual squared value indicates that 20 percent of variation in nudged counties is accounted for by nudge policies and our control variables.

Counties that implemented online voter registration had 0.08 percent higher registration shares on average compared to counties that did not adopt it for 2016. In 2018, counties that implemented online registration had 1.2 percent lower registration shares on average compared to counties that did not adopt it. Further, in 2020, counties that implemented online registration had 2.1 percent lower registration shares on average compared to counties that did not adopt it. One explanation for the surprising negative sign for nudged counties is that 20 states had adopted online registration prior to the years of study. This is consistent with our finding that counties with online registration, including ones that adopted the policy before 2014, have 4.5 percent higher registration shares on average compared to counties without it. Therefore, it is possible that the policy overall has positively impacted registration, despite the positive impact on the treated states during the 2014-2020 time frame being unsupported, thus far. Our observation of states with online registration having higher registration rates overall is supportive of a difference-in-difference analysis conducted by Jinhai Yu (2019) that found online registration was associated with higher voter turnout by using survey data from 2000-2014. We intend to explore the role of nudge policies on voter turnout as well in the future as the most recent election data becomes available.

Counties that implemented same-day registration had 4.8 percent higher registration shares on average compared to counties that did not adopt it for 2016. In 2018, counties that implemented same-day registration had 2 percent higher registration shares on average compared to counties that did not adopt it. Further, in 2020, counties that implemented same-day registration had 1.8 percent higher registration shares on average compared to counties that did not adopt it, however, this finding is not statistically significant. Our findings of a positive correlation between same day registration and increases in registration are

consistent with an experiment conducted by Neiheisel and Burden (2012) that found that same day registration in Wisconsin led to increases in voter turnout.

Of the election years, 2020 had the highest level of registration share. This finding is consistent with other reports of 2020 witnessing record-breaking registration levels (Brennan Center, 2021). As mentioned earlier, the causes behind the increased level of registration during 2020 are likely to be complex due to the unusual factors caused by the coronavirus. The results described offer preliminary support for the notion that nudges have empirically detectable impacts on increasing voter registration. We find that the introduction of automatic voter registration, was associated with higher registration shares for 2016, the introduction of online voter registration is associated with higher registration shares in 2016, and same day registration adoption is associated with higher registration shares in 2016 and 2018. Although we attempted to control for the role of the coronavirus in the 2020 election, it would be naïve to assert with certainty that the effects from the pandemic are at this point in time, discernible and controllable. As the implementation of the three policies is relatively recent, with several states still having not adopted said policies, it is clear that further research should be conducted in the following election cycles.

A second part of our inquisition on the role of nudging in voter participation is the impact of nudges on turnout. We would like to expand this analysis following the obtainment of variables that are not yet available. The variables we would like to analyze in our extension to turnout are the method used to cast a vote such as mail-in, absentee, or in person, the number of polling centers within a county, and differences in voter turnout for new registrants compared to registrants who have been registered for previous election cycles for the most recent election. Additionally, we would like to explore the role of political affiliation and polarization on voter participation as well.

CONCLUDING COMMENTS

Our research intends to offer empirical support for the notion that nudges such as voter ease policies can increase voter participation during national elections. We refer to previously articulated behavioral economic theories both old and new, including a cost-benefit analysis, a utility maximization model, and a rational choice model in addition to our focus on Nudge Theory. Richard Thaler and Cass Sunstein's (2009) Nudge Theory has the potential to provide policymakers with an innovative way to incentivize election participation with the goal of increasing the satisfaction of constituents and also while preserving their freedom of choice. Our difference-in-difference model analysis of United States counties for the 2014, 2016, 2018, and 2020 elections offers partial but preliminary support for the hypothesis that nudging citizens can help legislators increase voter participation. At the time of this paper, more policies related to both decreasing and increasing voter ease have been proposed than in previous years (Brennan Center, 2021). In order to further validate and offer support for the role of nudges in policies related to voter participation, we encourage future research.

APPENDIX

APPENDIX

Model of Changes in Registration

$$\text{Lnregistration} = \alpha + \gamma \text{Year} + \beta \text{AVR} + \beta \text{Samedayreg} + \beta \text{Onlinereg} + \delta (\text{Policies} * \text{Year}) + \beta \text{controls} \quad (4)$$

Table 3: Generalized Least Squares Difference-in-Difference Model of Changes in Registration

The sample includes 11,261 observations from 2,843 counties within the United States					
Variable	Percent change in Registration	Standard Error	Z Score	P> Z	95% Confidence Interval
2016 ***	11.3	0.003609	30.71	0	0.1061307 0.12059877
2018 ***	21.9	0.0049609	44.25	0	0.2097782 0.2292245
2020 ***	27.2	0.0055906	48.74	0	0.2615261 0.2834409
Automatic Voter Registration ***	-10.1	0.0226524	-4.46	0	-0.1454873 0.0566917
Online Voter Registration ***	18	0.258539	7.03	0	0.1311848 0.2325301
Same Day Voter Registration ***	-6.7	0.0159331	-4.22	0	-0.0983967 -0.0359399
2016 Automatic Voter Registration ***	16.6	0.0101397	16.46	0	0.147023 0.18677
2018 Automatic Voter Registration *	1.4	0.0074656	1.96	0.050	0.00000716 0.0292717
2020 Automatic Voter Registration	1.3	0.0089878	1.48	0.138	-0.0042922 0.0309395
2016 Online Voter Registration ***	-4	0.0066007	-6.15	0	-0.535051 -0.276308
2018 Online Voter Registration	0.05	0.0064446	0.83	0.408	-0.0072934 0.17969
2020 Online Voter Registration	-0.03	0.128509	-0.28	0.778	-0.0288035 0.0215712
2016 Same Day Voter Registration *	8.6	0.0368382	2.35	0.019	-0.0142854 0.1586885
2018 Same Day Voter Registration	-0.004	0.0104579	-0.04	0.969	-0.0209012 0.020093
2020 Same Day Voter Registration	3.3	0.0201629	1.68	0.092	-0.0055636 0.0734735
Natural log of unemployment ***	52.2	0.0055387	94.38	0	0.5118711 0.5335825
Natural log of income ***	28.2	0.0248619	11.36	0	0.2337018 0.3311586
Education***	3.7	0.0011973	31.7	0	0.0356025 0.0402959

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NEED FOR ADVANCED IT SKILLS FOR ACCOUNTANTS –WHAT DOES ACCOUNTING EDUCATION LITERATURE TELL US?

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ABSTRACT

In the digital age, technology has a major impact on the professional field of accountants. The constantly evolving digital technologies lead to changing tasks and require new skills. This has been the subject of accounting (education) literature for a long time. Using a structured literature review (SLR), we explore what IT skills have been required the last decade and conclude whether these skills meet the requirements of an advanced (semi-autonomous) accounting organization. Our study shows that the accounting education literature identifies the need to integrate advanced IT skills into educational programs. We conclude with a discussion of the drivers and obstacles for implementing IT skills in accounting education curricula. Our findings and derived recommendations should be of interest to accounting educators and professional bodies and highlight the need for further research related to IT skills for accountants in the digital age.

KEYWORDS: Digitalization, Accounting Education, IT skills

INTRODUCTION

The ongoing digitalization of accounting creates new opportunities to automate accounting processes (Leitner-Hanetseder, Lehner, Eisl, & Forstenlechner, 2021) as well as increases the amount of data used in financial and managerial accounting (in the following accounting) (Oesterreich & Teuteberg, 2019; Vasarhelyi, Kogan, & Tuttle, 2015). The increasing digitalization is often associated with the massive loss of jobs in accounting (Agyemang, O'Dwyer, & Unerman, 2019; Frey & Osborne, 2017). This might be caused by the fact that accounting traditionally includes repetitive and rule based tasks, which can easily be automated with digital technology. However, digitalization does not lead to a disappearance of the accounting department, but rather to an upgrading of the accounting profession or new possibilities for the accounting department and the accountants themselves (Leitner-Hanetseder et al., 2021). In particular, the possibilities of big data analytics could lead to an accounting establishing itself as a high-quality data provider of structured historical financial and unstructured non-financial data and internal adviser (Bhimani & Willcocks, 2014; Leitner-Hanetseder et al., 2021; Moll & Yigitbasioglu, 2019). However, this development requires a change in the tasks of accountants (Knudsen, 2020; Leitner-Hanetseder et al., 2021). We see that humans will no longer execute especially manual, repetitive and rule-based tasks. Tasks in accounting such as data collecting, recording and preparation of data will be taken over by integrated software solutions or software bots. A fundamental change of recording and reconciliation could be triggered by blockchain technology, which might enable triple-entry accounting. Furthermore, BI-Tools based on AI-technology might lead to data driven decision making (Leitner-Hanetseder et al., 2021). According to Lehner, Leitner-Hanetseder, & Eisl, 2019 advanced AI-algorithm might lead to the final level of digital development the fully-autonomous accounting (FAAS), which is defined as follows:

“A FAAS is a firm-wide, fully-autonomous, self-aware and self-improving accounting system. The centre of an FAAS is a state-based, multi-functional, deep-learning network as artificial intelligence (AI) that is

able to holistically simulate and potentially outpace human-cognition and decision-making processes. This AI manages structured and unstructured data and regulations from various sources and delivers timely and apt information to the right audience in the right format.”

On the way to a fully-autonomous accounting defined by Lehner et al., 2019, there are many stones that have to be pushed away. Although a lack of IT skills is a major hurdle to overcome, we are aware that IT skills are not the only competences that employees have to face in the course of digitalisation. For example, an understanding of the key concepts and rules of accounting is necessary more than ever (Vasarhelyi, Teeter, Ryan, A., & Krahel JP, 2010). However, in the last decade, IT skills are nevertheless a competence that is brought up again and again in the accounting education literature (Howcroft, 2017; Leitner-Hanetseder et al., 2021; Moll & Yigitbasioglu, 2019; Tan & Laswad, 2018; van Laar, van Deursen, van Dijk, & Haan, 2017). To identify which IT skills have been discussed in the accounting (education) literature, we conduct a structured literature review (SLR). In an ongoing evolution of digital technology, IT skills depend on the level of digitalization in accounting. Therefore, we assign whether the discussed IT skills meet the requirements of a semi-autonomous accounting in the model of Lehner, Forstenlechner, Leitner-Hanetseder, & Eisl, 2021 which might be a scenario for many companies in the near future or might be existing in some companies. Consequently, we define the following research questions (RQ):

RQ1: What IT skills have been discussed in the accounting education literature in the last decade?

RQ2: Do these skills meet the requirements of an advanced (semi-autonomous) accounting?

This paper is structured as follows: In section two, we highlight the theoretical background and concepts of digital accounting. In section three, we describe the research process including the method, steps and activities of the SLR to answer RQ1. In section four, we focus on the presentation of the results in responding to the RQ1. In section five, we answer RQ2 and provide insights into further research.

BACKGROUND

Digitalization is considered as one of the biggest and most lasting challenges in today's society and affects many areas of our lives, including gainful employment. What exactly digitisation means is complex and not clearly defined (Vial, 2019). Digitalization is often used synonymous with the term "digitisation", "digital transformation" and will be associated with "technological disruption" (Cong, Du, & Vasarhelyi, 2018), "digital disruption" (Marrone & Hazelton, 2019) and at least a "technological (digital) revolution" (Ackert, Church, & Zhang, 2018; Pan & Seow, 2016). It often refers to the reorientation of companies or even disruption of markets and existing goods and services (Vial, 2019). Digitalization is generally associated with increased efficiency, cost reduction and increased customer satisfaction through individualised products with the shortest possible delivery times (see business models such as Netflix) (Bhimani & Willcocks, 2014).

It is obvious that digitalization also has a major impact on accounting and automation is not new to accounting and happened over the last decades. In an ongoing evolution of digital technology, the aforementioned FAAS provides a glimpse into a utopian future of accounting (Lehner et al., 2019). However, to close the skill gap in the near future, it is necessary to identify the IT that will be used in the near future or currently. As a framework, we refer to the semi-autonomous accounting proposed by Lehner et al., 2021. Within a semi-autonomous accounting, accountants focus on the interpretation of system-generated information and take on a stronger internal advisory role that is supported by a fully-integrated accounting information system (AIS) for financial as well as management accounting. The AIS is characterized by high levels of automatization and is sourced from other sub-systems and provides a much larger data pool. Within level two, automated document processing within a fully-automated workflow is employed, specialised (smart) software robots are used (see also Cooper, Holderness Jr, Sorensen, & Wood, 2018; Rozario & Vasarhelyi, 2018), digital reporting is XBRL-based and overall

reporting-cycles enable near-time reporting (see also Cai, 2021; Clarkson, Li, Richardson, & Tsang, 2019). The AIS uses blockchain-based distributed ledgers (see also Cai, 2021; Dai & Vasarhelyi, 2017) and is connected with external data sources such as social media platforms for financial disclosures and non-financial insights (see also Arnaboldi, Busco, & Cuganesan, 2017; Hales, Moon, & Swenson, 2018). Process-mining technology help to control and document all accounting processes (see also Chiu & Jans, 2019). Accountants include external and unstructured data in their enhanced Business Intelligence (BI)-solutions, which use InMemory-database (DB) technologies and use data science algorithm to tackle big data analytics, predictive analytics and fraud detection. Early stage AI-powered applications provide human decision makers with high-quality based for decision-making. Managers can retrieve ad-hoc information via corporate social media (Bellucci & Manetti, 2017) and chat bots (Blankespoor, 2018) and use cutting-edge technologies-based devices and BI digital boardrooms (smart meeting rooms) with multi-display environment for their meetings and video conferences (Rubart et al., 2017). Regarding the IT skills, data preparation is automated, accountants need an understanding of software robots, integrated ERP-Systems and blockchain technology. Furthermore, we expect that accountants need IT skills to handle (BI)-tools to check adequate types of data sources and data quality, analyse trends and patterns within data and visualize reports for end-users.

The semi-autonomous accounting proposed by Lehner et al., 2021 indicates that the implementation of the digital technologies in the digital accounting impacts tasks and therefore IT skills of accountants. However, we are aware that IT skills are not the only competences that employees have to face in a highly digitalized business environment. We see that accounting practices become a crucial role in providing financial as well as non-financial reporting. However, in a highly digitalized work environment, accountants need different or additional skills in order to be able to deal with various information and communication technologies (IT skills) in a way that does not create a burden, but rather increases productivity and efficiency. According to literature, it is necessary to reduce the skill gap in the field of accounting. The need of IT skills in the digital era is brought up again and again, especially in the accounting (education) literature (Howcroft, 2017; Tan & Laswad, 2018). Accounting educators and researchers are aware of the importance of technological development and that graduates need to be better prepared for the working environment to fill the skill gap (Kotb, Abdel-Kader, Allam, Halabi, & Franklin, 2019). Therefore, accounting educators suggest adaptations of the accounting curriculum (Al-Htaybat & Alberti-Alhtaybat, 2017). In this paper, we provide insights in the IT skills discussed in accounting education literature and assess whether they meet the requirements of a semi-autonomous accounting proposed by Lehner et al., 2021.

DATA AND METHODOLOGY

We started the research process with three meetings in which we discussed current literature relevant to the field and agreed on our specific research goals, after clearly defining the research gap and the aim of our research. In order to answer the aforementioned RQ1 “What IT skills have been discussed in the accounting education literature in the last decade?”, we found a structured literature review (SLR) suggested by (Massaro, Dumay, & Guthrie, 2016) the most appropriate approach.

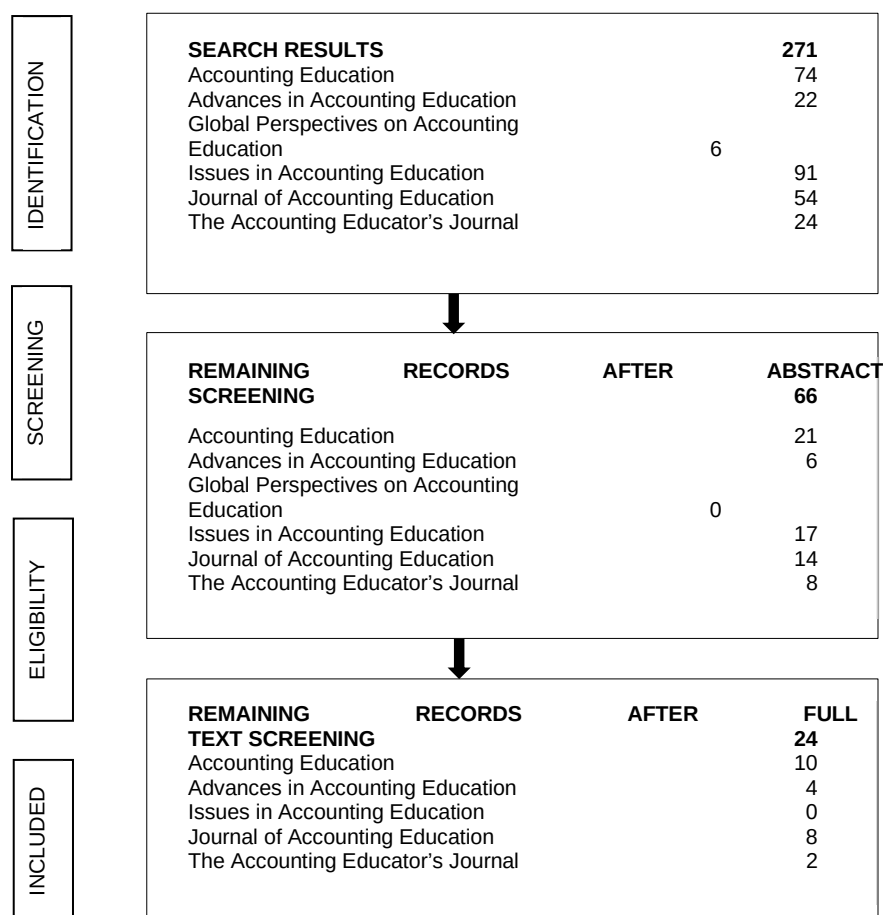
Analysing existing literature in detail allows to gain insights into prior research and to summarize and compare the results within a specific field. We conducted a keyword search in six popular and major Accounting Education journals, namely in Accounting Education, Advances in Accounting Education, Global Perspectives on Accounting Education, Issues in Accounting Education, Journal of Accounting Education and The Accounting Educators' Journal. Four of the six journals are listed in der Academic Journal Guide (2018) by Chartered ABS and the VHB-JOURQUAL3.

The search process was organized as follows. We performed the keyword search within the full text of the articles using the publishers' websites and, in case the publishers' websites did not provide an advanced

search option, Google Scholar. Several search criteria have been defined to select the relevant articles. The search was limited to articles in English language published between 2010 and 2020, as it is assumed that IT skills as an emerging research field gained relevance in the last ten years.

The search action included terms related to digitalisation and information technology, as well as terms related to skills and competences. We used a broad search scope. Therefore, we used synonyms for the keywords to ensure that all relevant articles were included and to reduce the likelihood of overlooking relevant articles. The search action was performed with the following keywords, their respective multiples, and Boolean operators: ("information technology" OR "digital" OR "digitali?ation") AND ("skill" OR "skillset" OR "competence" OR "competency" OR "qualification" OR "fluency" OR "literacy"). To ensure the quality and reproducibility of the literature search, a spreadsheet was created to document the search process and the search results in detail. This search resulted in a set of 271 articles. The next step was to review this set of articles to determine which articles are relevant for further examination. By analysing the abstracts of the articles, we identified 205 that were out of the scope of the research question. After excluding these articles, we were left with 66 relevant articles. In the next step, the full texts of the remaining 66 articles were screened for eligibility. 24 articles either deal with the empirical investigation of IT skills and competences or the conceptualisation of these or highlight certain IT skills and competences' relevance, thus constituting the final sample for our structured literature review. The selection process is summarised in Figure 1.

Figure 1: Results of the Research Process



The figure includes detailed information about the results of the key word research in the main accounting education journals and indicates the 24 articles left for further analyses.

RESULTS

Based on the SLR, results indicate that digital technologies are seen as a driving force and game changer for the accounting profession in the accounting education literature (Pincus, Stout, Sorensen, Stocks, & Lawson, 2017). Al-Htaybat, Alberti-Alhtaybat, & Alhatabat, 2018 conclude that “the accounting profession is predicted to experience a significant change in the future, due to technological developments.”, which lead to a transformative effect on accounting practice because of automated and integrated workflows. Therefore, accounting education should include more contemporary technological features especially IT skills to meet the demands of employers in the digital era (Al-Htaybat, von Alberti-Alhtaybat et al. (2018). The study of Tan & Laswad, 2018, which provides an analysis of job advertisements, highlights the need for accountants to be able to use IT and to close the IT skills gap between accounting education and professional needs.

Having a look at the discussed IT skills in more detail, intermediate proficiency requires the ability to process transactions in an Enterprise Resource Planning (ERP)-system, to understand the structure and to be able to navigate within ERP-System (Sledgianowski, Gomaa, & Tan, 2017; Spraakman, O'Grady, Askarany, & Akroyd, 2015). The automation of processes means integrated processes within one system and/or data model but is also connected with RPA tools. RPA tools offers accountants to automatize processes by themselves (Leitner-Hanetseder et al., 2021) and reduces human labour in accounting (Herbert, Rothwell, Glover, & Lambert, 2021). In times of rare IT staff, employees without special IT training can create applications according to the modular principle in a very simple way. Therefore, in the future, the accountant himself will not only identify the process to automate, but also implement it. Professional software developers are often lacking, but the digital transformation can still gain momentum through citizen developers. According to Brink & Stoel, RPA enables transactions to be captured and analytics to be performed instantly. This finding may suggest making efforts to incorporate RPA into the classroom. Additionally, an understanding of blockchain technology with its potential to transform and reshape accounting (triple-entry accounting or to identify use cases) is seen relevant in accounting education (Felski & Empey, 2020).

In the last years, spreadsheet packages such as Excel (Ragland & Ramachandran, 2014; Ramachandran Rackliffe & Ragland, 2016) are seen as necessary IT skills for accountants. In accounting education literature, there are some teaching cases that highlight the need to encourage students to handle Excel (see for example Willis, 2016). Excel skills seem particularly important in accounting to prepare, analyse, manipulate, and report financial data. Advanced Excel features are considered the most important IT skills in regards to applications (Brink & Stoel; Ragland & Ramachandran, 2014). To close the skill gap, excel is used in accounting courses for which students need a significant amount of data analytic skills (Ramachandran Rackliffe & Ragland, 2016). Thus, we conclude that Excel skills and data analytic skills often go hand in hand. Results show that data analytic skills are gaining importance in accounting practice (Ballou, Heitger, & Stoel, 2018). Therefore, Richardson and Shan (2019) propose to introduce data analytics courses for accounting at both undergraduate and graduate level.

Even if in the last years, Excel skills are considered to close the skill gap, accounting education literature points out that due to increasing amount and complexity of data in the digital era, the complexity of spreadsheets is expected to increase (Awayiga, Onumah, & Tsamenyi, 2010). Therefore, applications for business analytics are changing and students need to be aware of the dangers of spreadsheet errors and need to know how to minimise them (Schneider, Becker, & Berg, 2017). In comparison to Excel, advanced BI-intelligence tools such as Power BI, QlikView and Tableau provide the ability to easy integrate data sources, provide greater flexibility and what is most important provide the ability to handle bigger datasets and enable traceability (Schoute, 2019). Self-service BI-tools connect structured data contained in the ERPs with non-transactional, but unstructured and semi-structured information from the environment such as social media sources and allow end-users insights into the data based on their special needs (Vasarhelyi

et al., 2015). The results indicate, that in accounting education literature, the need to teach BI-tools is seen (Brink & Stoel; Riggins & Klamm, 2017). Accountants as power user should have the skills to create dashboards for end-users and have the skill to decide what information is available for which end-user (Riggins & Klamm, 2017). Additionally, accountants are seen as the one who create awareness of the appropriate use of self-service BI-tools (for example developing guidelines for maintaining data governance in an end-user self-service BI environment) (Riggins & Klamm, 2017).

Additionally to handle BI-Tools, Schoute, 2019 highlights the need for a basic understanding of programming languages. Coding might be necessary to adapt BI-tools to individual needs or to gain insights in the data base without using specific BI-tools. Furthermore, BI-tools enable accountants to detect trends and anomalies by using machine learning algorithm or visualizing (Cunningham & Stein, 2018). Using these BI-tools requires an understanding of machine learning and visualizing techniques (Leitner-Hanetseder et al., 2021).

In Times of Big Data analytics, there is also evidence that it is valuable for accountants to have skills for working with cloud services and cloud-based systems (Wells, 2018) as well as relational database management systems (RDMS) or even NoSQL databases (Awayiga et al., 2010; Brink & Stoel; Richardson & Shan). Another topic related to working with (big) data is data quality as well as data and cyber security (Brink & Stoel). This means that students know quality criteria and are able to update and retrieve the data source using structured query language (SQL) (Lawson & Street, 2021). Similarly, recent cybersecurity incidents highlight the need to complement accounting curricula, sensitise students for cybersecurity and teach them how to recognize, assess and mitigate cybersecurity risks (Roohani and Zheng 2019).

CONCLUSION AND DISCUSSION

In this paper, we reviewed the research on IT skills in accounting education literature. The paper is timely and relevant, because of a rising skill gap between education and professional needs caused by digitalized economy (Jackson & Meek, 2021; Oesterreich & Teuteberg, 2019).

In the following figure 2, we summarize the key IT skills discussed in the last decade in accounting education literature. What we see is that accounting education literature discusses IT skills in the context of transaction automation (software robots, integrated ERP-Systems, blockchain technology) as well as gaining insights into internal and external data with software applications (spreadsheet packages such as Excel, BI tools) as well as an understanding of cloud services and cloud-based systems, RDMS & NoSQL database, programming languages (such as SQL, R+, Python, SAS) and AI-based algorithm. Finally, there is a need to know how to provide data and cybersecurity. According to the results of the SLR, accounting education literature discusses IT skills that go hand in hand with the tasks and digital technologies used in a semi-autonomous accounting proposed by Lehner et al., 2021. This means, that the discussed IT skills enable accountants to become a data analyst and internal adviser.

Figure 2: Information Technology Skills in Accounting Education Literature



Figure 2 indicates the discussed IT skills within accounting education literature in the last decade, which meet the information technology in a semi-autonomous accounting proposed by Lehner et al., 2021

In order to provide students with these competences it is necessary to integrate the IT skills into accounting curricula (Rebele and St. Pierre 2019). However, it is also seen that IT skills might be seen as a “peripheral component in an accounting degree” (Kotb et al., 2019). For these reasons, it is not or not sufficiently integrated into accounting courses and training “on the job” is still sufficient (Kotb, Abdel-Kader et al. 2019).

In a dynamic and volatile environment, IT-tools and data sources might come and go. This uncertainty about technological developments is seen as main driver, which boost or delays the implementation of IT skills in accounting curriculum. In the last century, there was the agreement that Excel is a useful spreadsheet to meet the professional skills, this led to the fact that in many accounting curricula Excel is implemented.

Even if seen as a necessary IT skill, we identified four main driving forces, which might boost or delay the implementation of IT skills in accounting curriculum.

First, uncertainty about technological developments and related skills to be taught.

Second, the financial resources of the faculty impede or delay the implementation of technologies in accounting curricula (Andiola, Masters, & Norman, 2020).

Third, missing training concepts, which facilitate the accounting students to handle accounting concepts in digital economy with Big Data and automation in the field of accounting.

Fourth, in order to create a learning environment in which accounting concepts but also IT skills are taught, an interdisciplinary faculty staff is necessary, that might handle the challenges of developing and teaching the accounting concepts with IT tools (Andiola et al., 2020). In business

practice, teamwork and interdisciplinary is becoming more and more important in the course of digital transformation, and the same must apply to accounting faculties.

We see that future research to understand the impact of transformation of accounting could go in many directions. With this paper, we would like to highlight the need of further research concerning the boundary of the transformation of accounting and the impact on accounting education to avoid a rising IT skill gap.

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SPANISH PROCEEDINGS

¿LA GRAN INDUSTRIA COLOMBIANA DE PRODUCTOS LÁCTEOS CREA EVA?

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RESUMEN

El objetivo de esta investigación es conocer si el desempeño financiero de la gran industria de productos lácteos en Colombia le permite crear valor económico agregado (EVA) en el período 2014-2019, por medio del análisis y comparación de indicadores que miden su efectividad financiera y su suficiencia para crear valor. Se encuentra que la gran industria de este sector logra anualmente rendimientos del capital, y su comportamiento es influenciado principalmente por la eficacia en la gestión de costos y gastos; no obstante, destruye valor económico agregado en cuatro años, arrojando un valor de mercado agregado (VMA) negativo en el período; esto debido a que estos beneficios no compensan el rendimiento requeridos por los inversionistas por el riesgo asumido. Estos resultados contrastan con los de las industrias afines en el ámbito global y de países emergentes donde se obtienen mejores rendimientos y se crea utilidad residual. Sería conveniente poder complementar este estudio con exploraciones focalizadas a grupos de empresas homogéneas en cuanto a su estructura jurídica, edad, etapa de su ciclo de vida y localidad.

PALABRAS CLAVE: Valor Económico Agregado, Valor de Mercado Agregado, Desempeño Financiero, Indicadores Financieros de Eficiencia, Eficacia y Efectividad, Sector Elaboración de Productos Lácteos.

DOES THE GREAT COLOMBIAN INDUSTRY OF DAIRY PRODUCTS CREATE EVA?

ABSTRACT

The objective of this research is to know if the financial performance of the large dairy industry in Colombia allows it to create added economic value (EVA) in the 2014-2019 period, through the analysis and comparison of indicators that measure its financial effectiveness and its sufficiency to create value. It is found that the large industry in this sector achieves annual returns on capital, and its behavior is mainly influenced by the efficiency in managing costs and expenses; however, it destroys economic value added in four years, yielding a negative market value added (VMA) in the period; This is because these benefits do not compensate for the return required by investors for the risk assumed. These results contrast with those of related industries globally and in emerging countries where better returns are obtained, and residual profit is created. It would be convenient to be able to complement this study with explorations focused on groups of homogeneous companies in terms of their legal structure, age, stage of their life cycle and location.

JEL: G10, M40, L66

KEYWORDS: Economic Value Added (EVA), Market Value Added (VMA), Financial Performance, Financial Indicators of Efficiency, Efficacy, and Effectiveness, Dairy Production Sector

INTRODUCCIÓN

Con esta investigación se pretende conocer si la gran industria de productos lácteos en Colombia ha creado valor económico agregado en el período 2014-2019, y cómo ha sido su desempeño financiero. Se halla un crecimiento con altibajos del activo neto operacional; asimismo, se logran rendimientos del capital en todos los años, que varían hasta el 2017, para luego aumentar, comportamiento que es semejante al del margen

de utilidad neta en muchos años; no obstante, destruye valor económico agregado en cuatro de los seis años evaluados, pues en estos años los rendimientos de la inversión no alcanzan a compensar lo requerido por los inversionistas, dando lugar que el valor de mercado agregado del periodo fuera negativo, estos resultados contrastan con el mayor rendimiento del capital y el valor económico creado por las industrias homólogas externas en este mismo sexenio. La presentación de esta ponencia se ha estructurado de la siguiente forma: se comienza con la metodología y marco teórico, seleccionando y describiendo los indicadores financieros apropiados para esta investigación; luego se analiza el desempeño financiero de esta industria en el ámbito mundial y en economías emergentes; a continuación se examina los indicadores de las grandes empresas de esta industria en Colombia; posteriormente, se comparan e interpretan los resultados, y para finalizar se presentan las conclusiones de este estudio.

METODOLOGÍA Y MARCO TEÓRICO

Para cumplir con el propósito de esta investigación se sigue un enfoque cuantitativo que permite explicar los aspectos que influyen sobre su comportamiento financiero, y se aplica como método el análisis de tendencias de indicadores contables (Zutter & Smart 2019) y de gestión del valor, que de forma complementaria “proporcionan una herramienta más poderosa para evaluar el desempeño” (Obaidat, 2019, p. 66). Los indicadores seleccionados son: crecimiento, eficiencia, eficacia y efectividad, valor económico agregado y valor de mercado agregado. El crecimiento se mide por el comportamiento del activo neto operacional, *ANO*. “La eficiencia con la cual una empresa utiliza sus recursos, en especial los activos operacionales, según la velocidad de recuperación del dinero invertido en cada uno de los mismos” (Anaya, 2018, p. 223) se calcula con la rotación de activos. La eficacia en el control de los costos y gastos de las empresas y su efecto sobre la utilidad se determinan con los márgenes de utilidad (Rivera, 2017).

La efectividad en el logro de beneficios a sus propietarios por la inversión realizada se determina con el rendimiento del capital propio, *ROE*. En el sistema Dupont ampliado, el *ROE* es el resultado de multiplicar la rotación de activos, el margen de utilidad neta y el apalancamiento financiero, este último se determina de la división del activo sobre el patrimonio (Ross, Westerfield & Jordan, 2019). La evaluación del desempeño financiero mediante indicadores contables, incluido el *ROE* y los márgenes de utilidad, ha sido cuestionada especialmente, por no considerar el riesgo, ni el costo de capital propio (Stern & Willette, 2014), por estar influenciado por la políticas contables adoptadas (Atrill, 2017) y por ser cortoplacista (Arnold & Lewis, 2019), limitaciones que en parte han sido mejoradas por los indicadores de gestión de valor, entre los que se destaca el *EVA* y el *VMA*, que se exponen a continuación. El *EVA* es la utilidad residual que resulta de la diferencia entre la utilidad operacional después de impuestos (*UODI*) y el cargo por el uso del capital (Stewart, 2000):

$$EVA_t = UODI_t - \text{Cargo de capital}_t, \quad (1)$$

en donde el cargo de capital igual a:

$$\text{Cargo de capital}_t = (ANO_t)(Ko_t), \quad (2)$$

el ANO_t es el activo neto operacional del año t y Ko_t es el costo de capital del año t . El ANO_t es igual a la suma del activo fijo neto operacional $AFNO_t$ y el capital de trabajo neto operativo $KTNO_t$. El $AFNO_t$ resulta de la diferencia entre los activos fijos operacionales y la depreciación, mientras el $KTNO_t$ es la diferencia entre los activos circulantes y los pasivos corrientes que no tienen costo explícito. El Ko_t se calcula, según (Modigliani & Miller, 1963, p. 441), así:

$$Ko_t = Ke(1 - L) + Ki(1 - t)L, \quad (3)$$

Siendo Ke el costo del capital propio, y L el nivel de endeudamiento que resulta de dividir la deuda con costo explícito entre el activo neto operacional, ANO . Ki es el costo de la deuda, que una vez se descontada su protección fiscal (t) queda como $Ki(1 - t)$. Otra forma de calcular el EVA (Stewart (2000)) es:

$$EVA = (ANO_t) [(UODI_t / ANO_t) - (Ko_t)] \quad (4)$$

Donde $UODI_t / ANO_t$ es el rendimiento del activo neto operacional después de impuestos, que siguiendo el esquema del sistema Dupont es igual al producto del margen de la utilidad operacional después de impuestos y la rotación del activo neto operacional:

$$UODI_t / ANO_t = [UODI_t / Ventas_t] [Ventas_t / ANO_t] \quad (5)$$

A la diferencia entre el rendimiento después de impuestos del activo neto operacional y el costo de capital medio ponderado, se le conoce como el porcentaje de utilidad o pérdida residual. Al sumar el valor presente del EVA de varios años, se obtiene el valor de mercado agregado VMA del período evaluado; que se puede expresar de la siguiente forma:

$$VMA = \sum_{j=1}^{j=n} EVA_j / (1 + Ko_j)^j \quad (6)$$

El EVA que genera cada unidad monetaria invertida en activo neto operacional se determina así:

$$EVA_t / (ANO_t) \quad (7)$$

Marco de Referencia

En la Tabla 1 se presenta los componentes de los indicadores de efectividad y EVA de la industria de alimentos para un promedio de 1.253 empresas en el ámbito global (IAG) en el período 2014-2019. El ROE fue positivo en torno a un 11,4%, producto del margen de utilidad neta (5,1%), la rotación de activos totales (1,8 veces) y el apalancamiento financiero (123,1%), que a lo largo del periodo variaron con diferente frecuencia, y con una relación directa entre la efectividad y la eficacia a partir del 2016. El mayor y menor ROE se presentaron en su orden en el 2014 (12,6%) y 2019 (7,9%). La IAG creó un promedio anual de \$42.849 MMUS de EVA , con altibajos, llegando al fondo en el 2015 (\$30.950 MMUS) y a la cima en el 2017 (\$48.929 MMUS) y con una relación positiva con el porcentaje de utilidad residual que osciló alrededor del 6,2%; manteniendo esta misma relación directa con el indicador $UODI/ANO$ hasta el penúltimo año, cuyo promedio fue 13,1% y una relación inversa con el Ko , que estuvo alrededor del 6,9%. En el sexenio se creó valor de mercado agregado por \$203.967 MMUS a 1-1-2014. De otro lado, cuando se observa el EVA que deja cada unidad monetaria invertida se encuentra que en promedio fue de \$0,06 US, siendo mayor en el 2014 (\$0,08 US) y menor en el 2015 y 2017 (\$0,05 US). El ANO fluctuó alrededor de un promedio anual de \$45.720 MMUS. Se aprecia que el ROE fue inferior al indicador $UODI/ANO$, salvo en el 2015 cuando fueron iguales, pero sin seguir comportamientos similares, esta desigualdad refleja el impacto de las actividades no operacionales.

Tabla 1: Indicadores Promedio de la IAG

Indicador	2014	2015	2016	2017	2018	2019	promedio	σ
Sistema Dupont ampliado								
ROE	12,6	11,9	11,5	12,2	12,5	7,9	11,4	1,8
Margen de utilidad neta (%)	5,0	5,4	5,2	5,5	5,9	3,8	5,1	0,7
Rotación de activos totales (veces)	2,0	1,8	1,8	1,9	1,7	1,7	1,8	0,1
Apalancamiento financiero (%)	125,6	126,3	120,5	119,7	121,6	124,8	123,1	2,8
EVA, VMA y EVA/ANO								
EVA (MMUS\$)	47.581						42.849	
		30.950	46.590	48.929	36.117	46.930		
ANO (MMUS\$)	42.506						45.720	
		46.885	43.996	44.350	52.240	44.342		
UODI/ANO (%)	14,2	12,3	13,9	14,0	12,5	11,9	13,1	1,0
Ko (%)	6,8	7,5	6,9	6,7	7,5	5,9	6,9	0,6
Utilidad residual (%)	7,4	4,8	7,0	7,3	5,0	6,1	6,2	1,2
VMA a 1-1-2014 (MMUS\$)	203.967							
EVA/ANO	0,08	0,05	0,07	0,07	0,05	0,06	0,06	
Número de empresas	1.247	1.228	1.275	1.270	1.234	1.262	1.253	

Fuente: Elaboración propia a partir de datos de Damodaran (2020). Nota: MMUS\$ denota cifras monetarias en millones de dólares

En la Tabla 2 se muestran los indicadores de efectividad y EVA de la industria de alimentos en países emergentes (IAE) para un promedio de 840 empresas en el período 2014-2019, y sus componentes. El ROE fue positivo en torno a un 10,4%, producto del margen de utilidad neta (4,0%), la rotación de activos totales (1,8 veces) y el apalancamiento financiero (143,5%), que a lo largo del periodo presentaron orientaciones diferentes: la efectividad varió casi todos los años, salvo el 2017, la eficacia aumentó hasta el 2017 y luego osciló, la eficiencia fluctuó y se estabilizó en dos años, y el apalancamiento solo aumentó al comienzo y final del sexenio. Se observa una relación directa entre la efectividad y la eficacia a partir del 2016. El menor y mayor ROE se presentaron en el 2015 (8,9%) y 2017 (12,0%) respectivamente.

Tabla 2: Indicadores Promedio de la IAE

Indicador	2014	2015	2016	2017	2018	2019	promedio	σ
Sistema Dupont ampliado								
ROE	9,5	8,9	11,4	12,0	9,6	10,7	10,4	1,2
Margen de utilidad neta (%)	3,5	3,8	4,3	4,4	3,8	4,2	4,0	1,2
Rotación de activos totales (veces)	1,9	1,6	1,9	1,9	1,8	1,8	1,8	0,4

Apalancamiento financiero (%)	145,5	146,4	144,0	141,2	140,5	143,3	143,5	10,6
EVA, VMA y EVA/ANO								
EVA (MMUS\$)	8.807			9.666	3.698		8.164	
		3.428	10.056			13.332		
ANO (MMUS\$)					23.427			
	17.378	21.862	19.144	19.912		18.910	20.105	
UODI/ANO	10,8	9,7	11,5	11,4	9,9	10,9	10,7	0,8
Ko (%)	7,4	8,5	7,7	7,8	8,7	6,5	7,7	0,8
Utilidad residual (%)	3,5	1,1	3,8	3,6	1,2	4,4	2,9	1,4
VMA a 1-1-2014 (MMUS\$)	37.344							
EVA/ANO	0,04	0,01	0,04	0,04	0,01	0,03	0,03	
Número de empresas	834	815	854	848	829	85	840	
						8		

Fuente: Elaboración propia a partir de datos de Damodaran (2020). Nota: MMUS\$ denota cifras monetarias en millones de dólares.

La IAE creó un promedio anual de EVA de \$8.164 MMUS, con fluctuaciones en casi todos los años, llegando a un piso en el 2015 (\$3.428 MMUS) y a un techo en el 2019 (\$13.332 MMUS), manteniendo una relación directa con el porcentaje de utilidad residual, que bordeó el 2,9%, y con el indicador UODI/ANO, que estuvo alrededor del 10,7%, y una relación inversa con el Ko, que promedió el 7,7%. En los seis años se creó un valor de mercado agregado de \$37.344 MMUS a 1-1-2014. El EVA promedio que deja cada unidad monetaria invertida fue de \$0,03 US, siendo mayor en el 2014, 2016 y 2017 (\$0,04 US) y menor en el 2015 y 2018 (\$0,01 US). El ANO fluctuó en cinco años, dejando una inversión promedio anual de \$20.105 MMUS. El ROE fue inferior al indicador UODI/ANO, excepto en el 2017 cuando sucedió lo contrario, pero sin seguir orientaciones similares, esta diferencia es el resultado de las actividades no operacionales.

Desempeño Financiero de la Gran Industria de Productos Lácteos en Colombia (GLC)

De la base de datos de la Superintendencia de Sociedades (2020) se obtuvo los estados financieros del siguiente número de empresas de gran tamaño de la industria de productos lácteos en Colombia con código industrial internacional uniforme CIIU 1040 (DANE, 2012) en el período 2014-2019: 24 para 2014 y 2015; 27 para el 2016; 29 para el 2017; 25 para el 2018 y 30 para el 2019. En el anexo se muestran la razón social y número de identificación tributaria (NIT) de cada una de ellas.

Evaluación de la Efectividad

El ROE promedio del sexenio fue de 8,1%, que resultó de la combinación del margen de utilidad neta (2,1%), la rotación de activos totales (1,3 veces) y el apalancamiento financiero (306,2%). El ROE tuvo altibajos hasta el 2017, manteniendo una relación positiva con el margen de utilidad neta hasta ese año; mientras que la rotación de activos estuvo más estable con variaciones solo en el 2015 y 2017; entre tanto, el apalancamiento financiero estuvo cambiando de orientación cada dos años. El menor ROE (4,6%) se presentó en el 2015, resultado del menor margen de utilidad neta (1,2%) y una de las menores rotaciones de activos totales (1,2 veces) del período; en cambio, el mayor ROE (17,1%) tuvo lugar en el 2016, impulsado por el más alto margen de utilidad neta (4,5%) y el segundo mayor apalancamiento financiero (322,7%) del sexenio (Tabla 3).

Tabla 3: Sistema Dupont Ampliado de la GLC

Indicador	2014	2015	2016	2017	2018	2019	Promedio	σ
ROE (%)	6,2	4,6	17,1	6,3	7,2	7,3	8,1	4,5
Margen de utilidad neta (%)	2,1	1,2	4,5	1,5	1,7	1,4	2,1	1,2
Rotación de activos totales (veces)	1,4	1,2	1,2	1,4	1,4	1,4	1,3	0,1
Apalancamiento financiero (%)	213,7	313,9	322,7	310,2	308,4	368,5	306,2	50,6

Fuente: Elaboración propia con base en Superintendencia de Sociedades (2020) y Rivera y Samboní (2021).

Por consiguiente, se puede colegir que el comportamiento de la efectividad tuvo una mayor influencia de la orientación de la eficacia que fue amplificada por el efecto multiplicador del apalancamiento financiero.

Evaluación del Valor Económico Agregado

La gran empresa promedio colombiana de la industria de productos lácteos destruyó un promedio anual de \$-1.237 MM de valor económico agregado, con resultados negativos en cuatro de los seis años evaluados.

El EVA fluctuó hasta el 2017, desplomándose en los siguientes años, manteniendo una relación inversa con el cargo de capital, y una relación directa con la UODI, excepto en el 2018 (Tabla 4). La UODI fue positiva con igual orientación de la utilidad operacional, este comportamiento fue semejante con los impuestos; sus promedios fueron \$7.917 MM, \$11.158 MM y \$3.241 MM respectivamente, como se observa en la parte a. de la Tabla 4. El cargo de capital sigue la misma tendencia del ANO, que varía hasta 2017, seguido de un crecimiento, pero no del Ko, que, aunque oscila hasta el 2016, posteriormente se reduce. Los promedios del cargo de capital, ANO y Ko fueron en su orden de \$9.154 MM, \$58.505 MM y 15,7% (parte b de la Tabla 4). El ANO tuvo una relación positiva con el KTNO y AFNO, excepto en el 2015 con el primero. El KTNO y el AFNO representaron respectivamente el 14,0% y 86,0% del ANO: en promedio el KTNO fue de \$8.194 MM, mientras que el AFNO fue de \$50.310 MM (parte c de la Tabla 4). El Ko no siguió la orientación de algún inductor en particular, sino la combinación de todos, que variaron con diferentes frecuencias. El Ko más alto (22,5%) se presentó en el 2015, precisamente cuando Ke fue mayor (24,1%) y L menor (9,1%) en el sexenio; que fueron factores relevantes para la mayor destrucción de EVA; contrario a lo sucedido en el año inmediatamente anterior que con el menor Ko (10,6%), el segundo más bajo Ke (17,0%) y la mayor L (55,1%), contribuyeron a la mayor creación de EVA. Los inductores del Ko presentaron los siguientes promedios: Ke = 18,8%, Ki = 8,7%, L = 24,0% y t = 28,1% (parte d. de la Tabla 4).

Tabla 4: EVA Promedio Por Empresa de la GLC Y Sus Inductores

Indicador	2014	2015	2016	2017	2018	2019	Promedio	σ
EVA (MM\$)	2.139	-6.817	1.996	-542	-670	-3.527	-1.237	
UODI (MM\$)	7.794	7.180	8.626	7.889	8.424	7.587	7.917	
Cargo de capital (MM\$)	5.655	13.997	6.631	8.431	9.094		9.154	
						11.115		
A. Indicadores del Inductor Uodi								
UAII (MM\$)		9.794	12.800			9.078	11.158	
	10.363			11.183	13.728			
Impuestos (MM\$)	2.569	2.614	4.174	3.294	5.304	1.491	3.241	
B. Indicadores del Inductor Cargo de Capital								
ANO (MM\$)		62.301	38.306				58.505	
	53.299			56.213	62.192	78.717		

Ko (%)	10,6	22,5	17,3	15,0	14,6	14,1	15,7	4,0
C. Inductores del Indicador Ano								
KTNO (MM\$)	13.449	13.219	-10.025	5.198	7.777		8.194	
AFNO (MM\$)	39.849	49.082	48.331	51.015	54.415	59.169	50.310	
D. Indicadores del Inductor Ko								
Ke ¹ (%)	17,0	24,1	18,6	15,9	15,9	21,1	18,8	
Ki ² (%)	7,2	8,0	11,4	9,8	7,8	7,8	8,7	
L (%)	55,1	9,1	12,0	9,7	11,4	46,7	24,0	
t (%)	24,8	26,7	32,6	29,5	38,6	16,4	28,1	
E. Sistema Dupont del Índice Uodi/Ano								
UODI/ ANO (%)	14,6	11,5	22,5	14,0	13,5	9,6	14,3	4,4
UODI/Ventas (%)	4,3	4,0	4,6	4,3	4,0	3,7	4,2	
Ventas/ANO (veces)	3,4	2,9	4,9	3,3	3,4	2,6	3,4	
F. Utilidad o Pérdida Residual								
Utilidad residual (%)	4,0	-10,9	5,2	-1,0	-1,1	-4,5	-1,4	5,9
G. Valor del Mercado Agregado								
VMA a 1-1-2014 (MM\$)	-3.935							
H. Eva de la Inversión								
EVA/ANO	0,04	-0,11	0,05	-0,01	-0,01	-0,04	-0,01	

Fuente: Elaboración propia con base en Superintendencia de Sociedades (2020) y Rivera y Samboní (2021), Superintendencia Financiera de Colombia (2020) y Damodaran (2020). Notas: MM\$ denota cifras en millones de pesos colombianos.

¹ Ver fuentes de información complementaria para su cálculo en Rivera & Alarcón (2012, p. 92).

² Se toma la tasa promedio anual de crédito preferencial o corporativo reportado por la Superintendencia Financiera de Colombia (2020).

El indicador UODI/ANO fluctuó hasta el 2016 y luego cayó, conservando una relación positiva con el EVA; además, siguió la tendencia del indicador UODI/ventas en todos los años, y del indicador ventas/ANO, salvo en el 2018; mostrando que cuando se analiza solo las actividades operativas, el comportamiento de la efectividad de lograr utilidades depende tanto de la eficacia en el control de costos y gastos operativos como de la eficiencia en el uso de los activos netos operacionales. En el 2016 se presentó el mayor UODI/ANO (22,5%), producto de los mayores indicadores UODI/ventas (4,6%) y ventas/ANO (4,9 veces), su contribución no alcanzó a generar el mayor EVA del período porque el ANO fue el más bajo (\$38.306 MM); mientras que en el 2019 sucedió lo contrario, la menor UODI/ANO (9,6%) resultado de los menores indicadores UODI/ventas (3,7%) y ventas/ANO (2,6 veces), y aunque esto afectó a la destrucción del EVA, por la mayor inversión en ANO (\$78.717 MM), en parte fue atenuada por lograr el segundo menor Ko (14,1%) del período. Los promedios de UODI/ANO, UODI/ventas y ventas/ANO fueron 14,3%; 4,2% y 3,4 veces respectivamente (parte e de la Tabla 4).

El porcentaje de utilidad residual osciló hasta el 2016 luego disminuyó, siguiendo la dirección del índice UODI/ANO, que es uno de sus componentes, y solo fue positivo en el 2014 y 2016, confirmando el motivo por el cual la gran industria de productos lácteos en Colombia destruyó valor en cuatro años. El porcentaje promedio de la pérdida residual (-1,4%) fue resultado de la diferencia entre los promedios del UODI/ANO (14,3%) y del Ko (15,7%). El mayor porcentaje de pérdida residual tuvo lugar en el 2015 (-10,9%), justamente cuando se destruyó más EVA; mientras que el mayor porcentaje de utilidad residual se presentó en el año 2016 (5,2%), que no fue precisamente cuando más se creó EVA debido a que la inversión en ANO fue la más baja. Además, el mayor porcentaje de pérdida residual está ligada con el mayor Ko, mientras que el mayor porcentaje utilidad residual se presenta cuando la UODI/ANO fue más alta. El valor de mercado agregado de la gran empresa de la industria de productos lácteos en Colombia al 1 de enero de

2014 fue de \$3.935 MM, que corrobora la destrucción de valor económico durante el período 2014-2019, a pesar de que el margen de utilidad neta, el *ROE* y el índice UODI/ANO fueron positivos en cada uno de los años (Tabla 3 y partes e y g de la Tabla 4). El *EVA* promedio destruido por cada peso invertido fue de \$-0,01, siendo el 2015 cuando la destrucción fue mayor (\$-0,11) y el 2016 cuando la creación fue más alta (\$0,05), esta última no coincide con el año que creo más *EVA* porque la inversión fue menor.

RESULTADOS

En este aparte se comparan los principales indicadores de desempeño de la gran industria de productos lácteos en Colombia (GLC) con los de la industria de alimentos en el ámbito global (IAG) y en los países emergentes (IAE).

Crecimiento

La inversión en ANO aumentó con altibajos en la GLC, lo mismo ocurrió en la IAG y en la IAE; sus comportamientos son semejantes, salvo para el último año en GLC (Tablas 1, 2 y 4).

Efectividad

El *ROE* fue positivo en todos los años tanto para la GLC, como para la IAG y la IAE, también, sus comportamientos fueron fluctuantes, aunque con diferentes frecuencias. Al confrontar el *ROE* promedio de la GLC (8,1%) con el de la IAE (10,4%) y el de la IAG (11,4%), y la dispersión del *ROE* de la GLC (4,5%) con el de la IAE (1,2%) y el de la IAG (1,8%), se encontró que la efectividad de la GLC fue inferior y con mayor riesgo. Al descomponer el *ROE* se halló una mayor afinidad de su comportamiento con el margen de utilidad neta en los tres grupos comparados (GLC, IAG y IAE), que además fue positiva. Al comparar el promedio del margen de utilidad neta de la GLC (2,1%) con la de la IAE (4,0%) y la de la IAG (5,1%), y la desviación estándar de este margen de la GLC (1,2%) con el de la IAE (1,2%) y el de la IAG (0,7%) se encontró que la eficacia de la GLC fue inferior y con igual riesgo que la de la IAE, pero más inestable que la IAG. El otro componente del *ROE*, como es la rotación de activos totales fue en promedio de 1,3 veces en la GLC y de 1,8 veces en la IAG y la IAE, con una desviación de 0,1 veces en la GLC y la IAG y de 0,4 veces en la IAE; lo que significa que la eficiencia fue más baja en GLC e igual de inestable que la IAG, pero menos riesgosa que la IAE. Mientras que el tercer componente del *ROE*, como lo es el apalancamiento financiero giró alrededor de un 306,2% en la GLC, 143,5% en la IAE y 123,1% en la IAG, con una desviación estándar de 50,6% en la GLC, 10,6% en la IAE y 2,8% en la IAG, mostrando que la GLC usa una mayor proporción de deuda y un mayor riesgo que los sectores extranjeros referentes (Tablas 1, 2 y 3).

Valor Económico Agregado

El *EVA* de la GLC fue positivo en dos años, mientras en la IAE y en la IAG fue así en cada año; la tendencia del *EVA* de la GLC fue semejante a la IAG hasta el 2016 y a la de la IAE hasta 2018 (Tablas 1, 2 y 4). Esto llevó a que el VMA en el sexenio fuera negativo en la GLC (\$-3935 MM) y positivo en la IAG (\$203.967 MMUS) y en la IAE (\$37.344 MMUS). Al revisar los inductores del *EVA* se encontró que el promedio del UODI/ANO de la GLC (14,3%) fue superior al de la IAG (13,1%) y al de la IAE (10,7%), aunque con una mayor dispersión para la GLC ($\sigma = 4,4\%$), seguido de la IAG ($\sigma = 1,0\%$) y de la IAE ($\sigma = 0,8\%$); mientras que el promedio del *Ko* de la GLC (15,7%) fue mayor que el de la IAE (7,7%) y de la IAG (6,9%), pero con una mayor dispersión en la GLC ($\sigma = 4,0\%$) comparado al de la IAE ($\sigma = 0,8\%$) y al de la IAG (0,6%), lo que evidenció que la GLC fue la más eficaz en el control de costos operativos, pero no en los costos financieros. Lo anterior dejó a la GLC con un porcentaje de pérdida residual promedio de -1,4%, mientras que la IAE y la IAG lograron un porcentaje utilidad residual promedio de 2,9% y 6,2% respectivamente. La dispersión fue mayor en la GLC ($\sigma = 5,9\%$) que la de la IAE ($\sigma = 1,4\%$), y la de la IAG ($\sigma = 1,2\%$). Al

revisarse el *EVA* que deja cada unidad monetaria invertida, la GLC con \$-0,04 estuvo en desventaja con la IAE (\$0,03) y la IAG (\$0,06).

CONCLUSIONES

De la investigación realizada de la gran industria de productos lácteos en Colombia durante el período 2014-2019 se halló un aumento del ANO con fluctuaciones, semejante a las industrias afines en el ámbito global y de países emergentes. El *ROE* de la gran industria de productos lácteos en Colombia fue positivo, al igual que las industrias equivalentes en el mundo global y de economías emergentes; su promedio fue menor y sus resultados en el sexenio más dispersos que los presentados por la IAE, siendo esta diferencia más profunda cuando se compara con el IAG. Con lo que se demuestra su menor efectividad en lograr utilidades para los inversionistas, que además fue más inestable que los dos pares externos. El comportamiento del *ROE* de la gran industria de productos lácteos en Colombia estuvo más ligado a la orientación del margen de utilidad neta, al igual que las industrias afines extranjeras, aunque su eficacia fue inferior. El apalancamiento financiero contribuyó a aumentar la efectividad, de una forma más amplia que las industrias alimentarias foráneas. Mientras que la rotación fue menos influyente en la orientación del *ROE*, y el promedio fue inferior que las dos industrias pares, mostrando su menor eficiencia en el uso de los recursos físicos. La gran empresa de producción de lácteos en Colombia destruyó *EVA* en cuatro de los seis de años estudiados, que contrasta con la creación de valor anual de las industrias análogas en países emergentes y en el entorno global, esto llevó a que el VMA de la industria colombiana fuera negativo, que difiere al VMA positivo en las industrias similares del exterior.

El comportamiento del *EVA* de la GLC mantuvo una relación positiva con el rendimiento después de impuesto del activo neto operacional y una relación negativa con el costo de capital. Estos inductores del *EVA* fueron más altos en la industria nacional, pero dejando en promedio un porcentaje de pérdida residual, contrario a lo presentado en las industrias extranjeras que lograron un porcentaje de utilidad residual. El *EVA* promedio que dejó cada unidad monetaria invertida en la gran industria de productos lácteos en Colombia fue de \$-0,04, mientras que sus referentes externos presentaron promedios positivos. Este estudio podría ampliarse con investigaciones centradas grupos de empresas semejantes en cuanto a sus edades, estructura jurídica, etapas de su ciclo de vida, edades y localidades.

Anexo. Empresas de la Gran Industria de Productos Lácteos en Colombia

Nit	Razón Social	Nit	Razón Social
900579930	Indulacteos de Colombia S.A.S.	800243613	Lácteos del norte S.A.S.
860002130	Nestlé de Colombia S.A.	860059539	Ceuco de Colombia Ltda.
800114766	Freskaleche S.A.	900083863	Valores celema S.A.
860004922	Productos naturales de la sabana S.A. alquería	860043347	Cía. procesadora y distribuidora de lácteos Ltda.
830507278	Gloria Colombia S.A.	804009833	Indunilo S.A.S.
860008448	Meals mercadeo de alimentos de Colombia S.A.S.	860000261	Cía. nacional de levaduras levapan S.A.
890903711	Procesadora de leches S.A.	805025961	Quesos la Florida S.A.S.
800245795	Parmalat Colombia Ltda.	811037075	Lácteos Betania S.A.
830138568	Daity partners americas manufacturing Colombia Ltda.	860057144	Fábrica de quesos italianos del Vecchio S.A.S.
900136519	Danone alquería S.A.S.	832008464	Cía. lechera del mortño Ltda.
860046378	Desarrollos campesinos S.A.	900226833	New brands S.A.S.
860401826	Productos lácteos el recreo S.A.	830042212	Proalimentos liber S.A.S.
860512466	El pomar S.A.	860000122	Arrocera boluga Ltda.
890800252	Central lechera de Manizales S.A.	860025900	Alpina productos alimenticios S.A.
900497538	Comercializadora PNS S.A.S.	811029525	Productos lácteos aura s.a.
800042779	Colombiana de quesos S.A.S.	860053831	Comercial allan S.A.S.
890912221	P C A productora y comercializadora de alimentos S.A.S.	900196047	Costalac S.A.S.
892301290	Lácteos del Cesar S.A.	815004821	Quick and tasty de Colombia S.A.
800142820	Doña leche alimentos S.A.	890110964	Alimentos del Valle S.A.
800151407	El brechon S.A.	900031833	Alimentos pippo S.A.
800255713	Productos lácteos colfrance cps en C.		

Fuente: Elaboración propia con base en Superintendencia de Sociedades (2020) y Rivera y Samboní (2021). Nota: Se tomó las empresas con activos con superiores a los 30.000 salarios mínimos legales, conforme al artículo 2 de la Ley 905 de 2004 (Congreso de Colombia, 2004).

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RECONOCIMIENTO

El autor agradece el apoyo del estudiante Luis Miguel Samboní del Programa de Contaduría Pública de la Universidad del Valle.

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ESTRATEGIA BASADA EN LA TASA DE INTERÉS INTERBANCARIA DE EQUILIBRIO: CASO DE ESTUDIO UN MUNICIPIO DE GUANAJUATO, MÉXICO

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RESUMEN

En este proyecto de investigación se estudia la tasa de interés interbancaria de equilibrio (TIIE), esto con la intención de proponer una estrategia que permita reducir los pagos de adeudo en un crédito adquirido por un municipio del estado de Guanajuato, a través de la recopilación de variables significativas tales como el producto interno bruto, balanza comercial, índice nacional de precios y cotizaciones, inversión extranjera, inflación, ingresos municipales y standard and poor's, con una periodicidad de diez años para posteriormente realizar un modelo econométrico, el resultado más destacable es que la variable de balanza comercial obtuvo un mayor aporte para este caso de estudio y con base en ella se pronostica que la TIIE tienda a subir en los próximos periodos.

PALABRAS CLAVE: Tasa de Interés Interbancaria de Equilibrio, Econometría Aplicada y Gasto Público

ABSTRACT

In this research project the equilibrium interbank interest rate (TIIE) is studied, this with the intention of proposing a strategy that allows reducing debt payments on a loan acquired by a municipality in the state of Guanajuato, through the collection of significant variables such as gross domestic product, trade balance, national index of prices and quotations, foreign investment, inflation, municipal income and standard and poor's, with a periodicity of ten years to later carry out an econometric model, the most remarkable result is that the trade balance variable obtained a greater contribution to this case study and based on it, it is predicted that the TIIE will tend to rise in the next periods.

JEL: H72, H81

KEYWORDS: Equilibrium Interbank Interest Rate, Applied Econometrics and Public Expenditure

INTRODUCCIÓN

La tasa de interés interbancaria de equilibrio (TIIE) es un indicador macroeconómico muy importante ya que no solo ayuda a inversionistas a ver cuál es el mejor tiempo para obtener mejores rendimientos o si el país tiene un buen nivel de confianza, ya que, también ayuda a la población para ver cuáles son los niveles de inflación y así saber si el precio de los productos subirán o bajaran, incluso ayuda para formular estrategias en caso de adquirir un crédito a una tasa de interés baja. El departamento de finanzas del municipio de análisis (cuyo nombre por motivos de confidencialidad no se mencionará) se encuentra en una disyuntiva, derivado de un crédito contraído en una administración pasada, se ha notado incremento del pago de intereses muy por encima de los esperado, esto pudiera repercutir en un costo de oportunidad muy fuerte, porque el dinero destinado al pago de interés podría dirigirse a gasto social en beneficio de la población, también se podrían evitar posibles recortes de presupuestos así como de capital humano dentro de la organización ya que se sabe que al haber más egresos se recurrirá a diferentes estrategias las cuales

podrían incluir recortes tanto de personal como de proyectos, así que para salvar los buenos resultados y los empleos del presente año es necesario la realización del estudio.

Para ello se realizará un análisis econométrico donde la variable explicada sea la TIIE debido que al verse afectado este indicador macroeconómico se estaría generando una variación en la activación económica y así mismo en la inflación, al encontrar las variables que afectan la TIIE es posible pensar en estrategias de mejora. Con los resultados del modelo econométrico obtenido es posible prospectar escenarios económicos, políticos e ideas generales para el presente año. Esto con el fin de tener un criterio sustentado de lo que podría pasar con la TIIE y así mismo con la propia inflación. Cabe destacar que para complementar la información práctica se darán argumentos teóricos y anexará información escrita sobre los temas de los cuales son de gran relevancia para el proyecto, esto ayudará para una mejor comprensión sobre la idea plasmada, se incluirán gráficos de comparativas tanto internos como externos con un mínimo de 10 años de antigüedad con el fin de hacer investigación sobre los temas que sean relevantes para el proyecto.

REVISIÓN LITERARIA

Con base en la revisión bibliográfica realizada se identificaron que las variables más representativas y explicativas de la evolución de la TIIE son las siguientes: producto interno bruto, balanza comercial, inversión extranjera, ingresos municipales, inflación y mercado de valores (para este caso se consideró un parámetro de referencia el índice Standard and Poor's).

Tasa de Interés Interbancaria de Equilibrio (TIIE)

La TIIE es la tasa de interés interbancaria de equilibrio, la cual es determinada por el Banco de México (BANXICO) tomando en cuenta el número total de bonos de deuda en el mercado. Según BBVA “La tasa de Interés Interbancaria de Equilibrio (TIIE), es una tasa de referencia de las operaciones de crédito entre instituciones bancarias. Esta tasa es determinada por el Banco de México con base en las cotizaciones presentadas por las propias instituciones de crédito y refleja las condiciones del mercado de dinero en moneda nacional.” (BBVA, 2019), adicionalmente Ricardo González Orta, analista de impuestos y servicios generales argumenta “Un incremento en la tasa de interés por el Banco de México implica necesariamente un aumento de las tasas de interés que pagan las empresas y las personas físicas. En este sentido, las empresas endeudadas que no hayan pactado una tasa de interés fija verán reflejado un aumento en la tasa proveniente de créditos adquiridos” (Orta, s.f.).

Inflación

Se conoce al término de inflación al porcentaje incremental de los precios y calidad de vida del pueblo, este porcentaje puede verse afectado por diversos factores como la demanda, los aumentos de costes en las empresas; pero uno de los mayores factores es el tipo de política monetaria aplicada en el país siendo así un aspecto fundamental que los líderes deben tener bien concentrado. El portal de Banxico explica que “La inflación es un fenómeno que se observa en la economía de un país y está relacionado con el aumento de los precios de la mayor parte de los bienes y servicios que se comercian en sus mercados, por un periodo de tiempo prolongado” (Banxico, s.f.).

Producto Interno Bruto

El Producto Interno Bruto (PIB) es todo aquello que ingresa a una nación, este se clasifica por extensas cuentas en donde se clasifican todas y cada una de las actividades económicas de un país, asimismo Georgina Jatzire Arévalo Pacheco menciona “El Producto Interno Bruto (PIB) es un indicador macroeconómico que mide la generación de riqueza de un país durante un periodo de tiempo, el cual está constituido como una medida de todos los bienes y servicios producidos dentro de un país a precios de mercado de forma anual.” (Pacheco, 2018) así mismo Baxter menciona que “el producto se contrae en

respuesta a las compras gubernamentales, cuando éstas son financiadas con impuestos sobre el ingreso, y que los efectos macroeconómicos de las mismas están en función de su repercusión en los planes productivos del sector privado, de tal forma que, si el capital gubernamental aumenta la productividad del trabajo y capital privados, las políticas de inversión pública pueden tener efectos dramáticos en la producción e inversión privadas.” (M, 1993).

Ingresos Municipales

Para la revista de fiscalización ORFIS desde el punto de vista funcional, las actividades que realiza la Hacienda Pública Municipal comprende cuatro áreas fundamentales: ingresos, patrimonio, gasto y registro de las operaciones, que constituyen las funciones hacendarias principales, las cuales se representan con el esquema siguiente: los Ingresos municipales son los recursos financieros que percibe el municipio, en forma ordinaria o extraordinaria; por el cobro de conceptos estipulados en su Ley de Ingresos o por medio de la expedición de decretos o firma de convenios, derivados de la utilización de las atribuciones del Gobierno Municipal y de los recursos que ingresan a su hacienda provenientes de otros órdenes de gobierno. (ORFIS, 2013)

Inversión Extranjera

La inversión extranjera es una de las partes fundamentales para el crecimiento de una economía siendo parte fundamental de este estudio como un índice el cual tiende a afectar directamente el valor TIIE.

La inversión extranjera deriva su nombre a quienes confían en el país y llevan el dinero, así como otros proyectos para generar empleos a la población, esto conlleva a que dentro de la economía crezca la producción y también bajen los niveles de desempleo. Una de las formas en las cuales se puede atraer a los inversionistas es con las bajas tasas de interés (TIIE), lo que significa que las empresas que inviertan obtendrán mejores beneficios a un costo menor.

Balanza Comercial

La balanza comercial es un aspecto importante para el crecimiento ya que en este se muestra cuanto ha exportado en valor económico de los bienes de una nación y así mismo muestra cuánto se ha requerido importar para satisfacer las demandas de la población. Para obtener el saldo de la balanza comercial es necesario conocer las importaciones y exportaciones del periodo y realizar la siguiente operación: $\text{Importaciones} - \text{Exportaciones} = \text{Saldo de la balanza}$ Al realizar esto se obtiene el saldo de la balanza lo que significa si se ha necesitado importar más de lo que se exporta o viceversa; en efecto es mucho mejor exportar que importar ya que es uno de los factores influyentes dentro del cálculo del PIB, lo que podría significar la diferencia entre tener buen crecimiento o mal crecimiento según los resultados expresados.

Valor del Mercado de Valores

El Standard and Poor's es importante tomarlo en cuenta para el crecimiento debido a que nos muestra de manera general el estado de las empresas para todos aquellos nuevos inversionistas, Herrera y Rodríguez (2010), confirman que el Standard and poor's tiene relación para el presente estudio “A partir de la estimación de un modelo de corrección del error, se encuentra evidencia que apoya la hipótesis de una relación estable y de largo plazo entre ambas variables en el mercado accionario. Dado que la TIIE está relacionada con el crecimiento económico, se pactará de ahí en adelante para dar revisión a la opinión de diversos autores con respecto a los determinantes que afectan a la tasa de interés interbancaria de equilibrio. Los autores Francisco López Herrera y Domingo Rodríguez Benavides comparten que los factores, para correr un modelo de regresión lineal y evaluar la tasa de interés interbancaria de equilibrio se pueden considerar los siguientes: Standard and Poor's, índice de precios y cotizaciones, índice de volumen de la producción industrial y producto interno bruto (Herrera y Rodríguez, 2010), por otra parte los autores

Mamani Quispe y Héctor Daniel mencionan que los principales determinantes para evaluar TIIE son: el ahorro y la inversión extranjera (Quispe y Daniel, 2019), por su parte el consejo monetario centro americano comparte que para evaluar la tasa real se debe considerar: El consumo, la inversión extranjera, el ahorro y el producto interno bruto (Hernández, 2018), aunado a lo anterior, el autor Carlos Guerrero de Lizardi argumenta que los determinantes a considerar son: la balanza comercial, los flujos de capital y la inversión extranjera. (Chirinos, 2007)

METODOLOGÍA

El procedimiento para llevar a cabo la investigación consistió en realizar una revisión bibliográfica orientada a comprender los factores explicativos de la TIIE desde un enfoque teórico. Posterior a ello se procedió a la recopilación de datos de las variables explicativas de las plataformas de INEGI y Banxico.

INEGI: PIB, Inflación, Balanza comercial e Inversión extranjera
Banco de México: TIIE 28 días

Con base en el objetivo del proyecto que consiste en modelar el comportamiento de la TIIE en función de n variables explicativas, se eligió modelar con una función lineal y considerando los mínimos cuadrados ordinarios (MCO). En su expresión matemática los MCO permiten modelar una variable dependiente en función de varias variables explicativas de forma práctica. El método MCO consiste en minimizar la suma de los residuos al cuadrado teniendo, así como resultado la diferencia de los residuos observados y los valores del modelo. Y mediante el uso de un modelo de regresión lineal es posible cuantificar el aporte explicativo de cada variable X sobre la variable explicada. Posteriormente se aplicó la prueba de multicolinealidad, con la prueba de factores de inflación de la varianza. Esta prueba permite cuantificar hasta qué punto la varianza de un coeficiente de regresión estimado se incrementa a causa de la colinealidad. Con base en los valores obtenidos de la prueba anterior se obtuvieron altos valores de colinealidad por ello se aplicó el análisis de componentes principales el cual permite transformar las variables de entrada a un nuevo espacio coordinado llamado base ortogonal, en donde por definición las variables serán linealmente independientes. De esta forma el problema se resuelve.

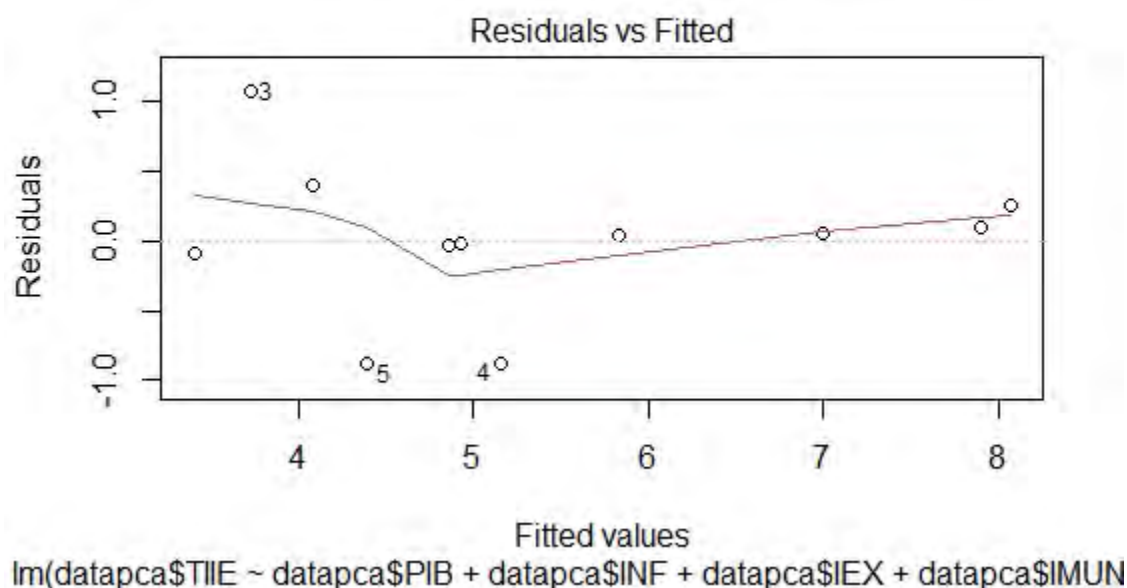
RESULTADOS

El modelo obtenido a partir de las componentes principales es el reportado en la ecuación 1. Y tiene por particularidad que sus variables serán linealmente independientes.

$$TIIE = 2.7290 - 2.005PIB + 1.551INF - 0.000004034 + 0.0000000000008350IMUN - 0.002BCOM - 0.0006843SYP \quad (1)$$

El coeficiente de Durbin-Watson permite visualizar la existencia de auto correlación, el coeficiente D-W puede estar entre 0 y 4 donde 0 es auto correlación positiva y 4 es correlación negativa, en este caso dio como resultado 2 lo que sugiere la no existencia de auto correlación.

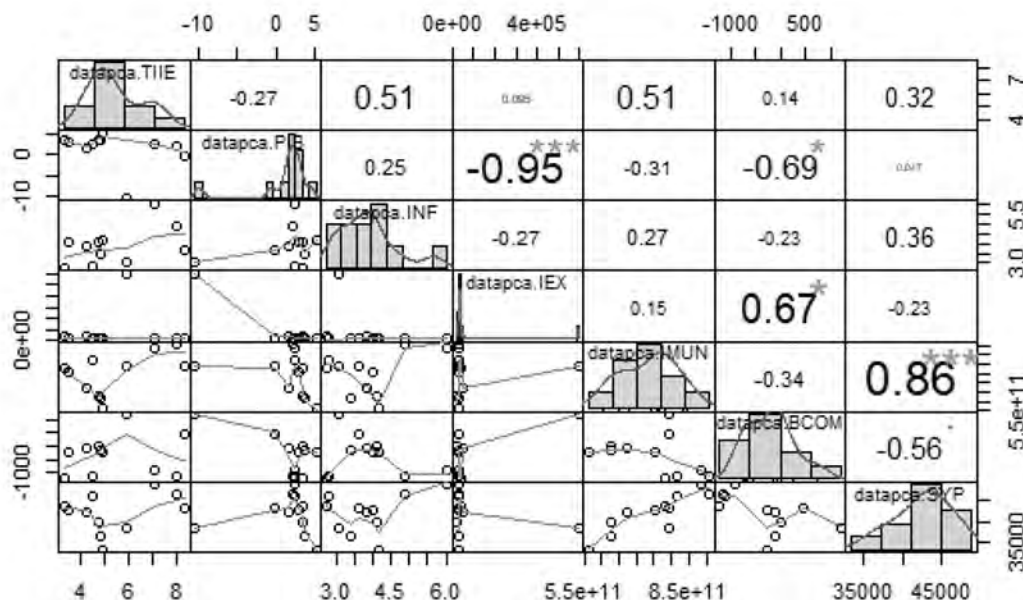
Figura 1: Comportamiento de los Residuos Ajustados



Se muestra la predicción del modelo con los valores reales previamente cargados en el software, al realizar la figura de residuos y ajustados se logra observar la predicción del modelo, identificado como una línea continua, se asemeja a los valores ajustados los cuales se identifican como círculos, esto quiere decir que existe una cierta tendencia entre los valores reales y lo que arroja el software estadístico, mas sin embargo se debe tomar en cuenta que hay ciertos valores que no están tan acercados a la línea de predicción, lo que nos quiere decir que existió un evento que ocasiono dicho nivel de volatilidad pero continuó moviéndose de acuerdo a la tendencia arrojada por el modelo, no deja de ser un modelo excelente para el objetivo requerido.

Con base en la figura 1 se puede ver cómo se va incrementando de a poco los valores reales así mismo la línea continua que predice el modelo lo sigue de manera casi exacta, esto quiere decirnos que muy posiblemente estemos ante el posible incremento de la tasa de interés interbancaria de equilibrio, no obstante, es necesario realizar una prueba de correlación con la cual obtendremos una matriz que nos mostrará el grado de significancia y la aportación que genera para el modelo.

Figura 2: Índice de Correlación de Cada Variable



índice de correlación, la figura representa de manera simétrica los coeficientes de correlación que existen entre diversas variables se le conoce como R cuadrada, se presenta una matriz de correlaciones entre las variables seleccionadas previamente en el estudio, dentro de las variables más relacionadas destacan el PIB con la inversión extranjera con un .95 de correlación con orientación negativa y un nivel de significancia del 99%, PIB y balanza comercial con resultado en R cuadrado de .69 con orientación negativa y un valor de significancia del 90%, asimismo se identifica a inversión extranjera- balanza comercial con un nivel de significancia del 90% y R cuadrada de .67 positiva y los ingresos municipales con el Standard and Poor's con un R cuadrado de .86 positivo con su respectiva significancia del 99%, se arrojan valores muy aceptables a simple vista, pero los estudios revelan que al arrojar altos niveles de correlación es símbolo de que también pueda existir linealidad por lo que más adelante se hará el estudio correspondiente.

CONCLUSIONES

Las variables que afectan directamente a la tasa de interés interbancaria de equilibrio (TIIE) fueron analizadas arrojando resultados bastante interesantes, por un lado se cuentan las variables que más aportaron al modelo econométrico como lo son: la inversión extranjera, la balanza comercial y el Standard and Poor's las cuales se recomienda estar analizando en caso de toma de decisiones y por el otro lado se muestra el comportamiento tendencial que se muestra en la figura 1, esto sugiere que México es un país estable dentro de la tasa de referencia lo cual hace que el modelo sea mucho más explicativo. Hay que destacar que basado en los resultados anteriores y en el futuro económico del país, se espera que la TIIE durante los primeros periodos del año 2021 tienda a subir exponencialmente, debido a que durante el año 2020 se contrajo el TIIE provocando incremento en la inflación por ello el gobierno tiene planeado controlar la, ahora tomando en cuenta la gráfica de residuos se logra observar tiene una tendencia alcista que es lo que lleva el control de la inflación en México, aunado a esto dentro de la matriz de correlación muestra que el valor de la balanza comercial y el S&P son los más significativos para el modelo, considerando eso se puede regular la reactivación económica dado que las vacunas para el virus covid-19 ya han comenzado a distribuirse por lo que poco a poco las actividades económicas dentro y fuera del país comiencen a estabilizarse lo que indicaría mayores negociaciones en el extranjero y mayores oportunidades dentro de las empresas en el país al ver una estabilidad, se debe tomar en consideración que es mejor tener estos estudios que llevarse por la intuición.

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MEDICIÓN DE LA DEPENDENCIA DE LAS PRINCIPALES CRIPTOMONEDAS VS EL BITCOIN

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RESUMEN

Las 35 principales empresas de México, que forman en conjunto al Índice de Precios y Cotizaciones (IPC), muestran en algunos casos cierta dependencia hacia este índice bursátil, sin embargo, no siempre es así, hay ocasiones en las que la relación entre las fluctuaciones de las acciones y los movimientos del índice no se comportan de la misma manera, en esta teoría nos basaremos para realizar el estudio de dependencia de las 5 principales monedas virtuales, esto último determinado por la capitalización del mercado. El mercado inversor debe estar atento a los diferentes cambios que hay en la economía mundial, y sobre todo a los nuevos instrumentos financieros que ya existen, y están al alcance de todos, para con ello, poder anticiparse al momento oportuno y no sucumbir ante las diversas fluctuaciones.

PALABRAS CLAVE: Capitalización del Mercado, Monedas Virtuales, Mínimos Cuadrados, Correlación, Bitcoin.

MEASUREMENT OF THE DEPENDENCE OF THE MAIN CRYPTOCURRENCIES VS BITCOIN

ABSTRACT

The 35 main companies in Mexico, which together form the Price and Quotation Index (CPI), show in some cases a certain dependence on this stock index, however, this is not always the case, there are times the relationship between fluctuations of the actions and movements of the index do not behave in the same way. With this theory we will rely on the dependence study of the 5 main virtual currencies, the latter determined by the market capitalization. The investment market must be attentive to the different changes that there are in the world economy, and especially to the new financial instruments that already exist, and are available to all, in order to be able to anticipate the opportune moment and not succumb to the various fluctuations.

JEL: C02, C80, D53, E22.

KEYWORDS: Market Capitalization, Virtual Currencies, Last Squares, Correlation, Bitcoin.

INTRODUCCIÓN

Las monedas virtuales, también conocidas como <<Criptomonedas>>, han tomado gran relevancia en nuestra sociedad (Navarro, 2019), y es de bien decirlo, algunas de ellas ya se encuentran dentro de nuestra economía como instrumentos de inversión, o, como monedas de cambio. De manera paralela, y con el afán de tener controlado estos nuevos sistemas financieros, el H. Congreso de la Unión, ha creado una ley para

regular las Instituciones de Tecnología Financiera, también conocida como Ley Fintech (Barrena, Sánchez y Marines, 2018). Debido al gran auge que han tenido actualmente, existen más de trescientos tipos de Criptomonedas, sin embargo, no todas han tenido una buena aceptación por parte del mercado inversor, esto último, determinado por lo que se llama <<Capitalización del Mercado>>. Para nuestro estudio solamente utilizaremos las seis criptomonedas con mayor capitalización en el mercado, las cuales son: Bitcoin, Ethereum, XRP, Bitcoin Cash, Bitcoin SV y Tether. Veremos si existe una dependencia de éstas hacia el Bitcoin.

REVISIÓN LITERARIA

Este trabajo analizará la dependencia que existe de diversas criptomonedas contra el Bitcoin, mediante la metodología de mínimos cuadrados, esto será, tomando como variable independiente al Bitcoin, y a las otras monedas virtuales como variables dependientes, cabe señalar, que estas últimas serán comparadas de manera individual contra el Bitcoin. Existen algunos trabajos enfocados al análisis de la tendencia de criptomonedas por mencionar algunos Cavello, Coronel y Terrones en 2018 realizaron un estudio de correlaciones para crear una estrategia de inversión; Arias, Campos y Oraco (2019) estudian la diversificación de estos activos como estrategia de cartera de inversión y Mota y Nuñez (2019) analizaron la interdependencia de algunas de las más relevantes criptomonedas para la posible creación de portafolios. La elección de los métodos depende de la naturaleza del fenómeno en cuestión y la variedad de algoritmos es amplia.

Método de Mínimos Cuadrados

Según Heizer y Render (2004) el método que nos ayuda a pronosticar, entre una variable dependiente y una independiente, nos da la pauta para encontrar la correlación o dependencia que existe entre las variables, siendo el coeficiente de correlación, el parámetro que muestre la dependencia de una variable con la otra. “Este enfoque resulta en una línea recta que disminuye al mínimo la suma de los cuadrados de las diferencias verticales o desviaciones de la recta hacia cada una de las observaciones reales.”

Fórmula de Mínimos Cuadrados

Como lo mencionan Barry y Heizer (2014) la recta de mínimos cuadrados se describe en términos de su intersección con el eje de las ordenadas y su cambio esperado. Si se calcula la intersección con este eje y la pendiente, se puede expresar la recta con la siguiente ecuación:

$$\hat{y} = a + bx \quad (1)$$

donde:

$\hat{y}$ = variable dependiente
 a = intersección con el eje y
 b = pendiente de la recta de regresión
 x = variable independiente

Para el cálculo de los elementos a y b, debe de considerarse las siguientes fórmulas.

$$b = \frac{\sum xy - n \bar{x} \bar{y}}{\sum x^2 - n \bar{x}^2} \quad (2)$$

donde:

b = pendiente de la recta de regresión

Σ = Signo de sumatoria
 x = valores conocidos de la variable independiente
 y = valores conocidos de la variable dependiente
 $\bar{x}$ = promedio de los valores de x
 $\bar{y}$ = promedio de los valores de y
 n = número de datos u observaciones

Coeficiente de Correlación

De acuerdo con Quiroga y Villalobos (2015), la finalidad de la correlación es examinar la dirección y la fuerza de la asociación entre dos variables cuantitativas. Así conoceremos la intensidad de la relación entre ellas y si, al aumentar el valor de una variable, aumenta o disminuye el valor de la otra variable. Cabe señalar que puede existir correlación positiva y negativa, y dicho sea de paso, puede ser que las variables no tengan correlación entre sí.

Para nuestro estudio, estaremos considerando una correlación $r > 0.75$ aceptable.

r = correlación

$$-1 < r < 1$$

Fórmula de Correlación:

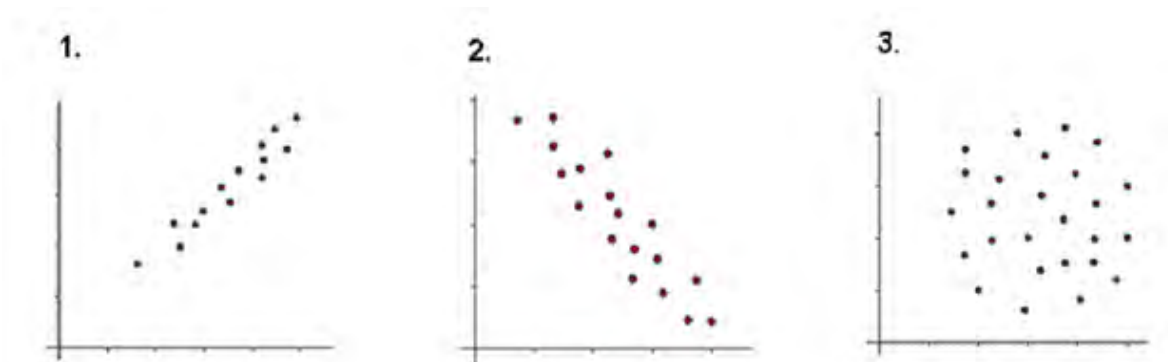
$$r = \frac{n \Sigma xy - \Sigma x \Sigma y}{\sqrt{[n(\Sigma x^2) - (\Sigma x)^2][n(\Sigma y^2) - (\Sigma y)^2]}} \quad (3)$$

Σ = Signo de sumatoria
 x = valores conocidos de la variable independiente
 y = valores conocidos de la variable dependiente
 n = número de datos u observaciones
 xy = valores dependientes e independientes

Diagrama de Dispersión

Son gráficos que nos ayudan, de manera visual, a especular sobre el comportamiento de las variables. A lo largo de su uso, se ha identificado que tienen diversos comportamientos a los cuales los llamaremos patrones, debido a estos patrones, podemos inferir si existe una correlación entre las variables. A continuación, se muestran algunos de los gráficos de dispersión con diferentes patrones.

Figura 1: Patrones de Correlación Entra las Variables



La figura 1 muestra algunos de los patrones de correlación entre las variables. El diagrama 1 nos muestra una correlación positiva, mientras que el diagrama 2 muestra una correlación negativa. En ambos casos nos muestra cierta dependencia de una variable con respecto a la otra. La figura 3 nos muestra que no existe correlación entre las variables. Cabe señalar que la variable independiente se encuentra situada en el eje de las abscisas, mientras que la variable dependiente se encuentra en la ordenada.

METODOLOGÍA

Para la selección de las variables dependientes, solamente serán cinco monedas virtuales, ésta selección se hizo mediante el factor de capitalización del mercado. Para este estudio, la selección de las criptomonedas se pudo haber realizado por el volumen de unidades que existe en el mercado, sin tomar en consideración el precio del activo. Cabe señalar que se puede realizar un estudio para calcular la correlación existente entre las variables: capitalización en el mercado y volumen en el mercado. Pero como comentamos al inicio, este estudio solamente elegimos las criptomonedas con mayor capitalización en el mercado, y esta última es la variable que utilizaremos.

Figura 2: Monedas Virtuales Con Mayor Capitalización en el Mercado Ordenadas de Manera Descendente.

1	 Bitcoin	BTC	161,042 MXN	0.1%	-0.2%	5.7%	476.243.342.662 MXN	2.926.709.371.620 MXN	
2	 Ethereum	ETH	3113,07 MXN	-0.2%	0.5%	15.5%	162.106.528.869 MXN	340.883.349.707 MXN	
3	 XRP	XRP	4,36 MXN	-0.1%	0.7%	9.7%	31.904.067.739 MXN	190.338.622.650 MXN	
4	 Bitcoin Cash	BCH	6304,34 MXN	-0.2%	-1.8%	26.1%	61.734.720.872 MXN	115.246.364.734 MXN	
5	 Bitcoin SV	BSV	5797,68 MXN	-1.9%	1.5%	78.1%	73.571.181.795 MXN	106.218.566.008 MXN	
6	 Tether	USDT	18,66 MXN	0.2%	0.3%	-0.5%	558.923.123.992 MXN	79.972.818.251 MXN	

Para una mejor contextualización por parte del lector, la capitalización en el mercado es el precio del activo, en este caso monedas virtuales, multiplicado por el número de unidades que circulan en el mercado. La figura 2 muestra a las principales criptomonedas ordenadas de manera descendente por su capitalización en el mercado, lo cual, nos da pauta para decir que tanta aceptación han tenido el mercado inversor. Fuente: (CoinGecko, 2020)

Es evidente que la moneda virtual con mayor posición en el mercado es el Bitcoin, seguido del Ethereum y después del XRP, y detrás de estas, se encuentran posicionadas las demás.

Tabla 1: Total de la Capitalización del Mercado de las Seis Principales Criptomonedas.

Moneda Virtual	Iniciales	Capitalización en el Mercado	Dominio de la Capitalización del Mercado
Bitcoin	BTC	\$ 2 926 709 371 620	65.83 %
Ethereum	ETH	\$ 341 362 525 810	7.67%
XRP	XRP	\$ 190 734 265 346	4.29%
Bitcoin Cash	BCH	\$ 115 404 384 684	2.60%
Bitcoin SV	BSV	\$ 106 464 391 069	2.39%
Tether	USDT	\$ 80 169 650 941	1.80%
Total			84.58%

La Tabla 1 muestra la diversificación del mercado de las criptomonedas, teniendo listadas a las seis principales monedas virtuales, que poseen un 84.58% del mercado, cabe señalar, que tan solo el Bitcoin, tiene un dominio de mercado del 65.83%. Esta tabla también muestra las abreviaturas de las monedas para una rápida identificación y comprensión por parte del lector. Fuente: Elaboración propia.

Es importante agregar que la mayoría de las criptomonedas han presentado caídas muy fuertes durante los últimos 6 meses, lo cual, ha provocado, que las especulaciones sobre las monedas virtuales empiecen a cambiar, esto puede dar pie, a que baje la confianza de los inversionistas en estos instrumentos financieros, por otra parte, puede presentar una buena oportunidad para adquirir este tipo de instrumentos virtuales. Para la realización del estudio, se tomó en consideración el movimiento de los precios de las diferentes criptomonedas, cabe señalar que la temporalidad seleccionada fue de más de un año (15 de febrero de 2018 a 17 de diciembre del 2019). Para este estudio se tuvo que calcular el rendimiento de los movimientos de las criptomonedas, esto es, obtener, en porcentaje, el aumento o reducción del rendimiento, comparándolo mediante la siguiente fórmula:

Fórmula:

$$\text{Rendimiento \%} = \frac{D_N - D_P}{D_P} \quad (4)$$

donde:

Rendimiento % = El porcentaje de rendimiento obtenido (puede ser positivo o negativo)

D_N = Es el dato del precio de la fecha más actual

D_P = Es el dato del precio precedente al dato actual

Par de Monedas

Según Cazar (2001) Una moneda se aprecia cuando gana valor con respecto a otra y en consecuencia si pierde valor con la otra moneda, entonces se deprecia. Un par de moneda no solamente se pueden formar con divisas de diferentes nacionalidades, si no también se pueden formar mediante monedas virtuales, tomando en consideración la existencia de una moneda base y una moneda dependiente. Los pares de monedas que utilizaremos en este trabajo son los siguientes: BTC/ETH, BTC/XRP, BTC/BCH, BTC/BSV y BTC/USDT.

RESULTADOS

Para este estudio se tomaron en consideración las 6 principales criptomonedas, con base en el dominio de la capitalización del mercado. Utilizando el método, de los mínimos cuadrados, se obtuvo el coeficiente de correlación de las diferentes variables.

Comparación del Índice de Correlación y las Rectas de Ajuste

Cabe señalar que el estudio que se realizó fue para dos variables (independiente y dependiente). Los pares de monedas fueron obtenidos de la plataforma de CoinGecko y las paridades son:

BTC / ETH
 BTC / XRP
 BTC / BCH
 BTC / BSV
 BTC / USDT

Tomando como variable independiente la moneda virtual Bitcoin, y como dependiente a las otras monedas, los resultados obtenidos los mencionamos en la Tabla 2.

Tabla 2: Índice de Correlación y Ecuación de la Recta de Ajuste de los Pares de Moneda.

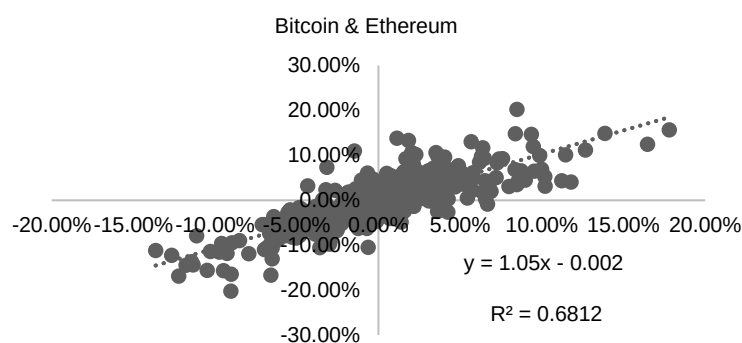
Criptomoneda	Correlación Con el Bitcoin	Ecuación de la Recta de Ajuste
Ethereum	0.8253	$y = 1.05x - 0.002$
XRP	0.6779	$y = 0.899x - 0.0016$
Bitcoin Cash	0.4395	$y = 0.7686x - 0.0009$
Bitcoin SV	0.0223	$y = -0.039x + 0.0004$
Tether	0.0141	$y = 0.0066x + 0.0002$

Se observa la mayor correlación de Ethereum con un 82%, seguido de 67% de la criptomoneda XRP. Las correlaciones más bajas observadas son las de Bitcoin cash con 43%, Bitcoin SV con 2% y Tether 1% aproximadamente. Fuente: Elaboración propia.

Gráficos de Dispersión

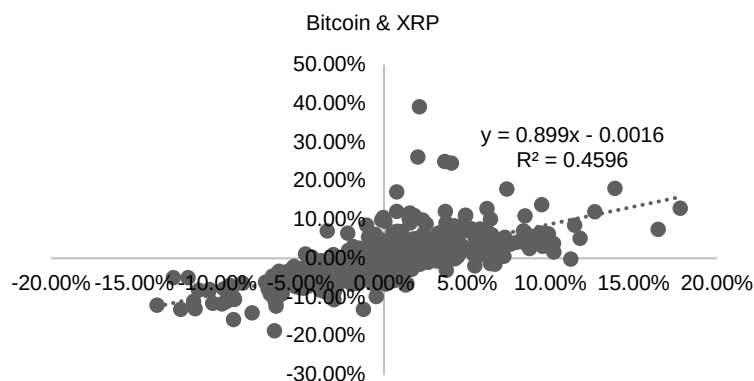
Después de realizar el estudio, se obtuvieron los diagramas de dispersión de cada par de moneda, con la finalidad de darle un mayor entendimiento al lector. En ellos se puede ver más claro la dependencia que existe entre las variables.

Figura 3: Gráfica de Dispersión del Bitcoin & Ethereum



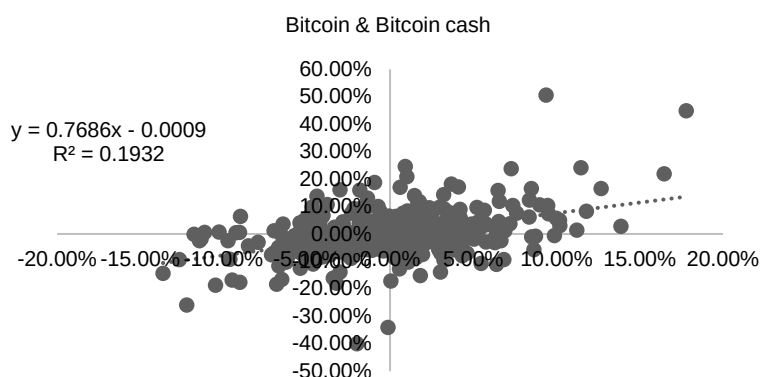
La figura 3 expone el gráfico de dispersión para el par de moneda Bitcoin & Ethereum, se observa cierta dependencia, gráficamente, a su vez, el coeficiente de correlación fue de 0.8253, esto último, nos da la pauta para especular sobre cierta dependencia de la moneda virtual Ethereum hacia el Bitcoin. Se observa una pendiente con orientación positiva que sugiere relación directa entre las variables reportadas. Fuente: elaboración propia.

Figura 4: Gráfica de Dispersión del Bitcoin & XRP



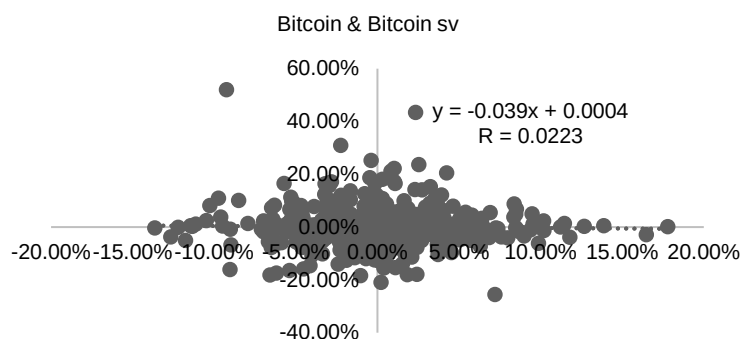
La Figura 4 refiere al par de monedas Bitcoin & XRP, se observa discrepancia en la dependencia, gráficamente, a su vez, el coeficiente de correlación fue de 0.6779, esto último, nos da la pauta para especular sobre cierta independencia de la moneda virtual XRP hacia el Bitcoin. Fuente: Elaboración propia

Figura 5: Gráfica de dispersión del Bitcoin & Bitcoin cash



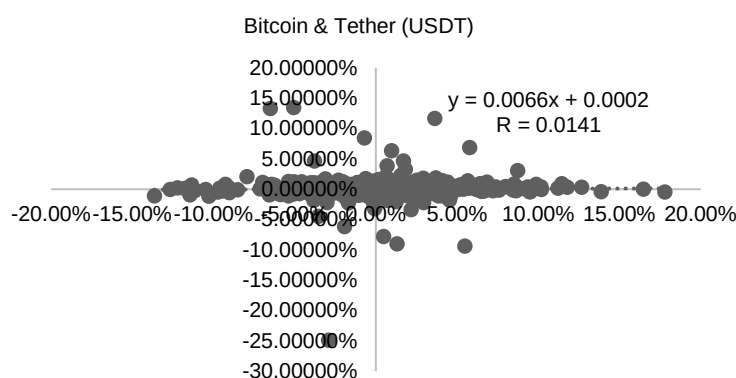
La Figura 5 describe el par de moneda Bitcoin & Bitcoin cash y se observa discrepancia en la dependencia, gráficamente, a su vez, el coeficiente de correlación fue de 0.4395, esto último, nos da la pauta para especular sobre una mayor independencia de la moneda virtual Bitcoin cash hacia el Bitcoin. Fuente: Elaboración propia

Figura 6: Bitcoin vs Bitcoin SV



La Figura 6 refiere al par de monedas Bitcoin & Bitcoin sv, se observa discrepancia en la dependencia, gráficamente, a su vez, el coeficiente de correlación fue de 0.0223, esto último, nos da la pauta para especular sobre una probable nula relación entre las monedas. Fuente: Elaboración propia

Figura 7: Gráfica de Dispersión del Bitcoin & Tether



Para el par de moneda Bitcoin & Tether, se observa a simple vista una gran independencia, gráficamente, a su vez, el coeficiente de correlación fue de 0.0141, esto último, nos da la pauta para especular sobre una nula relación entre las monedas.

Fuente: Elaboración propia

CONCLUSIONES

Los resultados del análisis arrojan, mediante el modelo de los mínimos cuadrados, no existe relación entre la mayoría de las criptomonedas, estas últimas seleccionadas mediante su capitalización del mercado. El único par de moneda que tiene cierta correlación entre las variables es el BTC/ETH, el cual, se presenta por encima del 80% de relación. Con esta información podemos concluir que no hay relación entre los diferentes movimientos de las monedas virtuales, salvo el par de moneda ya comentado. Todo esto nos da la pauta para observar más características diferentes entre las criptomonedas. La nula correlación también se puede deber a la diferencia de minado existente de las criptomonedas. A su vez, también podemos observar el Tether, no tiene relación con el Bitcoin, pero a simple vista, se observa la casi perfecta paridad con el dólar, no nada más en el precio, sino también en los movimientos que tiene en el mercado

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DESEMPEÑO DE LOS FONDOS DE PENSIONES CHILENOS EN EL EXTRANJERO 2009 - 2020

Renato Balbontín, Universidad Andrés Bello

Rodrigo Blanch, Universidad Andrés Bello

RESUMEN

En este trabajo analizamos el desempeño de los fondos de pensiones chilenos, medidos a través de los índices de Jensen, Sharpe y Treynor. La comparación se hace en base mensual para el período 2009 – 2020. Se concluye que todos los fondos de pensiones, excepto el fondo D, tuvieron un desempeño superior al índice global MSCI-ACWI, pero sólo los fondos A y B entregaron un premio por unidad de riesgo por encima del rendimiento promedio de los bonos del Tesoro Americano. Al desagregar el riesgo total de los fondos de pensiones en sus componentes sistemática e idiosincrática, se confirma la dificultad para eliminar el riesgo idiosincrático y las conclusiones sugieren que las restricciones que impone la normativa en Chile les permite alcanzar niveles de retorno similar al de una cartera activa global, pero con un sustancial incremento en el riesgo total.

PALABRAS CLAVES: Diversificación, Retorno, Volatilidad, Riesgo, Sistemático, Idiosincrático.

OVERSEAS PERFORMANCE OF CHILEAN PENSION FUNDS 2009 - 2020

ABSTRACT

In this work we analyzed the performance of the Chilean Pension Funds, as measured by Jensen, Sharpe and Treynor indices. The comparison is made on a monthly basis for the period 2009–2020. We concluded that all pension funds, except for fund D, outperformed the global MSCI-ACWI index, but only funds A and B delivered a per unit of risk excess return, above average US Treasury bonds yield. By disaggregating the total risk of pension funds into its systematic and idiosyncratic components, the difficulty of eliminating idiosyncratic risk is confirmed and the conclusions suggest that the restrictions imposed by Chilean regulation allow them to achieve levels of return similar to that attained by a global active portfolio, but with a substantial increase in total risk.

JEL: C01, C12, C20, G15, G23, G32

KEYWORDS: Diversification, Return, Volatility, Risk, Systematic, Idiosyncratic.

INTRODUCCIÓN

La mayor parte de la inversión extranjera de los fondos de pensiones chilenos se diversifica a través de fondos mutuos accionarios que operan en los mercados de capitales de Norteamérica, Europa y Asia. El presente documento analiza el nivel de eficiencia con que se ha administrado, en los últimos 12 años, aquella parte de la cartera accionaria invertida en mercados extranjeros. La eficiencia en la administración activa de carteras de inversión tiene relación con lograr rendimientos superiores a los que eventualmente se obtendrían con una estrategia pasiva asociada, por ejemplo, a la inversión en un índice accionario bien diversificado o alternatively, a la generación de valor a través de un premio por unidad de riesgo por encima del rendimiento de un instrumento de renta fija de referencia. Para llevar a cabo este análisis plantearemos las siguientes hipótesis de estudio: Primero, que al menos como industria, el desempeño de

los fondos de pensiones en el extranjero, durante los últimos 12 años, ha sido similar en retorno al de un índice global de diversificación como lo es el Morgan Stanley All Country World Index (MSCI - ACWI). Segundo, que el rendimiento promedio de los fondos de pensiones por unidad de riesgo ha sido superior al de los bonos del Tesoro Americano de largo plazo. Tercero, que la diversificación de los fondos de pensiones en mercados globales se ha logrado a costa de un nivel de riesgo idiosincrático o diversificable similar al asociado a muestras representativas de los fondos mutuos que canalizan una significativa proporción de la inversión en el extranjero.

Esta investigación comienza con una revisión de literatura. En primer lugar aborda la crisis sub prime (2008-2009) momento en que se inicia nuestro análisis; luego se resume la historia de los fondos de pensiones chilenos y la evolución que ha exhibido su desempeño en los últimos años; en seguida, una breve guía teórica para la medición del riesgo sistemático y el idiosincrático; luego se presenta la metodología utilizada y fuente de datos para medir la eficiencia con que han sido administrados los fondos de pensiones en el extranjero; para terminar con los resultados y las conclusiones de la investigación.

REVISIÓN DE LA LITERATURA

Crisis Financiera 2008

La crisis 2008 gatillada por el colapso de un segmento del mercado hipotecario norteamericano asociado a préstamos otorgados a personas con débiles condiciones crediticias amenazó la viabilidad de numerosas instituciones financieras y la estabilidad del sistema financiero mundial. En los momento más críticos luego de la quiebra de *Lehman Brothers*, en septiembre 2008, fue la intervención de última instancia del U. S. *Federal Reserve Bank* que mediante “inyecciones de liquidez” resolvió la situación de pánico que se estaba creando a nivel mundial. Mendoza y Quadrini (2010) destacan que esta crisis fue precedida por 20 años de incremento sostenido en el endeudamiento de la economía americana como consecuencia de bajas tasas de interés. Ellos sugieren que la creciente integración de los mercados de capitales, incluyendo las economías emergentes, provocaron su transmisión vía contagio.

Los Fondos de Pensiones en Chile

La historia del actual sistema de pensiones en Chile se inicia en la década de 1970. En Piñera (1991) se indica que debido a la caída de la tasa de natalidad y el aumento progresivo de la expectativa de vida, se detectó que existía un desequilibrio entre la proporción de trabajadores activos y pensionados, por lo que se anticipó una inminente crisis presupuestaria en caso de continuar con el sistema de reparto vigente a esa fecha. La industria privada de fondos de pensiones en Chile se inició en 1981 y se basa, por ley, en una cotización obligatoria mensual para cada trabajador, durante toda su vida laboral, y que corresponde al 10% de su renta imponible en una cuenta de capitalización individual, que es gestionada por una empresa privada de giro único llamada Administradora de Fondos de Pensiones (AFP). Bravo (2015) resume el trabajo de la comisión de expertos designados por la presidenta Michelle Bachelet, que analizaron y propusieron modificaciones al actual sistema de pensiones y cuyos resultados fueron entregados en septiembre del año 2015. En lo esencial, este análisis recomienda incrementar la cotización previsional mensual por trabajador del actual 10% de la renta imponible a un 12%, siendo esos 2 puntos porcentuales incrementales de cargo del empleador, quien deberá contribuir además con otros 2 puntos porcentuales a un Fondo Solidario para incrementar las actuales pensiones de bajo monto. También se propone fortalecer este Fondo Solidario y universalizar su cobertura, vía impuestos generales, así como la creación de una AFP Estatal que se incorpore compitiendo con las mismas reglas del actual sistema privado de pensiones (Bravo y otros, 2015). Estas propuestas están sirviendo de base para el estudio y negociación parlamentaria de una reforma profunda al sistema de pensiones chileno, que entre otros aspectos incluye el alza de la tasa de cotización del 10% al 18%. Del 8% adicional, un 6% sería de cargo del empleador y los 2% restantes provistos por el estado. Por estos días es motivo de un álgido debate parlamentario cual debe ser el destino de ese 6%

incremental, estando divididas las opiniones sobre que parte debe ir a ahorro individual y cual a un fondo común solidario.

Desempeño de los Fondos de Pensiones

Los últimos estudios realizados en esta área se han llevado a cabo con la colaboración de la Organización para la Cooperación y el Desarrollo Económico (OCDE) y el Banco Mundial. Antolín (2008) resume los resultados de análisis comparativos de desempeño de fondos de pensiones privados que operan en Latinoamérica y Europa, destaca la necesidad de desarrollar a futuro estándares internacionales para poder comparar efectivamente resultados entre países. Se refiere específicamente a Walker e Iglesias (2007) quienes analizan el desempeño de fondos de pensiones en base al Ratio de Sharpe, explicitando la volatilidad del activo de renta fija. Siguiendo a Lo (2002), ellos concluyen que en general los fondos de pensiones en varios países han tenido un buen rendimiento al compararse con un activo libre de riesgo de corto plazo, pero esta situación no se da cuando el *benchmark* utilizado es un bono libre de riesgo de largo plazo.

Riesgo Sistemático vs. Riesgo Idiosincrático

De acuerdo a la teoría financiera, una cartera de inversiones bien diversificada debería tener asociado un riesgo idiosincrático o diversificable cercano a cero - Ross, Westerfield y Jaffe (2000). El modelo CAPM asume que los inversionistas pueden eliminar todos los riesgos, excepto aquél asociado a la covarianza de sus retornos con los de un índice representativo del retorno total de mercado, el cual constituye el riesgo sistemático o no diversificable - Copeland y Weston (1979). Si σ_C^2 representa el riesgo total de la cartera C, éste se puede descomponer en su riesgo sistemático $\beta_C^2 \cdot \sigma_M^2$ e idiosincrático σ_ϵ^2 tal como queda expresado en la siguiente ecuación:

$$\sigma_C^2 = \beta_C^2 \cdot \sigma_M^2 + \sigma_\epsilon^2 \quad (1)$$

Proponemos que σ_ϵ^2 se exprese como la fracción $(1 - [\rho_{CM}]^2)$ del riesgo total σ_C^2 , donde ρ_{CM} representa el coeficiente de correlación entre los retornos de la cartera C y los de un índice de mercado "M", entonces concluimos que con ρ_{CM} superior a 0.995 se logra que σ_ϵ^2 represente menos de un 1% de σ_C^2 . Bennett y Sias (2010) destacan las actuales dificultades empíricas para conformar carteras con riesgo diversificable próximo a cero y sugieren que la razón de esta anomalía estaría en burbujas de precios que los arbitradadores no han sido capaces de eliminar. Resulta de interés en nuestro análisis medir qué tan bien diversificada se encuentra la parte de los fondos de pensiones chilenos invertida en el extranjero, y cómo se compara su riesgo idiosincrático con el asociado a las carteras de fondos mutuos que concentran sus inversiones en mayor medida.

METODOLOGÍA Y FUENTE DE DATOS

Unas de las prácticas más usuales en países que tienen mercados de capitales desarrollados es la medición del desempeño financiero en empresas que administran fondos de terceros. Para medir performance en el ámbito del mercado de capitales no basta con observar la variable retorno. En efecto, la evaluación debe considerar también el nivel de riesgo asumido por las carteras de inversión. Por otra parte, hay que tener presente las restricciones en cuanto a diversificación y composición de cartera que impone el marco regulatorio, en este caso, la normativa previsional chilena. Una forma de medir el desempeño financiero consiste en comparar fondos de inversión de riesgo similar a través de índices que son indicativos del nivel de eficiencia con que han sido administrados. Junto con el desarrollo de las finanzas modernas han surgido varios índices. Los utilizados en nuestra investigación son el índice de Jensen, el índice de Sharpe y el índice de Treynor, los cuales se explican a continuación:

Índice de Jensen

Este índice, conocido como “alfa de Jensen” - Jensen (1968 y 1969) - es una medida absoluta del desempeño de una cartera. Su determinación se basa en el modelo CAPM - Sharpe (1964), Lintner (1965), Mossin (1966) - y resulta de efectuar un análisis de regresión lineal entre el exceso de retorno de una cartera, sobre el retorno de un instrumento de renta fija libre de riesgo, y el exceso de retorno de un índice de mercado, sobre el retorno del activo de libre riesgo, en un determinado período de tiempo, de acuerdo a la siguiente ecuación:

$$R_{Ct} - R_{Lt} = \alpha_C + \beta_C \cdot (R_{Mt} - R_{Lt}) + \varepsilon_{Ct} \quad (2)$$

Donde R_{Ct} representa el retorno de la cartera C en el período (mes) t, R_{Lt} representa el retorno del instrumento de renta fija libre de riesgo en el período (mes) t, R_{Mt} representa el retorno de un índice asociado al comportamiento promedio de mercado en el período (mes) t, ε_{Ct} representa el error en la medición del retorno de la cartera C, que se obtiene en el período (mes) t al efectuar la regresión lineal. Finalmente α_C y β_C representan el intercepto y la pendiente de la regresión, respectivamente.

Índice de Sharpe

Este índice (S_C) se construye tomando como base la línea de mercado de capitales y se calcula como el exceso de retorno esperado de una cartera C sobre el valor esperado del retorno de libre riesgo en un cierto número de períodos (N), dividido por la cantidad de riesgo asumida para obtener dicho retorno, representado por la desviación estándar de los retornos de la cartera C, Sharpe (1966).

$$S_C = \frac{[E(R_C - R_L)]}{\sigma_{R_C}} \quad (3)$$

Este índice ilustra la eficiencia en la administración de una cartera C en términos relativos, ya que al dividir al dividir el exceso de retorno por el riesgo total de la cartera, está midiendo el exceso de retorno por unidad de riesgo. Dicho indicador es bastante utilizado para comparar eficiencias relativas entre carteras y también para efectuar comparaciones contra una cartera representativa del comportamiento del mercado en un cierto número de períodos S_C vs. S_M . Una forma alternativa de construir este índice es considerar, para el retorno libre de riesgo, su variabilidad en el tiempo de modo explícito:

$$S_{(C-L)} = \frac{[E(R_C - R_L)]}{\sigma_{(R_C - R_L)}} \quad (4)$$

Lo (2002) desarrolla una metodología para determinar si este índice es significativamente diferente de cero y explica que en caso no lo sea, estaría indicando que los retornos de la cartera analizada son equivalentes a los del activo de libre riesgo. Como consecuencia de lo anterior, se dispone de un método muy exigente que sirve para verificar si la cartera C tiene asociado un premio por unidad de riesgo por encima del rendimiento del instrumento de renta fija de referencia. Este análisis se complementa en Benhamou (2019). Asumiendo, para el exceso de retorno de la cartera C sobre el activo de libre riesgo, independencia e idéntica distribución (i.i.d.), el error estándar (SE) del estimador del índice de Sharpe queda determinado por:

$$SE(\widehat{S_{(C-L)}}) = \left(\left(1 + \frac{S_{(C-L)}^2}{2} \right) / N \right)^{0,5} \quad (5)$$

Índice de Treynor

Este indicador de eficiencia (T_C) es similar al índice de Sharpe. La diferencia se encuentra en el denominador, al corregir el exceso de retorno de la cartera C sobre el activo de libre riesgo dividiendo por el coeficiente de riesgo sistemático Beta de la cartera, obtenido a partir del modelo CAPM - Treynor (1965). El nivel de eficiencia queda entonces determinado al comparar T_C entre diferentes carteras.

$$T_C = \frac{[E(R_C - R_L)]}{\beta_C} \quad (6)$$

Este índice normaliza los retornos considerando sólo la componente sistemática (β_C) del riesgo, por lo tanto es más adecuada su utilización cuando las carteras se encuentran bien diversificadas (eliminado el riesgo idiosincrático).

Fuente de Datos y su Análisis Preliminar

La serie de datos, base de esta investigación, se construyó a partir de los retornos mensuales nominales base UF - Unidad de Fomento, para cada tipo de fondo obtenido a partir de los Informes de Inversiones y Rentabilidad, sitio web (<http://www.safp.cl/portal/informes/581/w3-propertyvalue-5975.html>). De acuerdo al siguiente procedimiento:

Primero: El dato de contribución de los instrumentos de renta variable extranjera al retorno real mensual (punto 2.1 del Informe de Inversiones y Rentabilidad) se dividió por la fracción invertida en renta variable extranjera (punto 4 del Informe de Inversiones y Rentabilidad). El resultado corresponde al retorno real mensual de los instrumentos de renta variable en UF.

Segundo: Se transformó el retorno real a nominal en pesos chilenos multiplicado por el factor corrector base índice de precios al consumidor desfasado en un mes, índice unidad de fomento sitio web (<https://www.bcentral.cl/web/banco-central/buscar?categoria=Publicaciones/Estad%C3%ADsticas>). El resultado corresponde a al retorno nominal en pesos chilenos.

Tercero: Se transformó el retorno nominal en pesos a dólar dividiendo por el factor tipo de cambio observado, sitio web (<https://www.bcentral.cl/web/banco-central/buscar?categoria=Publicaciones/Estad%C3%ADsticas>).

Como complemento a la determinación del desempeño de cada uno de los cuatro tipos de fondos de pensiones según los indicadores de eficiencia mencionados, incluimos un análisis comparativo en base a muestras de 12, 24 y 36 fondos mutuos extranjeros. En Anexo se detalla la lista de los fondos mutuos seleccionados. El criterio para seleccionar estos 36 fondos fue básicamente identificar aquellos más transados por los fondos de pensiones. Las selecciones de carteras con 12 y 24 fondos mutuos corresponden a subconjuntos de la selección anterior, según ranking de rentabilidad en base al retorno promedio mensual obtenido en los últimos cinco años ver: Sitio web (http://www.safp.cl/safpstats/stats/inf_estadistica/cinvAFP/2012/09/cinv201209.html#SEXT)

Número de Observaciones y Frecuencia en Datos Utilizados

Esta investigación se realizó en base a una frecuencia mensual para el período 2009 – 2020. Vale decir un total de ciento cuarenta y cuatro observaciones asociadas a los retornos mensuales de cada uno de los cuatro tipos de Fondos de Pensiones (A, B, C y D) y de las tres selecciones de carteras de Fondos Mutuos Extranjeros (12 FM, 24 FM y 36 FM). Además en este análisis se incluyeron 144 datos mensuales asociados a los retornos mensuales del índice global MSCI y de los Bonos del Tesoro Americano de largo plazo. En total se utilizó una base constituida por más de 1.000 datos para llevar a cabo las regresiones lineales que se detallan más adelante.

Regresiones Lineales

Para calcular los índices de desempeño se efectuaron siete regresiones lineales, según ecuación (2), para el período enero 2009 – diciembre 2020. Dichas regresiones fueron diseñadas en base a retornos nominales en dólares: cuatro asociadas a los fondos de pensiones tipo A, B, C, D, y tres asociadas a carteras de fondos mutuos extranjeros con 12, 24 y 36 carteras de fondos mutuos respectivamente. La variable independiente quedó representada por el exceso de retorno de mercado (R_{Mt}) respecto del retorno del activo libre riesgo (R_{Lt}); R_{Mt} asociada a los retornos nominales mensuales calculados en base al índice de renta variable global MSCI (código Bloomberg MXWD:IND) y R_{Lt} a los retornos del bono del Tesoro americano a 20 años plazo, ver sitio web (<https://www.treasury.gov/resource-center/data-chart-center/interest-rates/Pages/TextView.aspx?data=longtermrateYear&year=2020>). La variable dependiente en cada una de las siete regresiones quedó representada por el exceso de retorno de cada una de las carteras analizadas (R_{Ct}) respecto del retorno del activo libre riesgo (R_{Lt}). A partir de cada regresión se obtuvo una estimación insesgada del alfa de Jensen, del intercepto de la recta ajustada Alfa y de la pendiente de la recta de cada cartera Beta.

RESULTADOS

Análisis Índice de Jensen (Primera Hipótesis en Estudio)

De la Tabla 1, que da cuenta de los valores asociados al parámetro alfa de Jensen según ecuación (2), se desprende que todos los fondos tipo analizados A, B, C y D, no lograron un desempeño superior al índice global MSCI. El índice Alfa de Jensen al ser una medida absoluta de rendimiento, refleja en este caso un rendimiento acorde con el de MSCI (ni sobrevaloración ni subvaloración respecto de una cartera pasiva que se hubiera invertido en el índice global de Cartera). Por otra parte, al ser todos los betas mayores que 1.0, reflejan un riesgo superior al del índice global MSCI.

Tabla 1: Estadísticos Descriptivos de Regresiones Fondos de Pensiones

	Fondo Tipo A	Fondo Tipo B	Fondo Tipo C	Fondo Tipo D
Jensen's alpha	0,001211918	0,001502193	0,000499923	-0,000329375
Alpha std. dev.	0,002015329	0,002116743	0,002112467	0,002321643
Beta	1,106121***	1,097944***	1,099473***	1,102448***
Beta std. dev.	0,044393018	0,046626931	0,046532734	0,051140391
Equation R ²	0,812541221	0,79468227	0,795795809	0,764305078

***, ** y * significativo al 1%, 5% y 10% respectivamente. Estadísticos descriptivos del alfa y beta de las rectas asociadas a las regresiones para cada fondo de pensiones. Se concluye que, para estos fondos no es posible rechazar la hipótesis nula de alfas de Jensen igual a cero, vale decir, los fondos de pensiones tuvieron un desempeño similar al de una cartera pasiva representada por el índice MSCI. Dado que el estadístico “t” asociado a los betas en cada tipo de fondo de pensión es significativamente superior al valor crítico del test “t” de Student, con un nivel de significancia del 1%, se concluye para todos ellos que los betas son positivos. Por otra parte, los betas son todos superiores a 1.0 y por tanto implican un riesgo superior a la cartera de mercado. Destaca el alto nivel de representatividad de las regresiones asociado a sus respectivos R². Fuente: Elaboración propia.

De la Tabla 2, que da cuenta de los valores asociados al parámetro alfa de Jensen según ecuación (2), se desprende que las carteras de 12 y 24 fondos mutuos extranjeros, lograron un desempeño superior al índice global MSCI, con un nivel de significancia del 5% y 10% respectivamente, no así la cartera de 36 fondos mutuos cuyo índice Alfa de Jensen refleja en este caso un rendimiento acorde con el de MSCI. Por otra parte, los betas de las carteras de 12 y 24 fondos mutuos, muestran un desempeño defensivo, al ser el Beta de ellas inferior a 1.0 o sea un riesgo inferior al que hubiera tenido una cartera pasiva invertida en el índice global MSCI, no así la cartera de 36 fondos mutuos, que muestra un riesgo levemente superior al mercado.

Tabla 2: Estadísticos Descriptivos de Regresiones Selección Fondos Mutuos

	Cartera 12 FM	Cartera 24 FM	Cartera 36 FM
Jensen's alpha	0,003145**	0,002535*	0,001113
Alpha std. dev.	0,001236	0,001498	0,001429
Beta	0,9653***	0,9806***	1,02906***
Beta std. dev.	0,027231	0,032998	0,031481
Equation R ²	0,898	0,8605	0,882

***, ** y * significativo al 1%, 5% y 10% respectivamente. Estadísticos descriptivos del alfa y beta de las rectas asociadas a las regresiones para cada fondo mutuo extranjero. Se concluye que la Cartera de 12 fondos mutuos, con un nivel de significancia del 5% fondos es posible rechazar la hipótesis nula de alfa de Jensen igual a cero, en tanto que para la Cartera de 24 fondos mutuos, con un nivel de significancia del 10% se rechaza la hipótesis nula de alfa de Jensen igual a cero, vale decir, ambas carteras tuvieron un desempeño superior al de una cartera pasiva representada por el índice MSCI. Para la cartera de 36 fondos mutuos, no es posible rechazar la hipótesis nula de alfa de Jensen igual a cero, por lo que tuvo un desempeño similar al de una cartera pasiva representada por el índice MSCI. Por otra parte, los betas asociados a cada cartera de fondo mutuo son significativamente superiores al valor crítico del test "t" de Student, concluyéndose para todos ellos que los betas son positivos. Del mismo modo, los betas son todos inferiores a 1.0 y por tanto con un riesgo inferior a la cartera de mercado, a excepción de la cartera de 36 fondos mutuos cuyo riesgo es levemente superior al del mercado. Destaca el alto nivel de representatividad de las regresiones asociado a sus respectivos R². Fuente: Elaboración propia.

Análisis Índice de Sharpe e Índice de Treynor (Segunda Hipótesis en Estudio)

De las Tabla 3 y Tabla 4, los valores asociados al índice de Sharpe, según ecuación (4), para los fondos de pensiones y fondos mutuos analizados dan cuenta de un rendimiento superior por unidad de riesgo respecto al rendimiento de los bonos del Tesoro Americano de largo plazo: para todas las carteras de fondos mutuos analizadas y solo para los fondos de pensiones tipo A y tipo B. Cabe destacar que según el índice de Treynor todos los tipos de fondos de pensiones analizados y carteras de fondos mutuos seleccionados tuvieron un desempeño superior al del índice MSCI.

Tabla 3: Estadísticos Descriptivos de los Índices de Sharpe y Treynor Para los Fondos de Pensiones

	Fondo A	Fondo B	Fondo C	Fondo D	MSCI
E (R _C - R _L) mes (%)	0.00777	0.00801	0.00702	0.00621	0.00593
Desviación Estándar (R _C - R _L) mes (%)	0.0554	0.0556	0.0556	0.0569	0.04517
Índice de Sharpe	0.140 *	0.144 *	0.126	0.109	0.131
Error Estándar Índice de Sharpe	0.0834	0.0834	0.0834	0.0834	0.0834
Índice de Treynor	0.0070	0.0073	0.0064	0.0056	0.0059

***, ** y * significativo al 1%, 5% y 10% respectivamente. Los valores asociados a los índices de Sharpe son todos positivos en los fondos de pensiones analizados así como para el índice global MSCI. Dado el nivel de significancia en cada uno de los casos analizados se logra un premio por unidad de riesgo significativamente superior al rendimiento promedio de los bonos del Tesoro Americano de largo plazo, solo para los fondos A y B, al 10% de significancia. En el caso del índice de Treynor, el premio por riesgo para todos fondos es superior al observado para el índice MSCI. Fuente: Elaboración propia.

Tabla 4: Estadísticos Descriptivos de los Índices de Sharpe y Treynor para los Fondos Mutuos

	Cartera 12 FM	Cartera 24 FM	Cartera 36 FM	MSCI
E ($R_C - R_L$) mes (%)	0.00887	0.00835	0.00722	0.00593
Desviación Estándar ($R_C - R_L$) mes (%)	0.04600	0.04772	0.04947	0.04517
Índice de Sharpe	0.193**	0.175**	0.146 *	0.131
Error Estándar Índice de Sharpe	0.0834	0.0834	0.0834	0.0834
Índice de Treynor	0.0084	0.0082	0.0074	0.0059

***, ** y * significativo al 1%, 5% y 10% respectivamente. Los valores asociados a los índices de Sharpe son todos positivos en las carteras de fondos mutuos analizados. Dado el nivel de significancia en cada uno de los casos analizados se logra un premio por unidad de riesgo significativamente superior al rendimiento promedio de los bonos del Tesoro Americano de largo plazo, para las carteras de fondos mutuo. En EL caso de las carteras de 12 y 24 fondos mutuos, se logran significancia del 5%, mientras que para la cartera de 36 fondos mutuos, la significancia es sólo del 10%. Por otra parte, para el índice global MSCI, no se logra un premio por riesgo significativo. En el caso del índice de Treynor, el premio por riesgo para todas las carteras de fondos mutuos es superior al observado para el índice MSCI. Fuente: Elaboración propia.

Análisis de Riesgo Sistemático vs. Riesgo Diversificable (Tercera Hipótesis en Estudio)

La Tabla 5 compara el riesgo diversificable o idiosincrático asociado a los fondos de pensiones con los correspondientes a los fondos mutuos seleccionados. De la tabla se desprende que estos últimos logran reducirlo en promedio a un nivel aproximado a la mitad del logrado por los primeros. En consecuencia, los fondos mutuos seleccionados se encuentran mejor diversificados. No obstante lo anterior, este análisis confirma lo señalado en últimos estudios respecto a la dificultad de lograr carteras bien diversificadas eliminando el riesgo idiosincrático.

Tabla 5: Desagregación del Riesgo Total en Riesgo Sistemático y Riesgo Idiosincrático

	Riesgo Total	Riesgo Sistemático	Riesgo Idiosincrático	Riesgo Sistemático (%)	Riesgo Idiosincrático (%)
Fondo Tipo A	0,00307	0,00250	0,00058	81,3	18,7
Fondo Tipo B	0,00309	0,00246	0,00063	79,5	20,5
Fondo Tipo C	0,00310	0,00247	0,00063	79,7	20,3
Fondo Tipo D	0,00324	0,00248	0,00076	76,5	23,5
Cartera 12 MF	0,00212	0,00190	0,00022	89,8	10,2
Cartera 24 MF	0,00228	0,00196	0,00032	86,1	13,9
Cartera 36 MF	0,00245	0,00216	0,00029	88,2	11,8

Una cartera bien diversificada, según la ecuación (1), debería tener un riesgo idiosincrático próximo a cero. Los valores obtenidos son indicativos que en los fondos de pensiones persiste un alto nivel de riesgo idiosincrático, aproximadamente el doble del asociado a las selecciones de fondos mutuos extranjeros. Fuente: Elaboración propia.

CONCLUSIONES

En la introducción de esta breve investigación se formularon tres hipótesis, la primera y segunda relativas a la evaluación del desempeño de la proporción invertida en el extranjero por los fondos de pensiones chilenos y la tercera relativa al nivel de riesgo sistemático vigente en estos fondos al compararlos con el riesgo asociado a muestras de fondos mutuos extranjeros, principal vehículo de inversión fuera de Chile por parte de las AFP. Todo lo anterior en un contexto de mercado caracterizado por bajos retornos y altas volatilidades. Respecto a la evaluación del desempeño, no fue posible rechazar la primera hipótesis relacionada al índice absoluto Alfa de Jensen. En efecto, se confirmó que los fondos de pensiones chilenos han tenido un desempeño similar al del índice global MSCI. Los alfas de Jensen resultaron no ser diferentes de cero para todos los fondos de pensiones (nivel de significancia del 1%).

La segunda hipótesis resultó confirmada mediante el índice de Sharpe, sólo para los fondos tipo A y B, por cuanto ellos han tenido un rendimiento por unidad de riesgo superior al obtenido por los bonos del Tesoro Americano, con significancia estadística. Por otra parte, para el índice de Treynor que considera el retorno en exceso sobre la tasa libre de riesgo por unidad de riesgo sistemático, entrega valores positivos para todos los fondos y superiores al que consigue el índice global MSCI. Cabe señalar que resultó más apropiado aplicar el índice de Sharpe, dado que éste estandariza al dividir el retorno en exceso sobre la tasa libre de riesgo de cada fondo por el riesgo total asociado. La tercera hipótesis se rechaza toda vez que el nivel de riesgo idiosincrático asociado a los fondos de pensiones duplica al observado en las selecciones de fondos mutuos. Se podría sugerir que ésta última conclusión tiene relación con restricciones impuestas por la normativa previsional chilena. En todo caso, se confirma la evidencia empírica en relación a la dificultad actual para lograr eliminar el riesgo idiosincrático mediante diversificación.

Limitaciones del Estudio y Líneas de Investigación Futura

Cabe señalar que este estudio se hizo a nivel de industria considerando los retornos por tipo de fondo para la proporción invertida en el extranjero a partir del año 2009, a fin de excluir el período de las caídas del crash bursátil del 2008. En la medida que se disponga de los retornos mensuales a nivel de cada AFP, será de interés efectuar este tipo de análisis para las administradoras que compiten en la industria de fondos de previsionales en Chile. También hay que destacar que la presente investigación incluyó períodos de retornos positivos así como negativos. En relación a líneas de investigación futura, sería interesante replantear este estudio una vez que se estabilicen los retornos en los mercados de capitales globales, no sólo para los instrumentos de renta variable extranjera, sino para todas las categorías de instrumentos (nacionales y extranjeros) efectuando los correspondientes análisis comparativos.

ANEXO

Selección de Fondos Mutuos Extranjeros y sus Respective Códigos Bloomberg

(1) Selección 12 FM, (1) (2) Selección 24 FM, (1) (2) (3) Selección 36 FM

Nombre Fondo Mutuo Extranjero	Código Blommberg
Aberdeen Global - Asia Pacific Equity Fund (1) (2) (3)	ABEAPIA LX Equity
DFA Investment Dimensions Group, Inc. - Emerging Markets Small Cap Portfolio (3)	DEMSX US Equity
Dfa Emerging Markets Portfolio Institutional (3)	DFEMX US Equity
Dfa Emerging Markets Value Portfolio (3)	DFEVX US Equity
DFA Investment Dimensions Group, Inc. - U.S. Targeted Value Portfolio (3)	DFEVX US Equity
DFA Investment Dimensions Group, Inc. - U.S. Small Cap Value Portfolio (3)	DFSVX US Equity
Dws Invest - Dws Invest Chinese Equities (2) (3)	DWSCEFC LX Equity
Dws Osteuropa (3)	DWSPSEU LX Equity
Parvest - Equity India (2) (3)	FEINIUS LX Equity
Fidelity Funds - Asian Special Situations Fund (1) (2) (3)	FIDASSI LX Equity
Fidelity Funds - China Focus Fund (3)	FIDFDFO LX Equity
Fidelity Funds - Indonesia Fund (2) (3)	FIDINDI LX Equity
Fidelity Funds - ASEAN Fund (3)	FIDLAEI LX Equity
Fidelity Funds - Emerging Markets Fund (2) (3)	FIDLEMI LX Equity
Fidelity Funds - Asia Focus Fund (1) (2) (3)	FIDLSEI LX Equity
BNP Paribas Funds (1) (2) (3)	FORERIC LX Equity
Goldman Sachs japan equity porfolio (3)	GLSJPIA LX Equity
Investec Global Strategy Fund - Asian Equity Fund (1) (2) (3)	GUIASIA LX Equity
GAM Multistock - Japan Equity (2) (3)	JBSJAPC LX Equity
JPMorgan Funds - Russia Fund (2) (3)	JPMRUSI LX Equity
BlackRock Global Funds - Asian Dragon Fund (2) (3)	MERDGAI LX Equity

BNY Mellon Investment Funds - Newton Oriental Fund (1) (2) (3)	NEORINA LN Equity
BNY Mellon Investment Funds - Newton Asian Income Fund (1) (2) (3)	NEWANNA LN Equity
Allianz Global Investors Fund - Allianz Euroland Equity Growth (1) (2) (3)	RCMEEGW LX Equity
Robeco Capital Growth Funds - Robeco Emerging Markets Equities (2) (3)	ROEMMKE LX Equity
F&C Investment Funds ICVC - European Growth & Income Fund (2) (3)	RSLEU3I LN Equity
Schroder International Selection Fund - BRIC (Brazil, Russia, India, China) (2) (3)	SCHBRAC LX Equity
Schroder International Selection Fund - Latin American (3)	SCHLACA LX Equity
Schroder International Selection Fund - Asian Opportunities (1) (2) (3)	SCHPFCA LX Equity
Franklin Templeton Investment Funds - Templeton China Fund (2) (3)	TEMCHIA LX Equity
Franklin Templeton Investment Funds - Templeton Latin America Fund (3)	TEMLAIA LX Equity
TIAA-CREF Funds - TIAA-CREF Large-Cap Value Index Fund (3)	TILVX US Equity
Vanguard Institutional Index Funds - Vanguard Institutional Index Fund (1) (2) (3)	VINIX US Equity
Vanguard Institutional Index Funds - Vanguard Institutional Total Stock Market (1) (2) (3)	VITPX US Equity
Vontobel Fund (2) (3)	VONEMJA LX Equity
Wellington US Research Equity Fund (1) (2) (3)	WMPUSEA LX Equity

La diversificación máxima autorizada por fondo mutuo es 5% de cada fondo de pensiones. Fuente: Bloomberg y Superintendencia de Pensiones.

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ÁRBOLES DE EXPANSIÓN MÍNIMA EN MONEDA EXTRANJERA: EL CASO DE LAS BOLSAS DE VALORES DE AMÉRICA

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RESUMEN

Este trabajo examina el impacto del uso de una moneda extranjera en lugar de las monedas nacionales en los árboles de expansión mínima (MST) de los índices accionarios de América y en los árboles jerárquicos indexados asociados con estos MSTs. Se comparan el MST de los índices en sus monedas originales, versus en dólares, contruidos a partir de una distancia basada en el coeficiente de correlación ordinario y se introduce un nuevo MST que descuenta el efecto de un índice general de tasa de cambio a partir de una distancia basada en la correlación parcial. Como pruebas de robustez, se repite el análisis con retornos simbólicos. Se halló que los MSTs originales son relativamente robustos al uso de una moneda extranjera, incluso aunque las características estadísticas de los índices cambiaran sustancialmente al ser expresados en esta moneda

JEL: G15, G120

PALABRAS CLAVES: Topología, Árbol de Expansión Mínima, Dendrograma, Mercados Accionarios, Comovimientos, Correlación de Pearson, Correlación Parcial

MINIMUM EXPANSION TREES IN FOREIGN CURRENCY: THE CASE OF THE AMERICAN STOCK EXCHANGES

ABSTRACT

This paper examines the impact of the use of a foreign currency instead of national currencies in the minimum spanning trees (MST) of America's stock indices and in the indexed hierarchical trees associated with these MSTs. The MST of the indices in their original currencies, versus in dollars, constructed from a distance based on the ordinary correlation coefficient are compared and a new MST is introduced that discounts the effect of a general exchange rate index from a distance based on partial correlation. As robustness tests, the analysis is repeated with symbolic returns. The original MSTs were found to be relatively robust to the use of a foreign currency, even though the statistical characteristics of the indices changed substantially when expressed in this currency.

KEYWORDS: Topology, Minimum Spanning Tree, Dendrogram, Stock Markets, Comovements, Partial Correlation, Pearson Correlation

INTRODUCCIÓN

Las interacciones entre los mercados causan comovimientos, es decir, tendencias sistemáticas de los productos financieros a moverse en el mismo sentido cada vez o en sentidos opuestos cada vez. Por ejemplo, se ha reportado que los índices de los mercados accionarios de distintas naciones se comueven (Coelho, Gilmore, Lucey, Richmond, & Hutzler, 2007). Desde el trabajo pionero de Mantegna (1999), se utilizan conceptos topológicos basados en la correlación lineal de Pearson con el fin de elaborar árboles de

expansión mínima (o MST por las siglas en inglés de *minimum spanning trees*), con el propósito de evaluar de manera gráfica los comovimientos de un grupo de productos financieros. Asimismo, a partir de una distancia ultramétrica asociada con el MST, Mantegna (1999) también introdujo los árboles jerárquicos indexados (asociados al MST), los cuales son dendrogramas que reflejan de manera jerárquica los comovimientos entre los productos financieros.

Este artículo calcula los MST de las bolsas de América en monedas nacionales y en monedas extranjeras enmarcados en la tradición iniciada por Mantegna (1999). Tres son las contribuciones que realizamos. Primero, este trabajo introduce una metodología para calcular los comovimientos netos, descontando el efecto de una moneda común, a partir de la correlación parcial basada en un índice general de tasa de cambio. Aunque en la práctica financiera es común expresar los instrumentos financieros en una moneda común, como el dólar, esta costumbre puede tener como consecuencia que surjan comovimientos espurios, por lo que una metodología para corregir estos comovimientos espurios puede ser de interés. En segundo lugar, contrastamos la nueva metodología con los resultados que se hubieran obtenido al evaluar el MST de la manera tradicional, utilizando la correlación ordinaria y los índices en dólares.

Wang, Xie y Stanley (2018), por ejemplo, ha recurrido al uso de la moneda común en su análisis de los comovimientos de índices globales. Finalmente, contrastamos también con los resultados que se hubieran obtenido al evaluar el MST de la manera tradicional, utilizando la correlación ordinaria los índices accionarios nacionales en sus monedas originales. El panorama ofrecido por estos tres escenarios nos permite evaluar la efectividad de la nueva metodología y la robustez de los MST, o la ausencia de ella, a expresar los índices en una moneda común. Para contrastar los tres métodos, utilizamos los principales mercados accionarios en América. Históricamente, varios de estos mercados han ido convergiendo en diversos procesos de integración: por ejemplo, el MILA en 2011 ayudó a unificar las bolsas de Perú, Chile y Colombia, a las que se unió posteriormente en 2014 México, (razón por la cual el MILA hoy en día ostenta una capitalización mayor a la de la bolsa de Brasil). Más recientemente, las bolsas de valores de las primeras tres naciones han aunado esfuerzos para una posible integración incluso de sus infraestructuras y servicios (véase <https://forbes.co/2020/12/22/economia-y-finanzas/un-paso-mas-en-la-posible-integracion-de-las-bolsas-de-colombia-chile-y-peru/>). El principal resultado que hallamos en este trabajo es bastante sorpresivo: el MST y el árbol jerárquico indexado asociado con el MST es relativamente robusto al uso de una moneda extranjera para expresar los índices, incluso cuando los estadísticos descriptivos de los índices cambian sustancialmente al utilizar esta moneda extranjera. El resto del presente artículo está dividido de la siguiente forma. La Sección 2 hace un recuento de la literatura, seguida de la Sección 3 con una explicación detallada de la metodología empleada. La Sección 4 explica los datos y los resultados de la investigación y finalmente la Sección 5 cierra con una breve conclusión.

CONCLUSIONES

Este artículo comparó el MST de los índices de América en sus monedas originales, versus en dólares, contruidos a partir de una distancia basada en el coeficiente de correlación ordinario. Asimismo, se introdujo un nuevo MST que descuenta el efecto de la tasa de cambio sobre los comovimientos de los índices en dólares a partir de una distancia basada en la correlación parcial. Al utilizar la correlación parcial basada en un índice de tasa de cambio se buscaba eliminar el efecto de la tasa de cambio en el cálculo del MST y del árbol jerárquico indexado asociado con el MST al momento de utilizar esta metodología en índices expresados en dólares en lugar de en sus monedas nacionales. En anteriores trabajos (*cf.* Wang et al., 2018), el uso de una moneda común como el dólar, aunque de interés desde una perspectiva de inversión internacional, podría haber introducido nuevos efectos y posibles comovimientos espurios tanto en el cálculo del MST como de su dendrograma asociado. Nuestros resultados sugieren, sin embargo, que aunque el uso de las monedas nacionales pudiera ser preferible *a priori*, los cálculos del MST y del árbol jerárquico indexado asociado con el MST son relativamente robustos al uso de los índices expresados en dólares,

incluso aunque las estadísticas descriptivas de los índices cambien sustancialmente al expresarlos en dólares en lugar de en sus nacionales. Una de las limitaciones del presente trabajo, sin embargo, fue el uso de un único índice de tasa de cambio común, que unifica el efecto del conjunto de todas las tasas de cambio involucradas. Una posible extensión de este trabajo podría evaluar qué sucede cuando se utiliza una correlación parcial calculada con base en todas las tasas de cambio por separado apelando a la Eq. 2.

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EL BURÓCRATA DEL SIGLO XXI: DE LA DICTADURA RACIONAL HACIA LA DEMOCRATIZACIÓN DE LA GESTIÓN ÓPTIMA

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RESUMEN

Históricamente, los funcionarios de la administración del Estado han ejercido un rol fundamental en el devenir político e institucional de las naciones. Sin embargo, se ha producido un debate que ha generado controversias entre los círculos profesionales, que radica en el enfrentamiento del sacrosanto dogma de la eficiencia y eficacia de administración pública y la necesidad de que las personas participen de las decisiones de la gestión pública, es más algunos teóricos y autoridades la inclusive han legitimado la falta de participación política en los procesos de gestión pública en contra de la noción de un aparato estatal abierto a la participación ciudadana, considerando los riesgos en la factibilidad de la propia labor. Es en este escenario que el funcionario de este siglo debe ser capaz de congeniar ambas perspectivas, en pos del desarrollo de una gestión pública moderna, lo cual analizaremos a continuación en el presente artículo desde una perspectiva de evolución histórica y viendo el impacto que han tenido enfoques participativos en la gestión de las instituciones estatales.

PALABRAS CLAVES: Racionalidad, Democracia, Participación, Burócrata Y Ciudadanía

THE XXI CENTURY BUREAUCRAT: FROM RATIONAL DICTATORSHIP TO OPTIMAL MANAGEMENT DEMOCRATIZATION

ABSTRACT

Historically, state administration officials have played a fundamental role in the political and institutional development of nations. However, there has been a debate that has generated controversies among professional circles, which lies in the confrontation of the sacrosanct dogma of the efficiency and effectiveness of public administration and the need for people to participate in the decisions of public management, is plus, some theorists and authorities have even legitimized the lack of political participation in public management processes against the notion of a state apparatus open to citizen participation, considering the risks in the feasibility of the work itself. It is in this scenario that the civil servant of this century must be able to reconcile both perspectives, in pursuit of the development of a modern public management, which we will analyze below in this article from a perspective of historical evolution and seeing the impact they have had participatory approaches in the management of state institutions.

JEL:

KEY WORDS: Rationality, democracy, participation, bureaucrat, and citizenship

INTRODUCCIÓN: El Burócrata y la Disyuntiva Eficencia- Democracia El presente ensayo, enmarcado dentro de la interrogante planteada sobre “Burócratas: ¿En búsqueda de la eficiencia o de la profundización de la democracia?”, intenta desarrollar una visión acabada del papel de la burocracia y en especial del burócrata, como un agente que constantemente se visto envuelto en esta disyuntiva, inclusive adoptando distintas posturas a lo largo de la historia en base al contexto social, político, económico y administrativo en el cual se ha desempeñado su labor. Este texto constará de tres partes principales, en las

cuales se intentará retratar el rol del burócrata y el sistema Estatal en su conjunto. La primera sección hará alusión el yugo esclavizante e inclusive validado por parte del burócrata hacia la eficiencia como principio “sacrosanto”, el cual era necesario defender inclusive legitimando regímenes antidemocráticos que entregaron una cuota de poder al burócrata estatal e implementaron una noción de eficiencia y eficacia economicista. En una segunda parte, profundizaremos principalmente en el cambio de mentalidad implementado durante los últimos años en la gestión pública, en el cual el burócrata (o tecnócrata) ha consolidado una visión más democrática con y para la ciudadanía tanto en lo relativo a la gestión propiamente tal del sistema de administración del Estado y los fines que este debe abarcar en su acción. Por último, esbozaré una conclusión en la cual solo a modo preliminar adelantaré, la importancia de este cambio de mentalidad de los y las burócratas en la administración pública y su orientación creciente más hacia la participación democrática, sin esta ser necesariamente un atentado a la eficiencia y eficacia buscada por nuestras organizaciones.

La Dictadura de la Racionalidad

A lo largo de la historia, constantemente se ha planteado un debate en torno al cariz democrático del actuar de los diferentes actores y organismos con conforman la burocracia estatal de nuestras naciones. Es más, derechamente algunas líneas ideológicas han planteado que bajo ciertos paradigmas de sociedad dominante (tal como es el caso del capitalismo), la burocracia se convierte en una herramienta al servicio de intereses de las clases dominantes, de hecho según Weber *“la burocracia potencia al mercado y viceversa, pues el formato burocrático excede con mucho la sola administración estatal, para extenderse a cualquier tipo de empresa, y sin consideración por las finalidades que persiguen”* (Weber, 1984, pág. 176). Claramente esta asociación realizada de la burocracia en pos de la defensa de ciertos sectores doctrinarios que intentan replicar el funcionamiento de la economía de mercado capitalista en el sector público, se legitima mediante el argumento de que los organismos burocráticos operan en favor de la eficiencia, enfocada en una lógica de costos-beneficios económicos y que por ende representan un factor que resguarda los intereses de los Estados en cuanto al equilibrio del gasto fiscal. Sin embargo, dicha noción de racionalidad burocrática no solo se ha expresado en el manejo en el ámbito de gestión de los diversos organismo estatales, sino que inclusive se atreve a esbozar una *“recomendación de que la estructura político-institucional debe adaptarse a las exigencias de la razón técnica”* (Mayol Miranda, 2003, pág. 107). Cabe destacar, que esta noción de racionalidad sin considerar criterios políticos indisolublemente asociados a la democracia (como son la participación y legitimidad de los actores de poder que configuran las directrices generales de determinados programas o proyectos), ha sido también asimilado en gran medida por el burócrata o tecnócrata, los cuales *“propugnan el uso de criterios objetivos y libre de valores para la toma de decisiones, la creación despolitizada de soluciones para todos los problemas del medio ambiente organizacional”* (Centeno, 1993, pág. 311).

Esta idea de que la burocracia superpone sus intereses de racionalidad en el manejo de la gestión del Estado por sobre un ideal de participación democrática, no sólo se expresa tangiblemente en el matiz ideológico sobre el cual las organizaciones públicas occidentales han ejercido su labor en el marco de una economía neoliberal de mercado, sino que también han sido el sustento material para la perpetuación de doctrinas totalitarias y/o autoritarias, tal como fue el caso de los gobiernos dictatoriales en América Latina y aquellas administraciones tras la “cortina de hierro” durante la segunda mitad del siglo XX, los cuales utilizaron a la burocracia como una herramienta de legitimización interna ensalzando la gestión de un Estado cuyos resultados al menos en cifras cuantitativas macroeconómicas eran sobresalientes en la mayoría de los casos, lo cual no se condecía en la realidad con la condiciones sociales y económicas de sus ciudadanía. En esta línea Guillermo O'Donnell acuño el término Estado Burocrático, como un sistema político con un énfasis no democrático.

Los actores principales de la coalición dominante son los tecnócratas de alto nivel —militares y civiles, de dentro y de fuera de estados que colaboran en estrecha asociación con el capital extranjero. Esta nueva élite

elimina la competencia electoral y controla severamente la participación política del sector popular. La política pública se centra fundamentalmente en la promoción de la industrialización avanzada. Los casos de autoritarismo burocrático considerados por O'Donnell son el periodo posterior a 1964 en Brasil, el periodo de 1966 a 1970 y posterior a 1976 en Argentina, el posterior a 1973 en Chile y Uruguay y el México contemporáneo. Ejemplos importantes de otras zonas incluyen el periodo último de Franco en España y los sistemas autoritarios que surgieron en varios países de Europa oriental entre las dos guerras mundiales (Collier, 1985, pág. 5).

Inclusive dentro de esta lógica de Estado burocrático, se aprecia una noción por parte de los expertos asentados en la burocracia estatal de desprestigio de la democracia y sus vicisitudes políticas, económicas y sociales, como un mal que atenta contra la racionalidad, es más en el pasado se caracterizó por: El aumento de la comunicación entre los tecnócratas militares y civiles, y la creciente frustración de ambos ante las condiciones políticas y económicas existentes, estimula el surgimiento de una “coalición golpista” que, en última instancia, establece un sistema burocrático-autoritario represivo con el objetivo de poner fin a la crisis política y económica (Collier, 1985, pág. 10). Por otro lado, dicha alianza entre eficiencia y organismos antidemocráticos se vio asociada a la actuación de la economía mercantilista dentro del aparataje estatal, esto es observable principalmente en *“la corriente tecnocrática latinoamericana, que mostraba una fe en los mercados y eficacia de la preferencias del consumo, coexistiendo con una desconfianza pronunciada en la democracia y el voto”* (Estévez, 2006, pág. 88) Esta idea de eficiencia y racionalidad de la burocracia generó la transformación de la misma, generando un nuevo modelo de desarrollo público propiciado a partir de los años ochenta con la hegemonía de la economía neoliberal en los estados “democráticos” (en términos de representación política) y dictatoriales, este modelo recibió el nombre de Modelo Gerencialista, cuyas características fueron: Privatización, desregulación, cambio en la organización y gestión de las funciones estatales mediante la descentralización y la aplicación de tecnologías, readecuación de los recursos humanos mediante el fortalecimiento de la carrera burocrática y la tercerización de los servicios de apoyo y desburocratización, entendida como la desprocedimentalización de la administración y la orientación de la gestión hacia la consecución de metas y objetivos (Restrepo Medina, 2009, pág. 173) A finales de los años ochenta la mayoría de los regímenes autoritarios y totalitarios se desmoronan, ante lo cual crece la esperanza de la floreciente democratización de múltiples naciones y por ende también el recuperación del sistema burocrático de administración estatal cooptado hasta ese entonces por los actores principales beneficiados y beneficiarios de los diversos gobiernos antidemocráticos.

Sin embargo, hasta el día de hoy siguen existiendo ciertas lógicas de poder en algunas oficinas burocráticas, que, amparadas en criterios de eficiencia, eficacia y el “sacro santo” saber técnico, excluyen de la gestión pública la participación ciudadana activa no sólo en términos de expresión objetivos de las diversas demandas emanadas por las personas, sino que en especial en la confección de los diversos programas y proyectos. Esta deficiencia es uno de los males endémicos de la Nueva Gestión Pública (NGP), la cual es la doctrina administrativa que sustenta el modelo de desarrollo del Estado Gerencial, modelo según Bonnefoy radica en que *“convierte al ciudadano en un consumidor con poca responsabilidad con la comunidad”* (Bonnefoy, 2004, pág. 25) . Lo cual se pudo interpretar, como una fractura total de la noción del ciudadano como participante activo y cogestor en la administración pública, siendo en la práctica este actor fundamental excluido de forma sistemática. Dicha noción de debilidad de la participación ciudadana y profundización de la democracia en la gestión pública ha sido acompañada con una debilidad institucional en esta materia, tal como es el caso de Chile, país en el cual *“la débil institucionalización alcanzada y su desvinculación con el espacio público de deliberación tienen como efecto la reproducción de las desigualdades de acceso a las decisiones públicas”* (Delamaza, 2011, pág. 46). Además, existía desde la academia ortodoxa una animadversión a otorgar a la ciudadanía un rol preponderante en la confección de políticas públicas, esta postura se apoyaba principalmente en los múltiples problemas que representaba para la eficiencia fiscal generar políticas de inclusión, entre las que destacan algunas como el *“retrasar la adopción de decisiones, incrementan los costes de las mismas y no garantizan que el resultado sea el más*

adecuado” (Colino, 2002, pág. 8) A pesar, de la idea extendida expresada en estas páginas del rol de la burocracia dentro de una concepción capitalista occidental, y las evidencias empíricas expuestas sobre su cariz netamente enfocado hacia la racionalidad económica y en algunos casos, como eje legitimador de gobiernos autoritarios y limitante de la participación ciudadana de los procesos de gestión pública, debido a las diversas trabas de carácter institucional, idiosincrático e institucional impuestas, es posible observar una creciente noción de democratización paulatina de la gestión pública, como una forma de optimizar el funcionamiento interdependiente del sistema político y administrativo de los Estados.

La Democratización de la Gestión Óptima

La democratización de la gestión pública es un proceso mediante el cual se incluyen de manera directa a las personas en la formulación de programas o proyectos públicos, los cuales afectan de manera directa a una determinada sociedad. Esta doctrina que recibió el nombre de “innovación participativa”, no sólo responde a demandas de la ciudadanía de participar constantemente de la accionar de los servicios públicos, sino también se enmarca dentro de una lógica de que dicha participación rompe con los paradigmas preexistente relativos a la ineficiencia de la inclusión de la ciudadanía (considerada esta peyorativamente como “no experta” o derechamente “ignorante” en temas de gestión pública), generando en las experiencias de estudio resultados asombrosos. Cabe destacar que uno de los pilares fundamentales para la realización de este tipo de gestión, radica en la voluntad de las oficinas y en especial en el compromiso del burócrata con esta. A su vez dicho compromiso se enmarca también más allá de la mera noción de eficiencia, sino también en una mentalidad más receptiva del devenir democrático y de la ciudadanía, como forma estructurales y de expresión de una gestión mejor valorada por las personas.

Esta idea de una administración pública democrática, surge con la crítica constante a los modelos de gestión pública de los años ochenta (como sustento en la praxis de regímenes anti democráticos) y en los años noventa (como bastión de resabios institucionales autoritarios y al servicio de una economía neoliberal inspirada bajo la tesis de la eficiencia fiscal), dicha crisis hace alusión a los diversos movimientos internacionales surgidos de la noción ineficiente del sistema de administración estatal de las naciones, las cuales fueron la replicación del funcionamiento del mercado a nivel público. Dichas críticas se vieron acentuadas especialmente durante los albores del siglo XXI, con el surgimiento de contra corrientes culturales al capitalismo neoliberal, la rearticulación algunos grandes conjuntos de organizaciones políticas, sociales y/o sindicales, que apuntaban a la administración del Estado y del sistema económico, la no resolución de las grandes carencias del mundo y exigían tener “voz y voto” en el ámbito de la gestión pública nacional. Inclusive, apuntan directamente a la burocracia como causante de sus males, ya que *“la distorsión que los grupos «tecnocráticos» introducen en el proceso de deliberación democrática, tergiversando las preferencias populares con base en la calculabilidad técnica de las restricciones y las factibilidades”* (Camou, 1997, pág. 66)

Por otro lado, los diversos gobiernos comprendieron que la estabilidad de los regímenes democráticos post períodos de transición política característicos de la última década del siglo pasado, dependía en gran medida de un cambio de paradigma en la gestión enfocada hacia una democratización de la misma, contrarias a políticas implementadas por ejemplo en Chile por el Comité Interministerial de Modernización de la Gestión Pública en 1994, enfocadas principalmente en *“optimizar el uso de los recursos financieros, elevar tanto la cobertura como la calidad de los servicios entregados, contar con personal calificado y motivado, incentivar el uso masivo y creativo de las nuevas tecnologías de información, entre otros”* (Ramírez Alujas, 2001, pág. 8) A su vez, dichas críticas sobre el enfoque estrictamente eficientista de la burocracia obviando la participación ciudadana fueron recogidas por la academia, de hecho, según King, Stivers y Box, existe una vínculo entre gestión y ciudadanía, ya que *“la administración debe abandonar su lazo exclusivo con el conocimiento experto profesional y aceptar las experiencias vividas de los ciudadanos como base legítima para la toma de decisiones”* (Machiavelli & Proulx, 2006, pág. 193) Como respuesta a este creciente clamor popular, en los años noventa y principios de este milenio, se comenzaron a desarrollar

iniciativas piloto a nivel internacional, como una forma de incluir a una ciudadanía en la formulación y desarrollo de las políticas públicas, como una forma de mejorar la imagen de las administraciones públicas, ante la propia opinión ciudadana.

A nivel internacional, una de las experiencias más destacadas son la de los “presupuestos participativos”, los cuales son *“un enfoque alternativo a la presupuestación tradicional que promueve la confluencia de la esfera política y la ciudadanía en un proceso de toma de decisiones que compromete una parte o porcentaje del presupuesto de un determinado nivel de gobierno.”* (Bloj, 2009, pág. 5). Un ejemplo latinoamericano exitoso en esta materia, son la realización de los “presupuestos participativos” en la ciudad de Porto Alegre (Brasil) desde 1989, experimento pionero en esta idea de democratización de la gestión pública. Esta experiencia arrojó resultados interesantes que en cierta medida produjeron un cambio en la mentalidad del burócrata, relativo a la equivocada noción ineficiencia de los “inexpertos” en lo público, de hecho, ocurrió todo lo contrario, ya que: Los resultados refutaron los pronósticos escépticos, fueron más allá de lo esperado, y se han convertido en objeto de análisis internacional. La participación comunitaria masiva demostró ser un mecanismo más eficiente de asignación de recursos, que los métodos tradicionales usuales. Los recursos fueron reorientados hacia las prioridades reales de la población. Entre 1989 y 1995, entre otros aspectos, la cobertura de agua subió del 80 al 98% de la población, el sistema de alcantarillado se extendió del 46 al 74% de la población, las escuelas públicas matricularon el doble de niños, y se expandió el pavimento en los barrios pobres.

Mejóro fuertemente el diseño y la gestión del presupuesto, al recibirse los puntos de vista de la población, y hacerse totalmente transparente. Mas allá todavía la participación produjo un efecto “empoderamiento” de amplias proporciones. Como señala el BID: El proceso participativo también ha tenido un enorme impacto en la habilidad de los ciudadanos para responder a los retos organizadamente, como comunidad, y en la capacidad de trabajar en forma conjunta para mejorar la calidad de la administración pública y en consecuencia la calidad de la vida (Kliskberg, 2000, pág. 10). Este tipo de conclusiones fueron claves en la validación de la democratización de la gestión pública a nivel internacional, se derrumbaron los grandes paradigmas relativos a la ineficiencia de la participación ciudadana en la confección de políticas y programas. Lógicamente se podría explicar la eficiencia de la inclusión de las personas en la gestión pública, principalmente porque representan una canal de información constante y fidedigno de las características sociales, políticas, económicas y culturales, bajo las cuales se desenvuelve el aparato estatal, de esta forma “optimizando” la información recibida (aproximándose de este modo a una de las máximas de la economía capitalista clásica), pudiendo del burócrata desarrollar iniciativas estatales que respondan a la realidad.

Por otro lado, es importante destacar que la eficiencia y eficacia de integrar a la comunidad a la gestión del ámbito público, no solamente se refiere a la capacidad de generar un flujo de información fidedigno y contingente a la realidad, sino que también de integrar esfuerzos y generar una sinergia de todas las fuerzas interesadas en los éxitos de los proyectos, o sea se puede indicar que: Democratizar quiere decir introducir una lógica cooperativa, facilitar el diálogo y el intercambio de perspectivas y recursos entre las distintas partes de la administración. Se busca evitar que las partes se dispersen para integrarlas en un proyecto común, y coordinar los esfuerzos en la persecución de un resultado colectivo, y fomentar la deliberación (Fuentes, GÜEMES, & Isaza, 2009, pág. 69). Esta idea, ha sido captada por diversos gobiernos a nivel global, los cuales han desarrollado planes de “innovación participativa” en la gestión pública durante los últimos años, inclusive delegando en la ciudadanía actividades de control ciudadano en pos de incentivar criterios fundamentales para el devenir democrático, tal como lo es la transparencia. Por ejemplo, el gobierno de Chile ha implementado lo que se llama “cuentas públicas participativas Que son mecanismos que vinculan a las autoridades de los órganos de la administración del Estado con la ciudadanía. De acuerdo con lo señalado en el artículo 72 de la Ley 20.500 Sobre Asociaciones y Participación Ciudadana en la Gestión Pública: En el evento que a dicha cuenta se le formulen observaciones, planteamientos o consultas, la autoridad del órgano respectivo deberá dar respuesta conforme a la norma mencionada anteriormente. Los órganos de la Administración del Estado, anualmente, darán cuenta pública participativa a la ciudadanía

de la gestión de sus políticas, planes, programas, acciones y de su ejecución presupuestaria (Ministerio Secretaría General de la Presidencia, 2011, pág. 2) Es importante destacar, que este compromiso de los burócratas actuales con la democracia, no solo se deriva de una noción de eficiencia de la ampliación de la participación ciudadana de la misma, sino también porque este régimen de gobierno es el más eficiente, debido a la retroalimentación constante que existe entre ciudadanía y gobierno, evitando deficiencias propias de los regímenes dictatoriales en el ámbito de la administración estatal, tal como *“El deterioro de la competitividad y eficiencia de la burocracia, o los excesivos controles y regulaciones, pueden volver ineficaces las políticas y operaciones del sistema”* (Sharp, 1993, pág. 27) Por ende es lógico desde una perspectiva de eficiencia y eficacia, que la burocracia deba tener un compromiso irrestricto por fortalecer la democracia a nivel global y también hacer partícipe a la ciudadanía de los procesos fundamentales en el ámbito de la gestión pública, lo cual también genera un círculo de dependencia mutua entre la gobernanza y la gobernabilidad, siendo estos elementos fundamentales para la construcción de un devenir democrático, futuro en el cual el burócrata constituye un actor fundamental para y con la sociedad.

CONCLUSIONES: UN NUEVO BURÓCRATA PARA EL SIGLO XXI

En base a lo anteriormente expuesto, podemos determinar que la construcción de una administración pública eficiente está íntimamente ligada al devenir institucional democrático y por ende el burócrata debe ser un actor fundamental que debe ser partidario en la teoría y la práctica de la democracia. Esta noción democrática del burócrata como una forma de concebir a la administración estatal como un organismo sumamente eficiente, debe tener un correlato empírico el cual se basa principalmente en que este actor, tiene la obligación moral y técnica de incluir a la ciudadanía en la gestión de políticas públicas trascendentales para el devenir comunitario a nivel local y central. El burócrata del siglo XXI, debe ser capaz de dejar atrás las antiguas ataduras de legalizaciones y doctrinas que imponen criterios de una jerarquía línea y sistemas cerrados, que en el nombre del santo orden institucional y una falsa eficiencia fiscal, imponen criterios que en la praxis solo representan un obstáculo significativo para una adecuada gestión participativa de la ciudadanía, es por esto que los funcionarios públicos encargados del devenir comunitario con sus acciones desde un nivel micro hasta los macro- procesos estratégicos a nivel nacional, deben ser los artífices principales del cambio de mentalidad a nivel global y derribar las barreras legales e ideológicas que imposibiliten este camino.

Este “hombre nuevo” que se está formando en el seno de la gestión pública, debe ser consciente de la importancia de su labor democratizadora y dejar de ser un esclavo de la “sacro santa” eficiencia económica desde una perspectiva netamente neoliberal de mercado, el burócrata del siglo XXI debe trabajar en base a la eficiencia, pero no siendo está entendida únicamente como conjunto de datos numéricos relativos al costo-beneficio monetario de una determinada política, es imperioso que se abandonen la lógicas del mercado privado imperante en algunas naciones de nuestro orbe y se adopte una concepción de gestión de excelencia donde el criterio del costo-beneficio sea entendido desde una lógica netamente social y pública. A su vez este nuevo burócrata, debe ser un líder que adopte las banderas de la democracia para lograr un desarrollo material de nuestros pueblos, en el cual la ciudadanía tenga un rol de construcción real y mediante el cual todos los actores podamos construir la sociedad en que todos queremos vivir.

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LA CONTRIBUCION DEL TECNOLOGICO NACIONAL DE MEXICO/ INSTITUTO TECNOLOGICO DE AGUA PRIETA, EN PROYECTO DE COLABORACION CON DEPENDENCIA MUNICIPAL PARA MEJORAR SU OPERATIVIDAD

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RESUMEN

El Tecnológico Nacional de México (TECNM) perteneciente al Gobierno Federal, retoma una de las cinco metas nacionales, una Educación de Calidad, considerando que ésta, en sus distintos niveles y modalidades, es importante para el desarrollo del país. De igual manera, es primordial dar amplia cobertura, fomentar la equidad e inclusión, la investigación científica, la innovación y el desarrollo de la tecnología elevando la competitividad. Es por ello, que se utiliza como una estrategia esencial en el modelo de educación superior tecnológica, se enfocó a la formación científica, tecnológica y humanística del estudiante, además de una estrecha vinculación con el sector productivo de bienes y servicios, los centros de investigación científica y tecnológica, favoreciendo la educación dual, la actualización y la capacitación permanentes, como parte de la vinculación con los diferentes sectores, por ello se realizó un esquema de mejoramiento continuo al servicio que se otorga por parte de los empleados de DIF Municipal Agua Prieta como organismo descentralizado, se realizó un proceso de diagnóstico con el objetivo de verificar y confirmar la eficacia de su personal a través de la descripción de puestos. El plan se realiza con base a las políticas de servicio y atención de cada departamento, además del esquema administrativo y operativo de las diferentes Subdirecciones de DIF Municipal; se diseñó para el óptimo funcionamiento de las actividades, lo que obliga a cada empleado a seguir, reforzar y mejorar su desempeño de servicio, aplicando nuevas dinámicas en las acciones de asistencia social realizados por el sistema asistencial correspondientes a las funciones de su descripción de puesto.

PALABRAS CLAVE: TECNМ, vinculación, DIF, descripción de puestos, mejoramiento continuo.

THE CONTRIBUTION OF THE TECNOLOGICO NACIONAL DE MEXICO/ INSTITUTO TECNOLOGICO DE AGUA PRIETA, IN COLLABORATION PROJECTS WITH MUNICIPAL ADMINISTRATION TO IMPROVE ITS OPERATION

ABSTRACT

The National Technology of Mexico (TECNM) belonging to the Federal Government, takes up one of the five national goals, a Quality Education, considering that this, in its different levels and modalities, is important for the development of the country. Similarly, it is essential to provide broad coverage, promote

equity and inclusion, scientific research, innovation and the development of technology, increasing competitiveness. That is why it is used as an essential strategy in the technological higher education model, focused on the scientific, technological and humanistic training of the student, in addition to a close link with the productive sector of goods and services, research centers scientific and technological, favoring dual education, updating and permanent training, as part of the link with the different sectors, for this reason a scheme of continuous improvement was made to the service that is granted by the employees of DIF Municipal Agua Prieta As a decentralized body, a diagnostic process was carried out in order to verify and confirm the effectiveness of its staff through job descriptions. The plan is carried out based on the service and attention policies of each department, in addition to the administrative and operational scheme of the different Subdirectorates of Municipal DIF; It is designed for the optimal functioning of the activities, which forces each employee to follow, reinforce and improve their service performance, applying new dynamics in the social assistance actions carried out by the assistance system corresponding to the functions of their job description .

JEL: M54

KEYWORDS: TECNM, Linkage, DIF, Job Description, Continuous Improvement

INTRODUCCION

El Sistema para el Desarrollo Integral de la Familia (DIF) del Estado de Sonora es un organismo descentralizado con personalidad jurídica y patrimonio propios, que tiene como objetivos la promoción de la asistencia social, la prestación de servicios en ese campo, así como la realización de las demás acciones que, en la materia, le confieran las disposiciones aplicables (Reglamento interno DIF Sonora, 2011).

Misión: Estará en función de humanizar a la persona desde la solidaridad y la ética.

Visión: Ser una Institución que unifique acciones para diseño de programas y políticas públicas, en respuesta a las necesidades y demandas en materia de asistencia social, fortaleciendo la calidad de vida de las familias y grupos sociales más vulnerables durante la Administración 2015-2021, planeando recursos orientados a un desarrollo integral del Estado.

DIF Sonora, lleva a cabo actividades basándose en una programación de las prioridades, que toma en cuenta las restricciones y políticas de desarrollo social, para lograr los objetivos del Plan Estatal de Desarrollo y de todos sus programas toma se basa en los requerimientos de su Patronato, la Junta de Gobierno y el Director General.

La Junta de Gobierno es el Órgano Colegiado de DIF Sonora, cuyas facultades están consignadas en el artículo 22 de la Ley de Asistencia Social.

En cumplimiento con el Programa de Modernización Administrativa que el Sistema Municipal para el Desarrollo Integral de la Familia Agua Prieta, llevó a cabo como respuesta a la necesidad de contar con un instrumento administrativo como la Descripción de Funciones, se elaboró el presente documento con el propósito de orientar e informar al personal y entidades sobre las funciones de la Institución.

Ya que DIF Agua Prieta, es un Organismo descentralizado de carácter gubernamental, que tiene como objetivo principal brindar, atender y apoyar a la población más vulnerable del municipio a través de los diferentes programas y diversas áreas cuyos objetivos se enuncian a continuación:

Brindar de manera eficiente todos los servicios a la colectividad.

Aprovechar de manera eficiente los recursos del DIF Agua Prieta y encaminarlos a la consecución de los objetivos generales.

Encauzar esfuerzos y voluntades de los servidores públicos hacia los objetivos comunes en beneficio de una mejor administración.

Para ello Dif Agua Prieta, ve la necesidad de contar con una descripción de puestos de todas sus áreas de trabajo, todas las actividades relacionadas con el funcionamiento y operación del área correspondiente. El documento contiene los conocimientos, experiencia y tecnología del área, para hacer frente a sus retos y funciones, con el propósito de cumplir adecuadamente con su misión.

Describe la organización formal, mencionado, para cada puesto de trabajo, los objetivos de este, funciones, autoridad y responsabilidades. Tienen por objeto el decirle a cada jefe o trabajador de DIF Agua Prieta por escrito lo que se espera de él, en materia de funciones, tareas, responsabilidades, autoridad, comunicaciones, e interrelaciones dentro y fuera de la Institución.

Finalmente, es importante mencionar que la decisión de puestos es muy confundida con el perfil de puestos o con el análisis de puestos. Pero por sentido común, la descripción enuncia lo que se espera que el ocupante de un puesto realice en términos de actividades y resultados. Y, por el contrario, el perfil de puesto establece las características de personalidad, las competencias laborales, la experiencia, la formación e inclusive las condiciones de trabajo que el ocupante del puesto deberá idealmente de tener. El análisis de puestos es un estudio que se realiza para identificar los objetivos y las funciones que realmente se llevan a cabo por los ocupantes de un puesto específico, así como las competencias laborales que tienen esos ocupantes y su resultado es una descripción y un perfil de puestos.

Los usos de las descripciones de puestos son creados por un empleador para detallar cada puesto en la organización. Una buena descripción de puestos sirve para una gran variedad de propósitos dentro de cada institución o empresa, ya que empleando esta herramienta permite que los puestos se definan de manera puntual para perfiles idóneos en cada puesto, permitiendo un mejor programa de planeación y capacitación para el personal elegido, motivándolo y fijando metas para cada uno de ellos.

Como resultado de ello, las descripciones de puestos como herramientas de evaluación del desempeño ya no son tan importantes como en el pasado, sin embargo, siguen siendo el punto de referencia principal para basar las normas de desempeño. La diferencia entre una descripción de puesto y una especificación de puesto es en la perspectiva que se adopte. La descripción describe que es el puesto y la especificación describe que tipo de demandas se hacen al empleado y las habilidades que debe de poseer la persona que desempeña el puesto.

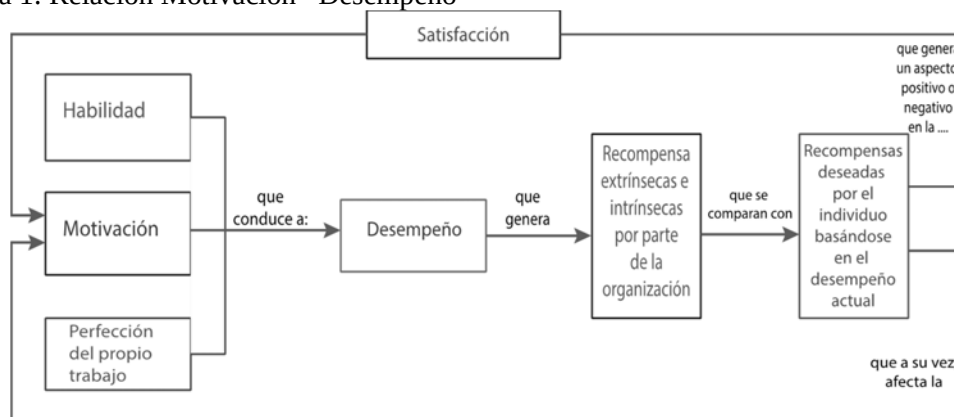
La descripción de puestos y el análisis de puestos tienen una relación importante ya que su finalidad es identificar datos relevantes al puesto o cargo asignado al trabajador. Este análisis es la base para la evaluación y la clasificación que se hacen de los puestos para efectos de comparación. Las descripciones de puestos específicas sirven para otros propósitos: Análisis precisos de puestos, evaluación de puestos (para gestión de sueldos y salarios) y para estructura de organigrama. Análisis precisos de puestos.

También relacionamos la descripción de puestos con la motivación en la institución ya que está íntimamente relacionado a su desempeño, de acuerdo con especificaciones dadas. se toma de referencia la Figura 1. Para este estudio en particular en colaboración con el TecNM/Instituto tecnológico de Agua Prieta, se visualizó una herramienta que fortaleciera los procesos administrativos y operativos de esta institución y que los directivos ejecuten la correcta gestión del capital humano con el que cuentan.

En total concordancia con esta investigación es importante señalar que el capital humano tiene ciertas necesidades, como es el reconocimiento por haber realizado bien su tarea, actualmente para los directivos

es conocido que esto puede repercutir en la productividad del trabajo, por lo que (Stephen P. Robbins, 2004) "Plantea que el director de una empresa puede colaborar decisivamente a crear en sus subordinados esa satisfacción con su trabajo, ese sentimiento de valoración que tanto favorece la productividad". El mismo, manifiesta que todo depende de la importancia que le dé a lo relacionado en materia de selección, capacitación, relaciones jerárquicas, información en el puesto de trabajo, promoción y retribución.

Figura 1: Relación Motivación –Desempeño



En la Figura No. 1 se muestra gráficamente la relación de la motivación con el desempeño laboral y la satisfacción en el trabajador. Autor: Miguel Moreno, 2009.

La imperante necesidad de ser instituciones productivas y competitivas laboralmente y más tratándose de organismos municipales, los lleva a asumir el compromiso de mejorar continuamente su capital humano. "Nuestra sociedad progresa económicamente y tecnológicamente, se vuelve más crítica, por ello la necesidad del desempeño eficiente de las labores asignadas, no solamente para lograr mayor eficiencia en las organizaciones, sino también para lograr mayor auto-satisfacción de los empleados" (R.Wayne Mondy, Robert M, 2008).

Esta investigación identifica la raíz del problema, determinando en sí, cuáles son los factores que hacen falta aplicar en esta institución para mejorar el servicio y de esta manera lograr elevar la calidad del trabajo pero sobre todo el bienestar de los empleados. Se diseñó un documento con las descripciones de puestos que contribuya a elevar el factor productividad y mejorar el clima laboral de DIF Agua Prieta, esto beneficiará el aspecto laboral y por ende mejor logro de objetivos institucionales como de los propios empleados.

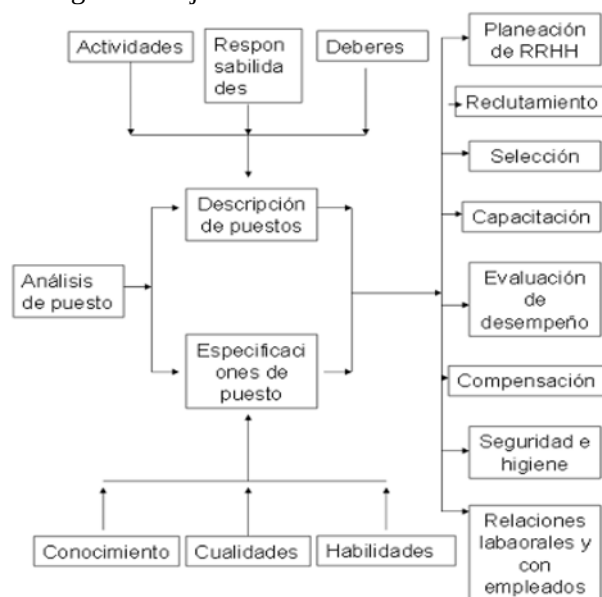
Toda institución pública o privada debe actualizarse con herramientas modernas que incentiven y motiven al personal de la institución. La administración debe buscar, adecuar e implementar los instrumentos, programas y documentos que se conviertan en una guía que servirá para la toma de decisiones referente a los empleados y su desempeño laboral, como lo es el análisis de puesto. Figura 2.

Las especificaciones son la integración de los principales aspectos cognitivos, afectivos, físicos y sociales. Se refieren a los requerimientos humanos de los cargos. Asimismo, también se producen transformaciones con respecto a las especificaciones, en lo que inciden las nuevas concepciones psicológicas sobre el estudio de la personalidad. Por eso aparecen los términos competencias y áreas claves de resultados las cuales reflejan esencialmente los objetivos precisados en términos de los resultados objetivos que debe alcanzar el trabajador en el desempeño de sus funciones.

Una de las actividades clave en el proceso de reclutamiento es la descripción de puestos de trabajo. Es fundamental que antes de iniciar la búsqueda del candidato ideal para la vacante se tenga correctamente

identificadas las responsabilidades de la misma, así como las características y competencias que se requieren para desempeñar el trabajo (Stephen P. Robbins, 2004).

Figura 2: Diagrama Flujo del Análisis de Puestos



En la Figura 2.- se muestra gráficamente la relación del análisis de puestos y su utilidad. Autor: Recursos Humanos,2021.

Si bien es cierto algunas posiciones laborales tienen sus funciones muy bien definidas, por esto es importante que se detallen los requisitos y las actividades relacionadas al puesto de trabajo, esto con el fin de que la Institución encuentre a la persona idónea y a la vez que el candidato elegido desempeñe de manera correcta las funciones que se le asignarán.

Dentro de los ejes rectores del TecNM tenemos varios que permiten desarrollar al educando en todos los hábitos importantes de su desarrollo profesional y personal, el análisis de esta investigación únicamente considera al Eje 1. Egresados como agente de cambio, sin omitir mencionar que todos los demás son complementarios y de gran relevancia para el Nuevo Modelo Educativo del TecNM y dice lo siguiente:

Eje 1. El egresado como agente de cambio, es un líder visionario, que genera y agrega valor a la sociedad tomando decisiones fundamentadas, potenciando los recursos a su alcance e impactando positivamente en su entorno; de igual manera promueve, impulsa y fortalece el desarrollo nacional e internacional a través de la investigación, innovación y emprendimiento, con liderazgo, responsabilidad social y capacidad para generar información y tecnología útil en el desarrollo económico y social” (TecNM, 2018)

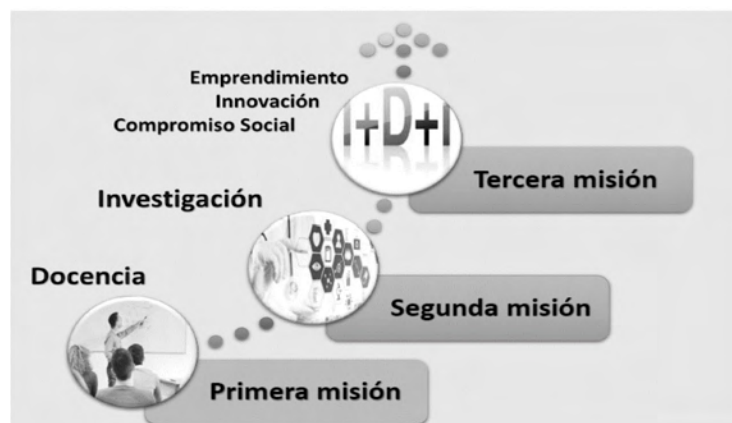
REVISIÓN LITERARIA

La descripción de puesto es simplemente un documento en el que se enlistan los objetivos y las funciones del puesto, así como el entorno social y las dimensiones que influyen o afectan a dicho puesto. La descripción del puesto es un documento que consiste en definir los objetivos y funciones que lo conforman y que lo diferencien de otros puestos del instituto (Rodríguez, 2011). En este documento se detalla lo que idealmente debe hacer el ocupante del puesto, no necesariamente lo que hace, así como la frecuencia en que lo hace, como lo hace y para que lo hace. (Chiavenato, 2007).

Hay autores que sustentan que un puesto es la unidad básica de las organizaciones. Es decir, un área o departamento consiste en un conjunto de puestos, y la suma de todas las áreas o departamentos que

conforman a la organización. Con base en este concepto, en teoría, y si las descripciones de puestos están hechas de área correcta. La suma de las descripciones de cada puesto de la empresa nos llevaría a tener la descripción de los objetivos de la organización. La vinculación realizada ente las dos instituciones, se relaciona a las tendencias de educación superior. Ver Figura 3.

Figura 3: Tendencias en la Educación Superior



Esta figura muestra las misiones de las tendencias en la Educación Superior: Primera misión; docencia, Segunda Misión; Investigación y Tercera Misión; compromiso social, innovación y emprendimiento. Dando pie a una transferencia de tecnología para el desarrollo regional y del país. (TecNM, 2018).

Las influencias del nuevo modelo educativo, parten de las siguientes vertientes: estudiantes activos, estrategias de aprendizajes, nuevas habilidades, tecnologías y entorno actual; también es importante la consideración de nuevos espacios de aprendizaje donde el estudiante desarrolle habilidades blandas acorde a las necesidades globales. (Porter, 1990). Al considerar únicamente en este escrito el Eje 1 del Nuevo Modelo Educativo propuesto para el TecNM, donde el egresado como agente de cambio debe ser propositivo y contribuir con la sociedad para dar solución a problemas reales.

METODOLOGÍA

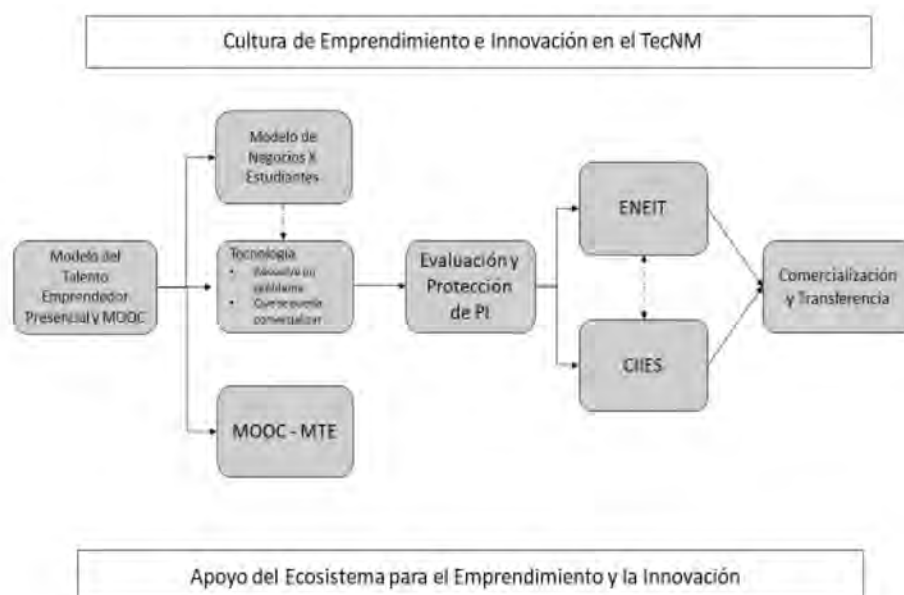
La metodología utilizada para esta investigación fue de campo, con la finalidad de recolectar datos para poder identificar las funciones de los empleados y poder visualizar las mejores conclusiones en relación con los resultados esperados por el director de DIF Agua Prieta.

Se realizó un estudio descriptivo con un diseño de la investigación de tipo mixta, No experimental ya que no se llevó a cabo ninguna manipulación de las variables, sino que se observó el fenómeno de la investigación tal y como se desenvuelve en su entorno natural.

Se consideró el cuestionario y la entrevista como instrumentos de recolección de información, para obtener datos confiables y poder contar con una base sólida y basada en la realidad, de tal manera que cada aspecto de la propuesta sea resultado de información objetiva, validándose a través del estudio e interpretación de los cuestionarios aplicados. Este instrumento sirvió para identificar las funciones que realiza cada puesto de DIF Agua Prieta. Con esto, se espera crear condiciones para asegurar que las funciones de cada puesto contribuyan al logro de los objetivos de DIF Agua Prieta además de lograr la permanencia y productividad de los empleados, dirigiéndose las estrategias a que den como resultado condiciones propicias para un buen clima laboral. De igual manera se busca crear una relación organismo-empleado por medio de la participación de aquellos programas formativos que sean beneficiosos para ambas partes.

Dentro del Tecnológico Nacional de México se cuenta con una cultura de emprendimiento e innovación para los alumnos y puedan solucionar problemáticas reales que puedan ser factibles de implementarse; pueden ser productos, procesos o servicios innovadores, en esta investigación lo que se pretendía fue mejorar los procesos administrativos de DIF Agua Prieta, se involucraron alumnos, quienes ven de forma real la solución a problemáticas reales. Todo lo anterior se muestra a continuación, Figura 4.

Figura 4: Metodología Para Impulsar el Emprendimiento y la Innovación en el Eje 3 del Nuevo Modelo Educativo del TecNM



En la presente figura se representa el esquema para implementar una cultura de emprendimiento e innovación en el TecNM, apoyándose del ecosistema necesario para que pueda detonar el interés por emprender e innovar en los estudiantes, en el diagrama se muestra el seguimiento necesario para que el emprendedor se visualice desde el inicio de la generación de la idea de negocios hasta la comercialización de su producto o servicio.

RESULTADOS

Como resultado obtenido de esta investigación se logró obtener un documento de apoyo administrativo para DIF Agua Prieta ya que carecía de ello. Se podrá mantener un adecuado ambiente laboral y una correcta distribución de funciones y delimitación de autoridad y responsabilidad, lo que hará que se sientan motivados, valorados y que afiancen su compromiso con su trabajo para el desarrollo de sus actividades, ver Tabla 1.

Tabla 1: Se Muestran Algunos de los Beneficios del Documento de Descripción de Puestos de DIF Agua Prieta

SIN DOCUMENTO	RESULTADOS OBTENIDOS
No se contaba con un documento formal de descripción de puestos	Documento formal de descripción de Puestos de DIF Agua Prieta
No se tenían definidas correctamente las funciones	
Había funciones duplicadas o sin saber a quién le correspondían	

Antes de estudiar cada puesto se analizan los objetivos, características, personal, materiales y procedimientos de la institución y servicios que brinda a la comunidad. Los empleados manifiestan que en su mayoría cuentan con las herramientas, maquinaria y equipo necesarios para hacer las tareas que les

corresponden y que comprenden a la asignación de sus actividades, responsabilidades y funciones entre todos los niveles del personal. Expresan que la relación que llevan con su jefe inmediato es buena.

En cuanto a la satisfacción y desempeño laboral, se puede apreciar que los trabajadores manifiestan estar a gusto y orgullosos por el trabajo que realizan y que éste es importante para ellos. Los sueldos que perciben son los adecuados en la mayoría de los puestos y constituye un incentivo para realizar su mejor esfuerzo para permanecer dentro de la organización. El reconocimiento que reciben por su desempeño proviene del jefe directo o del director de la Institución, aunque puede mejorarse este aspecto.

Al área administrativa le será de gran utilidad para el logro de los objetivos de DIF municipal de Agua Prieta, Sonora.

CONCLUSIONES

El análisis y descripción de puestos son una herramienta básica para la Administración de Recursos Humanos. Ya que aclaran las misiones de los trabajadores y grupos que ellos conforman, permitiendo tener un mejor control de la carga laboral y sus cambios llevando con ello una evaluación eficiente para tomar directrices con base en los resultados logrando equilibrar el trabajo de manera eficiente.

Es importante el análisis de puestos por que ayuda a mejorar la selección y colocación del empleado con más exactitud. Las posibilidades de la aplicación del análisis de puestos son muy variadas, en virtud de que conocer con detalle las funciones a realizar y lo necesario para ello.

Los resultados obtenidos se pudieron lograr gracias al director de DIF Agua Prieta; Ing. Juan Domínguez Rascón quien dará el seguimiento correspondiente a cada uno de los aspectos indicados para lograr una mejor planificación y un mejor uso de sus recursos humanos, buscando incrementar sus indicadores de desempeño, pero principalmente mantener motivado a sus colaboradores.

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COMPORTAMIENTO DEL CONSUMIDOR EN SITIOS DE RESERVA EN LÍNEA

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RESUMEN

Las plataformas de reserva de hospedaje han tenido un gran alcance e importancia en el último tiempo. Este estudio examina los efectos directos e indirectos de la imagen de marca, precio, confianza y valor percibido en la intención de compra de los clientes del canal de reserva de hospedaje Booking.com, considerando su perfil y aspectos generales del tema. Los resultados muestran un perfil mayoritariamente veinteañero, con nivel educacional universitario completo e incompleto y un alto conocimiento en la plataforma Booking.com. Sobre el modelo, se confirma que la Intención de Compra es el único factor influyente en la Imagen de Marca, considerándose clave. Se destaca además que la influencia de la Imagen de Marca en la Confianza es la más fuerte, seguida de la influencia de la Confianza en el Valor. Las otras relaciones que se confirman son la influencia de la Imagen de Marca en el Precio y la influencia del Precio en el Valor.

PALABRAS CLAVE: Reserva de Hospedaje Online, Intención de Compra, Comportamiento de Consumidor, Turismo

CONSUMER BEHAVIOR IN ONLINE RESERVATION SITES

ABSTRACT

The lodging reservation platforms have had a great scope and importance in the last time. This study examines the direct and indirect effects of brand image, price, trust and perceived value on the purchase intention of customers of the Booking.com accommodation booking channel, considering their profile and general aspects of the subject. The results show a profile mostly in their twenties, with a complete and incomplete university educational level and a high knowledge of the Booking.com platform. On the model, it is confirmed that the Purchasing Intention is the only influencing factor in the Brand Image, which is considered key. It also stands out that the influence of the Brand Image on Trust is the strongest, followed by the influence of Trust on Value. The other relationships that are confirmed are the influence of the Brand Image on the Price and the influence of the Price on the Value.

JEL: M31

KEYWORDS: Online Accommodation Reservation, Purchase Intention Model, Consumer behavior, Tourism

INTRODUCCIÓN

Los últimos años se han caracterizado por un desarrollo exponencial en las tecnologías, afectando la vida de todas las personas ya sea de forma directa o indirecta. Dentro de los desarrollos y mejoras que destacan se encuentran las aplicaciones y páginas web, para todo tipo de cosas, incluso reservas de hospedajes, las que logran facilitar la vida de sus usuarios gracias a características como accesibilidad y percepción de uso.

“Con los avances en tecnologías móviles, la reserva móvil de hoteles (MHB) se ha convertido en un importante distribuidor en el canal para hoteles y agencias de viajes en línea” (Ozturk , Bilgihan, Nusair, & Okumus, 2016). “Los actores de la industria hotelera están dedicando más tiempo y esfuerzo al desarrollo de sitios web” (Law, Qi , & Buhalis, 2010). Según indican Bilgihan & Bujisic (2015) la distribución en línea de servicios, que incluyen habitaciones de hotel, vuelos, paquetes de viaje, boletos de atracción, cruceros y alquiler de autos, ha ido en aumento debido a los beneficios que perciben tanto los viajeros como las empresas. Más aún, “Internet se encuentra entre los canales más importantes para la distribución de habitaciones de hotel. Por lo tanto, adoptar una estrategia efectiva de comercio electrónico es una cuestión clave para la industria hotelera” (Law, Buhalis, & Cobanoglu, 2014).

Determinar las características que los consumidores aprecian en las aplicaciones de reservas y que hacen que se mantengan leales a estas y no las cambien por otras es de suma importancia para las empresas dueñas de dichas aplicaciones, al mismo tiempo que es de gran relevancia entender el comportamiento y las intenciones de uso continuo de los usuarios de esta tecnología y por ende los factores influyentes en la selección de un canal para reserva de hospedaje incluyendo web o aplicación. Se propone entonces realizar un análisis de los factores que influyen en la intención de uso de la aplicación para reserva de hospedaje Booking.com por medio de técnicas de estudio de consumidores con el fin de determinar su comportamiento y preferencia frente a diversas características de la aplicación. Igualmente, se espera caracterizar el perfil de los encuestados según sus características demográficas expresadas, analizar el entorno y conocimiento de las aplicaciones de reserva de hospedaje con el fin de identificar el contexto del estudio, determinar las variables que influyen en la intención de uso de los usuarios al momento de reservar hospedaje y analizar cómo se articulan las variables para predecir la intención de uso de aplicaciones de reserva de hospedaje.

REVISIÓN LITERARIA

Según la Encuesta Mensual de Alojamiento Turístico de mayo del 2019, publicada por Instituto Nacional de Estadísticas (2019), a nivel nacional el número de alojamientos ese mes aumentó a un total de 1.644.586, lo que equivale a un incremento del 6,3 % en doce meses, y que se explicó debido a la expansión interanual en las pernoctaciones de pasajeros residentes en el extranjero y en Chile, con 11,7 % y 3,6 % respectivamente. De acuerdo con los datos registrados por el Instituto Nacional de Estadísticas (2019), a mayo de ese año se registró a nivel nacional una tasa de ocupación en habitaciones de 33,4 %, expandiéndose 0,76 puntos porcentuales en doce meses. Más aún, los establecimientos clasificados como hotel obtuvieron una tasa de ocupación de 43,8 %, mientras que los clasificados como otros alcanzaron un 17,9 %. Según Lien, Wen, Huang, & Wu (2015), los viajeros de ocio prefieren reservar hoteles en línea cada vez que consideran la conveniencia y el ahorro de costos/tiempo. Este estudio examina los efectos directos y mediadores de la imagen de marca, el precio percibido, la confianza, el valor percibido en las intenciones de reserva de los consumidores y compara las diferencias de género en la reserva de hotel en línea.

Intención de Compra

Se considera como un predictor vital del comportamiento real de compra y esta relación ha sido examinada empíricamente en la industria hotelera y turística. En la reserva de hotel en línea, la intención de compra refleja el deseo de un consumidor de reservar una habitación a través del sitio web del hotel (Lien, Wen, Huang, & Wu, 2015).

Imagen de la Marca

“La imagen de marca es un antecedente significativo de la calidad percibida. Establecer una imagen de marca positiva es indispensable para los hoteles que buscan una evaluación favorable de la calidad y la confianza de los clientes” (Chiang & Jang, 2007). Según Zeithaml (1988), es una señal circunstancial cuando los consumidores evalúan un producto/servicio antes de comprar.

Precio

“Desde la perspectiva del consumidor, el precio es lo que se entrega o se sacrifica para obtener un producto.” (Zeithaml, 1988). “Los consumidores no siempre recuerdan los precios reales de los productos. En cambio, codifican los precios de manera que sean significativos para ellos” (Zeithaml, 1988).

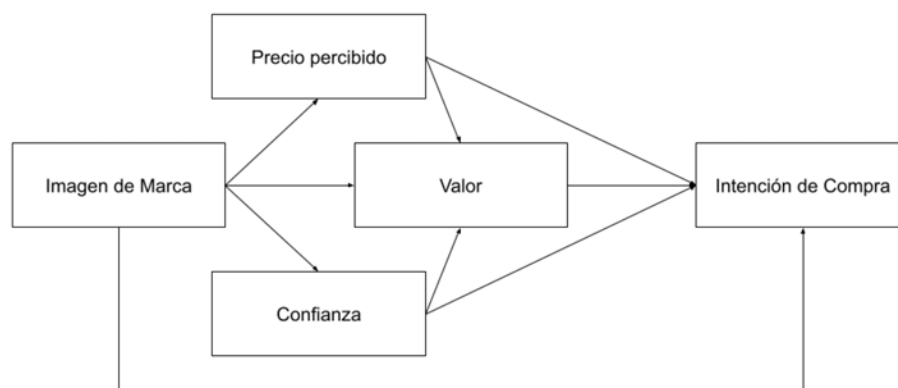
Confianza

“Se genera cuando el cliente tiene seguridad en la fiabilidad e integridad de un proveedor de servicios” (Kim, Kim, & Kim, 2009). En la reserva de hotel en línea, los clientes pueden ser vulnerables a los alojamientos y servicios proporcionados por los hoteleros. Los clientes esperan que el hotel brinde los servicios según lo prometido en el sitio web y la expectativa depende de la confianza que el cliente tenga en el hotel. Por lo tanto, un hotel puede emplear la confianza como una poderosa herramienta de marketing para fidelizar a los clientes (Lien, Wen, Huang, & Wu, 2015).

Valor Percibido

“El valor percibido es la evaluación general del consumidor de la utilidad de un producto basada en percepciones de lo que se recibe y lo que se da” (Zeithaml, 1988). De esta forma, y relacionado con el tema de interés de este estudio, “las diferentes clases de hoteles ofrecen niveles significativamente diferentes de valor para el cliente en términos de reputación de calidad y prestigio.” (Nasution & Mavondo, 2008).

Figura 1: Factores Influyentes en la Intención de Compra de la Reserva Online de Hoteles. Fuente: Lien Et Al. (2015)



Esta figura muestra las relaciones directas e indirectas de los factores que influyen en la intención de compra de acuerdo a los hallazgos de Lien et al. (2015), estos factores son la imagen de marca, el precio percibido, la confianza y el valor percibido.

Las relaciones se presentan de forma gráfica en la Figura 1. A su vez, las hipótesis desarrolladas se separan en los siguientes 4 análisis: Influencia de la imagen de la marca en la confianza, el valor, el precio y las intenciones de compra.

H1: La imagen de la marca tendrá un efecto positivo en el precio percibido.

H2: La imagen de la marca tendrá un efecto positivo en la confianza.

H3: La imagen de la marca tendrá un efecto positivo en el valor percibido.

H4: La imagen de la marca tendrá un efecto positivo en las intenciones de compra.

H5: La imagen de la marca tendrá un efecto positivo en las intenciones de compra a través del precio percibido.

H6: La imagen de la marca tendrá un efecto positivo en las intenciones de compra a través de la confianza.

H7: La imagen de la marca tendrá un efecto positivo en las intenciones de compra a través del valor percibido.

Relaciones entre precio, valor e intenciones de compra.

H8: El precio razonable percibido tendrá un efecto positivo en el valor percibido.

H9: El precio razonable percibido tendrá un efecto positivo en las intenciones de compra.

H10: El precio razonable percibido tendrá un efecto positivo en las intenciones de compra que median a través del valor percibido.

Relaciones entre confianza, valor e intenciones de compra.

H11: La confianza tendrá un efecto positivo en el valor percibido.

H12: La confianza tendrá un efecto positivo en las intenciones de compra.

H13: La confianza tendrá un efecto positivo en las intenciones de compra que median a través del valor percibido. Relación entre valor e intenciones de compra.

H14: El valor percibido tendrá un efecto positivo en las intenciones de compra.

METODOLOGÍA

La investigación que aquí se presenta corresponde a un estudio a consumidores de un servicio, por esta razón se hace necesario dividir el procedimiento llevado a cabo en dos fases, en primer lugar, una fase exploratoria y posteriormente la fase concluyente. Por su parte, la fase exploratoria parte con la búsqueda de información relacionada a las reservas de hotel en línea, con el fin de contextualizar la investigación, se identifican 3 estudios que son de interés y sirven de guía para llevar a cabo la investigación. En específico, se toma principal interés en el modelo que analiza los efectos de la imagen de marca, el precio percibido, la confianza y el valor en la intención de compra para reservar un hotel en línea. No obstante, dado el foco del estudio aquí presentado, se adapta el estudio encontrado al canal para reservar hospedaje Booking.com, realizando una encuesta que abarca conocimientos generales sobre el tema, percepción de dicha agencia de viaje online y perfil demográfico. Luego de haber difundido la encuesta y conseguir una cantidad suficiente de respuestas válidas, se inicia la fase concluyente, la cual tiene como finalidad realizar un análisis de los resultados, verificando las hipótesis realizadas inicialmente e identificar el perfil de los encuestados. Para realizar el estudio al modelo propuesto se hace un análisis de fiabilidad de escala utilizando el Alfa de Cronbach, para los siguientes análisis sobre el Modelo de Ecuaciones Estructurales (SEM) se grafica el diagrama del modelo y con sus resultados hacer un análisis a sus estimadores y significancia, así como la realización de un análisis de bondad de ajuste para determinar la exactitud del modelo. Luego, según los resultados del análisis de fiabilidad se procede a realizar modificaciones al modelo, evaluando en cada caso su bondad de ajuste para posteriormente escoger el más adecuado y realizar un análisis a sus estimadores, pudiendo así confirmar o rechazar las hipótesis propuestas, y posteriormente comparar dichos resultados con los del autor original.

RESULTADOS

Con un total de 259 encuestas válidas se realiza los análisis de los resultados, se evidencia que la mayoría corresponde a mujeres, mientras que las edades varían considerablemente, pero aun así identificando una alta concentración entre los 24 y 28 años, y entre 54 y 56 años, correspondiendo ambos a grupos etarios muy distintos, suponiendo el cumplimiento de una diversidad de los encuestados que se encuentran en diversas etapas de su vida. Sobre su estado civil, la gran mayoría corresponde al grupo de los solteros, seguidos no tan de cerca por personas casadas y luego divorciadas. Sobre el nivel educacional, la mayoría de los encuestados logró entrar a la universidad. Así, el 37,8% logró un nivel universitario completo, el 34% incompleto, e incluso el 16,2% logró también un postgrado. Esto se relaciona a su vez con el rango de ingresos mensuales indicados, y que en conjunto logran dar una idea de su estilo de vida. Sobre esto, las dos grandes mayorías se presenta en personas con ingresos muy altos y bajos, con un ingreso sobre \$631.000 y menor a \$120.000 respectivamente. Se infiere de este último grupo que corresponde a quienes continúan estudiando y por tanto no presentan ingresos fijos, mientras que en el otro caso representaría a quienes si finalizaron sus estudios, principalmente universitarios y postgrados. Por otro lado, quienes indican ingresos intermedios se asociaría a personas con niveles educacionales técnicos. La mayoría de los encuestados han visitado tanto páginas web de hoteles (92,3%) como agencias de viaje online (90,7%) para planificar su estadía, entendiendo así que la mayoría conoce estos sistemas de reserva. En cuanto a la frecuencia, la mayoría de los encuestados ha reservado hospedaje en los últimos 12 meses, mayoritariamente entre 1 y 3 veces, lo que puede deberse a vacaciones. Ahora bien, se debe considerar que el 16,2% no reservó durante ese mismo periodo, deduciendo que representa a quienes consideran que viajar no es fundamental o prioritaria en su vida. Lo opuesto ocurre con las personas que señalan reservar con mayor frecuencia durante ese año, en cuyos casos se deduce que, durante su estilo de vida, viajar es algo común ya sea por razones laborales o de ocio.

Tabla 1: Resultados del Top of Mind Asistido

Sitio de Reserva Online	Conocido	Utilizado
Booking.com	92,7%	78,4%
Trivago	64,5%	18,1%
Despegar	74,9%	29,7%
Airbnb	66,4%	47,5%
Página web propia del hospedaje	49,0%	32,4%
Ninguna	0,8%	6,9%
Otra	10,0%	7,7%

Esta tabla muestra el top of mind asistido de los encuestados donde manifiestan que el sitio de reservas más conocido y usado es Booking.com. Cabe destacar que el porcentaje de uso es menor al de conocimiento en todos los casos, lo que obedece al embudo existente en el proceso de compra.

Sobre la cantidad de páginas web utilizadas para buscar información de un hospedaje, los encuestados se guían mayoritariamente por la información de 2 y 3 sitios para tomar su decisión. En cuanto a las páginas de reserva de hospedaje conocidas y utilizadas, se observa en la Tabla 1 que Booking.com es sin lugar a duda el más popular entre los encuestados tanto en el conocimiento que tienen sobre su existencia como en su preferencia para utilizarlo por sobre otros. Sin embargo, se observa una importante disminución entre quienes conocen la aplicación y quienes también la han usado, infiriendo que, si bien es la más reconocida, no en todos los casos es considerada como la mejor alternativa para reservar, lo que se repite en los otros casos. De esta forma, se deduce que les interesa encontrar el mejor lugar con la mejor oferta para reservar, pero que igualmente cuentan con páginas predeterminadas en donde realizar su búsqueda, especialmente quienes utilizan una menor cantidad, mientras que cuantas más se utilicen se debería a que prefieren indagar bien sus opciones y encontrar la mejor alternativa.

Para modelar la intención de compra de los clientes de canales de reserva de hospedaje de Booking.com, se utiliza como base el modelo presentado en el ítem “C. H., Wen, M. J., Huang, L. C., & Wu, K. L.” con

modificaciones, representándolo de forma gráfica para determinar las relaciones de las ecuaciones estructurales, que consta de las cinco variables latentes ya presentadas, estando cada una asociada a variables observadas, y existiendo relaciones entre los distintos factores. De esta forma, la Intención de Compra se ve influenciada por la Imagen de Marca, el Precio, la Confianza y el Valor percibido. A su vez, el Valor se ve influenciado por la Imagen de Marca, el Precio y la Confianza. Tanto el Precio como la Confianza se ven influenciados únicamente por la Imagen de Marca y ésta última por ninguna, siendo independiente de todas las otras variables latentes. Se analiza la fiabilidad de escala de la consistencia interna de los factores presentes en el modelo mediante el Alfa de Cronbach, con valores entre 0 y 1, considerando un resultado de 0.6 como aceptable para escalas con menos de 10 ítems (Hair et al., 1999). Así, el factor Imagen de Marca es el único que presenta un valor menor al mínimo esperado mientras que los otros resultan ser altamente fiables, tal como se aprecia en la Tabla 2. Para identificar si es posible mejorarlos, se realiza el mismo análisis para el caso en que se elimine alguna de las variables observadas.

Tabla 2: Alfa de Cronbach Modelo Inicial

Constructo	Alpha de Cronbach
Imagen de Marca	0,594
Precio	0,816
Confianza	0,807
Valor	0,627
Intención de Compra	0,838

Esta tabla muestra los resultados del análisis de fiabilidad de las escalas usadas en el cuestionario, al respecto destaca que imagen de marca es el único constructo con un alpha de cronbach menos que aceptable (<0,6).

Al observar los nuevos resultados, la Tabla 3 muestra que el Alfa de Cronbach aumenta en cuatro oportunidades, siendo importante resaltar el caso de la Imagen de Marca que supera el límite inferior de 0,6 al eliminar el ítem IM3. Si bien esto es bueno no es suficiente, debiendo analizar también si el ajuste mejora significativamente para justificar dichas eliminaciones en el modelo.

Tabla 3: Alfa de Cronbach Mejorado

Constructo	Variable Observable Eliminada	Alpha de Cronbach
Imagen de Marca	IM3	0,670
Precio	P1	0,849
Valor	V4	0,816
Intención de Compra	IC1	0,887

Esta tabla muestra los resultados del análisis de fiabilidad de las escalas usadas en el cuestionario luego de eliminar una variable, al respecto destaca que imagen de marca luego de esta modificación se considera en el rango aceptable (> 0,6).

Posteriormente, se analizan los indicadores correspondientes al análisis de bondad de ajuste del modelo. concretando que el modelo presenta un buen ajuste de parsimonia y general. Como muestra la Tabla 4, el C_{min} es de 105,058 y su significancia es menor a 0,05 por lo que la salida de los datos del modelo es significativa en ese nivel, igualmente se observa que el valor de RMSEA es 0,046 considerándose un buen ajuste absoluto. Al evaluar las medidas de ajuste incremental, se identifica que tanto CFI, TLI y el NFI presentan valores mayores a 0,90 considerado como ideal. Al medir el ajuste de parsimonia se tiene que el PNFI es mayor a 0,5 y el ratio C_{min}/DF está dentro del rango entre 1 y 5, concretando que el modelo presenta un buen ajuste de parsimonia.

Tabla 4: Resultados Análisis de Bondad de Ajuste

Estadístico	Valor	Criterio
C_{min}	105,058	
Probability level C_{min}	0,003	<0,05
RMSEA	0,046	<0,05

CFI	0,979	>0,9
TLI	0,967	>0,9
NFI	0,943	>0,9
PNFI	0,611	>0,5
<i>Cmin / DF</i>	1,545	[1-5]

Esta tabla muestra los resultados de ajuste del modelode ecuaciones estructurales usado en el presente estudio. Destaca el excelente ajuste absoluto, incremental y de parsimonia.

Continuando con el análisis del modelo estructural y sus relaciones entre variables latentes, se observa que la Imagen de Marca demuestra no ser significativa en la predicción del Valor y del Precio; además la Confianza y el Valor no son significativos para predecir la Intención de Compra. En contraste, la Imagen de Marca sí es significativa en la predicción del Precio y de la Confianza y es la única en ser significativa en la predicción de la Intención de Compra. Tanto el Precio como la Confianza son significativos en la predicción del Valor, pero el Valor no influye en la Intención de Compra según los hallazgos de este estudio. Estas hipótesis implican relaciones directas, faltando determinar aquellas con relaciones indirectas, sin embargo, como el Valor, la Confianza y el Precio no son significativas en la predicción de la Intención de Compra, se rechazan dichas hipótesis, ya que ninguna variable latente puede tener un efecto en la Intención de Compra por medio de alguno de estos factores.

Tabla 8: Resultados Modelo Estructural

Relación	Estimador Estandarizado	P-Value
P ← IM	0,607	***
C ← IM	0,792	***
V ← P	0,294	***
V ← IM	0,152	0,262
V ← C	0,62	***
IC ← P	0,035	0,751
IC ← C	0,004	0,986
IC ← IM	0,579	***
IC ← V	0,245	0,365

En esta tabla se pueden ver los resultados de los coeficientes de regresión estandarizados de las relaciones propuestas en el modelo presentado en la figura 1, además de los p-value de estas relaciones del modelo estructural. Destaca que solo la imagen de marca presenta una relación estadísticamente significativa sobre la intención de compra.

CONCLUSIONES Y RECOMENDACIONES

Es importante señalar que el hospedaje tiende a ir al aumento, aún en meses que no representan una *alta demanda* como lo es mayo en esta región geográfica. Se rescata además que los establecimientos clasificados como hotel presentaron un 43,8% de ocupación, por lo que se hace posible considerar la reserva previa como parte importante si se requiere hospedaje. Con respecto al objetivo general, se concluye que únicamente la imagen de marca de Booking.com es influyente en la intención de compra, entendiendo esto como el propósito de reservar por dicho medio, haciéndola clave para incentivar positivamente su aumento, de modo que, si se mejora la reputación de la marca, se fortalece la posibilidad de que se reserve por ese medio.

La imagen de marca es un antecedente importante para determinar la confianza y el precio, al ser atractiva y con buena reputación la marca de Booking.com aumenta la confianza de los consumidores en realizar una reserva de hospedaje por su medio y es posible pedir al cliente un precio más elevado por el servicio ofrecido. Ahora bien, el precio no es significativo en la predicción de la intención de compra, pudiendo deberse a que los precios entre este y otros canales por el mismo hospedaje no presentan grandes diferencias, dado que la base lo establece el mismo hospedaje estando fuera del control de los canales como Booking.com. Para una mayor certeza se recomienda realizar un estudio comparando al menos dos de los canales. Se concluye además que, dado el alcance de estos canales, quienes asignan el precio de los

hospedajes están más conscientes de los valores que hay en este mercado, pudiendo saber lo que se incluye dentro de dicho valor y por lo tanto poder tomar decisiones con mayor conocimiento.

El precio y la confianza son antecedentes para determinar el valor, indicando que mientras mayor es el precio y/o el nivel de confianza otorgado, se espera que el valor entregado por reservar mediante ese canal también sea alto, haciendo una diferencia con respecto a la competencia e interpretándose como que Booking.com realice un buen trabajo en la solicitud de los requerimientos que se ofrecieron al cliente. Ahora bien, la confianza y el valor, como el precio, tampoco logran ser significativos en la intención de compra por Booking.com, ya que es un nexo y no depende de él lo que el hospedaje puede o no proporcionar, existiendo dentro de la plataforma una serie de ofertas con diversas opciones tanto de precio como de productos o servicios incluidos con la reserva, sin embargo, al reservar por otro medio dicho hospedaje se puede esperar lo mismo, dejando de ser decisivo. Sobre el conocimiento de las aplicaciones de reserva de hospedaje, se destaca satisfactoriamente que la mayoría de los usuarios ha visitado agencias de viaje online y páginas web de hoteles para planificar la estadía de sus viajes y más importante aún, dentro de estas agencias se destaca el conocimiento con respecto a Booking.com, reconociendo un gran alcance en las personas. Además, la gran mayoría sólo utiliza 2 páginas web para buscar información sobre un hospedaje, concluyendo que en general tienen claro por donde realizar su reserva previo a iniciar su búsqueda. En cuanto al perfil de los encuestados, la mayoría pertenece un rango más bien joven, pudiendo encontrarse en una etapa universitaria o en sus primeros años laborales, dada la gran cantidad de encuestados con sus estudios universitarios incompletos y completos y el rango de ingresos menores a \$120.000, adjudicándolos a quienes aún no terminan de estudiar y aquellos mayores a \$631.000, que pueden corresponder a quienes ya se encuentran trabajando. Otro grupo que logra destacar, si bien más pequeño igualmente importante, son personas entre 54 y 56 años, quienes pueden considerarse como más maduras, con familias conformadas con hijos y parejas o divorciados. Sobre el rango de veces que se reservó hospedaje en el último año, se asume que los viajes principales son por temas recreativos y en los casos en donde es más frecuente se asume a viajes tanto con fines recreativos como laborales. Por el contrario, quienes no viajaron se vincular a aquellos con ingresos no tan elevados y que por tanto realizar un viaje en donde se requiera hospedaje no es algo que puedan hacer comúnmente o cada año.

Dada la contingencia mundial, una forma de reactivar el uso de esta plataforma (y los hospedajes mismos), se recomienda asegurar a sus clientes la desinfección constante e higiene del lugar, aumentando o dando a conocer los altos niveles de limpieza y sanitización. Si bien esto es algo que depende del hospedaje, Booking.com puede coordinar que se lleven a cabo las medidas y por medio de su marca relacionarla a la seguridad en términos de la higiene del lugar y las nuevas medidas aplicadas que se les exigirá tener a los hospedajes suscritos a su plataforma. De esta forma, al fomentar dentro de su imagen de marca influirá en que se pueda aumentar la intención de compra, la confianza del cliente y dadas estas nuevas medidas quizás solicitar un mayor precio, mejorando el valor percibido de reservar por ese medio. Para afianzar a sus clientes por medio de la imagen de marca se recomienda realizar planes de comunicacionales que den cuenta de los beneficios de reservar por medio de su aplicación para smartphone o web, actualizándola constantemente para mejorarla a medida que haya avances en la tecnología, además de hacerla fácil de usar; actualizar sus hospedajes, añadiendo nuevas opciones puede ser beneficioso para su imagen dado que se podrá vincular con una gran variedad.

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BIOGRAFÍA

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ACTITUD DEL CONSUMIDOR FRENTE AL CARPOOLING

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RESUMEN

Este estudio analiza los factores que influyen en la actitud del consumidor frente al uso de autos compartidos o carpooling. La literatura reciente indica que los factores más importantes para determinar la Actitud hacia el carpooling son la Expectativa del beneficio económico, la Expectativa del beneficio en tiempo, la Confianza y la Ansiedad de transporte, mientras que para la Intención de uso los más influyentes son la Actitud hacia el carpooling, la Confianza y la Reciprocidad. En base a lo anterior se propone un modelo de ecuaciones estructurales basado en un cuestionario. Se realizó un muestreo no probabilístico durante junio y julio de 2020, obteniéndose 463 respuestas. Posteriormente se realizó un análisis de fiabilidad de escala mediante Alfa de Cronbach para el modelo de medida y luego un análisis de ecuaciones estructurales para el modelo estructural. Como resultado se obtuvo que los factores más influyentes en la Actitud hacia el carpooling son el Beneficio económico y la Confianza, siendo este último el que más peso conlleva, descartando la influencia del Beneficio de tiempo. Al analizar la Intención de uso, se aprecia que la Actitud hacia el carpooling y la Reciprocidad son factores influyentes, con una mayor importancia para la Actitud, descartando, en este caso, la Confianza. El modelo estudiado presenta una bondad de ajuste aceptable. Las implicancias de los hallazgos son discutidas.

PALABRAS CLAVE: Economía Colaborativa, Actitud, Reciprocidad, Confianza.

CONSUMER ATTITUDE TOWARDS CARPOOLING

ABSTRACT

This study analyzes the factors that influence consumer's attitude towards the use of shared cars or carpooling. Recent literature indicates that the most important factors to determine the Attitude towards carpooling are the Expectation of economic benefit, the Expectation of time benefit, Trust, and Anxiety of transportation, while for the Intention to use the most influential are the Attitude towards carpooling, Trust and Reciprocity. Based on the above, a structural equations model based on a questionnaire is proposed. A non-probabilistic sampling was carried out during June and July 2020, obtaining 463 responses. Subsequently, a scale reliability analysis was performed using Cronbach's Alpha for the measurement model and then an analysis of structural equations for the structural model. As a result, it was obtained that the most influential factors in the Attitude towards carpooling are the Economic Profit and Confidence, the latter being the one that carries the most weight, discarding the influence of the Time Profit. When analyzing the Intention to use, it can be seen that Attitude towards carpooling and Reciprocity are influencing factors, with greater importance for Attitude, discarding, in this case, Trust. The studied model shows an acceptable goodness of fit. The implications of the findings are discussed.

JEL: M31

KEYWORDS: Collaborative Economy, Attitude, Reciprocity, Trust.

INTRODUCCIÓN

El carpooling en sí, como práctica, se realiza desde hace muchos años, en muchos los lugares del mundo, ya que básicamente es “un modo de transporte emergente que es ecológico y sostenible, ya que permite a los viajeros no solo ahorrar el costo de viaje, como combustible, peajes y costos de estacionamiento, de los participantes que viajan en auto compartido, sino también reducir las emisiones y las congestiones de tránsito” (Galland et al., 2014). La tecnología ha llevado esto a un nivel superior, formando redes de mayor envergadura para poder realizar este tipo de movilización. “Las nuevas formas de relación entre consumidores que posibilitan las nuevas tecnologías y, especialmente, las plataformas en línea permiten que estos traten de satisfacer sus necesidades de modo colectivo” (Muñoz, 2016). Lo anterior mencionado se encuentra dentro de lo que se conocen como economías colaborativas, las cuales ofrecen soluciones que antes no eran conocidas, un ejemplo de esto es crear un modelo con la intención de obtener mayor rendimiento de los recursos para ser así más eficientes (Valdivieso Márquez, 2019). Este tipo de economías, también conocido como consumo colaborativo, es una nueva forma de ver la economía y además se ha visto cómo ha ido creciendo de una manera rápida (Canaley, 2015).

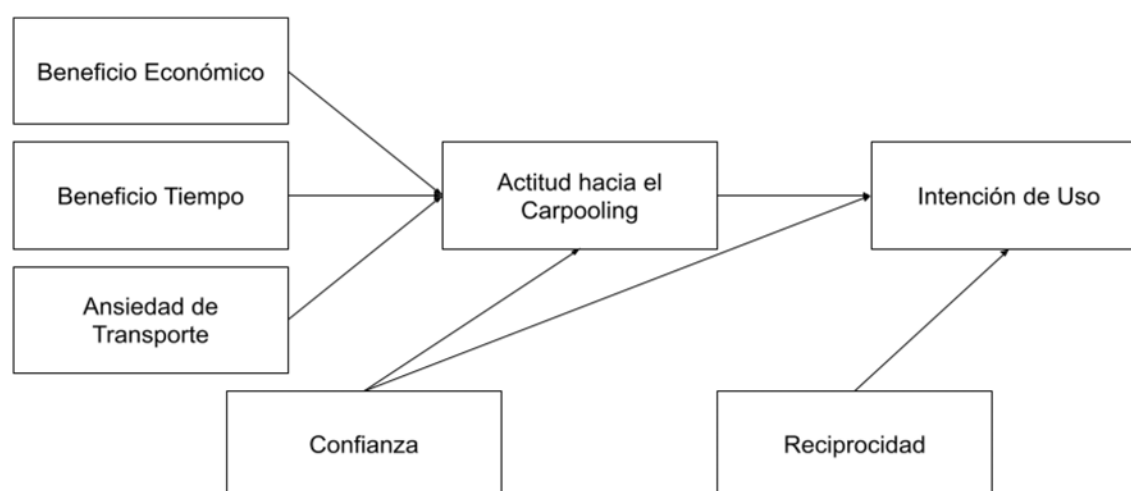
“En una ciudad con un ritmo de vida veloz y alta demanda de desplazamientos, se hace necesaria la implementación de medios de transporte con un sello solidario y eficiente” (Arce, 2012). Entonces, existirán consumidores dispuestos a contratar estos servicios de transporte, de esta forma los dos agentes involucrados conductores y pasajeros están obteniendo beneficios, entre los cuales se encuentran disminuir sus costos (Méndez Gasca & Ramírez Vergara, 2017), ya que, los gastos se reparten entre los usuarios que comparten el vehículo. “Estas plataformas no sólo permiten a los turistas ganar más experiencias con presupuestos limitados, sino también construir relaciones sociales con los conductores, compañeros del viaje o nativos de los lugares que visitan” (Xia & Sanagustín Fons, 2016). Entre otros beneficios se encuentran también, disminución de uso de estacionamientos, disminución en la emisión de gases y disminución de la congestión vehicular (López & Cecilia, 2015), por nombrar algunos. Se puede apreciar que existen distintos motivos por los cuales una persona podría elegir usar carpooling, de este modo, el presente estudio busca analizar la actitud del consumidor frente a plataformas de carpooling, mediante la identificación de factores que influyen en la intención de usar estos servicios y el análisis de la articulación de estos con la finalidad de comprender cuales son las principales motivaciones de los usuarios.

REVISIÓN LITERARIA

El mundo y las personas que lo habitan van cambiando constantemente, se busca poder mejorar procesos, tanto en ámbitos medioambientales, económicos, reducción de tiempos, etc. Uno de estos avances han sido las llamadas economías colaborativas que se entienden como nuevos sistemas de producción y consumo de bienes y servicios surgidos a principios de este siglo gracias a las posibilidades ofrecidas por los avances de la tecnología de la información para intercambiar y compartir dichos bienes y/o servicios, (Sánchez, 2016). En ese contexto, Bulchand-Gidumal y Melián González (2018) plantean que la economía colaborativa se puede subdividir en distintos tipos, debido a la distinta naturaleza de lo que se intercambie, encontrándose el consumo colaborativo, la producción colaborativa, el aprendizaje colaborativo, y las finanzas colaborativas o crowdfunding. Dentro del consumo colaborativo, definido como aquel consumo que facilita el encuentro entre oferta y demanda poniendo en contacto a desconocidos y proporcionando mecanismos que ayuden a generar confianza para permitir las transacciones (Cañigüeral, 2014), se pueden encontrar distintas actividades tales como movilidad, turismo y servicios. En cuanto al consumo colaborativo de movilidad, se encuentran carpooling, carsharing, ride-hailing y sus extensiones (Clewlow & Mishra, 2017). El carpooling se define como compartir un auto entre personas desde un determinado origen a un destino específico (Galland et al., 2014), el carsharing es un servicio de arriendo temporal de automóviles (Litman, 2000), y el ride-hailing es la actividad de pedir un auto para que te vayan a buscar de inmediato para realizar un trayecto, a cambio de una suma de dinero (Clewlow, 2017).

Respecto del consumo de carpooling, la literatura reciente indica que el 92% de las personas estarían interesadas en usar este tipo de plataformas. Entre las razones para no participar se encuentran, con un 21% la comodidad, 18% seguridad y 18% riesgo a demorarse más de lo esperado (La Rota Moya, 2011). Asimismo, el tiempo de viaje, costo del viaje y la flexibilidad en las horas de trabajo son los atributos que más influyen en los usuarios de carpooling (van der Waerden et al., 2015). Arce (2012) reafirma lo mencionado anteriormente y agrega la posibilidad de conocer gente, además señala los temores o resistencias que podrían tener a la hora de pensar en usar este tipo de viajes, indica que puede ser incómodo viajar con desconocidos y sentirse inseguros por viajar con desconocidos. Finalmente, Amirkiaee & Evangelopoulos (2018) determinan que los atributos que influyen en la actitud frente al ridesharing son el beneficio económico, beneficio de tiempo, ansiedad de transporte y confianza, que junto a reciprocidad influyen en la intención de compartir un viaje. Las relaciones se presentan de forma gráfica en la Figura 1.

Figura 1: Modelo de Motivaciones de Viaje Compartido. Fuente: Amirkiaee & Evangelopoulos (2018)



Esta figura muestra cuales son y como se articulan los factores que influyen en la actitud y en la intención de compartir un viaje, el modelo surge de los hallazgos de Amirkiaee & Evangelopoulos (2018) y se adapta al consumo colaborativo de movilidad carpooling.

METODOLOGÍA

La metodología del presente estudio considera una revisión de literatura en torno a los tópicos de economía colaborativa, consumo colaborativo, y movilidad colaborativa. En este contexto, se selecciona el modelo de motivaciones de viajes compartidos (Amirkiaee & Evangelopoulos, 2018) y se aplica el cuestionario adaptado a carpooling. Para recopilar datos se usó la plataforma SurveyMonkey y se difundió la encuesta a través de distintas redes sociales relacionadas al fenómeno de estudio. En base a lo anterior, mediante un muestreo no probabilístico se obtuvo un total de 463 respuestas entre los meses de junio y julio de 2020. Posteriormente se realiza el análisis de los resultados identificando el perfil de los encuestados. Para realizar el estudio al modelo de medida se hace un análisis de fiabilidad de escala utilizando el Alfa de Cronbach. Para los siguientes análisis sobre el Modelo de Ecuaciones Estructurales (SEM) se grafica el diagrama del modelo y con sus resultados hacer un análisis a sus estimadores y significancia estadística, así como la realización de un análisis de bondad de ajuste para determinar la exactitud del modelo. Finalmente, se discuten las implicancias teóricas y prácticas de los resultados obtenidos.

RESULTADOS

Con un total de 407 encuestas válidas se realiza los análisis de los resultados, se evidencia que la mayoría corresponde a mujeres (51%), mientras que el rango etario se concentra principalmente entre los 22 y 26 años. La mayor parte de los encuestados se encuentra cursando estudios de pregrado (37,8%) seguido de aquellos que están cursando estudios de postgrado. Por último, 139 encuestados declararon conocer el concepto de carpooling por lo que los siguientes análisis se realizan con esta porción de la muestra de encuestados. Se analiza la fiabilidad de escala de la consistencia interna de los factores presentes en el modelo mediante el Alfa de Cronbach, con valores entre 0 y 1, considerando un resultado de 0.6 como aceptable para escalas con menos de 10 ítems (Hair et al., 1999). Así, el factor ansiedad de transporte es el único que presenta un valor menor al mínimo esperado incluso al eliminar alguna de sus variables observables, mientras que los otros resultan ser altamente fiables.

Tabla 1: Análisis de Fiabilidad de Escala

Constructo	Alpha de Cronbach
Reciprocidad	0,713
Beneficio económico	0,800
Beneficio tiempo	0,698
Confianza	0,725
Ansiedad de transporte	0,485
Actitud hacia el carpooling	0,817
Intención de uso	0,775

Esta tabla muestra los resultados del análisis de fiabilidad de las escalas usadas en el cuestionario, al respecto destaca que ansiedad de transporte es el único constructo con un alpha de cronbach menos que aceptable ($<0,6$).

Continuando con el análisis de las relaciones entre variables latentes, se observa en la Tabla 2 que el Beneficio de Tiempo demuestra ser no significativa en la predicción de la Actitud hacia el Carpooling; además la Confianza resulta ser no significativa para predecir la Intención de Uso. En contraste, la Actitud hacia el Carpooling se ve influenciada positivamente la Confianza ($\beta = 0,400$) seguida del Beneficio Económico ($\beta = 0,288$), asimismo, la Actitud hacia el Carpooling se ve influenciada negativamente por una Ansiedad de Transporte ($\beta = -0,236$). Luego, la Actitud hacia el Carpooling impacta positivamente en la Intención de Uso ($\beta = 0,883$) y la Reciprocidad también impacta positivamente en la Intención de Uso ($\beta = 0,267$). Finalmente, el modelo explica un 37% de la varianza total de la Actitud hacia el Carpooling y un 90,2% para el caso de la Intención de Uso.

Tabla 2: Resultados Modelo Estructural

Relación	Coefficiente de Regresión Estandarizado	Valor P
AC <--- BE	0,288	0,002
AC <--- C	0,4	***
AC <--- AT	-0,236	0,033
AC <--- BT	0,267	0,092
IU <--- C	0,065	0,486
IU <--- AC	0,883	***
IU <--- R	0,267	0,002

En esta tabla se pueden ver los resultados de los coeficientes de regresión estandarizados de las relaciones propuestas en el modelo presentado en la figura 1, además de los p-value de estas relaciones del modelo estructural. Destaca que el beneficio económico, la confianza, y la ansiedad de transporte influyen en la actitud hacia el carpooling, asimismo, la actitud hacia el carpooling y la reciprocidad influyen positivamente en la intención de uso de carpooling.

CONCLUSIONES

Con respecto al objetivo del estudio se concluye que las variables que influyen en la actitud hacia el carpooling son el beneficio económico esperados de este sistema de transporte y la confianza que sus usuarios depositan en él, así como también la ansiedad de transporte. Teniendo entonces el beneficio económico y la confianza un impacto positivo en la actitud hacia el carpooling mientras que la ansiedad tiene un impacto negativo. Asimismo, la actitud hacia el carpooling y el sentido de reciprocidad impactan positivamente en la intención de usar este sistema de transporte. Las implicancias prácticas de estos hallazgos son que para fomentar la intención de uso de una aplicación de carpooling es fundamental que los potenciales usuarios tengan una actitud favorable hacia este sistema de transporte, y para esto, la confianza juega un rol preponderante como predictor de la actitud. En base a lo anterior, se recomienda posicionar a la aplicación como un sistema de transporte de bajo riesgo, que no requiere preocupación por temas de seguridad y donde los participantes tanto pasajeros como conductores inspiren confianza mutua. En segundo lugar, es importante reconocer la importancia de generar y cumplir las expectativas en torno al beneficio económico de este sistema de transporte mostrándolo como una opción que ayuda a ahorrar dinero tanto para el pasajero como para el conductor, además de disminuir la ansiedad de transporte del pasajero resaltando los beneficios de no tener que preocuparse por estacionar y evitar el estrés de conducir.

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ANALISIS DE LA TRANSFORMACION DIGITAL EN EL VALLE DE TECOMAN, COLIMA, MEXICO

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RESUMEN

El estudio determina el análisis descriptivo y transversal para documentar el despliegue de un proyecto cuyo objetivo es la transformación digital de las entidades económicas y sociales del Valle de Tecomán, Colima, México. En el cual se hace uso intensivo de tecnologías de información para incidir en la mejora de los procesos centrales de estas. Se presenta el modelo de gestión triple hélice y las metodologías aplicadas en la dirección de proyectos tales como PMBOK, SCRUM y las aplicadas en el desarrollo de soluciones de TI como lo son el uso de códigos QR, diseño WEB moderno, redes sociales y análisis satelital de cultivos.

PALABRAS CLAVE: Microempresas, IoT, Innovación

ANALYSIS OF DIGITAL TRANSFORMATION IN THE TECOMAN VALLEY, COLIMA, MEXICO

ABSTRACT

The study determines the transversal and descriptive analysis to document the deployment of a project whose objective is the digital transformation of the economic and social entities of the Tecomán Valley, Colima, México. In which intensive use of information technologies is made to influence the improvement of their central processes. The triple helix management model and the methodologies applied in the management of projects such as PMBOK, SCRUM are presented and those applied in the development of IT solutions such as QR codes, Modern WEB design, social networks and satellite analysis of crops.

JEL: M15, 032, Q16

KEYWORD: Microenterprises, IoT, Innovation.

INTRODUCCIÓN

Al interior del estudio, se aborda un enfoque sobre la teoría económica de desarrollo de la triple hélice de clusterizada Etzkowitz, L Leydesdorff (1990), Schumpeter J. (1934), M.E. Porter (1995), considerando que la academia tiene como propósito gestionar proyectos y programas educativos para formar profesionistas con perfiles del mercado global. Un sector productivo que busca optimizar sus procesos con la aplicación de la tecnología, la ciencia y la innovación, mientras que el gobierno, a través de sus programas federales, estatales y municipales, pretende conjuntar los esfuerzos para detonar la economía en los tres niveles de gobierno, atendiendo a las zonas con vocación económica estratégicas, las cuales se determinan en los programas sectoriales del Consejo Nacional de Ciencia y Tecnología (CONACYT). El contexto geográfico, social y cultural del proyecto de investigación, se desarrolla en el Valle de Tecomán, Colima, México,

ubicado en la región oeste del país. El estado de Colima es líder en el ámbito nacional e internacional en cuatro sistemas producto del agro mexicano, como son: Papayo, limón, coco y plátano de acuerdo a Servicio de Información Agroalimentaria y Pesquera, (SIAP SAGARPA, 2017). La extracción de hierro, cal, cemento es otra de las actividades económicas importantes del estado, así como también la producción de pectina de limón, aceite de coco y otros agro derivados. En su costa oeste se encuentra ubicado el puerto más importante del Pacífico mexicano, con un movimiento de casi tres millones de contenedores al año (2.88 MTU), lo cual lo coloca como un importante punto logístico para la entrada del comercio de Asia-Pacífico (APEC) en el occidente del país. En las costas del Valle de Tecmán se tiene un corredor gastronómico de más de cinco kilómetros de extensión. Al norte se encuentra el pueblo mágico de Comala y su turismo de montaña. La geografía de Colima lo hace uno de los estados con más diversidad y micro climas del país el cual se puede recorrer en un solo día del mar a la montaña. En el ámbito educativo, Instituciones de Educación Superior (IES) como la Universidad de Colima, perteneciente al Consorcio de Universidades Mexicanas (CUMex), oferta catorce programas educativos de corte tecnológico y es cátedras UNESCO de TI. Es en este contexto que la presente investigación tiene como objetivo analizar mediante métodos cuantitativos, la competitividad de la industria de las TI en, para que mediante estos elementos de juicio se pueda evaluar la estrategia transversal del uso de las TI en las vocaciones económicas, y verificar cómo dicha estrategia impulsa a la economía de la entidad, bajo un ámbito de la triple hélice, la inversión en talento humano y la adopción de metodologías innovadoras en sus proyectos productivos.

REVISIÓN DE LITERATURA

Derivado del proyecto PRODEP del cuerpo colegiado UCOL CA-111 de la Universidad de Colima el cual pretende impulsar la transformación digital del Valle de Tecmán, Colima, México en el periodo transversal de octubre de 2020 a octubre de 2021, desplegado en unidades económicas tanto del sector social como del sector productivo, ha considerado dentro de su estrategia, la aplicación intensiva de servicios de TI en los procesos centrales de dichas organizaciones con la finalidad última de agregar valor, valor que es planteado en diversas metodologías basadas en buenas prácticas globales, tales como PMBOK, ITIL, SCRUM, CMMI, COBIT y otras. Para lo cual citamos en el presente apartado, las diversas experiencias documentadas en relación al caso. De acuerdo a Sánchez, Maldonado y Villao (2015) consideran que se puede lograr una alta eficiencia productiva en el desarrollo agrícola de agricultura de precisión y mencionan el uso de técnicas y herramientas tales como el GIS acrónimo de Geographic Information System, elementos que aportan ventajas competitivas a la cadena de valor. En este mismo sentido, A. Porrúa (2020) definen la transición de la agricultura tradicional, la agricultura precisa y la agricultura de precisión, la cual se ha utilizado en este caso de estudio por medio de cuatro tipos de análisis satelital de cultivo. De la misma manera Carrillo et al. (2020) describen el análisis de transitar a la industria 4.0 y lo citan en un contexto de falta de capital humano.

Para Ocampos & Suárez (2020) es factible la innovación a través de entregar valor a las empresas mediante sitios WEB, al determinar el desarrollo que estas tienen en los principales países de América Latina. Por su parte Zermeño, Navarrete & Contreras (2020), hacen un estudio desde el punto de vista humano en el acceso a las TIC referente al antropocentrismo. De igual manera en su estudio de triangulación teórica, Perdigón, & Pérez Pino (2020) describen las bondades del impacto social del comercio electrónico en América Latina y en este mismo contexto Tabarés (2019) señala la importancia de la estrategia sostenida en I+D que la Unión Europea aplica y replicar estos modelos en nuestra localidad, como claros impulsores de la transformación digital de nuestras vocaciones económicas. Así mismo Carro, Flores, Flores Nava, Hernández (2019) advierten de la necesidad de invertir en industria 4.0 para aportar clara ventaja competitiva a los procesos de manufactura tal y como lo hacen en zonas económicas líderes. En este sentido, Maldonado, García, Mata, Castillo (2021) documentan esta misma experiencia en la industria automotriz de México. Otro aspecto documentado ampliamente en el de la aplicación del Marketing Digital en microempresas mediante el uso de redes sociales líderes. Para el caso que nos ocupa en el Valle de Tecmán, se han entregado servicios de TI con este mismo valor agregado a las micro empresas y también

al sector social de la región con este mismo propósito, bajo un protocolo definido en sustentos metodológicos de buenas prácticas en la gestión de proyectos de base tecnológica, que se describen a continuación, en el apartado precedente.

METODOLOGÍA

El presente trabajo se ha diseñado bajo un enfoque cuantitativo de carácter inductivo, descriptivo, no experimental y estrategia transversal en el tiempo. Se llevó a cabo la selección de la muestra para los casos de estudio y análisis de cada una de las entidades pertenecientes a los sectores sociales y productivos del Valle de Tecomán, Colima, mediante la fórmula de Murray Larry (2005). Se aplicaron técnicas basadas en TI que a continuación se listan, las cuales forman parte de las capacidades del cuerpo colegiado antes mencionado. Al momento de la publicación, se ha aplicado una prueba piloto a la muestra obtenida, considerando los sectores sociales y productivos, seleccionados por estratos de conveniencia al contexto y factores determinados en el estudio. Es de esta manera que se han entregado servicios de TI de 5 categorías o tipos, a 12 entidades de estos sectores, que representan el 13.19% del total de la muestra. Por lo tanto, el presente análisis, documenta los casos empíricos de aplicación de tecnología base a las organizaciones que conforman esta triple hélice productiva.

Calculo de Muestra

$$n = \frac{N\sigma^2 Z^2}{(N-1)e^2 + \sigma^2 Z^2}$$

(1)

n = {muestra poblacional, 91}

N = {tamaño de la población, 120}

σ = {desviación estándar, 0.5}

Z = {niveles de confianza, 1.96, 95%}

e = {limite aceptable de error, 0.5, 5%}

Servicios Entregados

Categoría 1 = [Servicios WEB]

Categoría 2 = [Servicios de IoT]

Categoría 3 = [Servicios de Redes sociales]

Categoría 4 = [Servicios de Códigos QR]

Categoría 5 = [Servicios de Capacitación en metodologías]

Protocolo del Proyecto

Se trata de una metodología propia empleada en la atención de las unidades económicas y sociales, bajo un esquema de juicio de expertos, en un contexto de triple hélice, bajo auspicio del PRODEP, que mediante el análisis de historias de usuarios (SCRUM, 2020), MBC (Model Business Canvas), así como adecuaciones de la metodologías PMBOK (Project Management Body of Knowledge) e ITIL (Information Technology Infrastructure Library). Se integran casos de uso para definir estrategias de acción encaminadas a entregar valor, mediante estos servicios de TI. La salida de este procedimiento es una solución de base tecnológica, que impulse finalmente la transformación digital de manera paulatina en nuestra localidad, buscando el beneficio social en todo momento.

RESULTADOS

Los resultados obtenidos bajo el esquema metodológico antes mencionado, versan sobre la entrega de 12 servicios de TI al sector social y productivo del Valle de Tecomán, considerando una prueba piloto del mismo. Los cuáles se han evaluado durante los 8 meses después de implementados. Los usuarios fueron abordados y entrevistados con la finalidad de conocer el contexto de sus problemáticas, mediante la aplicación de la metodología del MBC (Model Business Canvas). Las problemáticas tratadas fueron de índole social, como de carácter productivo o comercial. Se listan a continuación los resultados obtenidos y las tecnologías empleadas para desarrollar los entregables.

Tabla 1: Entregables Bajo Servicios de TI a las Unidades Económicas

Entidad Social	Servicio-Entregable	Tecnología-Metodología Utilizada
Locatarios comerciales del Mercado Cuauhtémoc.(3 locatarios)	Servicios WEB	Los servicios WEB se entregaron con SSL, nivel de seguridad para enlaces confiables. Diseño de páginas con RWD (Responsive WEB Desing), y uso de estrategias conformadas por SPA (Single Pages Application). Google Appis para MAP, y administración de correos propios o institucionales.
	Identidad corporativa Domino WEB Hosting Correo institucional Mapa de geolocalización	
Pequeños productores de Cofradía de Morelos (2 productores)	Análisis satelital de cultivos	Mediante la aplicación de algoritmos propietarios del Cluster de las TI Colima A.C. se gestionó el estudio para el análisis de cultivos en el caso del banano macho, con el propósito de contrastar los mismos a los estudios realizados por laboratorio en el propio suelo de las huertas cultivadas.
	Estrés hídrico	
	Clorofila	
	Nitrógeno	
	Estrés general	

La presente tabla muestra las diferentes técnicas y herramientas empleadas en la entrega de valor a través de servicios de TI a las diferentes entidades del sector social. Los mismos se han diseñado de manera estandarizada, entregándose el mismo prototipo de servicio a los diferentes beneficiarios del estudio o proyecto PRODEP, mencionado en párrafos antecedentes.

Tabla 2: Servicios de TI Entregados a las Entidades de Carácter Social

Entidad Social	Servicio-Entregable	Tecnología-Metodología Utilizada
Casa de la Cultura (3 departamentos)	Manejo de redes sociales	Canal de YouTube, Social Instagram, Facebook corporativo, Comunicación institucional con WhatsApp.
Taller de Artes (5 artistas)		
Ballet de Danzas Polinesias (1 conformación)		
H. Cuerpo de Bomberos (1 voluntariado)	Servicios WEB	Los servicios WEB se entregaron con SSL, nivel de seguridad para enlaces confiables. Diseño de páginas con RWD (Responsive WEB Desing), y uso de estrategias conformadas por SPA (Single Pages Application). Google Appis para MAP, y administración de correos propios o institucionales.
	Identidad corporativa	
	Domino WEB	
	Hosting	
	Correo institucional	
	Mapa de geolocalización	
	Lectura óptica	Utilización de códigos QR en credenciales de PVC para los datos vitales de los bomberos voluntarios, así como en la promoción y difusión de su servicio a la comunidad.

Se describen los beneficios de la utilización de servicios de TI en el sector social o de carácter no lucrativo, con propósitos humanitarios, culturales y recreativos que se seleccionaron mediante la prueba piloto aplicada a la muestra poblacional del estudio.

Tabla 3: Estimación Cuantitativa de Impacto Económico y Social de la Entrega de Servicios de TI

Entidad Social	Terminos Cuantitativos	Estimacion de Beneficio Social

Locatarios comerciales del Mercado Cuauhtémoc.	Levantamiento de un portal con 3 micro sitios para los locatarios comerciantes.	Rescate del comercio tradicional con beneficio directo a la zona centro del Valle de Tecomán, con una afluencia diaria de cientos de usuarios y clientes.
Pequeños productores de Cofradía de Morelos.	Realización de estudios de suelo a dos pequeños agricultores de banano y limón con tecnología ecológica, y de precisión.	Disminución en la incertidumbre del ciclo de cultivo y en la cantidad de aprovechamiento del suelo cultivable, en una zona considerablemente pobre de esta localidad.
Casa de la Cultura	Manejo de redes sociales para la difusión de cientos de usuarios de los departamentos de música, danza y pintura.	Socialización de las actividades culturales de la comunidad del Valle de Tecomán, impulsando los valores creativos de su población.
Taller de Artes	Difusión y marketing digital para cinco artistas de amplia trayectoria.	Impulso a la apreciación de las bellas artes visuales al promover a los talentos locales en esta disciplina.
Ballet de Danzas Polinesias	Servicio de difusión a más de 20 bailarines.	Practica de una actividad con beneficio social y físico en la práctica colectiva de la danza.
H. Cuerpo de Bomberos	Difusión y socialización de las actividades del voluntariado, conformado por más de 20 asociados y con beneficio para toda la población del Valle de Tecomán, con más de 112 mil habitantes.	Beneficios de tipo social y económico al promover el carácter humanitario de los rescates del Cuerpo de Bomberos y de las demás acciones del propio voluntariado.

Se sintetizan los beneficio de tipo cuantitativo y cualitativo o social de la entrega de servicios de TI en el Valle de Tecomán, Colima, México

Figura 1: Matriz TRIZ de la Conformación de Competencias del Capital Humano del Proyecto

PROYECTO: IMPULSO A LA TRANSFORMACIÓN DIGITAL DE LAS MICROEMPRESAS DEL VALLE DE TECOMÁN, COLIMA, MÉXICO																			
PROYECTO: PRODEP 2020-2021, Fase A.1					Cluster TI Colima A.C.							UCOL-CA-111							
DIAGNOSTICO GRADO DE CONOCIMIENTO DE METODOLOGIAS PARA PROYECTOS DE LA INDUSTRIA DE TI BASADOS EN LAS MEJORES PRACTICAS INTERNACIONALES.					CODIGOS DE COLOR Y NIVELES DEL CONOCIMIENTO DE LAS METODOLOGIAS.							B A S I C O	Valor 1 punto	M E D I O	Valor 5 puntos	A V A N Z A D	Valor 10 puntos		
GRADOS POR ESPECIALIDAD DE INGENIERIA					ANALISIS			DESARROLLO			IMPLEMENTAC.			DOCUMENT.			PUNTOS DE LA META	PUNTOS LOGRADOS	% ALCANZADO
INGENIEROS					C R P	S L V	R L M	T Z G	M M R	S L P	P M M	F L L	M H L	R E D	H M B	T H B	PUNTOS DE LA META	PUNTOS LOGRADOS	% ALCANZADO
1	M E T O D O L O G I A S	IoT															120	120	100
2		CULTIVO IN VITRO															120	90	75
3		ITIL															120	51	42.5
4		PMBOK DEL PMI															120	90	75
5		TEAM SOFTWARE PROCESS															120	90	75
6		SCRUM															120	105	87.5
7		COBIT															120	75	62.5
8		LENGUAJES CLIENTE															120	63	52.5
9		LENGUAJES SERVIDOR															120	63	52.5
10		MODELO ER Y BASES DE DATOS															120	63	52.5
PUNTOS META POR INGENIERO			100	100	100	100	100	100	100	100	100	100	100	100	100	100	NIVEL APPS		67.5
PUNTOS REALES POR INGENIERO			85	85	85	80	80	80	80	51	51	51	54	54	54	54			
% DE CONOCIMIENTO POR INGENIERO			85	85	85	80	80	80	80	51	51	51	54	54	54	54			
% DE CONOCIMIENTO POR GRUPO DE TRABAJO			85			80			51			54							

La figura expresa y determina las capacidades del capital humano, necesarias y disponibles para llevar a cabo el desarrollo del proyecto, esta evaluación permite conocer la estructura de capacidades humanas y metodológicas que se requieren en el despliegue de las metas, basadas en métricas del propio proyecto. Nótese los resultados más bajos en las etapas de implementación y desarrollo, en cruce de balances bajos con metodologías como ITIL, que obtuvo menos de la media y capacidades de lenguajes de programación WEB.

CONCLUSIONES

Los resultados obtenidos por el presente trabajo al desplegar el proyecto PRODEP cuyo objetivo general fue el de impulsar la transformación digital en el Valle de Tecomán, Colima, México. En su fase de pilotaje,

ha obtenido elementos de juicio suficientes de carácter cuantitativo que permiten inferir que tanto las unidades económicas, como las entidades de carácter social han mejorado considerablemente sus modelos de negocios y sus procesos al interior de las mismas. Lo anterior se fundamenta en la entrega de valor que se despliega a través de los servicios de TI, los cuales involucran tecnologías como el análisis satelital de cultivos, en la llamada agricultura de precisión, el uso de metodologías estandarizadas en el propio protocolo del proyecto como PMBOK, ITIL, SCRUM y MBC, así como en las metodologías de desarrollo WEB, tales como RWD, SPA, lenguajes responsivos, HTML5, y lenguajes del lado del servidor como PHP, incluyendo estrategias de información manejada mediante códigos QR. En este mismo contexto, se tiene la experiencia que todo proyecto de naturaleza tecnológica debe estar sustentada en las capacidades del equipo de desarrollo, es decir, en el capital humano necesario y suficiente para garantizar la triple restricción de tiempo, costo y alcance de los servicios de TI en los entregables, los cuales se basan en métricas de entrega, como los SLA (Service Level Agreement) y los KPI (Key Performance Indicator) indicados en la metodología de ITIL para entrega de servicios de TI. En suma, la transformación digital impulsada desde la perspectiva y alcance del proyecto PRODEP en el equipo de trabajo del UCOL-CA-111, ha considerado la documentación de una experiencia empírica y analítica en el despliegue de un proyecto de base tecnológica que permitirá enriquecer la experiencia del ciclo de mejora continua definido por E. Deming, y desde luego se ha impulsado la transformación digital en su primera fase con beneficio directo de entidades económicas y sociales del Valle de Tecomán, Colima, México, considerando desde luego, en un contexto de pandemia global ya por todos conocido, en el cual se ha encontrado que las soluciones de I+D, se hacen cada vez más patentes y necesarias en el contexto de las naciones.

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PERCEPCIÓN CUALITATIVA SOBRE EL FOMENTO DE SEGUIR LA HERENCIA FAMILIAR EN LA PRODUCCIÓN AGRÍCOLA EN EL VALLE DE TECOMÁN, COLIMA MÉXICO

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RESUMEN

En el estado de Colima, México se caracteriza por ser un gran productor agrícola es el sexto estado exportador de frutas y hortalizas. El Valle de Tecomán es un sitio exportador de estos vegetales, es por ello el interés de investigar de manera cualitativa cual es la percepción de los líderes de los sistemas-producto del valle referente a que su descendencia siga con la profesión de ser productor agrícola. Para esto, se realizó una entrevista de datos cualitativos de los principales líderes productores de la región usando la técnica de entrevista "Focus group" cuyos resultados se analizaron de manera cualitativa mediante el análisis del discurso. En general los productores de frutas mango, tamarindo, limón (lima ácida) y coco no desean que sus sucesores sigan con estos cultivos debido a que es una inversión a largo plazo y de rentabilidad dudosa. Para los cultivadores de hortalizas y legumbres como de plantas de ornato, papaya y plátano si consideran que los hijos sigan con el cultivo por ser redituable y más si se proyecta hacia la exportación. Si es de consideración buscar si hay otros factores que impulsen a los hijos a emigrar a otros lugares.

PALABRAS CLAVE: Agricultura, Sucesión, Motivación

QUALITATIVE PERCEPTION ON THE PROMOTION OF FOLLOWING THE FAMILY HERITAGE IN AGRICULTURAL PRODUCTION IN THE TECOMÁN VALLEY, COLIMA MEXICO

ABSTRACT

On Colima State Mexico has characterized by high agricultural production and, this the six-national exporting of fruits and vegetables. The Tecoman Valley have a big agricultural exporting companies, for that we are interesting to explore a qualitative manner about which is the perception of the producer leader association growers of the valley to family heritage continue to land workers. For that, made interviews using qualitative questions to leaders' growers of the region by focus group form. These answers using qualitative analysis by speech analysis. In general, the grower's group of mangoes, tamarind, acid lime and coconut do not wants to success growing this crops because the investment are to long time and probably low rentability. The other group vegetables and legumes, ornamental plants, papaya and bananas have a good consideration to continue growing these crops because had high rentability and best to export. To complement this research may investigate if other factors influence wanting to migrate to other sites.

JEL: Q12, Q15, J24

KEYWORD: Agriculture, Succession, Motivation

INTRODUCCIÓN

Dentro del sector primario, la producción agrícola es de gran importancia ya que ocasiona que la población rural permanezca en el campo y desarrolle los sistemas productivos agrícolas. El desarrollo rural es vital para el país, Durston (2002) menciona que importante el desarrollo rural ya que es un capital social que puede aportar al país si se aplican las debidas estrategias de desarrollo de las comunidades rurales o en caso contrario de no ser atendidas sus necesidades causará un abandono del campo una baja producción de alimentos como movimientos migratorios a las ciudades que traerán mayor carga económica social para el gobierno. Aunado a esto, se ha buscado a través del tiempo, los gobiernos han tratado de buscar mejorar las cadenas agro-productivas, realizar el fomento a establecer sistemas agrícolas para la producción hacia la exportación usando las ventajas competitivas hacia productos de alto consumo como son las frutas y las vegetales, mejorando la mecanización y la sistematización moderna productiva agrícola buscando tecnologías de la información que ayuden a la mejora en la toma de decisiones (Rojas, 2008). Todo ello con mejorar los productos agrícolas ante los nuevos retos del milenio que es la globalización de mercados y las exigencias de los mercados de consumo que en ambos casos tienen una gran variedad de fuentes de información que ayudan a la toma de decisiones en escoger los mejores productos en una competencia de por tener mayores consumidores a un precio atractivo para estos (Qüesta, 2007). Esto implica el manejo productivo de las fincas agrícolas sean manejadas como una agro-empresa profesional en todos sus aspectos: productivo, financiero, capital humano y de mercadotecnia utilizando para ello los procesos de planeación estratégica con el fin de ser más competitivos a nivel local, regional y mundial. En muchos países latinoamericanos el núcleo fundamental de la producción agrícola se caracteriza por ser una familia que posee tierras agrícolas y las trabaja como fuente de sustento y desarrollo económico que con el fin de ser más competitivas buscan alianzas o asociaciones agro-empresariales que ayudan a la comercialización de sus productos agrícolas que les permite colocar sus productos dependiendo la calidad de estos a nivel local, regional o internacional (Santacolma-Varón, 2015). Estas demandas de mejores productos que satisfagan las necesidades de los consumidores deben de estar a la par llevadas por sistemas productivos que preserven el entorno ambiental de la región buscando una regeneración planeada y administrada de los insumos productivos que son tierra, agua, nutrientes, control biológico. Buscando sistemas productivos más amigables para preservar el medio ambiente (Suarez-Agudelo, Calderón-Cuartas, 2015). Por ello, los sistemas productivos agrícolas deben de tener la calidad y la eficiencia suficiente para ser competitivos y redituables.

Un factor importante el desarrollo productivo de las agroempresas familiares es cuando los hijos llegan a una edad productiva que se combina con la experiencia del padre en el trabajo del campo que esa combinación presenta la máxima capacidad de producción del predio rural (Durston, 1998). Es en esta etapa cuando el padre debe de motivar y apoyar al hijo en que de decisiones propias del manejo del predio con el fin de que el joven se convenza que es capaz de administrar y producir las tierras paternas y sea un incentivo para un arraigo en la localidad por vía de la herencia de ese predio, asegurando el porvenir del joven para crear su propio futuro y sustento. Cuando surge el máximo crecimiento productivo agrícola gracias al binomio padre-experiencia con hijo-empeño es tiempo de tomar conciencia del futuro del predio y de su labor productiva con el fin de determinar independientemente los lazos y ordenes familiares, quién o quiénes son los más adecuados para seguir con el liderazgo operacional de la agro empresa para con empezar a desarrollar un plan de educación y de dirección sobre el candidato familiar elegido (Ulloa & Ducos, 2012).

Dentro de la diversidad de empresas familiares ya sea urbana o rural, productiva, comercializadora o de servicios. Las empresas familiares rurales se distinguen por ser las empresas que más sucesión del negocio se da dentro de la familia de padre a hijo y así sucesivamente (Perrachón, 2010). Se considera un cambio de roles entre los miembros de la familia el Hijo (empleado) sucede al Padre (Dueño y gerente del negocio)

que pasan a ser Hijo-Dueño-Gerente y al Padre-jubilado-accionista. En muchos casos estos cambios ocasionan inestabilidad organizacional y social dentro de la empresa. Es por ello, el trabajo de investigación se sitúa en las familias de producción agrícola del Valle de Tecomán en el Estado de Colima México referente a las cuestiones cualitativas que se presentan para seguir la herencia familiar en la producción agrícola.

REVISIÓN DE LITERATURA

Se puede decir que las empresas familiares es una organización orgánica en la cual se tiene la característica de la consanguinidad entre sí que establece fuertes lazos de unión que tienen el principio en común que es desarrollar actividades dentro del sector agropecuario que generalmente no se establecen diferencia entre las relaciones familiares y los puestos dentro de la empresa agrícola conservando como valor principal el respeto y obediencia a la máxima jerarquía patriarcal presente (Álvarez, Díaz & Saiz, 2012). Además, del problema administrativo de las familias de agricultores se planea un escenario adverso del exterior, en la región agrícola de Mexicali, Baja California. Tomando datos del Censo Nacional Agropecuario de 2007, muestra que a menor superficie de trabajo y tipo de cultivo se incrementarán los problemas del exterior como los costos de los insumos y la accesibilidad a créditos agropecuarios (Zavala, Sánchez, Sosa & Rodríguez, 2020).

El concepto de familia de empresas agrícolas se ha modernizado de tal manera de realizar un mínimo daño al entorno ambiental de las tierras productivas, buscando un equilibrio entre las acciones y los satisfactores del individuo, grupo (familia) y sociedad que estas relaciones integran la comunidad rural bajo un manejo agroecológico de conservación. Buscando establecer un equilibrio de recursos empleando la agricultura, ganadería, piscicultura y forestería cuando el ecosistema tenga los menos disturbios posibles buscando las alternativas del desarrollo sustentable (Castillo, 2008). Además de estas propiedades hay otros elementos sociales que dan cohesión al desempeño familiar como lo son: la amistad, la religión, el esparcimiento y el sentido de permanencia que junto con las creencias y las normas de esa sociedad dan la forma propia de la sociedad rural, Flores (2018). De todas maneras se dice que "la empresa el poder no se transfiere, se conquista" por ello, con el tiempo (experiencia) se busca obtener la legitimidad ante los empleados, clientes y la familia (Rossato & Cavedon, 2004).

Otro factor que impide la sucesión de una manera directa y clara es el factor migratorio rural y el poco interés de la juventud por seguir viviendo en su localidad ya sea por un factor económico o por el tedio de vivir en su lugar, esto hace, que el primogénito como es tradicional no este dispuesto ya sea por falta de interés en seguir las actividades agrícolas o haber emigrado a la ciudad o trabajar en el extranjero. Esto hace se tenga una competencia entre los familiares cercanos o interesados por ser los sucesores verdaderos. Y junto con la progresiva pulverización del tamaño del predio a medida que avanza las generaciones hereditarias no garantizan un satisfactor económico de sus dueños (Quesnel & Del Rey, 2020). Un problema que se presenta mayoritariamente en la sucesión rural es la preferencia por la "varonilidad" del hombre, Voyce (1994: 2) citado por Graña (1996), en estudios en granjas rurales en Australia, encontró que una preferencia de escoger al hombre recae en lo "natural" del traspaso de línea paterno que lleva a la cultura discriminatoria hacia la mujer, ya que de manera "implícita se considera" qué hombre posee los siguientes valores: la autoconfianza, independencia, lucha "viril" por derrotar a la naturaleza y por ende la mujer "debe" de asignarse los roles de obedecer para arreglar la casa y cuidar la casa de los hijos. Bajo estos preceptos y a través de las generaciones las mujeres pueden presentar un desencanto en querer heredar la dirección de la empresa agrícola.

Además de la supuesta "fortaleza" de la masculinidad, el derecho agrario se comporta generalmente en favor de los derechos de propiedad hacia el primogénito, aunque, en el caso colombiano las leyes obligan a distribuir a todos los descendientes las propiedades del fallecido. Esto ocasiona una fragmentación continua y en consecuencia la disminución de la satisfacción personal por la poca capacidad de logro. En un estudio

realizado en la municipalidad de Topaipí en el distrito de Cundinamarca se estudió la distribución por herencia de las tierras agrícolas durante 25 años, que en un inicio era del 8 % de la superficie menor a una hectárea y al final del estudio se incrementa la superficie al 25 % esto hace que índice igualitario de satisfacción llamado Índice Gini (valor más cercano a uno indica una alta desigualdad de satisfacción) al inicio del estudio era de 0.28 pasa 0.39. Estos sistemas "igualitarios" distribución de la herencia ayudan a generar polos futuros de pobreza (Cristo, 2018).

Tomando en cuenta, los estudios de Ávila (2013) menciona que Sarti (2010:15), respecto al estudio de empresas familiares agrícolas en el sur de Yucatán encontraron que la sucesión exitosa en estas instituciones se debe a una capacitación bien establecida para el candidato a seguir con la empresa familiar, tomándose en cuenta la gestión para el cambio, las relaciones sociales intrafamiliares adecuadas, la relación de ganar-ganar de parte del sucesor y el líder, los medios adecuados de comunicación formal e informal, motivación al cambio, transparencia de los eventos y acuerdos de negocios bajo una perspectiva cualitativa. En un estudio a la comunidad del Rosario en el departamento de Cundinamarca, en Colombia a familias de negocios agrícolas se encontró que cerca del 70 % de los padres de familia si han pensado la sucesión del negocio sea de corte familiar y si se ha pensado quién es el candidato ideal para obtenerlo aunque, dentro del aspecto del sistema administrativo se tiene la debilidad que acciones de ejecución de tareas y operaciones dependen de las circunstancias que se dan en la actividad diaria y no por una planeación estratégica a mediano y largo plazo. Además existe una correlación positiva entre el grado de estudios del jefe de familia y la facilidad para salir de los problemas y establecer acciones para que dichas circunstancias ya no se repitan (Díaz & Díaz, 2010).

METODOLOGÍA

Es un estudio transversal que busca la opinión de los presidentes de las asociaciones de producto (oficialmente denominadas insumo-producto) que se encuentran en el valle de Tecomán que son: consejo estatal del Coco, del mango, de la papaya, del tamarindo, de hortalizas y legumbres, productores de limón, de plantas de ornato, y del plátano. Es exploratorio ya que la intención es conocer la opinión que tienen estos representantes respecto si los hijos de los asociados tienen la intención de seguir con las actividades productivas de sus padres y es cualitativo porque expresan en sentir y el conocimiento que tienen sobre la sucesión de sus cultivos por parte de sus agremiados. Como instrumento de evaluación es entrevista de grupo denominada "focus group" en la cual consta de tener un guion sobre preguntas relacionadas con la sucesión del negocio de sus padres, en la cual solamente se tiene un moderador que busca ubicar a los entrevistados en los puntos que se desean conocer. Como productos es hacer un análisis del discurso y presentar opiniones generales.

RESULTADOS

Se realizó la entrevista tipo "focus group" a los productores presidentes de los sistemas-producto de la región, a manera general la entrevista se agrupo en tres contenidos en la tabla 1, se muestra la primera pregunta. En ella se observa que la tendencia de los productores de huertas frutícolas y de la palma de Coco puede ser porque estos cultivos su producción es a largo plazo y los precios de venta no son muy rentables y en la elección de continuar con las prácticas agrícolas se caracteriza por tener productos a corto plazo como son las hortalizas y los frutales de papaya y plátano son los de más rápido crecimiento de esta porción vegetativa.

Tabla 1: Deseos de Continuar en el Negocio de Producción Agrícola

Pregunta:	Insumo-Producto: Coco, Mango Tamarindo, Productores de Limón.	Insumo-Producto: Hortalizas y Legumbres, Plantas de Ornato, Papaya y Plátano.

¿Los productores quieren que sus familiares continúen con los negocios agrícolas?

En este caso los productores si desean que sus hijos emprendan pero en otros ámbitos fuera de los negocios agrícolas.

En este caso los productores promueven en sus sucesores emprender en negocios meramente agrícolas. Asimismo promueven seguir con el cultivo ya que con cuidado y esmero puede ser redituable para seguir produciendo dicho cultivo.

Se presentan las opiniones generales usando el criterio dicotómico de estar de acuerdo o no estar de acuerdo en la sentencia

Tabla 2: Medios Para Continuar con la Práctica de Estos Cultivos

Pregunta:	Insumo-Producto: Coco, Mango Tamarindo, Productores de Limón.	Insumo-Producto: Hortalizas y Legumbres, Plantas de Ornato, Papaya y Plátano.
¿Se presentan los medios adecuados para seguir con la práctica del cultivo?	Los padres de dichos sucesores pretenden motivar a sus hijos en emprender, pero no lo harían de forma económica por lo que se presentarían obstáculos por parte de los proveedores, de cuál sea el ámbito al que quisieran emprender.	Los productores brindarían a sus hijos para emprender, pero lo harían de manera motivacional y brindándoles conocimientos de ellos, pero no lo harían de manera económica. Es por ello que se presentan mayores obstáculos por parte de los proveedores ya que los insumos suben mucho y los precios de compra se mantienen estables y menores. Mencionando asimismo que la mayoría de la producción es para exportación y con ello se puede suplir el precio elevado de los insumos

En esta condición se aprecia además del visto bueno por seguir en el negocio se añade si se dará de apoyo en lo físico y en la infraestructura con el seguir el negocio paterno

En esta tabla 2, ya con la preferencia o no por seguir con el negocio paterno, se pregunta si se tendrá apoyo financiero, de insumos o de infraestructura para seguir con el negocio. Los que mostraron que no desean la continuidad de los hijos en el mismo negocio debaten que no poseen los medios para fomentar la continuidad del negocio agrícola de la familia y por ello dicen que es más prominente buscar otras opciones que proporcionen una rentabilidad mayor y de manera permanente. En cambio los que fomentan a la descendencia a seguir el negocio dicen que le apoyo siempre seria cuando se tenga un objetivo hacia la exportación debido al gran diferencial de ganancias que se tienen respecto a la baja rentabilidad del mercado nacional.

Tabla 3: Grado de Motivación Para Seguir en el Negocio

Pregunta:	Insumo-producto: Coco, Mango Tamarindo, productores de Limón.	Insumo-producto: Hortalizas y legumbres, plantas de ornato, papaya y plátano.
¿Los hijos se sienten motivados para seguir haciendo negocios en el campo?	En cierto aspecto los sucesores se sienten motivados a seguir emprendiendo pero en un ámbito que no tenga que ver con el campo, de igual manera de parte de sus padres no reciben apoyo en cuestión de recibir los conocimientos que poseen de este cultivo.	Si se encuentran motivados ya que los padres están dispuestos a ofrecer sus conocimientos acerca de este cultivo y apoyarlos en lo que necesiten saber en cuanto a este cultivo se trate

Como no observan los hijos comentarios estimulantes de sus padres no sienten la motivación para seguir en el trabajo agrícola que están realizando actualmente.

Los comentarios de la tabla 3, es el resumen final de considerar permanecer o no en el negocio agrícola de los padres, al no sugerir seguir ni ver el apoyo físico para continuar se termina la motivación de las generaciones venideras en continuar los cultivos paternos. En cambio, los que si quieren que los hijos continúen con el negocio aunque no pueden proporcionar el apoyo material si están dispuestos a otorgar la experiencia obtenida en el cultivo. Al fin de cuentas, los padres no dejan aislados a los sucesores si siguen con el negocio agrícola. Se observan en los resultados que no hay una motivación de los cultivos que tienen resultados a largo plazo, aunque los costos no son elevados estos no se pueden revertir y las ganancias son graduales y mucho depender a la demanda y precio del fruto. Cabe aclarar que el perfil de estos productores es en promedio de preparatoria (bachiller) que tienen con la experiencia en producir con calidad a diferentes

mercados. Y el otro grupo de productores tienen similares estudios en promedio pero, presentan la característica de ser más innovadores e informados en los mercados de precios a nivel nacional e internacional. Esta es una ventaja dentro de la planeación estratégica que poseen estos productores para buscar diferentes oportunidades o ambientes de negocio.

CONCLUSIONES

Se puede decir que un gran factor de toma de decisiones para buscar si hay sucesión es el tipo de cultivo en el cual se está trabajando. Siempre el factor de riesgo es decisivo el grupo que no motivará a sus descendientes presenta una inversión baja pero con resultados a años de inversión, si se reduce el riesgo de la inversión pero la rentabilidad puede ser baja en consideración a los años de inversión y por el otro grupo que si motivaría a seguir en la producción agrícola de sus ancestros se caracteriza por grandes inversiones con resultados de meses pero con altos riesgos de tener siniestros mayores y con una visión hacia la exportación de grandes dividendos por la inversión. Estos ambientes de inversión siempre van a depender del grado de seguridad o turbulencia que se quiera tener. Se puede ir por un plano más seguro a largo plazo con bajos dividendos o a corto plazo con grandes inversiones con mayor riesgo de desastres pero con altos dividendos. En complemento a ese ejercicio exploratorio, es de interés complementar las causas externas del ambiente de los hijos por los cuales deciden abandonar el trabajo rural y emigrar a otros sitios.

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EVALUACION DE LA NECESIDAD DE INCREMENTAR LAS CONCESIONES DE TAXIS EN LA CIUDAD DE CASTAÑOS COAHUILA

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RESUMEN

El objetivo de esta investigación es determinar la cantidad de taxis que se requiere para satisfacer la demanda de la población de Castaños, Coahuila. Para tal efecto se procedió a efectuar una revisión bibliográfica sobre los antecedentes históricos, clasificación y características especiales del servicio de taxis como servicio público. Asimismo, se administró un cuestionario compuesto por diez reactivos a una muestra estratificada de 380 individuos de un total de 25,892 habitantes distribuidos de acuerdo a cifras del INEGI, en un 53.40% de hombres y mujeres entre 20 y 34 años y el resto mayores de 35 o menores de 20 años de edad. Los resultados obtenidos muestran que en esta ciudad existe actualmente un déficit de 14 taxis para satisfacer la demanda actual. El transporte al trabajo, a centros de diversión, movimientos hacia el centro de la ciudad y el transporte en las noches y madrugadas es demanda que no está siendo cubierta en su totalidad. Los resultados obtenidos permitieron al cabildo del actual Ayuntamiento de Castaños, Coahuila evitar el otorgamiento indiscriminado de concesiones.

PALABRAS CLAVES: Demanda, Taxis, Servicio Público

EVALUATION OF THE NEED TO INCREASE TAXIS CONSEQUENCES IN THE CITY OF CASTAÑOS COAHUILA

ABSTRACT

The object of this research is to determine the quantity of taxis that is required to satisfy the demand of the population of Castaños, Coahuila. To comply with the research it was made a bibliographic research of the historical background, classification and special characteristics of the taxis as a public service. Also, it was applied a questionnaire of ten items to a stratified sample of 380 individuals from a total of 25,892 inhabitants distributed according to the information of INEGI, as 53.40% men and women of ages between 20 and 34 years and the rest older than 35 years and younger than 20. The results obtained, showed that in this city presently exists a deficit of 14 taxis to comply with the present demand. The transportation to the job centers, entertainment centers, and downtown transportation at night and early in the morning is a demand that is not being totally covered.

KEYWORDS: Demand, Taxi, Public Service

JEL: R40, R11, R41

INTRODUCCIÓN

El origen del taxi como vehículo de alquiler, sin itinerario fijo y destinado al transporte de uno o más pasajeros (no más de cuatro) tuvo su origen en la idea de Franz von Taxis quien en 1504 creó la primera línea regular de coches de posta entre Holanda y Francia. No fue sino hasta durante el período de la Colonia que los vehículos de alquiler para transportar personas empezaron a operar en México. Para finales del siglo XVIII operaban en la ciudad de México 265 vehículos de alquiler, conocidos también como coches *simón* o de sitio, de tracción animal. En 1903 empezaron a prestar sus servicios 136 automóviles de alquiler. El primer sitio de automóviles de alquiler lo estableció el estadounidense M.C. Hurle en La Alameda. En 1922 se introdujo la modalidad de vehículo automotor de alquiler sin itinerario fijo, carente de adscripción a un sitio los cuales recorrían permanentemente las calles citadinas en busca de usuarios. Como servicio público, el taxi debe regirse por el siguiente principio: “por cada vehículo, una concesión o permiso y no más de una concesión o permiso por cada prestador de servicio”. En nuestro país este principio se contrapone con la práctica desarrollada en la realidad ya que el otorgamiento de concesiones o permisos se ha visto dominada por el control o intereses políticos.

El municipio de Castaños, Coahuila no ha estado exento del manejo político del otorgamiento de concesiones para taxis. Un grupo de personas de este municipio comenzó a presionar al ayuntamiento para que se entregaran más concesiones, el regidor de educación del municipio considera que no deberían de entregarse las concesiones sin un criterio racional que determine cuantas se deberían de entregar.

Antes de que se solicitara la realización de esta investigación, el Cabildo de Castaños, Coahuila recibió fuertes presiones por grupos de interés para que se les otorgaran un número excesivo de concesiones que no correspondía a las necesidades reales de taxis de la población. Por tanto, los miembros del Cabildo de este municipio quienes anteriormente tuvieron contacto con la Facultad de Contaduría y Administración (FCA) y que sabían de investigaciones realizadas por esta Institución de Educación Superior sobre otras problemáticas, decidieron solicitar a la Facultad la realización de una investigación para determinar con evidencia empírica la demanda real de taxis para la población de Castaños, Coahuila.

Por lo tanto el Objetivo de esta investigación es determinar la cantidad de taxis que se requieren de acuerdo con la demanda de la población de Castaños Coahuila. Para que, de acuerdo con los resultados de esta investigación el Cabildo de Castaños, Coahuila podrá justificar ante un juzgado la no viabilidad de la solicitud que demandaba el otorgamiento indiscriminado de concesiones. El trabajo está organizado en los siguientes apartados: Posterior a la introducción, se encuentra la revisión literaria la cual expone los resultados obtenidos de la investigación bibliográfica efectuada sobre el tema. La descripción del diseño metodológico y de los pasos del proceso de investigación efectuado se encuentra en el apartado de metodología. Los datos recopilados se encuentran en el apartado de resultados. Finalmente, se presentan las conclusiones obtenidas como resultado del análisis efectuado y las referencias bibliográficas empleadas.

REVISIÓN DE LITERATURA

Antecedentes Históricos del Taxi

Los primeros taxis fueron idea de Franz Von Taxis quien, en 1504, y siguiendo el ejemplo de los correos mongoles (que ofrecían servicio postal y transportes) creó la primera línea regular de coches de posta entre Holanda y Francia. No obstante hubo que esperar hasta 1904 para que Louis Renault inventase el taxímetro con el que se calculaba el precio de los viajes según los kilómetros recorridos y el tiempo empleado en ellos. (Lambert, 2009) Los vehículos de alquiler para transporte de personas, sin ruta fija, empezaron a funcionar en México desde la época de la Colonia; al final del siglo XVIII operaban en la ciudad de México 265 vehículos *de providencia* o de alquiler, conocidos también como coches *simón* o de sitio, de tracción animal; en 1874 aplicaban una tarifa de cincuenta centavos la hora en servicio diurno y de un peso en servicio nocturno. Los automóviles de alquiler empezaron a prestar servicio en la ciudad de México en

1903, año en el que se registraron 136. (Dominguez, 2010) El primer sitio de automóviles alquiler lo estableció en La Alameda el estadounidense M. C. Hurle quien aplicaba una tarifa de ocho pesos la hora en días hábiles y de diez pesos en domingos y días festivos. (Fernandez, Servicios Publicos Municipales, 2002). En 1922 se inició la modalidad del vehículo automotor de alquiler sin itinerario fijo, carente de adscripción a un «sitio», identificados como «YellowTaxi Amarillo», los cuales recorrían permanentemente las calles citadinas en busca de usuarios. (Lopez Rosado, 1976) Según Enriquez, C. y Tapia, M (1999) en el año de 1926 se inicia la era del transporte público con vehículos de transporte de pasajeros en taxis.

Concepto de Taxi

El taxi es un automóvil de alquiler con chofer, provisto generalmente de taxímetro, que lleva al cliente al lugar solicitado. (Pequeño Larousse Ilustrado, 2007) Es un vehículo automotor de alquiler con conductor, sin itinerario fijo, destinado al transporte de uno o varios pasajeros – por lo general no más de cuatro – dentro del esquema de servicio público y, en consecuencia, con sujeción a un régimen de derecho público que impone los requisitos que debe cubrir el vehículo y su conductor, sus reglas de operación, así como la tarifa que debe aplicarse. (Fernandez, Servicios Publicos Municipales, 2002) Operado bajo un sistema de transporte público individual de pasajeros que no está sujeto a un itinerario fijo, el servicio público de taxis o de automóviles de alquiler debe regirse por el mencionado principio «por cada vehículo una concesión —o un permiso— y no más de una concesión —o un permiso— por cada prestador del servicio», principio que, en nuestro país, se contrapone con la práctica desarrollada desde la aparición del servicio a principios del siglo XX, ya que el otorgamiento de concesiones o permisos de taxis ha formado parte del control o clientelismo político. (Abascal, S/F)

El Taxi en la Clasificación del Servicio Publico

De acuerdo Fernández Ruiz (2004) con se cataloga al servicio público de taxi como *uti singuli*, voluntario para el usuario, obligatorio para la Administración pública, indispensable, constante, oneroso, de régimen jurídico, exorbitante del derecho privado, y de régimen económico de oligopolio.

Un SINGULI: El de taxi es un servicio público típicamente *uti singuli*, dado que sus usuarios son personas específicas, determinadas y determinables.

Voluntario Para El Usuario: En lo que atañe a su utilización por parte del usuario, el de taxi es un servicio público voluntario, pues sin coacción alguna lo aprovecha quien lo necesita cuando lo juzga pertinente.

Obligatorio Para La Administración Pública: Cuando el servicio de taxi está atribuido por ley a la administración, y por consiguiente se trata de un servicio público *propio*, resulta obligatorio para ella establecerlo y organizado, pues está previsto en el ordenamiento jurídico; en todo caso, el prestador del servicio — concesionario o permisionario— tiene obligación de prestarlo en tanto esté vigente su concesión o permis

Indispensable: En atención a su importancia, el de taxi es un servicio indispensable, como lo testimonian los millones de pasajeros que diariamente lo utilizan en el país, la mayoría de los cuales serían gravemente perjudicados con la desaparición o la interrupción del servicio.

Constante: El de taxi se clasifica como un servicio público constante, dado que en las grandes ciudades sus vehículos están disponibles durante las veinticuatro horas de todos los días del año, y se pueden abordar a cualquier hora y en cualquier punto de la ciudad o en los lugares donde se ubican los sitios de automóviles de alquiler. En poblaciones pequeñas suele ser rotativo el turno de guardia nocturna de *imaginaria*, que permite al usuario solicitar el servicio en el domicilio del conductor o propietario del vehículo de turno de

dicho servicio, en casos de urgencia.

Oneroso: El uso del servicio público de taxi está condicionado al pago previsto en la tarifa obligatoria que establece la autoridad competente, por lo general en función del tiempo y la distancia de recorrido, a cuyo efecto se suele emplear un aparato conocido como taxímetro que realiza la aplicación automática de la tarifa autorizada.

De Régimen Jurídico Exorbitante Del Derecho Privado: El servicio público de taxi está sujeto a un régimen jurídico exorbitante del derecho privado, dados los diversos ordenamientos legales y reglamentarios de derecho público que, en gran medida regulan su prestación.

De Régimen Económico De Oligopolio: El hecho de que el servicio público de taxis sea prestado por numerosos vehículos —en SERVICIOS PÚBLICOS MUNICIPALES las grandes ciudades son decenas de miles— no le quita su carácter oligopólico, por ser una actividad restringida para cuya realización se requiere concesión o permiso, y es moneda corriente en los ordenamientos legales que regulan la prestación de este servicio, limitar el otorgamiento de concesiones o permisos a los necesarios, según las exigencias que dicte el interés público.

Características Especiales del Servicio de Taxi

Según López Rosado (1976) además de reunir los caracteres esenciales de todo servicio público, de generalidad —para uso indiscriminado de toda la población—, uniformidad —trato y tarifa igual para todo usuario—, regularidad —sujeto a un régimen jurídico especial— y continuidad, de acuerdo a un horario específico para cada unidad, que permite al conductor disponer de un lapso de tiempo para tomar alimentos y hacer el cambio de turno, el servicio público de taxi o automóvil de alquiler tiene características especiales que lo distinguen de otros servicios públicos de transporte, entre los que destacan los que comentamos a continuación.

El binomio taxi-conductor: El servicio público de taxi descansa en el binomio taxi- conductor, ya que el alquiler de automóvil sin chofer constituye un servicio distinto al de taxi; el conductor, para serlo, requiere una autorización o licencia especial que exige, entre otros aspectos, tener amplio conocimiento de las colonias, barrios, fraccionamientos y principales puntos de referencia del municipio en que está registrado el taxi a su cargo.

Número de pasajeros: En cuanto al número de pasajeros en el servicio de taxi, éstos pueden ser uno o varios más, en este último caso se trata de un grupo de personas que pretenden hacer el viaje juntos, sin que la tarifa varíe en función del número de pasajeros, dicho de otra manera: abordado el taxi por uno o varios pasajeros que pretenden viajar juntos, el conductor no puede admitir más pasajeros, y la tarifa es la misma para uno o varios pasajeros.

El punto de abordaje: El vehículo de alquiler puede abordarse en el domicilio del usuario, previa solicitud formulada por la vía telefónica al «sitio» o punto de concentración de tales vehículos, o a través del servicio de radio-taxis; o en cualquier punto de la vía pública en que el usuario solicite el servicio a un taxi desocupado.

El itinerario: otra característica del servicio de taxis la carencia de un itinerario fijo, pues éste se determinará de acuerdo al punto de origen y al de destino que señale el usuario, para lo cual se elegirá el más corto o rápido; por lo general, el conductor del taxi puede negar el servicio cuando el punto de destino quede fuera de los límites municipales.

METODOLOGÍA

La presente investigación se realizó en la ciudad de Castaños, Coahuila, México, es con enfoque cualitativo, y su diseño es transversal. Basados en una distribución aproximada de 50-50 de la población masculina y femenina, es decir mitad hombres y mitad mujeres; y de acuerdo con información proporcionada por el Instituto Nacional de Estadísticas Geografía e Informática (INEGI) donde especifica que Castaños, Coahuila cuenta con una cantidad de habitantes de aproximadamente 25892 distribuidos en un 53.40% de hombres y mujeres entre 20 y 34 años y el resto mayores de 35 o menores de 20 años de edad, se diseñó una encuesta en la que se buscó respetar esos parámetros. Con fundamento en dicha información del INEGI acerca de la población de Castaños Coahuila, se estableció un tamaño de muestra para cumplir con lo siguiente:

Error de 5% (e)

Nivel de confianza de 95% (k depende de este nivel)

Nivel de homogeneidad de 50% (p = 0.5= q)

$$n = \frac{k^2 * p * q * N}{(e^2 * (N-1)) + k^2 * p * q} \quad (\text{tamaño de muestra})$$

Lo cual arroja un tamaño de muestra de 379 habitantes. Para la investigación se diseñó una encuesta de 10 reactivos (preguntas) la cual se aplicó de manera estratificada, es decir considerando la mayor parte de los sectores de la población, a 380 habitantes.

Las variables a medir son las siguientes:

Sexo.

Grupo de edad.

Medio de Transporte utilizado.

Frecuencia de uso del servicio de Taxis.

Día de la semana en que recurre al servicio de Taxis con mayor frecuencia.

Hora en la que solicita este servicio con mayor frecuencia.

Motivo por el cual se requiere el servicio.

Ocasión bajo la cual es más difícil conseguir un Taxi.

Lugar de residencia (colonia o sector).

Disponibilidad del servicio para el sector donde reside el cliente.

La encuesta se muestra a continuación:

Universidad Autónoma de Coahuila

Facultad de Contaduría y Administración

Gracias por su colaboración. Con la información que usted nos proporcione podremos evaluar la disponibilidad del servicio de taxis y realizar las mejoras correspondientes.

1.- Sexo: Masculino_____ Femenino_____

2.- Grupo de edad al que pertenece:

16 a 25

25 a 35

36 a 45

46 a 55

56 a 65

66 a 75

76 ó más

3: ¿Qué medio de transporte utiliza con mayor frecuencia?

Autobús Urbano
 Uso mi automóvil
 Taxi

Me Lleva un Familiar o Amigo
 Prefiero caminar
 Otro:

4: Con respecto al taxi ¿Con qué frecuencia utiliza el servicio de taxis?

- a) Nunca_____
- b) Ocasionalmente_____ ¿Cada cuándo?_____
- c) Frecuentemente_____ ¿Cuántas veces a la semana? _____

5: ¿Qué día de la semana solicita con más frecuencia el servicio de taxis?

Lunes Martes Miércoles Jueves Viernes Sábado Domingo

6: ¿A qué hora solicita usted con mayor frecuencia los servicios de taxis? (Indique la hora)

A.M. _____ P.M. _____

7: ¿Cuál es el motivo por el cual usted solicita los servicios de taxis?

Trabajo	Visita al Médico	Lugar de Diversión	Urgencia
Llevar Niños A La Escuela	Asistir A La Escuela	Ir De Compras	Central De Autobuses
Visitar Familiares	Iglesia O Templo	Ir A Otra Ciudad	Otro:

8: ¿Cuándo le es más difícil conseguir un taxi?

Casi Siempre	Cuando Llueve	Cuando Voy al Trabajo
Cuando salgo del trabajo	En la noche	En la madrugada

9: Colonia o sector donde radica: _____

10 : ¿Es difícil que llegue el taxi a la colonia o sector donde reside?

SI _____ NO _____ Algunas veces _____ Casi siempre _____

Muchas gracias por su colaboración

RESULTADOS.

La primera variable a medir es el Sexo de entrevistado, se obtuvieron los resultados que se muestra en la Tabla No. 1 y la Figura No. 1 que se presenta a continuación:

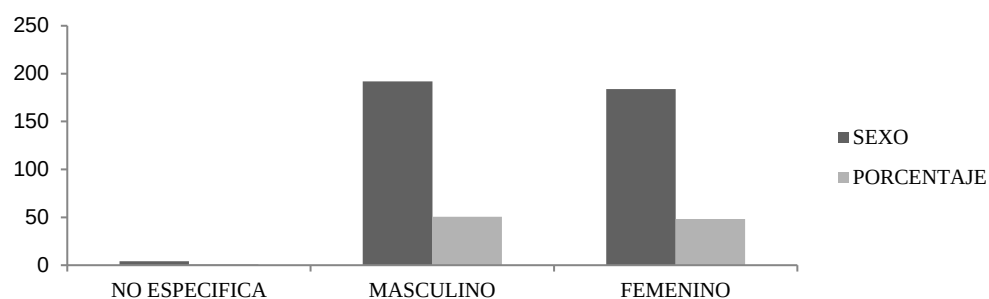
Tabla No. 1: Sexo

	SEX	PORCENTAJE
NO ESPECIFICA	4	1.1
MASCULINO	192	50.5
FEMENINO	184	48.4

En la tabla se muestra que del total de los encuestados el 50.5% de los entrevistados son del sexo masculino, el 48.4% es de sexo femenino y el 1.1% no especifico el sexo.

En la tabla No. 1 se muestra que del total de los 380 encuestados, de los cuales 192 son del sexo masculino que representan un 50.5%, 184 son de sexo femenino y representan el 48.4% es y el 1.1% no especifico el sexo.

Figura No. 1: Sexo



En la presente grafica se muestran que el resultado de la variable sexo, aproximadamente se encuestó una proporción igual de hombres y mujeres.

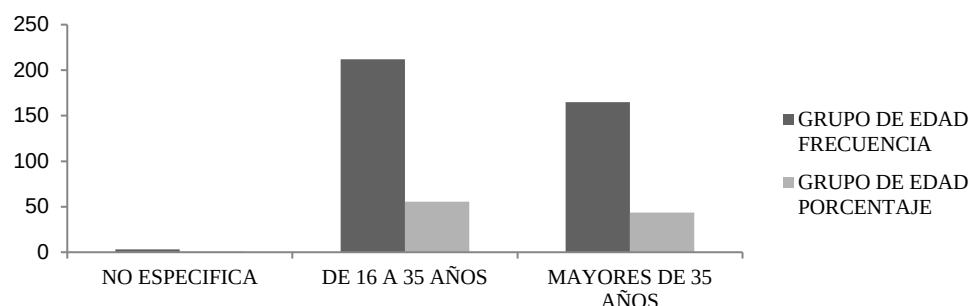
En la gráfica No. 1 obtenida se observan los aspectos comentados con anterioridad, aproximadamente se encuestó una proporción igual de hombres y mujeres. La segunda variable a medir Grupo de edad se obtuvieron los resultados en la Tabla No. 2 que muestra el porcentaje de los encuestados y la Figura No. 2 muestra la gráfica del grupo de edad que se presenta a continuación:

Tabla No. 2: Grupo de Edad

	Grupo de Edad	
	FRECUENCIA	PORCENTAJE
NO ESPECIFICA	3	0.8
DE 16 A 35 AÑOS	212	55.7
MAYORES DE 35 AÑOS	165	43.5

En la tabla se muestra que del total de los encuestados el 55.7% de los entrevistados tienen una edad entre 16 y 35 años, el 43.5% son mayores de 35 años y el 0.8% no especifico la edad.

Figura No. 2: Grupo de Edad



En la presente grafica se muestran el resultado de distribución de edades de los entrevistados con respecto a la variable grupo de edad y se observa que existe una distribución muy variada entre los dos rangos de edad.

La tercera variable a medir, Frecuencia de medio de transporte utilizado, en la Tabla No. 3 y en la figura No. 3 se observan las respuestas obtenidas en esta variable, frecuencia de uso de transporte, se muestran que al especificar el medio de transporte es mayor la proporción de habitantes que usan el autobús como único medio respecto a los que usan el taxi como único medio de transporte, aunque si consideramos el uso del autobús y taxi junto con otros medios es mayor la proporción de habitantes que usan el taxi y otros medios. Hasta este punto es arriesgado especificar si esto indica un uso mayor del taxi respecto del autobús, pero si es posible especular que un mayor uso de la combinación del taxi con autobús y otros medios pudiera indicar una necesidad de contar con una mayor cantidad de taxis en la ciudad.

Tabla No. 3: Frecuencia de Medio de Transporte Utilizado

	Medio de Transporte	
	Frecuencia	Porcentaje
no especifica	2	0.5
solo autobús	61	16
solo taxi	51	13
autobús y taxi	140	37
autobús y otros medios	29	8
taxi y otros medios	43	1
otros medios	9	2
auto propio	45	12

En esta tabla se muestran los resultados obtenidos en la frecuencia de uso medios de transporte, se observa que los medios de transporte más utilizado es el autobús y taxi con una frecuencia de 140 lo que representa el 37%, seguido del uso de solamente autobús con una frecuencia de 61 y un porcentaje de 16%; muy cercano en la siguiente posición el uso solo de taxi con una frecuencia de 51 y un 13 %; el siguiente es el uso de auto propio con una frecuencia de 45 y un porcentaje de 12% y el resto a sus frecuencias y porcentajes poco representativos.

La cuarta variable a medir Frecuencia de uso del servicio de Taxis, las respuestas a esta variable, nos muestran que:

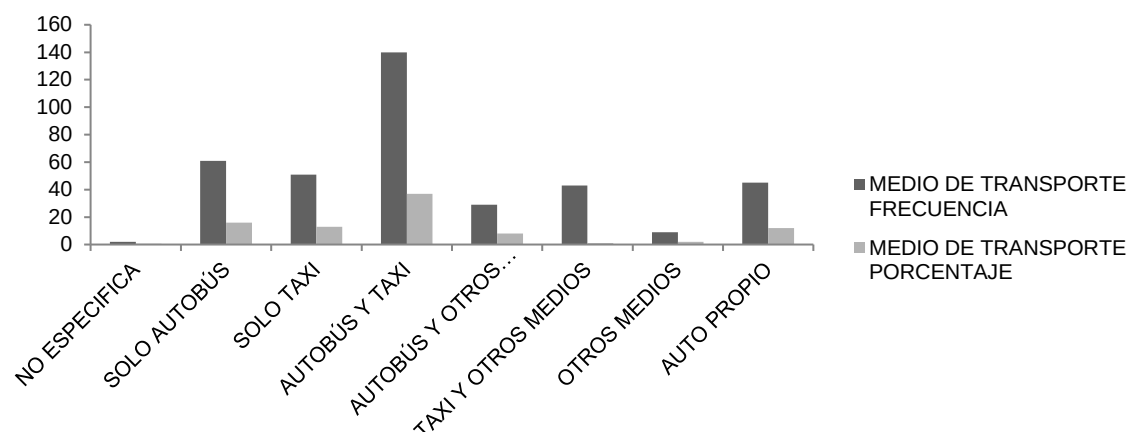
Existe una proporción de habitantes que nunca usan el taxi (13.9%), lo cual pudiera deberse a varias causas como el alto costo de este servicio (así lo indican algunos encuestados), la falta de taxis, como lo comenta una buena proporción de la muestra, el uso de carro propio, la cercanía a donde se dirige o algunas otras causas que no se especifican en la encuesta.

La mayoría de los encuestados usan el taxi una, dos o siete veces por semana y una décima parte solo lo usa de manera ocasional.

La quinta variable a medir Día de la semana en que recurre al servicio de Taxis con mayor frecuencia, su resultado se presenta en la Figura No. 4 y muestra una frecuencia de uso de 175 como probablemente

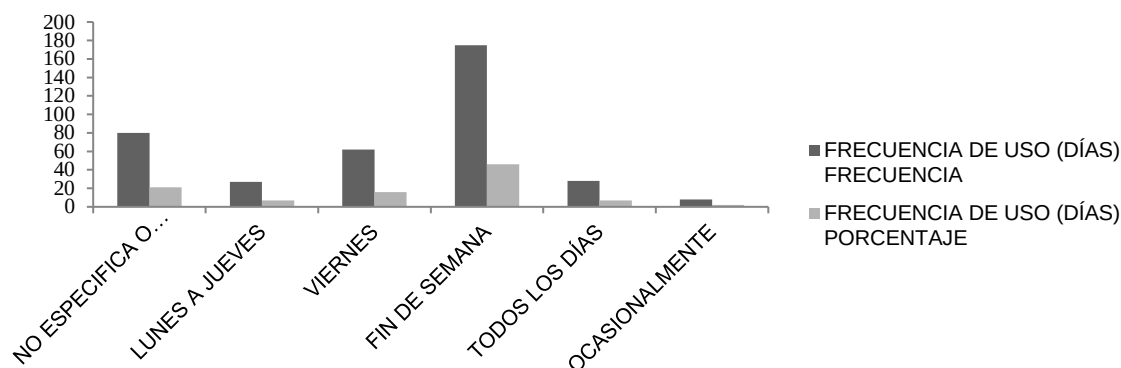
esperaríamos, que los viernes y los fines de semana son un pico de demanda. La cantidad de 80 (no especifica o nunca usa taxi) se explica si tomamos en cuenta que 54 de los encuestados usan su auto propio u otros medios y algunos usan el taxi de manera ocasional, o algunos simplemente no supieron responder con exactitud.

Figura No. 3: Frecuencia de Medio de Transporte Utilizado



En la presente figura se muestran todas las frecuencias de uso de los medios de transporte utilizados en la ciudad de Castaños, Coahuila, observándose que los más utilizados son el autobús y taxi con una frecuencia de uso de 140, seguido de el autobús con 61, continuando con el taxi con 5, el siguiente es el uso de auto propio con una frecuencia de 45 y el resto a sus frecuencias y porcentajes poco representativos.

Figura No. 4: día de la Semana en Que Recurre al Servicio de Taxis Con Mayor Frecuencia



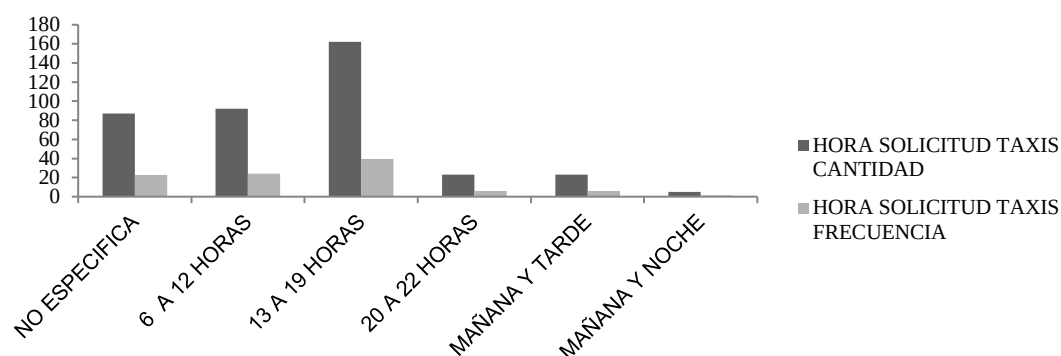
En la presente figura muestra una frecuencia de uso de 175 los fines de semana son un pico de demanda. La cantidad de 80 (no especifica o nunca usa taxi) se explica si tomamos en cuenta que 54 de los encuestados usan su auto propio u otros medios y algunos usan el taxi de manera ocasional, o algunos simplemente no supieron responder con exactitud.

La sexta variable a medir, Horario en que se solicita con mayor frecuencia el servicio de taxis, Figura No. 5 muestra los resultados obtenidos.

En la Figura No. 5 se analiza el resultado del reactivo número 6, variable: hora en que se solicita con mayor frecuencia el servicio de taxis, el resultado obtenido muestra que es de las 13:00 a las 19:00 horas en donde es mayor el uso de taxis; 162 más 23 que lo usan mañana y tarde; en segundo lugar un total de 92 más 23 que lo usan mañana y tarde, de las 6 a las 12 horas y finalmente 23 encuestados usan el taxi de las 20 a las 22 horas. La séptima variable a medir Motivo por el cual se requiere el servicio se presenta en la Figura No. 6 que es el reactivo 7 de la encuesta considerando una variedad de posibles motivos para el uso del servicio de taxi, los resultados indican que la gran cantidad de encuestados usan los taxis

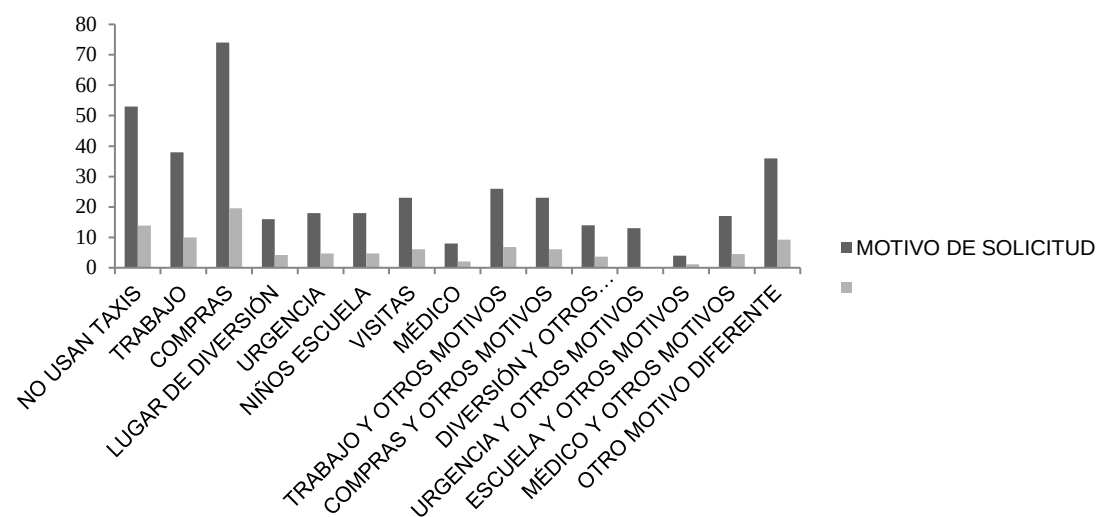
principalmente por pocos motivos: destacan las compras (74 encuestados más 23 que a las compras agregan otros motivos); el trabajo (38 para ir y venir del trabajo más 26 que lo usan para el trabajo y otros motivos); y las visitas a familiares, 23 encuestados. En otro motivo diferente se incluyen: ir a la casa, a otra ciudad, ir al templo, al banco, a recoger la pensión o ir a sentarse a la plaza.

Figura No. 5: Horario Con Mayor Frecuencia de Solicitud de Servicio de Taxi



En esta figura se observa el resultado del horario en que se solicita con mayor frecuencia el servicio de taxis, el cual muestra que entre las 13:00 y 19:00 horas es donde es mayor el uso; 162 más 23 que lo usan mañana y tarde; en segundo lugar un total de 92 más 23 que lo usan mañana y tarde, de las 6:00 a las 12:00 horas y finalmente 23 encuestados usan el taxi de las 20:00 a las 22:00 horas.

Figura No. 6: Motivo por el cual se requiere el servicio

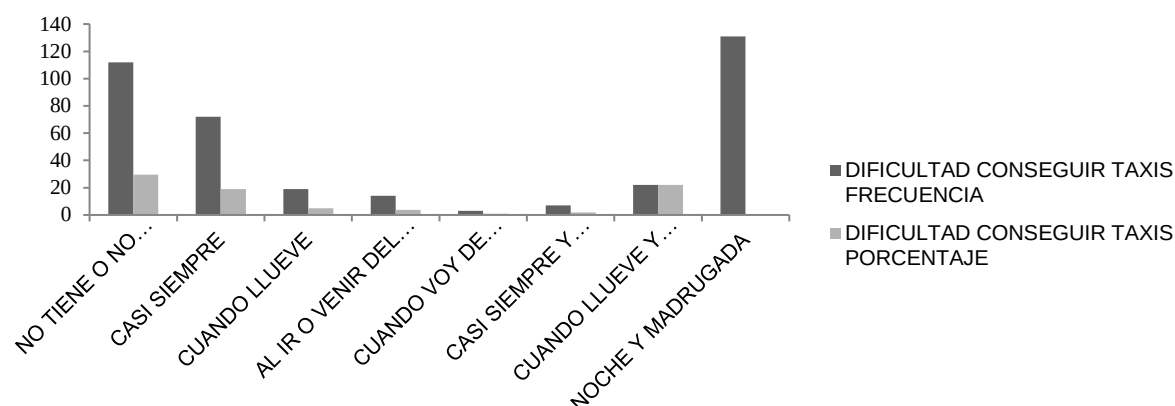


En la figura se muestra los motivos por el cual utilizan el servicio de taxi en la ciudad de Castaño, Coahuila lo que arrojando un resultado que indican que la gran cantidad de encuestados usan los taxis por pocos motivos: destacan las compras con 74 encuestados más 23 que a las compras agregan otros motivos; el trabajo con 38 para ir y venir del trabajo más 26 que lo usan para el trabajo y otros motivos; y las visitas a familiares, 23 encuestados. En otro motivo diferente se incluyen: ir a la casa, a otra ciudad, ir al templo, al banco, a recoger la pensión o ir a sentarse a la plaza.

La octava variable a medir Ocasión bajo la cual es más difícil conseguir un Taxi, se presenta en la Figura No. 7, reactivo número 8 de la encuesta, variable: dificultad para conseguir taxis, al considerar la opción no tiene o no especifica, se incluyen 53 encuestados que nunca usan el taxi, una gran cantidad que seguramente no tiene dificultad y que seguramente lo usa para realizar sus compras y otros más quienes simplemente no especifican. Prácticamente el 21% (18.9 más 1.8%) de los entrevistados menciona que casi siempre tienen dificultad para conseguir taxis y un 5% tiene dificultad de conseguir taxis cuando

llueve, lo cual ocurre prácticamente en todas las ciudades, incluyendo las que no tienen gran necesidad de contar con más taxis. Sin embargo, la mayoría (131 encuestados) especifica que la dificultad de conseguir taxis la tienen en la noche y la madrugada.

Figura No. 7: Ocasión Bajo la Cual es Más Difícil Conseguir un Taxi



En la figura se observa que 131 encuestados especifica que la dificultad de conseguir taxis la tienen en la noche y la madrugada, seguido de la opción no tiene o no especifica, se incluyen 53 encuestados que nunca usan el taxi, una gran cantidad que seguramente no tiene dificultad y que lo usa para realizar sus compras y otros más quienes simplemente no especifican. Prácticamente el 21% (18.9 más 1.8%) de los entrevistados menciona que casi siempre tienen dificultad para conseguir taxis y un 5% tiene dificultad de conseguir taxis cuando llueve.

La novena variable a medir es Lugar de residencia (colonia o sector) representado en la Tabla No. 4 y en el reactivo 9 de la encuesta, los resultados obtenidos fueron los siguientes, en donde se observa la estratificación comentada, el .00 indica que no especificaron lugar de residencia.

La décima variable a medir Disponibilidad del servicio para el sector donde reside el cliente, de la que se muestra su resultado en la Figura No. 8 y es el último reactivo del cuestionario, indica que la mitad de los encuestados opina que no existe dificultad, el 14.7% opina que sí y el resto de los encuestados, después de excluir al 20% que no especifican dificultad debido a que no usan taxis, realizó una serie de comentarios que refuerzan la realidad de la falta de taxis en la ciudad. En particular, descolgar el teléfono indica una imposibilidad de cumplir con las necesidades solicitadas.

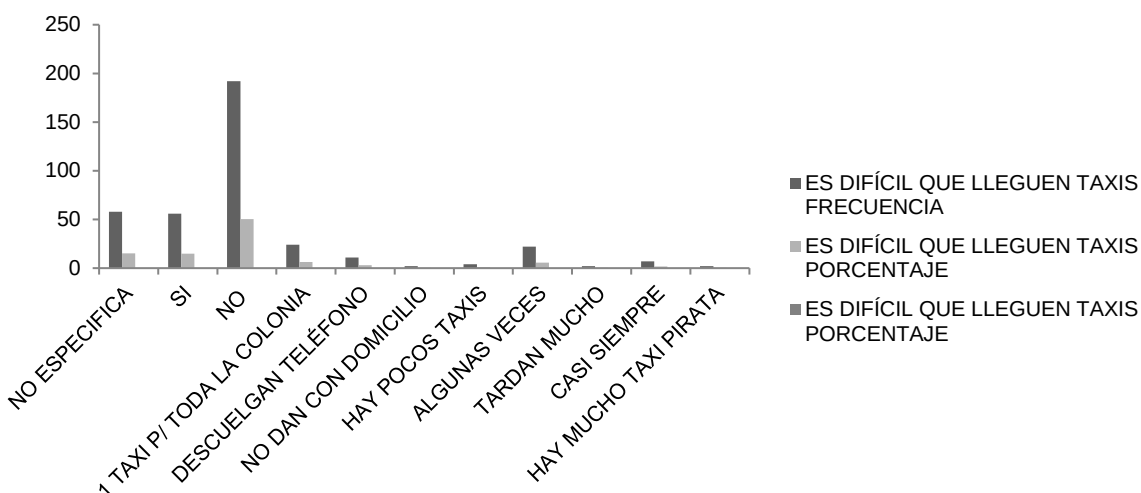
Tabla No. 9: Lugar de Residencia (Colonia O Sector)

		Colonia O Sector Donde Radica			
Válidos		Frecuencia	Porcentaje	Porcentaje Válido	Porcentaje Acumulado
	.00	13	3.4	3.5	3.5
	zapata	30	7.9	8.0	11.4
	libertad	41	10.8	10.9	22.3
	independencia	113	29.7	30.1	52.4

	zona centro sur	49	12.9	13.0	65.4
	california	22	5.8	5.9	71.3
	ejido la joya	1	.3	.3	71.5
	zona centro	25	6.6	6.6	78.2
	villa de guadalupe	11	2.9	2.9	81.1
	santa cecilia	2	.5	.5	81.6
	ejido dolores	2	.5	.5	82.2
	fracc. san José	7	1.8	1.9	84.0
	venustiano carranza	9	2.4	2.4	86.4
	heróes del 47	22	5.8	5.9	92.3
	21 de marzo	12	3.2	3.2	95.5
	los lirios	1	.3	.3	95.7
	barrio	2	.5	.5	96.3
	ovilleros	1	.3	.3	96.5
	francisco muno	2	.5	.5	97.1
	guerrero	1	.3	.3	97.3
	emilio carranza	6	1.6	1.6	98.9
	xicotencatl	1	.3	.3	99.2
	ej. el marquez	1	.3	.3	99.5
	1° de mayo	1	.3	.3	99.7
	soledad	1	.3	.3	100.0
	total	376	98.9	100.0	
Perdidos	sistema	4	1.1		
total		380	100.0		

En esta tabla se presentan la variable: lugar de residencia, los resultados obtenidos fueron los siguientes, de los 380 encuestados 113 radican en la colonia Independencia, seguidos de 49 de la zona Centro sur, 41 de la Libertad, 30 de la Zapata, 25 de la Zona Centro, en la California y Héroes del 47 22 en cada una, el resto queda distribuido en las demás colonias como se aprecia en la tabla, el .00 indica que no especificaron lugar de residencia.

Figura No. 8: Disponibilidad del Servicio Para el Sector Donde Reside



En la figura se muestra la variable: disponibilidad del servicio para el lugar donde reside, nuestra que la mitad de los encuestados opina que no existe dificultad, el 14.7% opina que sí y el resto de los encuestados, después de excluir al 20% que no especifican dificultad debido a que no usan taxis.

CONCLUSIONES

De las encuestas realizadas se desprende que aproximadamente un 41% de la población de Castaños hace uso del servicio de taxi, es decir un total de 10,616 habitantes. Tomando en cuenta que la ciudad actualmente cuenta con 18 taxis, esto representa un taxi para cada 590 habitantes que son al presente usuarios.

Sin embargo, con una población total en Castaños, Coahuila en números cerrados de 26,000 habitantes, el índice de habitantes por taxi es de 1438 personas por cada taxi que da servicio en la ciudad. Este índice es considerablemente elevado si consideramos que en Monclova el índice es de 540 habitantes por taxi.

El índice de habitantes por taxi es una medida casi universal y que obviamente depende del tamaño de la ciudad, las condiciones del transporte, las vialidades, la cultura del uso del taxi, entre otros factores principales.

La encuesta arrojó que el principal uso del taxi en Castaños, Coahuila es para realizar compras. Sin embargo, el transporte al trabajo, a centros de diversión, movimientos hacia el centro de la ciudad y transporte en las noches y madrugadas es demanda que no está siendo cubierta, como lo mostraron los resultados obtenidos a través de las encuestas realizadas. Los resultados obtenidos también arrojaron los siguientes datos:

- a) Un 50.5% de los encuestados considera que no existe disponibilidad del servicio de taxis para su área.
- b) El 6.3% de los encuestados afirman que existe un solo taxi para cubrir las necesidades de una colonia.
- c) El 2.9% de los encuestados mencionan que les descuelgan el teléfono cuando hablan solicitando un taxi lo que indica que:

La Investigación Realizada Demuestra Que Existe la Necesidad de Incrementar la Cantidad de Taxis en la Ciudad de Castaños, Coahuila

Asimismo, del total de usuarios actuales el 19% considera que casi siempre es difícil conseguir un taxi.

De acuerdo con las estadísticas precedentes que refuerzan la afirmación de un faltante de taxis en Castaños, Coahuila con una población de 26,000 habitantes el índice sugerido en los estudios que se han investigado, es de 800 habitantes por taxi, lo cual arroja un total de 32 taxis en total.

Por tanto, existe un déficit de 14 taxis para satisfacer la demanda actual.

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PROTESIS DENTAL BIODEGRADABLE: INVESTIGACION EDUCATIVA

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RESUMEN

La propuesta es un material que pretende reducir la contaminación producida en el área odontológica, su ingrediente principal es el hueso de Persea Americana (Aguacate), producto natural biodegradables, no tóxicos para la elaboración de prótesis dentales, además de ser un producto de bajo costo, en apoyo de la mayoría de la población y grupos vulnerables en México. De acuerdo con el Instituto Mexicano del Seguro Social, el 95% de la población tiene problemas dentales, 9 de cada 10 Mexicanos padecen caries o enfermedad de las encías periodontal, esta situación se atribuye a elevado consumo de alimentos con azúcar refinada, falta de higiene y deficiente cepillado, se estima que en México 70% de menores de 18 años y 5 de cada 10 niños mayores de 3 años presentan enfermedades odontológicas, mientras que 8 de cada 10 adultos mayores de 60 años sólo tienen 10 piezas dentales, por ello, se afirma que las enfermedades dentales son un problema de salud pública al que no se le ha otorgado la importancia debida. (Becerra, 2018).

PALABRAS CLAVES: Prótesis dental de Persea Americana (Aguacate), Prótesis Dental de Precio Bajo, Prótesis Dental Biodegradable

BIODEGRADABLE DENTAL PROSTHESIS EDUCATIONAL RESEARCH

ABSTRACT

The proposes a material that aims to reduce the pollution produced by the dental area by the way the main ingredient is the bone of Persea Americana (Avocado), a biodegradable, non-toxic natural product for the manufacture of dental prostheses, in addition to being a minor price product in support of the majority of the population and vulnerable groups in Mexico. According to the Mexican Institute of Social Security, 95% of the population has dental problems, 9 out of 10 Mexicans suffer from cavities or gum disease, this situation is attributed to high consumption of foods with refined sugar, Lack of hygiene too poor brushing of teeth, its estimated that in Mexico 70% of those under 18 years of age and 5 out of 10 children over three years of age have dental diseases, while 8 out of 10 adults over 60 have only ten teeth, For this reason, its affirmed that dental diseases are a public health problem that has not been given due importance. (Becerra, 2018)

JEL: I21, I23, I29

KEYWORDS: Dental Protheses of the Persea Americana (Avocado), Dental Protheses at a Low Cost, Dental Protheses Biodegradable

INTRODUCCION

El objetivo de esta investigación es realizar pruebas mecánicas básicas de funcionamiento y estudio de mercado que demuestren que el hueso de Persea Americana (Aguacate) puede ser utilizado en la elaboración de prótesis dentales ecológicas, de bajo precio, de acuerdo con el Instituto Mexicano del Seguro Social, el 95% de la población tiene problemas dentales, 9 de cada 10 mexicanos padecen caries o enfermedad de las encías peridontal, esta situación se atribuye a elevado consumo de alimentos con azúcar refinada, falta de higiene y deficiente cepillado, se estima que en México 70% de menores de 18 años y 5 de cada 10 niños mayores de 3 años presentan enfermedades odontológicas, mientras que 8 de cada 10 adultos mayores de 60 años sólo tienen 10 piezas dentales, por ello, se afirma que las enfermedades dentales son un problema de salud pública al que no se le ha otorgado la importancia debida. (Becerra, 2018)

Estudios muestran que 15% de la población presentan sensibilidad al níquel, 8% al cobalto y 8% al cromo, entre otros, la concentración de plata disminuye sensiblemente las actividades celulares, los iones de oro no interactúan con los tejidos de manera que provocan respuestas alérgicas, estudios muestran que los pacientes sensibles al paladio son casi sistemáticamente sensibles al níquel, algunos iones metálicos provocan alergias y otros no, estos datos no son conocidos en su totalidad por las investigaciones.

Pruebas mecánicas básicas realizadas al producto con resultados positivos:

Resistencia
Adherencia
Maleabilidad

Se propone un material para prótesis dentales que pretende reducir la contaminación producida en el área odontológica, con base en un material natural, biodegradables, no tóxicos, además de ser un producto de precio bajo para la mayoría de la población en México,.

Al realizar la investigación se encontró que existen efectos biológicos de los metales utilizados en las prótesis dentales y piezas actuales que afectan la salud del paciente dependiendo de la vía de acceso al organismo, la liberación de elementos en implantes como el titanio, utilizado en restauraciones coronaria, encontrado en el hígado de pacientes portadores de implantes, los elementos liberados en las regiones cervicales, entre la corona y la encía marginal, así como los liberados en las partes internas de las prótesis, son altamente concentrados, porque no son diluidos por la saliva, de manera general el sobrecalentamiento de una aleación conduce a una formación de óxidos, que no son siempre visibles, la saliva, compuesta de aproximadamente 99% de agua, así como de bicarbonato de sodio, cloro, calcio, magnesio y fosfato, tiene un gran poder corrosivo sobre estos óxidos.(Castaño, V.,2019).

El material alternativo para la elaboración de prótesis dentales pretende ayudar al medio ambiente y a las personas de escasos recursos que no tienen el poder adquisitivo suficiente para invertir en su salud bucodental, por lo que generalmente su calidad de vida se ve afectada y disminuida por este tipo de problemas, así como contribuir en la conservación del medio ambiente evitando la generación de desechos contaminantes.

REVISION DE LA LITERATURA

Resinas Acrílicas: Son polímeros a base de polimetacrilato de metilo, son las más usadas en odontología para base de prótesis, aunque no son óptimas, sus malas características se atribuyen al mal uso que de las prótesis hacen los pacientes.

Propiedades deseables para materiales para bases de prótesis

Resistencia y durabilidad adecuadas al uso.
Propiedades térmicas satisfactorias (ni contracción ni expansión muy altas).
Estabilidad dimensional en y fuera de los tejidos. Insolubilidad y baja sorción en fluidos bucales
Ausencia de sabor y olor
Aspecto natural en color y translucidez
Fácil de trabajar y reparar con exactitud

Polimerización: Polimerizan por adición. La activación del peróxido de benzoilo, se puede hacer por medios: Físicos: temperatura (de termocurado) o luz visible (de fotocurado y microondas) Químicos: se emplean aminas terciarias (dimetil para toluidino) y ácidos sulfónicos.

Resinas de Termocurado: Para su polimerización se requieren de temperatura: baño de agua a cierta temperatura.

Usos

Confección de bases de prótesis
Rebasado y reparación de prótesis
Bases y placas de ortodoncia
Dientes artificiales
Mantenedores de espacios

Presentación Comercial: En forma de polvo (polímero) y líquido (monómero) o gel (caso en que se necesita una mufla con hoyo, porque se inyecta el gel).

Composición Química Polvo

Perlillas de polimetacrilato de metilo
Peróxido de benzoilo (iniciador)
Plastificantes, como el ftalato de dibutilo
Pigmentos: óxidos metálicos
Opacadores

Algunas traen fibras orgánicas para imitar capilares.

Composición Química Líquido

Metacrilato de metilo
Inhibidores (dado que este monómero puede polimerizar en forma espontánea por acción del calor, luz y oxígeno) como la hidroquinona permitiendo alargar la vida útil del líquido.

Manipulación: El método más común es mezclar el polímero y el monómero, y dejar que el monómero reaccione físicamente con el polímero en un recipiente cerrado, hasta que se alcance la consistencia adecuada, luego se pone en la mufla o caja de vulcanizar y se calienta. Técnica conocida como técnica de moldeado por compresión.

Preparación Cámara de Moldeo

Envaselinar paredes internas de la mufla

Llenar $\frac{3}{4}$ con yeso taller

Aislar el yeso con vaselina

Pincelar la cera con debubliizer

Poner yeso piedra en la cera Obtener mezcla de resina

Sustancia aislante (alcote): se usa para sellar todas las porosidades que tenga el yeso, para que la resina no se pegue al yeso; además el agua que queda incorporada en el yeso puede contaminar la resina. (Hernández, R. 2012)

Estudio de la composición química, capacidad antioxidante y valor nutritivo de la semilla de aguacate y su posible uso como aditivo alimentario: El aguacate es uno de los productos más exitosos de la exportación agroalimentaria nacional. México es el principal proveedor del mercado internacional con un aporte del 45.95% del valor de las exportaciones mundiales. El aguacate se ha destacado por sus diferentes usos: medicinales utilizando hojas, cáscaras, semillas y corteza, extracción de aceites. La principal forma de utilización del aguacate es el consumo de la fruta en fresco o pulpa procesada. El aceite de aguacate es tan competitivo como el aceite de oliva, por ser rico en grasas no saturadas y vitamina E, por su baja acidez. Si bien, el aguacate tiene una gran lista de propiedades y beneficios, es su semilla donde se encuentran concentrados la mayoría de sus propiedades.

El objetivo de este proyecto es recabar información sobre la semilla de aguacate dado su importancia como subproducto y derivado agroindustrial y obtener datos sobre su composición química proximal, capacidad antioxidante y valor nutritivo y explotar sus propiedades nutricionales y antioxidantes para ofertarlo como aditivo en la industria alimentaria. Se procedió a la selección del hueso, pelado y rayado. Se extruyó la fruta y se desecó a 105°C en estufa obteniéndose una humedad final de 51.5%, se determinó cenizas a una temperatura de 500 a 600°C obteniendo un 2.35% y se determinó fibra con un valor final de 3.2%. Se extrajo el aceite del hueso o semilla y se corrió un perfil de ácidos grasos por cromatografía de gases. Se ha demostrado que el hueso de aguacate contiene una cantidad significativa de fibra y un patrón saludable como la misma pulpa, lo que lo hace atractivo para su uso como aditivo alimentario. Además, que se explotaría este subproducto dándole un valor agregado y radicando su importancia en lo que puede ofrecerle como beneficio al ser humano. (Almeida, E., 2007)

Prótesis dental en el paciente anciano: aspectos relevantes la prótesis dental es mucho más que una simple reposicionadora de los elementos dentales, es una integradora familiar social, mantiene la salud general y eleva la expectativa de vida, por proporcionar condiciones al anciano de formar el bolo alimenticio de forma adecuada, impidiendo que disminuya la consistencia alimenticia y esto lleve a un déficit proteico. El factor más crítico en la parte operativa de la prótesis para ancianos, es la higienización y la mantención de las prótesis. Se debe destacar la importancia de la higienización y motivarlos para evitar una dieta cariogénica substituyendo los bizcochos, dulces y tortas, por verduras, carnes magras y frutas, con el fin de adecuar su sistema masticatorio para la rehabilitación parcial o total. Por tanto, debe haber una integración del equipo odontológico con los médicos, familiares y personal auxiliar. (Miquel, J. 2016)

El profesional debe informar al paciente sobre la necesidad de controles periódicos, de preferencia cada seis meses, así como de la necesidad de rebasado de la prótesis en algunos casos, actualmente existen medios para rehabilitar pacientes ancianos con cualquier posibilidad disponible de tratamiento protésico, por lo tanto, compete al cirujano dentista discutir juntamente con el paciente la mejor alternativa de tratamiento para cada caso específico y elegir la opción más adecuada a la capacidad de higienización del paciente. (Vincent, A., 2015)

METODOLÓGIA

El estudio se caracteriza por ser descriptivo, experimental y analítico, se realiza la investigación en el Instituto Tecnológico de Aguascalientes, por alumnas de la carrera de Ingeniería en Gestión Empresarial,

en el periodo Agosto-Diciembre de 2020, apoyado con la asesoría de un laboratorio dental local y un plan de negocios donde se desarrollan áreas como:

- Descripción General del Negocio
- La Organización
- Mercadotecnia
- Producción y Servicios
- Finanzas
- Marco Legal de la Organización
- Estudio de impacto Ambiental
- Estudio de impacto Social

Pruebas mecánicas básicas realizadas al product en el laboratorio dental:

Resistencia: Se realiza una prueba con líquidos penetrantes observando que estos no traspasan la superficie de la placa, se aplicó el líquido revelador, así como luz con rayos uv, se observó una transferencia mínima del líquido con el material de hueso de Persea Americana (Aguacate) concluyendo que esta prueba arroja resultados positivos, dentro de otras de las pruebas realizadas se llegamos a la deducción de que una placa realizada con estos polímeros cuenta con la misma resistencia que una normal.

El resultado de la mezcla del polímero del hueso de aguacate con los elementos utilizados se expuso ante una prueba de resistencia que consistió en aplicar 100 kg x cm² , al material ya que se estima que la capacidad de la mordida humana va de los 10 kg x cm² a los 77 kg x cm².

Adherencia: Con la combinación de los elementos necesarios para realizar esta placa obtuvimos resultados positivos ya que al cocer los materiales, reaccionaron favorablemente, ya que no se condensaron, separaron y con el tiempo cobro el estado sólido y necesario dando una consistencia homogénea que se necesita para la fabricación del producto.

Maleabilidad: Con las pruebas realizadas llegamos a la conclusión que el material de hueso de Persea Americana (Aguacate), es fácil de trabajar ejerciendo la tensión correcta sin sobrepasar esta para evitar cuartear el mismo, ya que al momento de manipularlo tomara la forma predeterminada que se le ha dado en el molde y vaciado del yeso para pasar al prensado del materiales y obtener el producto final.

El precio de costo de una placa dental es muy económico con el material propuesto, tomando en cuenta los gastos de venta, administración financieros e impuestos, con una utilidad del 50%, su precio de venta propuesto es un 74% menor que el precio de sus competidores en el mercado, haciendo un comparativo con uno de los materiales más usados en las prótesis dentales como la Porcelana, que tiene un precio mínimo de \$10,000.00 pesos o mas, según su calidad, sin dejar a un lado el impacto de la mezcla Dents'ani en el medio ambiente por ser un producto natural que apoyaría la odontología ecológica, evitando la generación de desechos tóxicos.

Para la obtención de la materia prima, hueso de Persea Americana (Aguacate), se realizaran convenios con empresas alimenticias que utilizan este producto, parte de la investigación de mercado tendrá el objetivo de realizar un padrón de consultorios, clínicas dentales y especializadas en la ciudad Aguascalientes y sus municipios, sobre todo aquellas que atienden a personas de bajos recursos económicos y grupos vulnerables, buscando ampliar el mercado a mediano plazo al sector de Seguridad Social (Salud Publica).

RESULTADOS

Los resultados obtenidos en las pruebas mecánicas realizadas en el laboratorio dental de Resistencia, Adherencia y Maleabilidad, se encontró que el uso del producto de hueso de Persea Americana (Aguacate), es una alternativa viable para la elaboración de prótesis dentales.

Dichas pruebas forman parte del estudio preliminar mecánico según Fuentes. E. (2017), Para emplear con éxito un material hay que fijarse en la situación en la que este se ubica y en la técnica de manipulación, las pruebas de laboratorio como resistencia y adherencia que evalúan los materiales son a veces simuladas, porque reproducen lo que puede pasar dentro de la boca durante un tiempo.

En la investigación de mercado se encontró una grado de aceptación del producto y su precio de un 92% de las 200 encuestas aplicadas que forman parte del estudio, la población encuestada, menciona como muy importante el material utilizado y sus beneficio al medio ambiente entre otras respuestas.

Es alentador el desarrollo el proyecto en las fases recorridas, las pruebas mecánicas realizadas al prototipo y sus resultados, el apoyo brindado por el laboratorio dental en el que se trabajo la investigación y los elementos encontrados en el camino, motivan a continuar desarrollando una alternativa odontológica amigable con el medio ambiente.

La investigación de mercado en la posible comercialización del producto, así como la definición del precio, su mercado real dirigido a personas adultas como primera opción y su mercado potencial en jóvenes y niños, permiten tener un panorama muy favorecedor tanto en el ámbito de salud personal como en su impacto social.

CONCLUSIONES

Como se a visto a lo largo del desarrollo de la investigación la innovación en el material utilizado en la elaboración de las prótesis dentales tiene varias áreas de oportunidad importantes, una de ellas en el impacto social donde se encontró que solo en México, el 42% del total de la población es de bajos recursos, que la adquisición de prótesis dentales es un lujo para muchos de estos grupos sociales y grupos vulnerables, que la misma brinda oportunidades de salud en áreas cardiaca, alimentación, autoestima, socialización, etc., formando parte de la salud integral de cualquier ser humano.

Otra áreas importante es el material biodegradable con el que se realiza, generando un polímero natural ecológico con un tiempo de degradación en el medio ambiente por mucho menor a los materiales plásticos o cerámicos utilizados en la actualidad, sin hacer mención que su materia prima es un desecho subutilizado de la industria alimenticia, contando por este hecho con un valor de costo muy reducido, es así que se afirma que el hueso de Persea Americana (Aguacate) puede ser una alternativa ecológicas y de bajo precio, en la elaboración de prótesis dentales.

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ADOPCIÓN DE CLOUD COMPUTING COMO HERRAMIENTA DE RESPALDO DE TRABAJO E INFORMACIÓN EN LOS DESPACHOS CONTABLES DE LA CIUDAD DE TECOMÁN, COLIMA

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RESUMEN

La presente investigación tiene como propósito conocer y evaluar qué impacto tiene la adopción de cómputo en la nube (cloud computing) en relación con la seguridad de la información y el uso de herramientas de ofimática básicas en la nube. Se plantea el problema identificado, así mismo se establece las preguntas de investigación, el objeto de estudio, el objetivo general y objetivos específicos. El objetivo es una propuesta para el uso del cloud computing como medida de seguridad de la información y mejora de trabajos en línea que llevaría a una mejora y oportunidad a los despachos contables de la ciudad de Tecomán, Colima. Además, se empleó una metodología de tipo puro, deductiva, exploratoria, descriptiva, de campo, no experimental, y con un enfoque de análisis de datos cuantitativo. Se obtuvieron resultados que permiten definir y orientar estrategias encaminadas a su implementación.

PALABRAS CLAVE: Información, Cloud Computing, Respaldo, Seguridad.

ADOPTION OF CLOUD COMPUTING AS A TOOL TO SUPPORT WORK AND FINANCIAL INFORMATION IN THE ACCOUNTING OFFICES OF THE CITY OF TECOMÁN, COLIMA

ABSTRACT

The purpose of this research is to know and evaluate what impact the adoption of cloud computing has in relation to information security and the use of basic office automation tools in the cloud. The identified problem is raised, as well as the research questions, the object of study, the general objective and specific objectives are established. The objective is a proposal for the use of cloud computing as an information security measure and improvement of online work that would lead to an improvement and opportunity to the accounting firms of the city of Tecomán, Colima. In addition, a pure, deductive, exploratory, descriptive, field, non-experimental methodology was used, and with a quantitative data analysis approach. Results were obtained that allow defining and guiding strategies aimed at its implementation.

JEL: M15, 032, D02

KEYWORD: Información, Cloud Computing, Information Backup, Information Security.

INTRODUCCIÓN

El uso de la computación en la nube sigue siendo un gran reto para las organizaciones de la ciudad de Tecomán, Colima. Sin embargo, existe un gran campo de oportunidad al optar por los servicios que ofrece la computación nube, tanto de almacenamiento, así como herramientas de trabajo online. Algunos de los servicios más conocidos que se ofrecen con la computación en la nube están aquellos que proporcionan almacenamiento gratuito para mantener su información respaldada, además, existen diferentes paquetes que ofrecen mayor capacidad de almacenamiento y herramientas que la mayoría de ellas son totalmente gratuitas. Existe una falta de concientización y conocimiento al momento de mantener segura la información, cada vez las formas de tener segura la información son más diversas, pero la falta de iniciativa o desconocimiento provoca un problema mayor en los despachos contables de la ciudad de Tecomán. Además, existen herramientas que facilitan el trabajo multiusuario y mejoran la seguridad de los archivos. Debido a estas problemáticas, las empresas se ven obligadas a comprar diversos productos informáticos como pueden ser discos duros externos, memorias, USB, entre otros y que muchas de las veces no ofrecen la garantía de mantener seguros sus archivos, o bien que no satisfacen las expectativas realizando un gasto más para la empresa. Desde hace muchos años la información de los despachos contables ha sido una parte muy importante dentro de los mismos, además, toda esa información se ha mantenido en los equipos de cómputo, donde se aplican ciertas políticas de seguridad para poder mantener la información integra. Actualmente en los despachos contables de la ciudad de Tecomán existe un problema en cuanto a la seguridad de la información, dicha problemática conlleva muchas de las veces a la pérdida de la información de manera permanente, ya sea por apagones, daños en el disco duro, robo del equipo de cómputo, o simplemente errores humanos. En la mayoría de los despachos contables no se cuenta con un sistema eficiente de respaldo de información y manejo de herramientas en la nube para archivos de ofimática, esto representa un riesgo para la información más sensible, debido a que pocas empresas cuentan con sistemas completos para hacer este tipo de tareas.

La gestión de la información de dichas empresas se podrá mantener con un 100% de disponibilidad e integridad, pero se puede lograr aplicar políticas que brinden mayor seguridad hacia la información para no perjudicar a una empresa si esa información se pierde. Es por ello, que la adopción de algunos servicios de la computación en la nube se llevarían a cabo respaldos de forma automática sincronizando equipo de cómputo y la nube, la información a respaldar serán archivos importantes de empresas realizadas en software contable, y el uso de herramientas de ofimática jugará un papel importante para el uso de documentos, cabe destacar la forma de poder utilizar la información en la nube sin conexión a internet para cubrir la disponibilidad del servicio. Son claras las ventajas que ofrecen este tipo de servicios, pero es necesario que se haga conciencia sobre las bondades que tiene la computación en la nube y el uso de todas sus herramientas para beneficio dentro de los despachos contables.

REVISIÓN DE LITERATURA

Desde los años setenta las Tecnologías de la Información (TI) han ido evolucionando por fases en lo que respecta el almacenamiento, la codificación y la recuperación de la información. Las tecnologías de información (TI) ocupan una parte importante en las empresas, así como las diferentes áreas que existen, siempre buscando ventajas competitivas mediante los sistemas de información (SI) y la innovación. (Gargallo-Suárez, 2013) Existen varias áreas del conocimiento respecto a Las Tecnologías de Información, como lo puede ser el Big Data, la IA (Inteligencia Artificial), IoT (Internet de las cosas) y principalmente el tema que se va a abordar el cloud computing (Computación en la nube). Joyanes (2012) define al “cloud computing” como un sistema de computación distribuido orientado al consumidor, que consiste en una colección de ordenadores virtualizados e interconectados que son suministrados dinámicamente y presentados como uno o más recursos computacionales unificados, conforme al acuerdo del nivel del servicio negociado entre el proveedor de servicios y el consumidor. Por otra parte, según el Instituto Nacional de Normas y Tecnología (NIST: National Institute of Standards and Technology), la computación en la nube es un modelo que permite, convenientemente, el acceso bajo demanda a redes ubicuas para

compartir un conjunto configurable de recursos de computación (por ejemplo, redes, servidores, almacenamiento, 6 aplicaciones y servicios) que se pueden proveer y liberar rápidamente con un mínimo esfuerzo de administración o interacción del proveedor del servicio (Primorac, 2014).

La definición del NIST será tomada como referencia en el presente trabajo de investigación, en vista de que se adapta a las necesidades que ocurren. Tomando en cuenta dos puntos importantes, lo cual es el uso de aplicaciones en la nube y el almacenamiento como seguridad. En los últimos 5 años la computación en la nube ha ido cambiando la forma en que los negocios manejan su información, y muchos de ellos han migrado a respaldar toda su información en la nube. En la actualidad existen casos donde han ocurrido situaciones de pérdida de grandes volúmenes de información y muchas empresas intentan evitar que los mismos sucesos ocurran de nuevo. Es por eso que han optado por realizar un cambio, sin embargo, siguen existiendo casos donde empresas guardan su información de maneras poco seguras, lo cual ocasiona que al momento de ocurrir un suceso suele ser imposible de recuperar. En la actualidad dos cosas son innegables. La primera que se está en el tiempo justo para el desarrollo de la tecnología de la información; y la segunda, que la computación en la nube o Cloud computing es una pieza fundamental para ello (Dongee, 2019). De igual manera los avances tecnológicos que existen hoy en día dependen del cómputo en la nube.

METODOLOGÍA

El alcance definido en la presente investigación es descriptivo debido a que se estudiara la concientización de las personas y hacer quedar claro que tan importante es mantener segura su información. Por lo que, la finalidad de la investigación es conocer la percepción y disposición al uso de servicios de la computación en la nube orientados al resguardo de la información y como se puede mejorar las formas de trabajo según las nuevas tendencias en lo que respecta al ámbito empresarial. Por lo planteado en el objeto de estudio, el problema se basa en la falta políticas de seguridad de la información y las formas de trabajo tradicionales, por lo cual, se proponen la utilización del cloud computing para mejorar la seguridad de la información y optar por utilizar herramientas de ofimática que permitan mejorar el manejo de los documentos para que no existan perdidas de información. El presente trabajo de investigación es de tipo puro, es de enfoque deductivo, se considera de tipo exploratoria, descriptiva, de campo, no experimental, y se llevará a cabo con un enfoque de análisis de datos cuantitativo. El estudio busca mantener nuevo conocimiento de las tendencias y oportunidades que trae el uso del cloud computing en los despachos contables de la ciudad de Tecmán. Para ello, se realizará encuestas a los despachos contables ubicados en la ciudad de Tecmán, es por ello que es de tipo exploratoria. La investigación descriptiva es una forma de estudio para saber quién, donde, cuando, cómo y porqué del sujeto de estudio. La presente investigación busca tratar con el objeto de estudio resolviendo las preguntas basadas en lo que ocasiona el problema en los despachos contables, es por ello por lo que la investigación es de tipo descriptiva.

Población y Muestra

La población con la que se realizó la investigación fueron contadores del sector de servicios de contabilidad, auditoría y servicios relacionados de la ciudad de Tecmán. Además, se tomó como referencia la forma de trabajo de los despachos para observar las oportunidades que se pueden aprovechar con el uso de las tecnologías de la información. El total de los despachos a encuestar es N=24 de los cuales se tomó como muestra 23 despachos del total. Para seleccionar la muestra en el presente trabajo de investigación se utilizó el tipo de muestreo por conveniencia, debido a que se busca la disponibilidad y la facilidad de acceso a los despachos para realizar dicho estudio.

Cálculo de la Muestra

$$n = N * Z^2 * p * q / d^2 * (N - 1) + Z^2 * p * q$$

En donde, N = tamaño de la población Z = nivel de confianza, P = probabilidad de éxito, o proporción esperada Q = probabilidad de fracaso D = precisión (Error máximo admisible en términos de proporción). Sustituyendo la fórmula:

$$n=24 * 1.962 * 0.50 * 0.50 / 0.052*(24-1) + 1.962* 0.50 * 0.50$$

$$n=24 * 3.84 * 0.50 * 0.50 / 0.0025 *(23) + 3.84 * 0.50 * 0.50$$

$$n= 92.16 * 0.25 / 0.0575 + 3.84 * 0.25$$

$$n= 23.04 / 0.057 + 0.96$$

$$n=23.04 / 1.01 \quad n=23$$

RESULTADOS

En la Figura 1 se observa que los procesos de respaldos de información son considerados muy importantes en los despachos contables por lo que el resultado de los encuestados resulto ser positivo a las expectativas planteadas.

Figura 1: Importancia del Respaldo de Informació



Fuente: Elaboración propia

En la Figura 2 se muestra que el mayor porcentaje realiza con frecuencia respaldo, sin embargo, en los casos que se realizan respaldos 1 vez al mes a mas, corren el riesgo de perder información de los días a que lleve el mes a realizar el respaldo en caso de algún incidente.

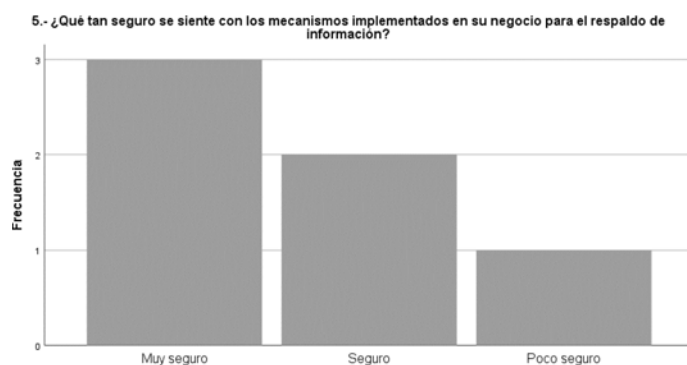
Figura 2: Frecuencia de los Respaldos



Fuente: Elaboración propia

En la Figura 3 se muestra un porcentaje intermedio en las personas que se sienten muy seguros con las formas de respaldos que tienen implementados.

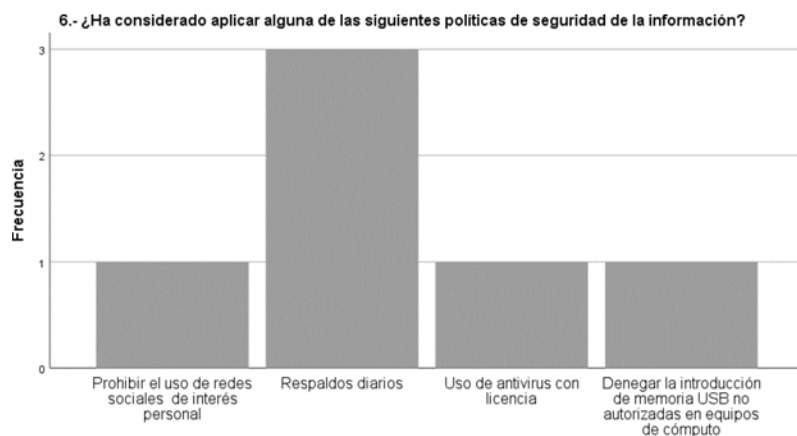
Figura 3: Porcentaje Intermedio en las Personas Que Se Sienten Muy Seguros con las Formas De Respaldos Que Tienen Implementados



Fuente: Elaboración propia

En la Figura 4 se muestra diferentes opiniones con respecto a las políticas de seguridad, dicho esto las políticas de respaldos diarios son de los despacho que realizan respaldos cada quincena o más días, que es lo más aceptable para ellos.

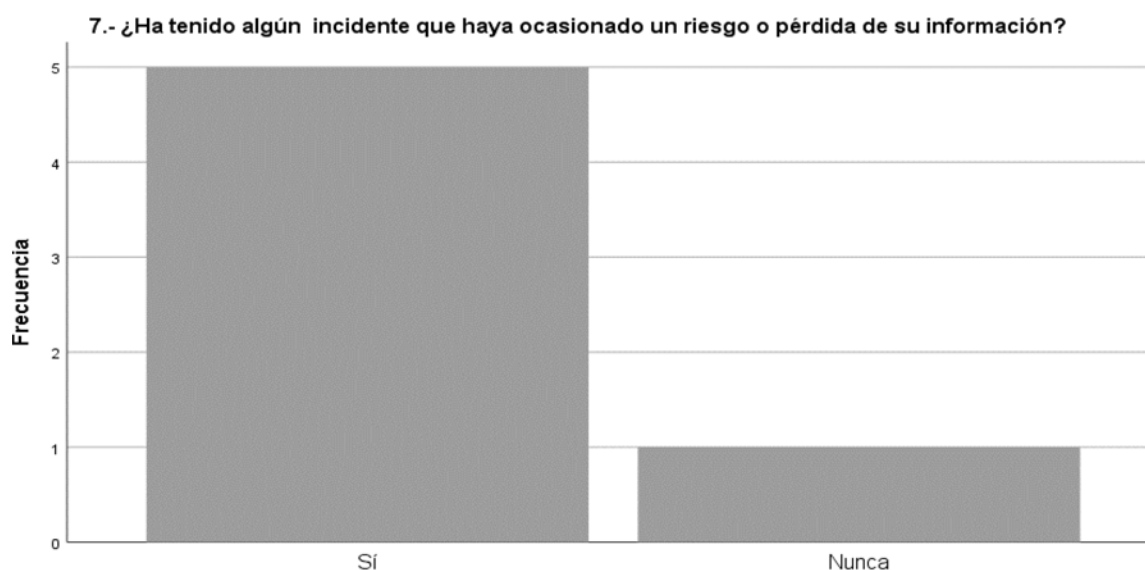
Figura 4: Políticas de Seguridad de la Información



Fuente: Elaboración propia

En la Figura 5 se muestra una frecuencia de incidentes o pérdidas de información ocurridos, cabe destacar que el aplicar ciertas medidas puede minimizar que ocurran esos incidentes.

Figura 5: Incidente Que Haya Ocasionado Riego o Pérdida de Información

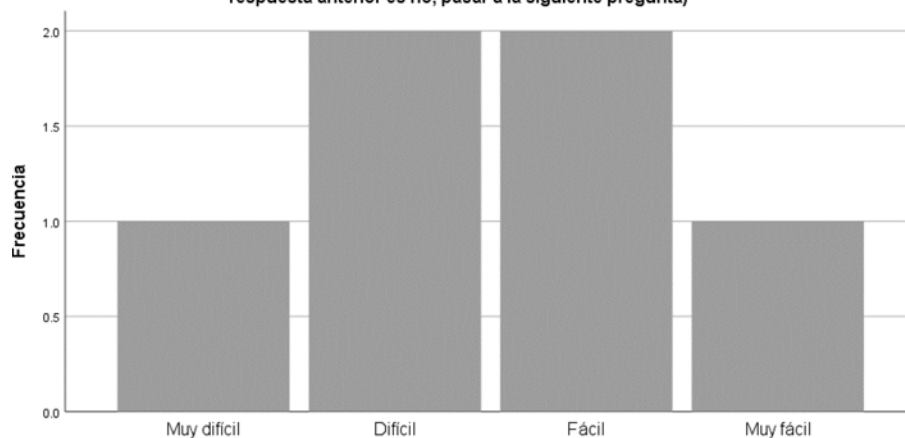


Fuente: Elaboración propia

En la Figura 6 se muestra que el porcentaje bajo le ha sido muy complicado la recuperación de la información, aunque la información sea de fácil recuperación, nada asegura que puede volverse un riesgo la pérdida la información.

Figura 6: Nivel de Dificultad al Intentar Recuperar la Información

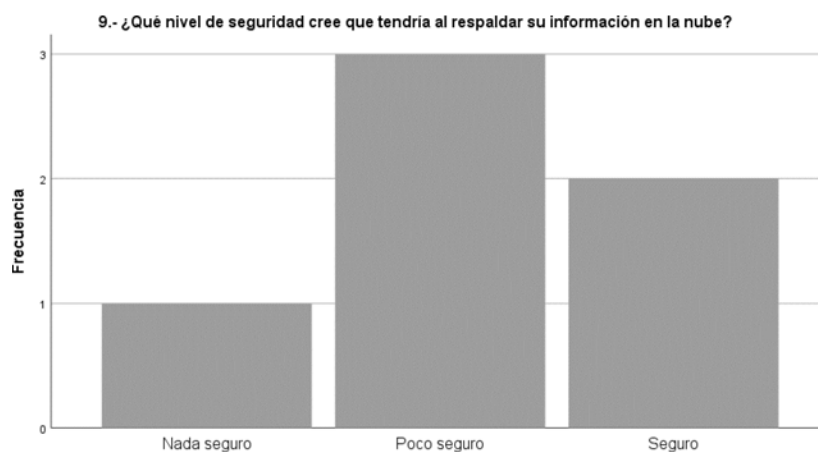
8.- En caso de algún incidente ¿Cuál fue el nivel de dificultad al intentar recuperar la información? (Si en la respuesta anterior es no, pasar a la siguiente pregunta)



Fuente: Elaboración propia

En la Figura 7 se muestra que pocas personas confían en la nube por lo que se tendría que conocer más las ventajas que la computación en la nube trae.

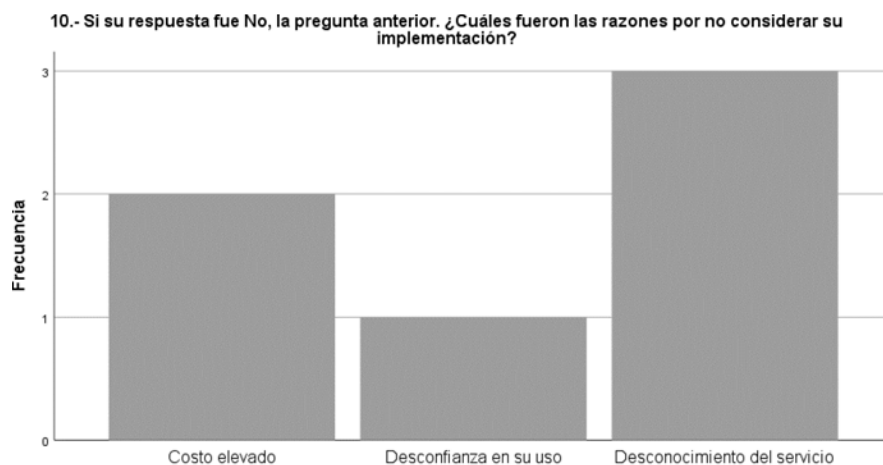
Figura 7: Respaldo en la Nube



Fuente: Elaboración propia

En la Figura 8 se muestra que existe un desconocimiento del servicio por lo cual no lo implementan, a su vez existe la desconfianza de su uso en un porcentaje bajo y se cree que tiene un costo elevado.

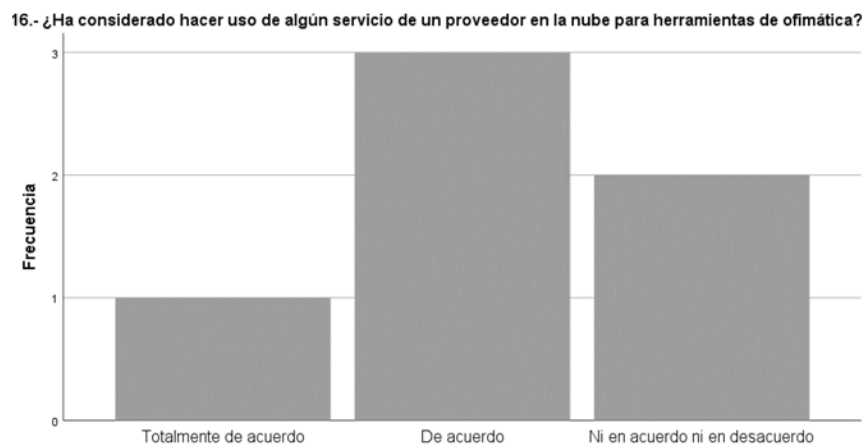
Figura 8: Razones por no Implementación



Fuente: Elaboración propia

En la Figura 9 se muestra que el mayor porcentaje le gustaría hacer uso de la ofimática en la nube.

Figura 9: Use de Proveedor en la Nube



Elaboración propia

CONCLUSIONES

Se cumple el objetivo planteado en la presente investigación, se identifica la necesidad de requerir algún servicio que brinde seguridad a la información importante que los despachos contables pueden tener. Se logró determinar el uso de respaldos información que se manejan, teniendo en cuenta el interés por el uso del cloud computing para el mejoramiento de seguridad en la información. Así como determinar el uso de herramientas de ofimática, proponiendo el uso de la nube como mejora para el trabajo de documentos en grupo, sin embargo, fue más favorable como uso de respaldos de información. Se acepta el uso del cloud computing como mejora de seguridad de la información, la forma en la que en 95% de los despachos contables no se hace uso del cloud computing recae al desconocimiento que existe hacia los servicios. Teniendo presente lo anterior, se logra tener en cuenta lo que implica la aplicación de la computación en la nube en los despachos contables de la ciudad de Tecomán, Colima. Se sugiere tener en cuenta la cantidad de información con la que cuenta la empresa y la velocidad de internet para saber cuál será el tiempo para respaldar.

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DESARROLLO DE UN MECANISMO PARA LA IDENTIFICACIÓN DEL ACOSO LABORAL MEDIANTE LA APLICACIÓN DE LA MINERÍA DE OPINIONES A TRAVÉS DE LA HERRAMIENTA RAPIDMINER

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RESUMEN

El mobbing o acoso laboral ha sido un problema que ha existido persistentemente en las sociedades a nivel mundial, a raíz de esto en México se ha creado la NOM 035-stps-2018 para que las empresas tomen en consideración un referente para los factores de riesgo psicosocial en el trabajo: identificación, análisis y prevención. Una de las obligaciones de cada patrón es el establecer un mecanismo para detectar quejas por prácticas opuestas al entorno organizacional favorable por lo que en la presente investigación, se establece la aplicación de técnicas de minería de opiniones o análisis de sentimientos para desarrollar un mecanismo para detectar quejas por acoso laboral, aplicándolo en una empresa de Orizaba, proporcionando un panorama de cuáles son las quejas y sugerencias desde la percepción de los trabajadores encuestados en materia de relación laboral.

PALABRAS CLAVE: Mobbing, Acoso Laboral, Minería de Opiniones, Análisis de Sentimientos.

DEVELOPMENT OF A MECHANISM FOR THE IDENTIFICATION OF WORK HARASSMENT THROUGH THE APPLICATION OF OPINION MINING WITH THE RAPIDMINER TOOL

ABSTRACT

Mobbing or workplace harassment has been a problem that has persistently existed in societies worldwide, as a result of this, in Mexico NOM 035-stps-2018 has been created so that companies take into consideration a benchmark for risk factors psychosocial at work: identification, analysis and prevention. One of the obligations of each employer is to establish a mechanism to detect complaints for practices opposed to the favorable organizational environment, so in this investigation, the application of opinion mining or sentiment analysis techniques is established to develop a mechanism to detect complaints of mobbing, applying it in an Orizaba company, providing a outlook of what are the complaints and suggestions from the perception of the surveyed workers regarding labor relations.

JET: C83 C88 C89 J5 J52 J6 J630 J7 J70 J71 J78 J79 J80 J810 J82 J83 J88 J89 E24 K31

KEYWORDS: Mobbing, Workplace Harassment, Opinion Mining, Sentiment Analysis

INTRODUCCIÓN

Según estudios registrados por la Organización Internacional del Trabajo (OIT) en 1998, los trabajadores y empleadores reconocen que las agresiones psicológicas son formas de violencia grave. La violencia psicológica incluye el hostigamiento y la intimidación psicológica colectivas, manifestándose en muchos centros de trabajo siendo un problema importante laboralmente y socialmente. Los costos de violencia son elevados, y es complejo calcular. En Australia, los costos van de 6,000 a 13,000 millones de dólares de este país. En la Unión Europea, existe relación entre faltas por enfermedad y violencia al trabajador (Organización Internacional del Trabajo, 2006).

Workplace Bullying Institute analizó en 2017 que, aunque siendo E.U.A. uno de los países del continente americano que ofrece mayores oportunidades de empleo a locales y extranjeros, estos padecen de acoso psicológico laboral teniendo claros efectos nocivos sobre la salud de los trabajadores y que, en general, las consecuencias de este riesgo psicosocial son amplias, por lo que a nivel individual, las víctimas presentan una gran cantidad de síntomas de estrés, así como enfermedades físicas y baja satisfacción laboral. De acuerdo con las estadísticas arrojadas por el análisis del Workplace Bullying Institute, se estima que el 61% de los acosadores son jefes, el 33% de perpetradores son compañeros de mismo rango y el 6% de perpetradores eran menores rangos que intimidaban a individuos con un rango más alto. Los hombres prefieren atacar a las mujeres (65%), pero muchos hombres atacan a otros hombres (35%); por el otro lado, el 33% de las mujeres acosadoras lo hacen a otras mujeres. Para terminar el acoso laboral, el 65% de las víctimas terminan dejando su trabajo. Al contrario de lo que se puede pensar el no hacer algo al respecto no solo no es un acto de neutralidad, sino que se considera como un acto de complicidad con el acosador. Tristemente, en el 26% de los casos de acoso laboral o mobbing, las empresas no dan la importancia necesaria y se mantienen en neutralidad (Workplace Bullying Institute, 2017).

Es por estos problemas que en México se han realizado acciones por parte del gobierno creando las Normas Oficiales Mexicanas (NOM) que se emiten por la Secretaría del Trabajo y Previsión Social (STPS) que determinan las condiciones mínimas necesarias en seguridad, salud y medio ambiente de trabajo, para prevenir enfermedades y accidentes laborales. Además, la STPS declaró que 26.6% de las mujeres que han trabajado o trabajan sufren o sufrieron algún acto violento laboralmente y es muy importante identificar el acoso (Secretaría del Trabajo y Previsión Social, 2020). Según datos del Instituto Mexicano del Seguro Social (IMSS) el 75% de trabajadores tiene fatiga por estrés laboral, más que en China y Estados Unidos y una de sus causas es la violencia (Instituto Mexicano del Seguro Social, 2020).

Con respecto a una encuesta realizada por OCCMundial, sitio web referente a la bolsa de trabajo, 7 de cada 10 mexicanos encuestados fueron víctimas de acoso por sus jefes o superiores (53% sin que la persona lo sepa, 43% es cara a cara y 4% en redes sociales). Esta violencia ha orillado a 8 de cada 10 trabajadores encuestados a renunciar de sus trabajos. Aunque se considera como un problema a nivel nacional, el 53% de encuestados confirma que en el empleo en donde están no hay medidas en su trabajo para reducir el problema. En medida de un 77% los encuestados afirmaron que han sufrido de abuso a lo largo su vida organizacional. También se ha descubierto que 8 de cada 10 personas han estado en el momento de un acto abusivo y un 13% ha aceptado hacer mobbing a sus demás compañeros cotidianamente (OCCMundial, 2018). En la zona centro del estado de Veracruz, en la ciudad de Orizaba por la falta de información es muy poca la evidencia referente a la existencia de una herramienta para detectar el mobbing usando un mecanismo basado en minería de opiniones, que arroje los datos de forma automática y que sea anónimo, por lo que la resolución de estos casos presentados entre los trabajadores y los patrones se deben tratar ante la Junta de Conciliación y Arbitraje, aunque también suelen denunciar por redes sociales o en la Fiscalía General del Estado, en donde el trabajador lleva la ventaja jurídica por no haber implementado la empresa un sistema de detección de quejas de ámbito laboral, llegando a un mutuo acuerdo, sin haber podido prevenir el conflicto desde su centro de trabajo y habrá que agregar a eso todas las repercusiones derivadas en los centros de trabajo tras la pandemia del COVID-19 que va desde disminución de sueldos, variación en los tiempos de trabajo, gastos médicos hasta el despido de personal debido a la crisis.

En conclusión, los efectos ocasionados por el mobbing, como el estrés, generan deterioros psicológicos en los trabajadores lo cual causa un desorden emocional a dentro y fuera del trabajo, así como la generación de costos al gobierno o al patrón de una empresa, debido a los servicios médicos que se les debe de proporcionar a los trabajadores con este tipo de malestares. Por otra parte, cuando suceden estos casos el rendimiento de los trabajadores disminuye lo cual no se vuelve rentable para las organizaciones, ya que trabajar bajo presión no debe de ser la solución a los problemas y menos por un factor que se puede prevenir y debe denunciar. Todo lo anterior debido a que en México, en la mayoría de las empresas, no se tienen considerado la detección del mobbing ni los gastos que representa mantenerse estáticos ante este problema. Con la propuesta de generar una herramienta para detectar el mobbing mediante minería de opiniones, facilitará la interpretación de los datos de cada organización que lo ponga en práctica para tomar mejores decisiones al respecto.

REVISIÓN LITERARIA

Entre las distintas literaturas destacan las investigaciones de instituciones como la Comisión Nacional de Derechos Humanos (CNDH) en el ámbito del acoso laboral, pues se mantienen en constante investigación y actualizando su información con los temas más importantes en cuanto a derechos humanos y por otro lado las investigaciones de B.Sri Nandhinia y J.I.Sheebab en donde toman un algoritmo genético para poder detectar ciberacoso dentro de las redes sociales para poder prevenirlo posteriormente lo cual fue muy impresionante e inspirador.

Acoso Laboral

La CNDH en su investigación Acoso laboral “Mobbing” (CNDH, 2017) expone cuáles son las características del mobbing, sus contras, entidades en donde presentar quejas, etc. El mobbing es un término acuñado por Leymann en los 80’s, se usa cuando hay “acoso laboral y de persecución psicológica” para ocasionar un daño psicológico a una víctima, y así, la exclusión del lugar de trabajo o de un grupo laboral. El 74% del acoso laboral es ejercido por los jefes: CNDH. La ley de una manera extraña plantea que este es un tema del patrón y el sindicato y aleja totalmente a la intervención de la autoridad. Se sugiere que el gobierno capacite a inspectores para que vayan a checar si hay incongruencias entre los patrones y los trabajadores de una forma constante.

Minería de Opiniones

B.Sri Nandhinia y J.I.Sheebab (Nandhinia, 2015) usan redes sociales en línea para la detección de intimidación con el uso de técnicas de inteligencia pues la detección del acoso cibernético y la proposición de medidas preventivas antes y después son los primordiales cursos de acción para atacar el acoso cibernético. El método propuesto es preciso para detectar ciberacoso en redes sociales. Puede identificar términos de acoso cibernético y clasificar las actividades de acoso en redes sociales como Racismo, Acoso y Terrorismo, utilizando un algoritmo genético y la lógica difusa.

METODOLOGÍA

La metodología consta de 6 etapas mediante un test de 42 preguntas para detectar el mobbing y un buzón de quejas y sugerencias anónimo que utilizando minería de opiniones detecta la polaridad del comentario arrojando si existen rastros de acoso laboral o no.

Etapas 1 Creación del buzón de quejas y sugerencias

Etapas 2 Recopilación o adquisición de información

Etapas 3 Minería de Opiniones: Creación de la base de entrenamiento

Etapa 4 Modelado en RapidMiner

Etapa 5 Interpretación de resultados

Etapa 6 Generar un diagnóstico de los resultados

RESULTADOS

Etapa 1 Creación del buzón de quejas y sugerencias: Se creó el buzón de quejas y sugerencias anónimo utilizando Gmail y Excel para detectar el mobbing y solicitando a los trabajadores que envíen sus comentarios al correo pertinente para adquirir la información requeridas en el procesamiento del modelo de Minería de opiniones. Este correo es crucial para la investigación ya que en él se almacenan los datos de los trabajadores y al ser institucional el programa RapidMiner habilita la versión completa, necesaria para continuar con las investigaciones.

Etapa 2 Recopilación o adquisición de información: Se implementó el buzón y un test para detectar el acoso laboral con 42 preguntas (Piñuel, 2003) a una empresa de productos congelados tomando una muestra representativa de 20 de sus 21 trabajadores con un 95% de nivel de confianza para recopilar datos reales que sirven en el modelo de minería de opiniones, además de que en el momento en que se realizó el estudio un trabajador se encontraba en su periodo vacacional (Netquest, 2021).

Etapa 3 Minería de Opiniones: Creación de la base de entrenamiento: Se creó una base de entrenamiento con cerca de 160 comentarios entre positivos y negativos referentes al acoso laboral, esto es muy importante debido a que es la forma de que aprenda, de que se calibre y se alimente todo el modelo de minería de opiniones puesto que con estos son los comentarios que ayudarán a clasificar la información real de los trabajadores.

Etapa 4 Modelado en RapidMiner: Se establecieron las bases de datos, funciones y algoritmos para diseñar el modelo de minería de opiniones. Se asignaron distintos operadores propios de la minería de opiniones para preparar los comentarios como son el asignar un rol, cambiar los valores nominales a texto, implementa un diccionario en español, se añaden modismos propios del lenguaje y la conversión de las palabras en tokens y cajones. Después, se estableció un programador para clasificar las bases generadas por medio de la herramienta de validación cruzada, configurándolo y arrojando la polaridad de los comentarios (que tan positivo o negativo es el comentario con respecto de las quejas sobre el acoso laboral).

Etapa 5 Interpretación de resultados: Mediante un programador de seleccionar atributo se indicaron los atributos que se ven en los resultados y se aplicó el programador escribir Excel para generar una tabla con los comentarios y su polaridad (en este caso: el modelo arrojó 3 comentarios negativos y 17 positivos). Por otra parte, siendo 846 reactivos del test la máxima calificación que puede obtener la empresa haciendo alusión a un entorno con un 100% de violencia el estudio reflejó un valor de 126, que entre el promedio de los trabajadores da un resultado aproximado de 2.98 trabajadores que sufren mobbing o que sufrieron acoso laboral dentro de sus últimos 2 años de trabajo en la empresa.

Tabla 1: Comparación de Resultados de los Métodos Utilizados

Método	Predicción	Negativo	Positivo	Índice Acoso	De	Confiabilidad

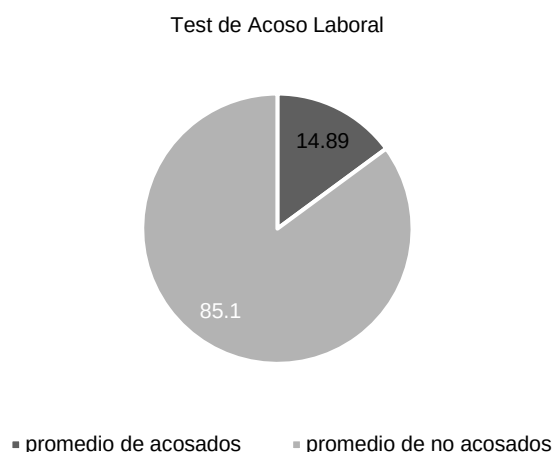
Minería de opiniones/Logistic regretion (SVM)	Sentimiento relacionado con acoso laboral	3/20	17/20	3 trabajadores	68.7%
Test acoso laboral (Piñuel, 2003)	Existencia de acoso laboral en la organización	126/846	720/846	2.98 trabajadores	100%

Se hace la comparación entre el método propuesto en esta investigación y como contraparte el test 100% comprobado por (Piñuel, 2003) para identificar si existe acoso laboral en la empresa y cuantas son las personas que han sido víctimas del acoso laboral, ambos estudios revelaron que el porcentaje promedio de los trabajadores da un resultado aproximado 15% o de 3 trabajadores que sufren mobbing o que sufrieron acoso laboral en sus últimos 2 años de trabajo dentro de la empresa.

Etapa 6 Generar un diagnóstico de los resultados:

Con los datos obtenidos por el análisis de sentimientos de los comentarios de los trabajadores encuestados y el test de 42 preguntas se generaron diagramas de pastel para mostrar los porcentajes de acoso en la organización en ambos métodos como se muestra en la Figura 1 y Figura 2.

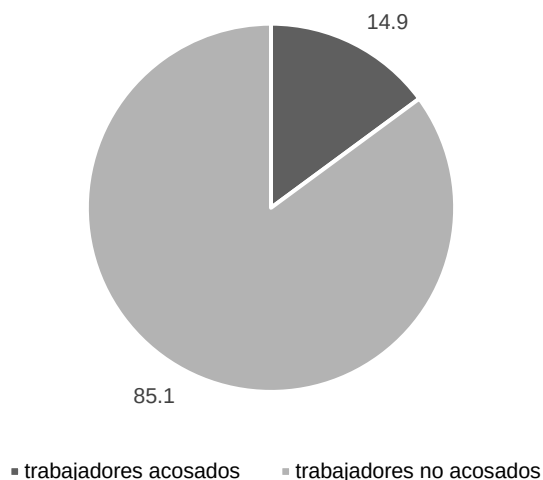
Figura 1: Porcentaje Promedio de Trabajadores Acosados Mediante el Test de Acoso Laboral



El operador con mejor rendimiento que se encontró para este proyecto fue el Logistic regretion (SVM) el cual al haberlo entrenado mediante el preprocesamiento y procesamiento de los datos sustraídos de la empresa por medio de un buzón de quejas y sugerencias referentes al acoso laboral en el trabajo para obtener las opiniones que posteriormente fueron analizadas sentimentalmente para detectar la positividad o negatividad referentes al tema en cuestión, dando como resultado 3 trabajadores o llevándolo a porcentaje un 14.89%

Figura 2: Porcentaje Promedio de Trabajadores Acosados Mediante el Buzón de Quejas Referentes al Mobbing

Buzón de Quejas Referentes al Mobbing



Siendo 846 reactivos lo máximo que se puede obtener como producto de multiplicar 20 trabajadores encuestados por 42 reactivos en la empresa de prueba y haciendo alusión a un entorno con un 100% de violencia, el estudio reflejó un valor de 126 puntos que desarrollando una regla de tres simple da un cociente de 2.98 trabajadores que sufren mobbing o que sufrieron acoso laboral dentro de sus últimos 2 años de trabajo en la empresa que llevado a porcentaje se representa con el 14.9%.

Como se muestra en la Figura 1 y Figura 2 tanto el algoritmo de minería de opiniones como el test para detectar el acoso laboral con 42 preguntas (Piñuel, 2003) arrojan que existen dentro de la organización un porcentaje promedio de 15% acoso laboral o 3 personas que estas siendo acosadas y que se pudo detectar en sus opiniones.

CONCLUSIONES

Los resultados que se arrojaron al validar la polaridad de las 20 opiniones de los trabajadores fue positiva en un 81.9% con 17 comentarios a favor y un 18.1% negativo con 3 opiniones en contra con una desviación del 31.3%, lo que alienta a la investigación a seguir su curso para identificar las estrategias más factibles para aumentar la positividad de los comentarios y disminuir el acoso en las empresas y posteriormente realimentar o reentrenar a la base de entrenamiento actualizándola con los comentarios de la empresa analizada debido a que los resultados llegan a ser similares entre los distintos métodos por lo que se puede identificar un patrón de concordancia entre metodologías. A partir de los datos recopilados y el contraste entre métodos será importante sustraer medidores clave para identificar las raíces de los problemas por medio del test y de esa forma agruparlos para poder saber qué tipo de acoso es el que están sufriendo los trabajadores tanto en el modo en que son acosados como si es generalizado o específico y posteriormente cómo disminuirlo y prevenirlo ya que no es saludable para los trabajadores ni las empresas. Existen diversos mecanismos para identificar el desperdicio organizacional dentro de las empresas y que van muy de la mano con lo que es el acoso laboral pues al contrario de generar armonía y optimización en los procesos solo los hace más lentos y con mermas, por lo que en las investigaciones posteriores se buscaran las similitudes con distintas herramientas administrativas que han funcionado anteriormente y tratar de actualizarlas y acoplarles la presente investigación para que tomen más fuerza y se pueda continuar con el proceso de prevención y disminución del acoso en las organizaciones.

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BIOGRAFIA

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PROCEDIMIENTOS DE CEDULAS DE TRABAJO PARA RÉGIMEN GENERAL DE LEY EN MÉXICO

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RESUMEN

El objetivo de esta investigación es conocer los procedimientos y elaborar los diferentes tipos cedulas de trabajo para elaborar la declaración anual de régimen general de ley. Esta investigación se realizó en el año 2020, en la ciudad de Monclova, Coahuila, México. La idea base esta en el artículo 9 de la ley de impuesto sobre la renta, la problemática surge cuando los contribuyentes carecen de un soporte fiscal de cedulas de trabajo del ejercicio, por lo que no están en posibilidades de demostrar que se cumplieron en forma y fondo los registros contable y fiscal. La pregunta es como elaborar las cedulas de trabajo?. Para esto se utilizaron leyes como es la Ley de impuesto sobre la renta, reglamento, ley de ingresos de la federación, jurisprudencia entre otras. En metodología se presentó con enfoque cualitativo al aplicar las leyes para sustentar los procedimientos. En resultados se presentó la interpretación con las leyes y tablas para ejemplificar el caso práctico que realizo la persona moral con las cedulas que debe contar el contribuyente. Se concluye que sí el contribuyente conoce los procedimientos el efecto es que podrá elaborar las cedulas de trabajo.

PALABRAS CLAVES: Régimen General, Cédulas de Trabajo, Declaraciones

PROCEDURES FOR EMPLOYMENT CERTIFICATES FOR THE GENERAL REGIME OF LAW IN MEXICO

ABSTRACT

The objective of this research is to know the procedures and prepare the different types of work certificates to prepare the annual declaration of the general regime of law. This research was carried out in 2020, in the city of Monclova, Coahuila, Mexico. The basic idea is in article 9 of the income tax law, the problem arises when taxpayers lack a fiscal support of work certificates for the year, so they are not in a position to demonstrate that they were fulfilled properly and background accounting and tax records. The question is how to elaborate the work certificates? For this, laws such as the Income Tax Law, regulations, federal income law, jurisprudence, among others, were used. In methodology, it was presented with a qualitative approach when applying the laws to support the procedures. In results, the interpretation with the laws and tables was presented to exemplify the practical case that the legal person made with the identification cards that the taxpayer must have. It is concluded that if the taxpayer knows the procedures, the effect is that he will be able to prepare work certificates.

JEL: M480, M410, M42

KEYWORDS: General Regime of Law, Work Certificates, Statements.

INTRODUCCION

Esta investigación se basa a la necesidad de contar con papeles de trabajo para procesar la declaración anual del régimen general de Ley, para esto se requiere contar con los requerimientos de la ley del impuesto sobre la renta (LISR) en su artículo 9 que establece textualmente aplicar al resultado fiscal la tasa del 30% (Calvo, 2020). Las leyes obligan a los contribuyentes que calculen sus obligaciones en ejercicios fiscales es decir en ejercicios completos y cuando los contribuyentes inicie actividades después del periodo normal se considerara irregular para esto deben iniciar sus actividades después del 01 de enero y hasta el 31 diciembre del año en curso (CFF, 2020). La idea central es elaborar los papeles de trabajo para estar en posibilidades de obtener el resultado fiscal del ejercicio, entendiéndose como papeles de trabajo: conjunto de cédulas y documentos que contienen los datos o soporte de una empresa en un ejercicio determinado. Estos también pueden ser electrónicos para elaborar la declaración anual. Surge la pregunta: ¿cómo elaborar los papeles de trabajo?.

Los papeles de trabajo son diseñados y actualizados en el año por el propio Contador de la empresa, y se elaboran de acuerdo a las necesidades y las características del contribuyente, pero estos deben ser confiables y soportados con elementos contables, fiscales y legales, además estos son propiedad de la empresa. Los papeles de trabajo son de la empresa sirven para facilitar la declaración anual del ejercicio, estos papeles pueden ser ilimitados y dependerá de la magnitud y complejidad de la empresa no obstante en esta investigación estará delimitada es decir los papeles básicos que debe contar el Contador en el momento de preparar la declaración anual. Contienen características de propiedad los cuales son valiosos para la empresa. Además estos papeles de trabajo también pueden ser utilizados en una auditoría fiscal para demostrar que se cumplen con soporte legal y procedimientos contables, son tan conocidos estos instrumentos de trabajo que se puede presumir o validar que todas las empresas cuentan con estos papeles, no obstante en la actualidad se procesan en forma electrónica. Cuando la Autoridad Hacendaria solicita información o papeles de trabajo, estos son enviados de forma electrónica de acuerdo a lo solicitado, estos documentos electrónicos ayudan a facilitar el procedimiento, tomando en cuenta que esta información se encuentra en la base de datos o plataforma de la autoridad Hacendaria. Los papeles de trabajo deben contener conclusiones alcanzadas, en las cuentas que se revisan mediante evidencias documental obtenidas para cuando el SAT revise los papeles de trabajo

(<https://dgar.gob.cl/transparencia/pdf3/audit.pdf>, 2021).

REVISIÓN SE LITERATURA

Ley de Impuesto Sobre la Renta

Para contar con el resultado fiscal se debe realizar el procedimiento al disminuir de la totalidad de las ventas acumulables recibidas en el ejercicio, las erogaciones autorizadas de acuerdo con la fracción I, del artículo 9 LISR, fundamenta: las Personas Morales, deberá de determinar el impuesto aplicando al resultado fiscal obtenido en el ejercicio la tasa que establece la ley, por este título. En resultados se presentan ocho tablas es donde actúan los papeles de trabajo y se establecen los elementales como son: Cédula contable fiscal, Cédula de ingresos, Cédula de créditos ajuste anual por inflación, Cédula de deudas, ajuste anual por inflación, Cédula de pagos provisionales, Cédula de depreciación, Cédula de cociente y de prestaciones exentas pagadas a los trabajadores.

Ingresos Acumulables

Los contribuyentes, Personas Morales residentes en el país, incluida A en P es decir Asociación en Participación, estos contribuyentes deberán acumular la totalidad de los ingresos en efectivo, en bienes, en servicio, en crédito o de cualquier otro tipo, que obtengan en el ejercicio de acuerdo a la ley en su artículo

16 (LISR, 2020). Los ingresos registrados y declarados de acuerdo a la cédula de papeles de trabajo son los emitidos como comprobante Fiscal Digital por internet CFDI independiente si están pagados o no de acuerdo a la cédula No. 2. En el artículo 26 del Código Civil establece: las personas morales pueden ejercitar todos los derechos que sean necesarios para realizar el objeto de su institución (C.CIVIL, 2020). Como antecedente los dictámenes ayudan al contador a conocer los procedimientos de revisión de papeles de trabajo, para vincular los papeles de trabajo que están en plataforma del SAT, así como las sanciones que pueden derivar de las revisiones de trabajo (Hernandez A., 2020).

Momento de Acumulación de Ingresos

(Calvo, 2020). Para los efectos del artículo 16 LISR, los ingresos se obtienen, en aquellos casos no previstos en otros artículos, en las fechas que se señalan conforme a los siguientes:

Enajenación de bienes o prestación de servicio, cuando se de cualquiera de los siguientes supuestos, o bien el que ocurra primero:

Momento en que se expida el comprobante fiscal que ampare el precio o la contraprestación pactada.

Momento en que se envíe o entregue materialmente el bien o cuando se preste el servicio.

Momento en que se cobre o sea exigible total o parcialmente el precio o la contraprestación pactada, aun cuando provenga de anticipos.

Sin embargo, el contribuyente tiene de uno a cinco días más de plazo según el sexto dígito numérico de su registro Federal de causante (www.2.sat.gob.mx sitio, 2012).

Pagos Provisionales

Según la tabla 5: y de acuerdo al artículo 14 LISR, los contribuyentes efectuarán pagos provisionales mensuales a cuenta del impuesto del ejercicio, a más tardar el día 17 del mes inmediato posterior a aquél al que corresponda el pago, conforme a las bases que se establezcan (Calvo, 2020). A la utilidad fiscal del ejercicio se le disminuirán, en su caso, las pérdidas fiscales pendientes de aplicar de ejercicios anteriores de acuerdo con la fracción II del art. 9 LISR. La pérdida fiscal se obtendrá de la diferencia entre los ingresos acumulables del ejercicio y las deducciones autorizadas por esta ley, cuando el monto de estas últimas sea mayor que los ingresos, el resultado obtenido incrementará en su caso, con la PTU, en términos del artículo 123. Esta pérdida podrá disminuirse en un periodo de diez años hasta agotarla, cuando no disminuya la pérdida pudiéndolo haber hecho perderá el derecho.

Coeficiente de Utilidad

En conformidad con la fracción I, del artículo 14: en este artículo se determina como calcular el coeficiente de utilidad al último ejercicio de doce meses por el que se hubiera o debió haberse presentado declaración anual. Para este efecto, la utilidad fiscal del ejercicio por el que se calcule el coeficiente se dividirá entre los ingresos nominales del mismo ejercicio como se determina al calce.

CU =	Utilidad Fiscal	= 55,902.52	= 0.0012
	Ing. Nominales	46,320,734.23	

Ajuste Inflacionario

Asimismo, para los contribuyente régimen general de ley es determinar el ajuste anual por inflación acumulable es el ingreso que obtienen los contribuyentes por la disminución real de sus deudas, el ajuste

anual por inflación que resulte acumulable en los términos del artículo 44, de esta ley. Para los créditos se procesará de acuerdo con el artículo 45, para las deudas es el artículo 46 (LISR, 2020). De acuerdo a la Tabla 3 y 4.

Participación de los Trabajadores en las Utilidades PTU

De acuerdo con la Constitución en su artículo 123, el derecho a la participación de los trabajadores en las utilidades PTU, protegido desde hace 102 años, la base de participación será la renta gravable de la empresa, conforme a la ley del ISR, y también se señala que el porcentaje de utilidades que deba repartirse será fijado por una comisión nacional tripartita, integrada por representante de los trabajadores, patrones y gobierno. (CPEUM, 2020). El porcentaje es de 10% de la utilidad. Para la determinación de la renta gravable en materia de participación de los trabajadores en las utilidades de las empresas, los contribuyentes deberán disminuir de los ingresos acumulables las cantidades que no hubiesen sido deducibles en los términos de la fracción XXX del artículo 28 de esta Ley (Calvo, 2020).

Prestaciones Exentas Pagadas a los Trabajadores

En conformidad con las prestaciones exentas parcialmente deducibles, es indispensable realizar el proceso para determinar el cociente e identificar la parte deducible y no deducible en papel de trabajo. De lo anterior y en conformidad con la fracción. I, Artículo 28, de la Ley de Impuesto sobre la Renta establece: como requisito de las deducciones, el de ser estrictamente indispensable para los fines de la actividad del contribuyente, salvo que se trate de donativos no onerosos ni remunerativos que satisfagan los requisitos previstos en esta ley y en las reglas generales que para el efecto establezca el Servicio de Administración Tributaria (LISR, 2020). De acuerdo con tablas 7 y 8.

METODOLOGÍA

La presente investigación se realizó en el año 2020, en la ciudad de Monclova, Coahuila, México, es con enfoque cualitativo, en la que se presentan ocho tablas sin medición numérica, estas sirven para tener soporte de la situación de la empresa para estar en posibilidades de contar con los elementos para la declaración anual. Esta investigación es de tipo descriptivo, se consideran las características específicas del régimen general de ley para identificar el tipo de cedulas que deben contener, para esta investigación se usó como caso practico la elaboración de cedulas o papeles de trabajo de una empresa con régimen general de ley.

De acuerdo a lo anterior se recolectaron leyes como son: ley del impuesto sobre la renta, Código Fiscal de la Federación, Constitución Política de los Estados Unidos Mexicanos, Resolución Miscelánea Fiscal, información complementaria como pagina web y sobre todo la creatividad del revisor de la empresa en este caso el contador para tener evidencia que se realizó un análisis de las cedulas o papeles de trabajo. La aplicación de métodos que ayudan a identificar, analizar, evaluar, registrar novedades, comunicar resultados y validación de directores (Deloitte, 2010).

RESULTADOS

Se presentan ocho tablas numéricas de las cuales corresponden a papeles de trabajo para demostrar que se revisaron los registros contables que se encuentran en el software de la empresa y que estos fueron plasmados en papeles de trabajos o electrónicos, para demostrar que se siguió un procedimiento o un método, como es: revisión de registros, se cotejó lo registrado con las evidencias, se revisaron los cálculos, las sumatorias las cedulas necesarias en forma delimitada para estar en posibilidades de contar con los elementos de la declaración anual.

Tabla 1: Cedula Contable Fiscal

	Concepto	Contable	Fiscal
(+)	Ventas al 0%	40,653,228.25	40,653,228.25
(+)	Ventas al 16%	5,575,479.84	5,575,479.84
(+)	Ajuste inflacionario acumulable		92,026.14
(=)	Total ingresos	46,228,708.09	46,320,734.23
(-)	Inventario inicial	1,536,489.00	1,536,489.00
(+)	Compras al 0%	37,966,944.86	37,966,944.86
(+)	Compras al 16%	4,442,705.12	4,442,705.12
(=)	Total compras	42,409,649.98	42,409,649.98
(=)	Disponible	43,946,138.98	43,946,138.98
(-)	Inventario final	1,699,447.00	1,699,447.00
(=)	Costo de venta	42,246,691.98	42,246,691.98
(=)	Utilidad bruta	3,982,016.11	4,074,042.25
(+)	Gastos generales	2,409,595.79	2,409,595.79
(+)	Sueldos y salarios	1,268,447.91	1,268,447.91
(+)	No deducible de prestaciones exentas	17,921.14	
(+)	Depreciación	327,392.74	340,096.03
(+)	No deducible	68,190.69	
(+)	PTU del ejercicio anterior pagado	0	0
(=)	Total egresos	4,091,548.27	4,018,139.73
(=)	Utilidad antes de impuestos	-109,532.16	55,902.52
(-)	PTU		0
(=)	Utilidad fiscal	-109,532.16	55,902.52
(x)	Tasa de impuesto		30%
(=)	ISR a cargo		\$16,770.76
(-)	Pagos provisionales de ISR		72,117
(=)	ISR anual		-55,346.03

En esta tabla 1: se presenta cedula contable fiscal, en la que se reflejan los concepto relevantes como es: cedula de ingresos, ajuste inflacionario para comparar los créditos y deudas y determinar la deducibilidad o acumulación, depreciaciones, prestaciones exentas y pagos provisionales, entre otros. Para el aspecto contable su contenido se encuentra en registros como es el software de la empresa.

Tabla 2: Cedula de Ingresos

Mes	Ventas 0%	Ventas 16%	Ventas
Enero	\$2,826,108.17	\$419,164.06	\$3,245,272.23
Febrero	\$2,656,639.11	\$377,515.69	\$3,034,154.80
Marzo	\$3,127,092.48	\$459,576.06	\$3,730,282.23
Abril	\$3,127,092.48	\$442,029.88	\$3,569,122.36
Mayo	\$3,607,130.26	\$554,806.25	\$4,161,936.51
Junio	\$3,566,187.72	\$539,705.71	\$4,105,893.43
Julio	\$3,646,295.24	\$486,895.06	\$4,133,190.30
Agosto	\$3,585,991.79	\$438,544.31	\$4,024,536.10
Sept	\$3,470,441.66	\$490,908.94	\$3,961,350.60
Oct.	\$3,656,698.24	\$452,740.94	\$4,109,439.18
Nov.	\$3,641,561.70	\$423,549.94	\$4,065,111.64
Dic.	\$3,598,375.71	\$490,043.00	\$4,088,418.71
	\$40,653,228.25	\$5,575,479.84	\$46,228,708.09

En esta tabla 2: se presenta los ingresos nominales del periodo anual, el cual se clasifica en ventas tasa 0% y tasa 16%, los cuales se realizaron al publico en general y se timbraron en su momento para que puedan ser acumulados en el mes.

Tabla 3: Cedula de Créditos Para Ajuste Inflacionario

	Créditos			
Mes	Banco	Clientes	Impuestos a favor	Total créditos
Enero	\$329,287.96	\$829,960.00	\$443,598.38	1602846.34
Febrero	\$440,905.69	\$829,960.00	\$444,885.58	1715751.27
Marzo	\$963,730.72	\$829,960.00	\$451,851.90	2245542.62
Abril	\$670,694.84	\$829,960.00	\$487,499.54	1988154.38
Mayo	\$417,936.73	\$829,960.00	\$503,477.96	1751374.69
Junio	\$749,864.12	\$825,750.00	\$512,691.89	2088306.01
Julio	\$545,766.10	\$625,550.00	\$532,973.41	1704289.51
Agosto	\$355,375.89	\$420,850.00	\$503,187.40	1279413.29
Septiembre	\$535,219.99	\$289,368.00	\$511,852.75	1336440.74
Octubre	\$405,127.27	\$189,648.00	\$533,205.78	1127981.05
Noviembre	\$297,407.67	0	\$549,189.82	846597.49
Diciembre	\$780,013.22	0	\$543,232.31	1323245.53
Suma	\$6,491,330.20	\$6,500,966.00	\$6,017,646.72	\$19,009,942.92
Entre	12	12	12	12
Saldo promedio	\$ 540,944.18	\$ 541,747.17	\$ 501,470.56	\$ 1,584,161.91

En esta tabla 3: se presenta los promedios de créditos de los rubros que cuenta la empresa, como es el banco, clientes, impuestos a favor lo cual tiene un promedio anual de \$ 1,584,161.91, lo cual se comparará con las deudas para determinar si es deducible o acumulable

Tabla 4: Cedula de Deudas Para Ajuste Inflacionario

	Deudas			
Mes	Proveedores	Cuentas x pagar corto plazo	Acreedores diversos	Total deudas
Enero	\$2,123,949.39	\$933,665.00	\$754.39	\$ 3,058,368.78
Febrero	\$1,556,289.27	\$903,665.00	\$754.39	\$ 2,460,708.66
Marzo	\$3,962,339.90	\$863,665.00	\$244.64	\$ 4,826,249.54
Abril	\$3,696,321.20	\$989,665.00	\$0.00	\$ 4,685,986.20
Mayo	\$3,271,088.98	\$821,665.00	\$0.00	\$ 4,092,753.98
Junio	\$2,974,030.83	\$779,665.00	\$0.00	\$ 3,753,695.83
Julio	\$2,942,734.74	\$721,665.00	\$0.00	\$ 3,664,399.74
Agosto	\$2,259,003.42	\$678,665.00	\$0.00	\$ 2,937,668.42
Septiembre	\$2,207,629.76	\$633,665.00	\$0.00	\$ 2,841,294.76
Octubre	\$2,871,932.95	\$583,908.34	\$0.00	\$ 3,455,841.29
Noviembre	\$2,943,354.41	\$557,908.34	\$0.00	\$ 3,501,262.75
Diciembre	\$2,055,442.64	\$539,908.34	\$0.00	\$ 2,595,350.98
Suma	\$ 32,864,117.49	\$ 9,007,710.02	\$ 1,753.42	\$ 41,873,580.93
Entre	12	12	12	12
Saldo promedio	\$ 2,738,676.46	\$ 750,642.50	\$ 146.12	\$ 3,489,465.08
			Diferencia	\$ 1,905,303.17
INPC diciembre 2018		103.0200		
INPC diciembre 2017		98.2728	=	0.0483
	Ajuste inflacionario acumulable			\$ 92,026.14

En esta tabla 4: se presenta los promedios de deudas como son los proveedores, cuentas por pagar a corto plazo y acreedores diversos, la cual tiene un promedio de \$ 3,489,465.08, y se compara con los créditos que es \$ 1,584,161.91 y cuenta con una diferencia de \$ 1,905,303.17 y se determina el factor de actualización del año mas reciente entre el mas antiguo para determinar el ajusta inflacionario acumulable por diferencia en las deudas.

Tabla 5: Cedula de Pagos Provisionales

Coefficiente de Utilidad 2017 Antes de Junio						
Coefficiente de Utilidad 2018 A Partir de Junio						
	Enero	Febrero	Marzo	Abril	Mayo	Junio
Ventas mensuales	3,245,272.23	3,034,154.80	3,730,282.23	3,569,122.36	4,161,936.51	4,105,893.43
Ventas acumuladas	-	3,245,272.23	6,279,427.03	10,009,709.26	13,578,831.62	17,740,768.13
Total, ventas	3,245,272.23	6,279,427.03	10,009,709.26	13,578,831.62	17,740,768.13	21,846,661.56
* Factor de utilidad	0.0026	0.0026	0.0026	0.0026	0.0026	0.0052
Ut. Estimada	8,437.71	16,326.51	26,025.24	35,304.96	46,126.00	113,602.64
Tasa	30%	30%	30%	30%	30%	30%
Impuesto causado	2,531.31	4,897.95	7,807.57	10,591.49	13,837.80	34,080.79
PP acumulados	-	2,531.31	4,897.95	7,807.57	10,591.49	13,837.80
ISR a cargo	2,531	2,367	2,910	2,784	3,246	20,243
	Julio	Agosto	Septiembre	Octubre	Noviembre	Diciembre
Ventas mensuales	4,133,190.30	4,024,536.10	3,961,350.60	4,109,439.18	4,065,111.64	4,088,418.71
Ventas acumuladas	21,846,661.56	25,979,851.86	30,004,387.96	33,965,738.56	38,075,177.74	42,140,289.38
Total ingresos	25,979,851.86	30,004,387.96	33,965,738.56	38,075,177.74	42,140,289.38	46,228,708.09
* Factor de utilidad	0.0052	0.0052	0.0052	0.0052	0.0052	0.0052
Ut. Estimada	135,095.23	156,022.82	176,621.84	197,990.92	219,129.50	240,389.28
Tasa	30%	30%	30%	30%	30%	30%
Impuesto causado	40,528.57	46,806.85	52,986.55	59,397.28	65,738.85	72,116.78
Pagos provisionales acumulados	34,080.79	40,528.57	46,806.85	52,986.55	59,397.28	65,738.85
ISR a cargo	6,448	6,278	6,180	6,411	6,342	6,378

En esta tabla 5: se presenta los pagos provisionales de enero a diciembre del ejercicio 2019, en la que se presenta una variable, el coeficiente de utilidad que se debe usar en enero y febrero pero se utilizo hasta mayo por que la declaración anual se presentó hasta el mes de junio, debiéndose presentar en el mes de marzo.

Tabla 6 : Depreciación Contable

Depreciación Actualizada						
Fecha	Maquinaria	%	MOI	Acumulada	Por Redminir	Histórica
15/06/2018	Condensadora	10	\$101,724.24	\$847.70	\$100,876.54	\$10,172.42
04/08/2018	Sierra torrey	10	\$45,000.00	\$0.00	\$45,000.00	\$1,500.00
	Sub-total		\$146,724.24	\$847.70	\$145,876.54	\$11,672.42
	Equipo transporte					
08/08/2017	Camioneta	25	\$447,716.36	\$37,309.70	\$410,406.66	\$111,929.09
05/06/2017	Kenworth	25	\$603,448.28	\$75,431.03	\$528,017.25	\$150,862.07
23/04/2018	Ram 2018	25	\$259,396.55	\$0.00	\$259,396.55	\$43,232.76
	Sub-total		\$1,310,561.19	\$112,740.73	\$1,197,820.46	\$306,023.92
	Equipo. oficina					
14/10/2017	Oficina	10	\$4,309.48	\$71.82	\$4,237.66	\$430.95
	Equipo computo					
22/03/2017	Computadora	30	\$30,884.83	\$6,949.09	\$23,935.74	\$9,265.45
	Gran total		\$1,492,479.74	\$120,609.34	\$1,371,870.40	\$327,392.74

En esta tabla se presenta la depreciación historia anual de cuatro activos los cuales corresponden a Maquinaria, equipo de transporte, equipo de oficina, y equipo de computo

Tabla 7: Cociente Para las Prestaciones Exentas de Trabajadores

Cociente =	Total, de remuneraciones y prestaciones pagadas exentas para el trabajador
	Total, de remuneraciones y prestaciones pagadas por el contribuyente

Sí Cociente del ejercicio < Cociente del ejercicio anterior =
Proporción 0.53 no deducible

Sí Cociente del ejercicio > o = Cociente del ejercicio anterior
= Proporción 0.47 no deducible

En esta tabla se presenta la proporción para determinar el cociente al comparar las prestaciones de los ingresos exentos deducibles y no deducibles que establece la regla 1.3.3.1.29 (Hernandez, 2017).

Tabla 8: Cédulas de Determinación de Prestaciones Exentas Deducible y no Deducible

	Año Anterior		
	Gravado	Exento	Total
Sueldo	\$1,313,984.16	\$46,847.18	\$1,360,831.34
Exento	\$46,847.18	=	0.035652774
Total sueldos	\$1,313,984.16		
	Año actual		
	Gravado	Exento	Total
Sueldo	\$1,252,555.58	\$33,813.47	\$1,286,369.05
Exento	\$33,813.47	=	0.026995584
Total sueldos	\$1,252,555.58		
	Exento	\$33,813.47	
	Factor	* 53%	
		17921.1391	No deducible
	Exento	\$33,813.47	
	Factor	* 47%	
		15892.3309	Deducible

En esta tabla se establece las prestaciones exentas no deducibles, así como las deducibles de acuerdo con el cociente determinado, al comparar las prestaciones del ejercicio con las del ejercicio anterior.

CONCLUSIONES

En los papeles de trabajos se identifican los hallazgos encontrados por el contador público o incluso el auditor, cuando se elaboran y se identifican errores y hasta en algunos casos se pueden subsanar o corregir para consieran validados o correctos. Uno de los casos mas marcados de la empresas es que se carece de contratos legales, que sirvan para respaldar los papeles de trabajo que contienen datos legales, como son: los contratos de trabajadores, prestaciones otorgadas a los trabajadores, contratos de arrendamiento que ayudan a respaldar las cédulas, contratos de honorarios. Con los papeles de trabajo deja evidencias que el contador o auditor de la empresa realizó un procedimiento, y deja bases que respalden las conclusiones de cada cédula identificadas y deja evidencia de confiabilidad que se realizó con profesionalismo y se observa en lo que le faltó o en que falta mejorar para el siguiente ejercicio, así quedan listos para elaborar la declaración anual.

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RECUPERACIÓN ECONÓMICA POST COVID-19. PERSPECTIVA ESTUDIANTIL DEL ÁREA ECONÓMICO ADMINISTRATIVA PARA LA EDUCACIÓN SUPERIOR.

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RESUMEN

El objetivo de la investigación se centró en determinar los elementos que los estudiantes de pregrado y posgrado del área de estudios en disciplinas acordes a las ciencias económico-administrativas percibían como necesarios para la etapa de recuperación posterior a la pandemia en un estado del sureste de México. Las variables consideradas fueron las competencias para enfrentar la etapa de recuperación económica posterior a la pandemia por COVID-19, los requerimientos de formación que se perciben como necesarios para ser competitivos durante esta etapa, y la infraestructura y capital humano con el que se cuenta. Se utilizaron los datos resultados de la encuesta en línea: “Diagnóstico Participativo Post COVID-19 en Tabasco”. El diseño del estudio fue no experimental de corte transeccional. Participaron 1,530 estudiantes de las disciplinas económico-administrativas. Los resultados señalan que los estudiantes consideran que no se posee la infraestructura y capital humano para enfrentar la etapa de recuperación económica. Se concluye que la inversión de las instituciones de educación superior debe centrarse en generar la infraestructura y capacitación necesaria para brindar los conocimientos requeridos en la formación de competencias, principalmente digitales, para coadyuvar a una exitosa recuperación económica y social posterior a la pandemia.

PALABRAS CLAVE: COVID-19, Educación Superior, Económico- Administrativo.

POST COVID-19 ECONOMIC RECOVERY. STUDENT PERSPECTIVE OF THE ADMINISTRATIVE ECONOMIC AREA FOR HIGHER EDUCATION

ABSTRACT

The objective of the research was focus on determining the elements that undergraduate and graduate students on the area of studies in disciplines according to the economic-administrative sciences perceived as necessary for the recovery stage after the pandemic in a state in southeastern Mexico. The variables considered were the competencies to face the economic recovery stage after the COVID-19 pandemic, the training requirements that are perceived as necessary to be competitive during this stage, and the infrastructure and human capital available. The data from the online survey were used: “Post COVID-19 Participatory Diagnosis in Tabasco”. The study design was non-experimental with a transectional cut. 1,530 students from the economic-administrative disciplines participated. The results indicate that the students consider that they do not have the infrastructure and human capital to face the stage of economic recovery. It is concluded that the investment of higher education institutions should focus on generating the infrastructure and training necessary to provide the knowledge required in the training of skills, mainly digital, to contribute to a successful economic and social recovery after the pandemic.

JEL: I2, I23, I25

KEY WORDS: COVID-19, Higher Education, Economic-Administrative.

INTRODUCCIÓN

En la provincia de Hubei, su capital Wuhan fue identificada a finales del año 2019 como el epicentro de la pandemia generada por un nuevo virus (SARS-CoV-2) y la enfermedad que fue denominada por la Organización Mundial de la salud como COVID-19, caracterizada por un severo cuadro de insuficiencia pulmonar (Sharma et al., 2020). La movilidad del virus fue exponencial, debido principalmente al la globalización y que la población mundial se ha ido urbanizando cada vez más concentrándose en las grandes ciudades (Tisdell, 2020). Los efectos de esta pandemia en la salud, el empleo y en general para la economía mundial ha sido comparada por autores como (Varsi-Rospigliosi et al., 2020) como la tercera guerra mundial, donde no se tiene precisamente un enemigo con nacionalidad definida, este es invisible y gracias a esta movilización no se ha detenido en ninguna frontera. A finales del 2020 diversos países habían logrado desarrollar diversas estrategias de salud en dos vertientes: 1) los tratamientos para combatirla y 2) la vacunación por emergencia sanitaria, lo que ha permitido planear una recuperación de las economías mundiales durante este primer trimestre del 2021 (Gómez Tejeda et al., 2020; Organización Mundial de la Salud, 2020). Para las instituciones de educación superior en todo el mundo los retos se han centrado en generar diversas estrategias para mantener los altos estándares académicos, los cuales son esenciales para que una institución de educación superior produzca investigaciones y resultados de la enseñanza (Gamage et al., 2020). Ante esta necesidad de generar estrategias que permitan la recuperación económica y social, el objetivo de la investigación se centró en determinar los elementos que los estudiantes de pregrado y posgrado del área de estudios en disciplinas acordes a las ciencias económico administrativas percibían como necesarios para la etapa de recuperación posterior a la pandemia en un estado del sureste de México, el cual se vio afectado por severas inundaciones durante ese mismo año, dejando aun más vulnerable la economía del estado (Rosales, 2020, Osorio, 2020).

REVISIÓN DE LA LITERATURA

El término Competencia, no ha sido un constructo fácil por definir, conlleva elementos como la concepción del modo de producción y transmisión del conocimiento, el vínculo educación – sociedad, la misión y valores del sistema educativo, las prácticas de enseñanza y los esquemas de evaluación tanto de docentes como del desempeño de los estudiantes (Pablo Beneitone et al., 2007). En términos de eficiencia laboral Chouhan y Srivastava, (2014) señalan que las competencias incluyen la recopilación de factores de éxito necesarios para lograr resultados importantes en un trabajo específico o un rol laboral en una organización en particular, y esta pueden referirse a competencias, intelectuales, empresariales, sociales y emocionales. Para la etapa de recuperación económica y social posterior a la pandemia diversos organismos internacionales y autores que han estudiado el fenómeno de la docencia en el contexto de la pandemia (Lai, 2017; Pagés et al., 2020; Pan American Health Organization & World Health Organization, 2020; Suleri, 2020), señalan la educación en línea y el teletrabajo como indispensables en esta etapa, por lo que el dominio de las tecnologías de la información y comunicación (TIC) se vuelven competencias esenciales durante este período. Por lo tanto, los requerimientos de formación, infraestructura y capital humano se centran en la consecución de estos para poder garantizar como lo señala Gamage et al., (2020) los estándares de calidad requeridos y con ello coadyuvar a la recuperación paulatina de la economía regional, nacional y global.

METODOLOGÍA

Este capítulo se basó en un diseño no experimental, descriptivo, de corte transversal, cuya finalidad fue presentar los principales resultados estadísticos del diagnóstico para las disciplinas del área económico administrativos.

Participantes

En el estudio participaron 1536 estudiantes de pregrado y posgrado de diferentes disciplinas el área económico administrativas de 7 instituciones de educación superior en el estado de Tabasco en México. El estudio comprendió todos los semestres de los diferentes programas de licenciatura y posgrado.

Instrumento

Se emplearon tres variables del modelo de Magaña y Aguilar (2021, en prensa) que explica desde la perspectiva estudiantil las afectaciones a la actividad productiva y al empleo formal e informal. Las variables consideradas fueron las competencias para enfrentar la etapa de recuperación económica posterior a la pandemia por COVID-19 (CPC), los requerimientos de formación que se perciben como necesarios para ser competitivos durante esta etapa (RCAP), y la infraestructura y capital humano con el que se cuenta (IYCH). Los valores reportados de fiabilidad (CPC $\alpha=0.84$; RCAP $\alpha = 0.70$; IYCH $\alpha = 0.80$) para cada medida se consideran aceptables (Milton, 2010). Con respecto a la validez, el estadístico de la prueba de Kaiser-Meyer Olkin y los resultados de la prueba de esfericidad de Bartlett ($KMO= 0.83$, $\chi^2= 7438.45$, $gl = 66$, $p < .001$) señalan que el análisis factorial exploratorio es posible (Lloret-Segura et al., 2014). Los resultados agrupan en tres factores que explican el 54.47% de la varianza, y todos los ítems presentan cargas factoriales superiores a 0.42 agrupándose de acuerdo a la estructura propuesta (Williams et al., 2010).

Procedimiento

Se utilizaron los datos resultados de la encuesta en línea: “Diagnóstico Participativo Post COVID-19 en Tabasco”. Para el desarrollo de la encuesta, se solicitó a través del Consejo de Ciencia y Tecnología el consentimiento de las autoridades de las Instituciones de Educación Superior y Centros de Investigación que participaron en el estudio. Posteriormente se pidió la participación voluntaria e informada a los directivos de cada organización para administrar los instrumentos en línea a los estudiantes. A los estudiantes se les informó del propósito del estudio, y se les pidió su participación voluntaria en el mismo garantizándoles la confidencialidad de los datos (Magaña, y Aguilar, 2021, en prensa).

Análisis de Datos

Se realizaron análisis descriptivos y de diferencia de medias (prueba t y ANOVA) para determinar las diferencias entre los grupos poblacionales.

RESULTADOS

Descriptivos

En el estudio participaron 1530 estudiantes de los cuales el 39.4% son varones y el 60.6% mujeres. El promedio de edad se sitúa en 21.46 años. De acuerdo con su distribución por nivel académico, el 92.1% pertenece a pregrado, el 7% a posgrado y un 0.5% no determino su grado de estudios por lo que se considera como datos perdido. De esta población un 23.7% trabaja además de los estudios y un 40.4% tiene una beca. Con relación a las variables consideradas, la tabla 1 presenta los descriptivos de las variables estudiadas, donde la media más alta se da en función de un acuerdo sobre las competencias que se requieren para enfrentar la etapa posterior a la pandemia, y la más baja con relación a la percepción de que se posee la

infraestructura y capital humano para hacer frente a la etapa de recuperación económica al término oficial de la pandemia.

Tabla 1: Valores Descriptivos de las Variables (Escala 1-5)

Variables	Media	DE	Mínimo	Máximo	Asimetría	Curtosis
Competencias para enfrentar la recuperación económica post COVID-19	4.32	0.75	1.00	5.00	-1.33	2.10
Requerimientos de Formación para la competitividad	3.59	0.82	1.00	5.00	-0.26	-0.07
Infraestructura y Capital humano	3.28	1.02	1.00	5.00	-0.08	-0.39

Nota: la tabla presenta los principales valores descriptivos de las variables en función de las escalas de medición

Diferencia de Medias

Sobre los resultados de los grupos poblacionales comparados, en la tabla 2 se aprecia que para el género existen diferencias estadísticamente significativas únicamente en cuanto a la percepción de infraestructura y capital humano, siendo mayor en los varones. No obstante, es importante destacar que el tamaño del efecto es bajo, pues solo el 13% de las diferencias de percepción con respecto a esta variable se explican por el género del encuestado.

Tabla 2: Diferencia de Medias Para las Variables con Relación al Género

Variables	Hombre		Mujer		T	P	d de Cohen
	M	SD	M	SD			
Competencias para enfrentar la recuperación económica post COVID-19	4.33	0.74	4.31	0.74	0.37	0.707	0.04
Requerimientos de Formación para la competitividad	3.62	0.82	3.56	0.81	1.43	0.152	0.07
Infraestructura y Capital humano	3.36	1.02	3.22	1.01	2.57	0.010*	0.13

Nota: Datos obtenido por medio del Software IBM SPSS Statistics para Windows. Versión 24.0. N=1,536, $p < 0.05^*$, $p < 0.01^{**}$, $p < 0.001^{***}$. M= Media, SD= Desviación Estándar, p=significancia, d de Cohen = tamaño del efecto.

En la tabla 3 presenta las diferencias reportadas para el nivel académico, descartando los datos perdidos señalados como otro. Se aprecia que solo dos variables presentan diferencias estadísticamente significativas con mayor énfasis a nivel posgrado. El tamaño del efecto es un poco mayor para los datos que se reportan en esta tabla, siendo la diferencia más notable con respecto a las competencias para enfrentar la recuperación económica, la cual se explica en un 30% por el nivel académico que cursaba el estudiante al momento de participar en la encuesta.

Tabla 3: Diferencias de Medias Para las Variables Con Relación al Grado Académico

Variables	Licenciatura		Posgrado		T	P	D de Cohen
	M	SD	M	SD			
Competencias para enfrentar la recuperación económica post COVID-19	4.30	.75	4.51	.61	-2.77	.006**	-0.30
Requerimientos de Formación para la competitividad	3.57	.80	3.79	.91	-2.70	.007**	-0.25
Infraestructura y Capital humano	3.27	1.01	3.27	1.14	.05	.957	0.00

Nota: Datos obtenido por medio del Software IBM SPSS Statistics para Windows. Versión 24.0. N=1,522, $p < 0.05^*$, $p < 0.01^{**}$, $p < 0.001^{***}$. M= Media, SD= Desviación Estándar, P=significancia, d de Cohen = tamaño del efecto.

En cuanto a las diferencias entre los estudiantes que trabajan además de las actividades escolares, se presentaron diferencias entre los requerimientos de formación y la percepción sobre infraestructura y capital humano, siendo mayor en ambos casos en los que si trabajan. Con relación al tamaño del efecto, en todos los casos es relativamente bajo, pero el 25% de las diferencias en cuanto los requerimientos de capacitación percibidos como necesarios, se pueden explicar por el hecho de que trabajaran además de realizar sus estudios de pregrado o posgrado en el momento en que contestaron la encuesta (tabla 4).

Tabla 4: Diferencia de Medias Para las Variables de la Pregunta ¿Usted Trabaja?

Variables	SI		NO		T	P	d de Cohen
	M	SD	M	SD			
Competencias para enfrentar la recuperación económica post COVID-19	4.38	.77	4.30	.73	1.84	.065	0.10
Requerimientos de Formación para la competitividad	3.75	.83	3.54	.80	4.43	.000***	0.25
Infraestructura y Capital humano	3.41	1.04	3.23	1.01	3.03	.002**	0.17

Nota: Datos obtenido por medio del Software IBM SPSS Statistics para Windows. Versión 24.0. N=1,536, $p < 0.05^*$, $p < 0.01^{**}$, $p < 0.001^{***}$. M= Media, SD= Desviación Estándar, p=significancia, d de Cohen = tamaño del efecto.

En relación a la si perciben un ingreso por concepto de beca, las diferencias se dan únicamente en cuanto a las competencias que se perciben como necesarias para enfrentar la recuperación económica posterior a la pandemia por COVID-19, siendo los que si la perciben los que presentan un mayor grado de acuerdo con aquellas que se plantearon como pregunta en el instrumento de medida. Nuevamente el tamaño del efecto es bajo y solo puede explicar el 13% de las diferencias de opinión, por el hecho de que perciba ingresos por concepto de una beca (tabla 5).

Tabla 5: Diferencia de Medias Para las Variables de la Pregunta ¿Usted Tiene Beca?

Variables	SI		NO		T	P	D de Cohen
	M	SD	M	SD			
Competencias para enfrentar la recuperación económica post COVID-19	4.38	.68	4.28	.78	2.69	.007**	0.13
Requerimientos de Formación para la competitividad	3.60	.79	3.58	.83	.60	.547	0.02
Infraestructura y Capital humano	3.28	1.02	3.26	1.02	.33	.738	0.02

Nota: Datos obtenido por medio del Software IBM SPSS Statistics para Windows. Versión 24.0. N=8,759, $p < 0.05^*$, $p < 0.01^{**}$, $p < 0.001^{***}$. M= Media, SD= Desviación Estándar, P=significancia, d de Cohen = tamaño del efecto.

CONCLUSIONES

Los resultados señalan de manera confiable que los estudiantes perciben una capacidad moderada en cuanto a la infraestructura y capital humano con el que cuentan sus instituciones para formarlos en las competencias que se requirieron para enfrentar la recuperación económica y social en la etapa posterior a la pandemia por COVID-19. Se destaca que aquellos que los estudiantes de posgrado, así como aquellos que tiene un ingreso adicional además de los estudios, ya sea por que trabajan o reciben una beca, son los que demandan mayores requerimientos de formación. Suleri, (2020) señala que este es un buen momento para que las instituciones de educación superior cambien el paradigma educativo y le den a la parte virtual de la educación un lugar permanente en sus programas académicos. El aprendizaje en línea debería ser una forma esencial de educación a partir de ahora en la educación superior, teniendo en cuenta por supuesto que los cambios no pueden darse sin docentes capacitadas para manejarla. Es importante señalar que la capacitación no solo debe centrarse en las habilidades, sino estudios como el de Joia y Lorenzo, (2021) indican la importancia de generar capacidades para interactuar con los estudiantes dentro o fuera de la clase. Así mismo estos autores han señalado la importancia de la disciplina para el desarrollo de competencias duras o blandas.

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RECONOCIMIENTO

Se agradece el apoyo del Consejo de Ciencia y Tecnología del estado de Tabasco en México, y a la Universidad Juárez Autónoma de Tabasco por el apoyo brindado para el empleo de los datos de la encuesta y las facilidades que brindaron en la etapa del diseño de las escalas.

LOS GESTOS Y POSTURAS COMO INFLUENCIADORES EN EL EMBUDO DE CONVERSIÓN

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RESUMEN

Las marcas de ropa de moda dirigidas a los jóvenes han optado por mostrar modelos en posturas que desafían la posición natural del cuerpo en su publicidad. La prevalencia de esta estrategia de comunicación a través de diferentes marcas conocidas a nivel internacional supone la existencia de un impacto positivo en el comportamiento de los consumidores. El presente trabajo busca analizar tal efecto al evaluar los gestos mostrados en la publicidad de ropa de moda en medios digitales y la forma en que influyen sobre el consumidor durante el proceso de compra. Se analizan las opiniones y actitudes de los consumidores durante las fases iniciales y finales del embudo de conversión (i.e., atracción y conversión). Mediante encuestas digitales los consumidores fueron expuestos a fotografías de ropa de moda donde los modelos mostraban ya sea una postura (o gesto) convencional o poco convencional para posteriormente evaluar su deseo de explorar o comprar la ropa publicitada. Los datos fueron analizados con pruebas de ANOVA y Chi Cuadrada para probar diferencias entre medias. Los resultados muestran que la posición del cuerpo, la posición de las manos y los gestos faciales poco convencionales son efectivos principalmente en las etapas superiores del embudo (Visibilidad y consideración) mientras que las posturas o gestos convencionales incrementan la intención de compra. Los resultados contribuyen a la teoría del comportamiento del consumidor en entornos digitales y ayuda a los profesionales en la materia a diseñar materiales publicitarios que ayuden a incrementar la atención, pero también las ventas.

PALABRAS CLAVE: Posturas, Gestos, Moda, Embudo de Conversión, Comercio en Línea

GESTURES AND POSTURES AS INFLUENCERS IN THE CONVERSION FUNNEL

ABSTRACT

Fashion clothing brands targeting young people have chosen to show models in postures that challenge the natural position of the body in their advertising. Prevalence of this communication strategy across different internationally known brands implies the existence of a positive impact on consumer behavior. The present work aim to assess such an effect by evaluating the gestures shown in the advertising of fashion clothing in digital media and the way they influence consumers during the purchase process. Opinions and attitudes of consumers are assessed during the phases of the conversion funnel (i.e., attraction and conversion). Through digital surveys, consumers were exposed to photographs of fashionable clothing where models showed either a conventional or unconventional posture (or gesture) to later evaluate their desire to explore or buy the advertised clothing. Data were analyzed with ANOVA and Chi Square tests to test for means' differences. Results show that unconventional body position, hand position and facial gestures are effective mainly in the upper stages of the funnel (Visibility and consideration) while conventional postures or gestures increase the purchase intentions. Results contribute to the theory of consumer behavior in digital environments and help professionals in the field to design advertising materials that help increase awareness and sales.

JEL: D71, D74, J16, M14, M31, M51, Z18,

KEYWORDS: Postures, Gestures, Fashion, Conversion Funnel, Online Commerce

INTRODUCCIÓN

Una persona puede recibir entre 3,000 y 5,000 mensajes publicitarios al día a través de los diferentes medios de difusión off y online (Nonsoque, 2018). La saturación de información a la que está sometido lleva al consumidor a un bloqueo mental como medida de protección lo que lleva a considerar si la inversión en publicidad es un gasto inútil. En los medios tradicionales (e.g., cine, publicidad exterior, radio, prensa y televisión) al igual que en los medios digitales (e.g., blogs, canales de video, servicios de *streaming*, redes sociales) los usuarios muestran menos tolerantes a la saturación publicitaria (De Zordo, 2019). La industria de la moda, ante la saturación de mensajes, busca nuevas formas de atraer la atención de sus consumidores y de incentivar las ventas. El uso de modelos atractivos, pero que se salen de los estándares más tradicionales ha sido una herramienta muy utilizada. Así, encontramos marcas que hacen uso de modelos pocos convencionales como el caso de como la marca sueca H&M que muestra una mujer musulmana de origen paquistaní y marroquí vistiendo el *hiyab* (velo para la cabeza) y ropa holgada que cubre todo su cuerpo. De la misma forma vemos anuncios publicitarios utilizando a modelos de talla grande, Drag Queens, de edad avanzada, con prótesis en el cuerpo, con síndrome de Down o con vitíligo. Con ellas las marcas buscan democratizar los estereotipos de la moda y ser más inclusivos (Flotats, 2015).

De manera similar, las marcas de ropa de moda utilizan posturas poco convencionales de los modelos o gestos que en primera apariencia no invitan a explorar la marca como elementos de promoción y diferenciación. En ocasiones dichas poses han sido criticadas y señaladas como ridículas, absurdas e imposibles al menos para el común denominador de las personas (Xataca, 2011). Sin embargo, las marcas continúan su uso lo que hace suponer que obtienen buenos resultados con su uso y lleva a proponer la pregunta de investigación acerca del impacto que tiene en el comportamiento del consumidor. Con tal objetivo, la presente investigación analiza la intención de explorar y la intención de compra de consumidores jóvenes cuando se les muestra una publicidad de ropa de moda con poses convencionales en comparación con una publicidad con modelos en pose más convencional. En la primera sección del artículo se presenta una revisión de la literatura referente a la publicidad de ropa de moda, el lenguaje no verbal y sobre el comportamiento de compra en medios digitales de dichos productos. En seguida, presentamos la metodología del estudio; para continuar en la tercera sección con la presentación de resultados basados en análisis de Chi Cuadrada y ANOVA de un solo factor. En la última sección presentamos nuestras conclusiones y las limitaciones del estudio, así como recomendaciones para los profesionales de la mercadotecnia.

REVISIÓN LITERARIA

La marca es un atributo psicológico de los atributos que los consumidores asocian más a características simbólicas y emocionales que a aspectos utilitarios (Lee, 2009). Las marcas, en especial las de ropa de moda, desean asociar sus productos con atributos que les permita diferenciarse de sus competidores y ganar un posicionamiento único. En esta situación, las marcas de ropa han cambiado la forma de comunicarse en el mercado, empleando modelos que por la postura adoptada transmitan características de novedad, tendencia e incluso lujo.

Las Marcas de Ropa de Moda y su Venta a Través de los Canales Digitales

La moda, de acuerdo a la definición que proporciona el diccionario Cambridge (n.d.), representa un estilo que es popular en un tiempo o época determinada, especialmente en ropa, accesorios, peinados, maquillaje, etc. Adicionalmente, la moda puede ser interpretada como un fenómeno cultural que permite proyectar la

personalidad de los individuos de una forma visual (Kratz y Reiner, 1998). Permite comunicar visualmente, quienes son, pero también a qué grupo social pertenecen o aspiran pertenecer. La moda busca atraer a las personas por su sentido de pertenencia y la forma en la que se puede incluir a un individuo en una comunidad con el simple hecho de usar una prenda de ropa similar al de otra persona. De esta forma, la moda se ha convertido en una forma de identificación social en la cual se suelen adaptar estilos y tendencias impuestas por un grupo en particular. Portés (2015) establece que la teoría de identidad social, propuesta por Henri Tajfel, estudia la identidad colectiva desde una perspectiva de psicología social, esto es a partir de las relaciones intergrupales, procesos grupales y la definición del “nosotros”. La identidad social media la relación entre la expresión personal y comunitaria. Se puede decir así, que la moda parte de la necesidad de inclusión o pertenencia y ayuda a definir la forma adecuada en que se actúa en sociedad. La marca en la moda es un factor determinante a la hora de comprar.

El enorme crecimiento que han tenido las tecnologías digitales y el gran número de dispositivos inteligentes (e.g., teléfonos celulares, tabletas) han llevado a las empresas a utilizar canales de venta tradicionales y en línea. La llamada estrategia omnicanal consiste en utilizar tantos los canales tradicionales como los electrónicos para comunicarse con los consumidores potenciales y convencerlos para que adquieran los productos de la marca, así como establecer una relación duradera con ellos. Especialmente para los jóvenes es importante que las marcas manejen los canales digitales. Las compras a través de los medios digitales traen consigo muchos beneficios como ahorro de tiempo, evitar salir de casa, y horarios de atención más amplios, lo que representa una mayor conveniencia para los usuarios. Los jóvenes consumidores están más familiarizados con el Internet, las redes sociales y están acostumbrados a realizar transacciones financieras o de compra venta a través de estos medios. En México, por ejemplo, de acuerdo a reportes de gobierno (Ift, 2020) existen 80.6 millones de usuarios de Internet en 2019 y el aproximadamente el 93% de ellos lo hacen a través de sus teléfonos celulares inteligentes. A nivel global, las estadísticas son similares. El comercio electrónico ha crecido año con año, esperando que el 2021 sobrepase los 2.14 mil millones de usuarios representando el 11.9% de las ventas totales de las empresas (Statista, 2021).

En 2018 el 2.86% de las visitas a sitios web se convirtieron en compras y el 61% de las visitas a puntos de venta digitales se realizaron a través de los teléfonos móviles inteligentes superando a las realizadas a través de computadoras portátiles o de escritorio. Sin embargo, el 61% de las compras en línea se llevan a cabo por computadora y sólo el 45% en los teléfonos inteligentes. (Statista, 2021). Como se puede apreciar el proceso de decisión de compra no se da de manera exclusiva en los canales tradicionales o digitales. Ahora los consumidores cambian de canales y dispositivos para tener una decisión de compra más informada y de manera más conveniente. De igual manera, los consumidores utilizan los medios digitales para realizar una comparación de precios aun cuando se encuentren en una tienda física. Los pagos a través de los dispositivos electrónicos evitan el uso de efectivo y de tarjetas bancarias físicas, por lo que son preferidos por los usuarios. Para 2017 existían más de 254 millones de cuentas activas en PayPal en el mundo (Statista, 2021) lo que ayuda a demostrar la aceptación de los medios de pagos electrónicos. Finalmente, de acuerdo con la empresa KPMG el 30% de los consumidores que ha comprado en línea prefieren comprar a través de las mismas páginas lo que denota que se convierten en consumidores habituales, fieles a la marca (Alfaro, 2018).

Las Posturas y los Gestos y el Comportamiento de lo Consumidores

La marca trasciende los aspectos materiales para situarse en una dimensión profundamente emocional, asociada a valores tangibles e intangibles que derivan en un deseo o aspiración en el consumidor. El consumidor basa sus deseos y aspiraciones en la representación que las marcas hacen en su publicidad apoyados en el uso de modelos que representan el estado ideal a alcanzar. Navarro (2018) señala que las marcas de moda diseñan estrategias para tratar de posicionar sus productos de forma definida y acorde a su esencia, para esto las marcas lanzan diferentes estímulos al consumidor que le ayuden a generar esa visión personal de la marca, entre ellos el uso de modelos como representación de los valores de la marca

Así mismo, Mullet y Karson (1985) establecen que la intención de compra se define como la susceptibilidad de un individuo a comprar un producto o servicio de alguna marca o establecimiento. Navarro (2018) en base a la teoría social de la moda, argumenta que los consumidores adoptan determinados comportamientos con el fin de integrarse en un grupo social determinado o con el objetivo de acercarse más a las personas que forman parte de sus grupos de referencia, así como para marcar distancia con otros grupos con los que no quieren ser asociados. Los consumidores pueden expresarse a través de la ropa que compran y es una forma de presentarse ante los demás para tratar de encajar. Y la publicidad de las marcas de moda es una herramienta que ayuda a los consumidores en ese proceso de expresión personal y comunitaria. Navarro (2018) establece que la comunicación es una gran aliada de las marcas de moda, pues ayuda a aumentar su valor de marca y consolidar su posicionamiento en el mercado. La fotografía publicitaria de moda es una de las herramientas de comunicación más utilizada por las marcas de ropa de moda. Julio (2019) comenta que la fotografía de ropa de moda, a menudo explora temas fuera de lo común, a un nivel más fantasioso donde se puede jugar con los diferentes elementos como las prendas, las proporciones, las siluetas, los colores, los encuadres y los modelos. El manejo de los elementos de una manera inusual, entre ellos la postura y gestos de los modelos lleva la publicidad y la exposición de las prendas a contar una historia de una manera artística y única que ofrece un gran atractivo a los consumidores potenciales. Se busca que las imágenes muestren algo más que la prenda en un esfuerzo básico de venta.

Las posturas y gestos de los modelos forman parte de una comunicación no verbal. Para Ruiz et al., (2013) representan un lenguaje complementario más allá de las palabras basado en gestos, posturas, miradas, que reflejan las actitudes conscientes o inconscientes que adoptan los consumidores potenciales. A través del lenguaje no verbal se expresan estados de ánimo y sentimientos. El significado de las posturas y gestos se basa en parte en el entorno, la cultura, las creencias o los hábitos sociales del grupo social en que se presentan. La postura o gesto adoptada por los modelos puede transmitir un mensaje que complementa o reafirme el mensaje hablado, pero en ocasiones puede no tener relación con el mensaje oral e incluso llegar a contradecirlo. De esta forma, la codificación (i.e., la relación entre el signo y su significado) pueden ser arbitraria si el mensaje no verbal no se relaciona en nada a lo que ese acto significa, icónica cuando el acto no verbal se relaciona con su significado Ruiz et al., (2013). Cuando se habla de comunicación no verbal, tenemos que hacer referencia a tres áreas de estudio fundamentales: la paralingüística, la kinesia y la proxémica. La paralingüística estudia los aspectos no semánticos del lenguaje, como los tonos empleados, el ritmo con el que se habla, el volumen de la voz, los silencios y los timbres. La kinesia, se dedica a estudiar el significado de los movimientos humanos y la proxémica hace referencia al análisis del espacio personal o espacio que circunda a los individuos (Ruiz et al., 2013).

Esta investigación se centra en la kinesia, específicamente en los factores de la expresión facial, la postura y los gestos de los modelos, ya que es una rama del lenguaje no verbal que se puede estudiar a través de fotografías publicitarias. El estudio se centra en el uso del cuerpo de una modelo para transmitir un mensaje por parte de las marcas de moda, ampliando el significado de los movimientos del cuerpo humano. Dentro de la kinesia se analizan los movimientos de todo el rostro, manos, brazos y piernas, cabeza y cuerpo. Los gestos transmiten información sobre el estado de ánimo o expresan una valoración de algo o alguien. Al estudiarlos se analiza la forma en que los individuos se paran, se sientan o caminan. Todos estos factores suelen transmitir intensidad emocional o expresar su estado emocional en un momento dado (Ruiz et al., 2013). De forma similar, Ruiz et al., (2013) establecen que, a través de los gestos, se transmite una gran cantidad de información, en especial a través de los ojos y de la boca, que expresan sentimientos o actitudes del emisor. Dentro de las expresiones faciales, cobra especial importancia el análisis de la sonrisa, pero también se mencionan muecas se relacionan con sentimientos negativos como la ira, el disgusto o el aburrimiento. Uno de los principales protagonistas de los gestos son las manos. Ruiz et al. (2013) identifica cuatro tipos de posturas de manos que comunican diferentes cosas: a) Manos entrelazadas: pueden poner de manifiesto que la persona está nerviosa, triste o con ansiedad. b) Manos de ojiva, también conocida como manos en V. Este gesto es frecuente en ambientes laborales, cuando se establecen relaciones entre superior y subordinados. Implican seguridad en lo que se transmite y autoridad. c) Cogerse la muñeca con una de

las manos: es propio de situaciones de espera en las que no se sabe muy bien que hacer. Transmite nerviosismo. d) Pulgares en contacto: se utiliza para transmitir dominio y superioridad. De esta forma, este estudio analiza tres elementos de la comunicación no verbal (i.e., Postura convencional vs. Postura no convencional, Gesto Neutral (desinteresado) vs. Gesto feliz y Posición de manos convencional vs. Posición de manos no convencional) y evalúa su impacto sobre la intención del consumidor para continuar explorando el sitio de venta y sobre la intención de compra de la prenda de moda publicitada. De la combinación de estas variables se deprenden las siguientes hipótesis:

H₁: Una postura corporal poco convencional aumenta la intención de explorar el punto de venta.

H₂: Una postura corporal poco convencional aumenta la intención de compra de la marca.

H₃: Un gesto facial enojado es más efectivo que uno feliz para aumentar la intención de explorar el punto de venta.

H₄: Un gesto facial enojado es más efectivo que uno feliz para aumentar la intención de compra de la marca.

H₅: Un gesto manos poco convencional de las modelos aumenta la intención de explorar el punto de venta.

H₆: Un gesto de manos poco convencional de las modelos aumenta la intención de compra la marca.

METODOLOGÍA

En la primera parte del estudio se realizó una investigación en fuentes secundarias para establecer los conceptos de moda, publicidad y kinesia que fundamentan esta investigación, que tiene como objetivo comprobar los efectos de la kinesia en la intención de explorar, así como en la intención de compra, esto en base a la revisión de literatura sobre el tema. El estudio es descriptivo y correlacional lo que permite analizar la manera en que los elementos de la kinesia impactan los comportamientos del consumidor. Así mismo, el estudio tiene un diseño transversal, ya que se recolectó información entre los consumidores en una sola ocasión. Los datos fueron recolectados de octubre a noviembre del 2020 mediante un instrumento diseñado en SurveyMonkey. Con un diseño muestral por conveniencia se seleccionó de manera aleatoria un determinado número de individuos de ambos sexos y diferentes grupos de edades y niveles socioeconómicos. La muestra final estuvo integrada por 403 mujeres de entre 17 a 39 años de edad del área de Saltillo, Coahuila México. El diseño de la encuesta está dividido en 4 secciones para conocer los efectos de la kinesia en el comportamiento del consumidor, destacando la postura, los rasgos faciales, la posición de las manos. Estos factores, que se toman de la kinesia, se seleccionaron por ser las características que son más fáciles de distinguir en publicidad. La primera sección se presenta como una introducción a los consumidores, indagando principalmente su comportamiento de compra. En la segunda sección se analizan imágenes, asignadas de manera aleatoria, que podrían mostrar una postura poco convencional o una imagen con postura convencional, para ver el efecto que ocasiona en los consumidores (ver figura 1). En la tercera sección se analiza, con el mismo fin, ya sea una imagen con gestos molestos o una con gestos felices y en la tercera sección se analiza la posición de las manos, completamente relajadas las manos o manos en movimiento. La decisión de qué tipo de imagen se le muestra al consumidor es aleatoria, de tal forma que el 50% de la muestra recibió un tipo de fotografía y el otro 50% otro tipo para cada sección.

El cuestionario como instrumento de medición, cuenta con preguntas de elección múltiple, principalmente utilizando preguntas de estimación, ofreciendo alternativas con respuestas graduadas en intensidad sobre el punto de información deseado. Se utilizaron escalas tipo Likert, los ítems fueron presentados de forma de afirmaciones o juicios, con un número de categoría de 4 respuestas. El instrumento fue validado por 2 expertos en la materia, para conocer la validez de contenido del instrumento e identificar si éste arroja o no resultados auténticos. Para el análisis de los datos se utilizó el programa IBM SPSS statistics para la realización de tablas de frecuencia, tablas cruzadas y pruebas de ji cuadrada, para comprobación de las hipótesis.

Figura 1: Fotografías Utilizadas en el Estudio



RESULTADOS

La tabla 1 resume los datos de las mujeres que participaron en el estudio. El 49.4% son mujeres de 20 años o menos, mayormente solteras (85.1%) que estudian actualmente (59.6%).

Comprobación de Hipótesis

Para la comprobación de las hipótesis se llevaron a cabo análisis de ANOVA de un factor para comparar promedios de intención del consumidor y pruebas de Chi Cuadrada, para verificar el grado de acuerdo. Cada postura mostrada se mide en función de la influencia sobre la intención de explorar el sitio de venta por internet y la intención de comprar la ropa de moda. La exploración representa la parte superior o inicial del embudo de conversión y la compra la parte inferior o casi final del mismo. Los resultados se muestran en las tablas 2-9. La tabla 1 muestra que las posturas del cuerpo convencionales favorecen tanto a la exploración como a la intención de compra. Ambos resultados significativos ($p < .001$). Con un efecto ligeramente superior en la etapa de exploración. Las tablas de Chi cuadrada (Tablas 2 y 3) corroboran estos resultados por lo que no hay evidencia suficiente que confirme las hipótesis H_1 y H_2 .

Tabla 1: ANOVA de un Factor Para Postura Corporal

Postura Corporal	Intención de Explorar (Promedio) ***	Intención de Comprar (Promedio) ***
Poco convencional	2.540	2.530
Convencional	2.220	2.120

Significancia: 0.001***; 0.05**; 0.1*. Valores bajos indican acuerdo.

Tabla 2: Chi Cuadrada Para Postura Corporal e Intención de Explorar

Postura corporal	Intención de Explorar ***				
	TA	A	D	TD	Total
Poco convencional	4.4%	42.4%	47.8%	5.4%	100%
Convencional	9.5%	62.0%	26.0%	2.5%	100%

Significancia: 0.001***; 0.05**; 0.1*

Tabla 3: Chi Cuadrada Para Postura Corporal e Intención de Comprar

Postura corporal	Intención de Comprar ***				
	TA	A	D	TD	Total
Poco convencional	3.0%	48.8%	40.9%	7.4%	100%
Convencional	12.5%	64.5%	22.0%	1.0%	100%

Significancia: 0.001***; 0.05**; 0.1*

La tabla 4 muestra que gestos faciales felices en las modelos son más eficaces para la exploración y para la intención de compra. Ambos resultados significativos ($p < .001$). Con un efecto ligeramente superior en la etapa de exploración. Las tablas 5 y 6 muestran los resultados de Chi cuadrada que no fueron significativos estadísticamente por lo que no hay evidencia suficiente que confirme las hipótesis H_3 y H_4 .

Tabla 4: ANOVA de un Factor Para Gesto Facial

Gesto Facial	Intención de Explorar (Promedio) ***	Intención de Comprar (Promedio) ***
Enojado	2.030	2.070
Feliz	1.580	1.530

Significancia: 0.001***; 0.05**; 0.1*. Valores bajos indican acuerdo.

Tabla 5: Chi Cuadrada Para Gesto Facial e Intención de Explorar

Gesto facial	Intención de Explorar				
	TA	A	D	TD	Total
Enojado	0.0%	33.3%	66.7%	0.0%	100%
Feliz	0.0%	100.0%	0.0%	0.0%	100%

Significancia: 0.001***; 0.05**; 0.1*

Tabla 6: Chi Cuadrada Para Gesto Facial e Intención de Comprar

Gesto facial	Intención de Comprar				
	TA	A	D	TD	Total
Enojado	33.3%	0.0%	0.0%	66.7%	100%
Feliz	100.0%	0.0%	0.0%	0.0%	100%

Significancia: 0.001***; 0.05**; 0.1*

Finalmente, la tabla 7 permite confirmar las hipótesis H₅ y H₆ pues los gestos de manos percibidos como incómodos incrementa tanto a la exploración como a la intención de compra. Ambos resultados significativos (p.< .001). Los resultados también son confirmados con la prueba de Chi cuadrada mostrados en las tablas 8 y 9 que resultaron significativas a un nivel del 95%.

Tabla 7: ANOVA de un Factor Para Gesto de Manos

Gesto de Manos	Intención de Explorar (Promedio) ***	Intención de Comprar (Promedio) ***
Incómodo	1.970	1.960
Convencional	2.260	2.270

Significancia: 0.001***; 0.05**; 0.1*. Valores bajos indican acuerdo.

Tabla 8: Chi Cuadrada Para Gesto de Manos e Intención de Explorar

Postura de manos	Intención de explorar **				
	TA	A	D	TD	Total
Incómodo	24.8%	55.4%	17.8%	2.0%	100%
Convencional	13.4%	52.7%	27.9%	6.0%	100%

Significancia: 0.001***; 0.05**; 0.1*

Tabla 9: Chi Cuadrada Para Gesto de Manos e Intención de Comprar

Postura de manos	Intención de Comprar **				
	TA	A	D	TD	Total
Incómodo	25.2%	55.4%	17.3%	2.0%	100%
Convencional	13.9%	51.7%	27.9%	6.5%	100%

Significancia: 0.001***; 0.05**; 0.1*

CONCLUSIONES

El estudio hace referencia al embudo de la conversión, ya que es una herramienta del marketing digital que analiza las diferentes etapas que recorre el consumidor en su viaje de compra en medios digitales. En las primeras etapas donde se busca atraer la atención del consumidor hacia la marca los gestos de las manos pocos convencionales funcionan muy bien para llamar la atención de los consumidores. Los gestos de manos poco usuales también contribuyen positivamente en la etapa avanzada del embudo pues invitan al consumidor a llevar a cabo su compra. Es decir, los gestos de las manos no convencionales funcionan mejor que los convencionales en cualquier etapa del viaje del consumidor. La postura corporal tradicional, en cambio funciona mejor que las menos convencionales y su efecto se observa tanto en la etapa de exploración como en la de compra, aunque con mayor énfasis en la etapa inicial. Por su parte los gestos faciales poco

convencionales (i.e. enojo) no funcionan ni en la tracción ni en la intención de compra. Las caras felices atraen a más consumidores y predisponen al 100% de los consumidores hacia la compra de la marca. Estos resultados ayudan a entender mejor las reacciones de los consumidores de ropa de moda ante los estímulos visuales que publican las marcas. Nos ayuda a entender cuáles elementos de la comunicación no verbal son más efectivos y cuáles funcionan sólo bajo ciertos parámetros.

Así mismo nos ayuda a crear mejor contenido para los medios digitales que ayude tanto a atraer consumidores como a incentivar la compra. El contenido de los anuncios se debe modificar en base a la etapa en que se encuentre el consumidor dentro del embudo de conversión. Como conclusión, el uso de poses, gestos y posturas, se deben de usar de forma combinada, las posturas y gestos poco convencionales deben de ser el gancho para que las personas comiencen a hablar de una marca de moda, deben de ser la atracción de los clientes y la forma en la que se puedan dar a conocer, siempre respetando una misma línea y lenguaje, siendo esta la clave para aumentar la intención de explorar los puntos de venta de las marcas e incluirla dentro del conjunto de decisión de compra. Y las poses convencionales deben utilizarse en una segunda etapa, para que los consumidores puedan ver como se usaría una prenda, y permitir una evaluación más detallada de como luce. El lenguaje corporal y la forma en la que puede ser usado en las marcas de ropa nos habla de la importancia de tener un lenguaje en la marca definido, saber cuál es la identidad de tu marca, el mercado al que se quiere vender, el lugar y la forma en la cual se va a realizar.

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DETERMINANTES DEL PAGO ELECTRÓNICO MÓVIL DURANTE EL CONFINAMIENTO: CoDi EN MÉXICO

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RESUMEN

En marzo de 2020, de manera inesperada, los ciudadanos se vieron forzados a permanecer en confinamiento derivado de las medidas que los gobiernos impusieron para tratar de detener la pandemia por la COVID-19. Las personas en confinamiento cambiaron sus hábitos de trabajo, estudio y de consumo. El comercio electrónico se disparó y con él, los nuevos sistemas de pago electrónico. En especial los pagos electrónicos móviles que habían tenido un lento crecimiento antes de la pandemia, despegaron de manera importante, por la conveniencia que representaba hacerlos desde el hogar. Tal es el caso de las plataformas de pago móviles que los bancos centrales de diversos países están impulsando como un medio para incentivar la economía libre de efectivo. El Banco Central de México, lanzó al mercado en septiembre del 2019 CoDi, una plataforma para realizar pagos electrónicos a través de código QR sin costo para los negocios ni para los usuarios. Los resultados antes de la pandemia mostraban un crecimiento lento. El presente estudio se llevó a cabo a 6 meses de iniciado el confinamiento para evaluar la percepción de los consumidores sobre la plataforma de pago, respecto a dos atributos: la confianza y la facilidad de uso. De igual forma, se buscaba definir la intención de uso como resultado de esos dos atributos y de la edad de los usuarios que ha sido identificada como un determinante importante. Los resultados, en base a análisis de Chi Cuadrada y ANOVA de un solo factor, muestran que tanto la confianza en las operaciones de la plataforma como la facilidad de uso percibida son atributos importantes que influyen la intención de uso de CoDi en México. Los grupos de edad que están más dispuestos a utilizarlos son los más jóvenes, identificados como la Generación Z y los Millennials. El grupo más reticente es la Generación X.

PALABRAS CLAVE: Pagos Electrónicos Móviles, Confinamiento, Comercio Electrónico, Codi.

DRIVERS OF MOBILE ELECTRONIC PAYMENT DURING CONFINEMENT: CoDi IN MEXICO

ABSTRACT

In March 2020, unexpectedly, citizens were forced into confinement as a result of measures that governments imposed trying to stop the COVID-19 pandemic. People in confinement changed their work, study and consumption habits. Electronic commerce exploded and with it, the new electronic payment systems. Especially mobile electronic payments, which had grown slowly before the pandemic, took off in an important way, due to the convenience of making them from home. Such is the case with mobile payment platforms that central banks in several countries are promoting as a means of boosting a cashless economy. In September 2019, the Central Bank of Mexico launched CoDi, a platform to make electronic payments through QR code at no cost to businesses or users. Results before the pandemic showed slow growth. The present study was carried out 6 months after the confinement began to evaluate consumers' perception regarding the payment platform, based on two attributes: perceived trust and ease of use. Additionally, it was sought to define the intention of use as a result of these two attributes and age of users, which has been identified as important determinants of consumption. Results, based on Chi Squared analysis and one-way ANOVA, show that both trust in the platform's operations and perceived ease of use are important attributes

that influence the intention to use CoDi in Mexico. The age groups that are most willing to use them are the youngest, identified as Generation Z and Millennials. The most reticent group is Generation X.

JEL: D71, D74, J16, M14, M31, M51, Z18,

KEYWORDS: Mobile Electronic Payment, Confinement, E-Commerce, Codi.

INTRODUCCIÓN

Los consumidores, especialmente en los grupos de edad madura, se han mostrado reticentes al uso de los pagos electrónicos por cuestiones entre las que destacan la poca destreza para el manejo de aplicaciones digitales y la desconfianza que en ellos genera (Ardiansah, Chariri y Januarti, 2019). Sin embargo, durante el confinamiento obligado para detener la propagación del COVID-19, los consumidores se vieron forzados a adquirir productos y servicios en las plataformas digitales de comercio donde se favorece el pago electrónico sobre otras posibilidades de pago en físico. El Banco de México, ha realizado grandes esfuerzos para incentivar el pago electrónico de productos y servicios con el objetivo de desmonetizar la economía, o lo que en inglés se conoce como *cashless economy* o una economía libre de efectivo. Las ventajas que resalta la máxima institución financiera en el país incluye beneficios tanto para los consumidores como para las empresas, especialmente para las de menor tamaño que a través de la aplicación gratuita creada por la institución (CoDi), las ayuda a incorporarse a la economía formal a través de las tecnologías digitales. El registro de los pagos electrónicos también beneficia al gobierno, quien tendrá registro de las actividades de compraventa realizadas por negocios y consumidores.

Sin embargo, los consumidores no ven con el mismo optimismo la digitalización de los pagos, lo que a un año de haberse lanzado la aplicación CoDi del banco de México, el nivel de aceptación permanecía bajo al finalizar el primer trimestre del 2020 (Banxico, 2021). Una historia diferente surge de la mano de la pandemia por Covid-19 y el consecuente confinamiento que, como medio para propagar su avance, se estableció en la mayor parte de los países del mundo, incluyendo México. Los resultados que reporta la página web oficial de la plataforma (CoDi, 2021) al finalizar el año 2020 muestran crecimientos mayores al 4% respecto los trimestres anteriores en la mayor parte de las entidades federativas (i.e., estados) del país. La presente investigación realizada después de 4 meses de haber iniciado la pandemia en México, analiza la percepción de consumidores acerca de la facilidad de uso de la plataforma digital CoDi y su intención de utilizarla. Se analiza también la percepción de confianza en el uso de la aplicación. Y la relación de estas tres variables por grupos de edad. En la primera sección del artículo presentamos una revisión de la literatura referente al uso de las plataformas digitales de pago en México y el mundo, se brindan los antecedentes sobre la app CoDi y se buscan referencias en investigaciones anteriores sobre la confianza que genera en los diferentes grupos de consumidores por edad y su impacto en la intención de uso. En seguida, presentamos la metodología del estudio; para continuar en la tercera sección con la presentación de resultados basados en análisis de Chi Cuadrada y ANOVA de un solo factor. En la última sección presentamos nuestras conclusiones y las limitaciones del estudio.

REVISIÓN LITERARIA

Los Pagos Electrónicos

A pesar del gran crecimiento en la adopción de teléfonos celulares inteligentes y otros dispositivos con acceso a Internet, en Latinoamérica y el Caribe existe poca innovación en el campo de los pagos electrónicos. Los sistemas de pagos electrónicos tradicionales (e.g., terminales bancarias) en el comercio minorista, especialmente en economías emergentes, han enfrentado dificultades derivadas de su alto costo para los negocios y para los consumidores lo que limita su acceso a grandes sectores de la población. Esto llevado a empresas privadas y a los gobiernos a desarrollar nuevos sistemas para bancarizar las operaciones

comerciales especialmente en los pequeños negocios. Algunos han generado ecosistemas bancarios de bajo costo e incluso de banca abierta sin costo para ninguna de las partes involucradas en la compraventa (Alfonso, Tombini y Zampolli, 2020). En países como Brasil y México, los bancos centrales han dado un gran impulso a las políticas gubernamentales que buscan desmonetizar el mercado.

Sin embargo, no es fácil promover el uso de los pagos electrónicos en los pequeños negocios, especialmente en el comercio minorista. El comercio minorista maneja un gran número de operaciones pequeñas, es decir, de poco valor monetario, lo que resta atractivo ante las grandes bancas comerciales. Muchas de las operaciones que se realizan mediante la banca enfrentan restricciones operativas como el funcionamiento de lunes a viernes o durante horas laborales. De igual forma, algunas de esas operaciones pueden tomar varios días laborales para poder finalizar el pago. Estos obstáculos para bancarizar las operaciones de los pequeños comercios minoristas pueden tener su origen en la falta de interés de la banca comercial en ese sector y en la poca competencia que existe que lleva a altos cobros por transacción. Adicionalmente, en las economías emergentes existe una gran proporción de la población con niveles bajos de ingresos, que poseen poca educación financiera, que los deja sin opciones en sistemas de pagos electrónicos, por lo que el efectivo constituye su principal medio de pago (Alfonso, Tombini y Zampolli, 2020).

La Plataforma Digital Codi

La plataforma CoDi, la cual es una marca registrada, fue desarrollada por el Banco de México, el banco central del país y máxima institución financiera que marca las estrategias económicas a seguir. El objetivo de la plataforma es facilitar las transacciones de pago y cobro a través de transferencias electrónicas realizadas desde los teléfonos móviles con uso de códigos QR y NFC. CoDi permite a comercios y consumidores realizar pagos y cobros en tiempo real de manera segura, rápida, en un esquema 24/7 y libre de costo para cualquiera de los participantes (Banxico, 2021). Las personas que cobran (físicas o morales) deben realizar un contrato de servicio con alguna de las instituciones financieras afiliadas a CoDi y contar con alguno de los medios para generar mensajes de cobro, que pueden ser: 1) Dispositivo móvil (e.g. teléfono inteligente) con la funcionalidad CoDi instalada mediante la aplicación de la institución bancaria con la que firmaron el contrato de servicio, 2) Capacidad de generar e imprimir códigos QR estáticos, o 3) Cualquier software que permita generar mensajes de cobro a través de Internet. En septiembre del 2019, CoDi fue lanzado al mercado y para finales de ese mes, la plataforma ya tenía registradas a las instituciones bancarias que manejan el 99.3% de las cuentas (i.e., más de tres mil cuentas de clientes) y el 99.7% del total de las transacciones menores a \$8,000.00 pesos mexicanos (i.e., 400 USD (Díaz de León-Carrillo, 2019). La campaña promocional a cargo de Banxico se enfocó en la fase de adopción, donde buscaba informar al público objetivo sobre la existencia de esta plataforma, motivarlos a probarla y a instalar la aplicación en sus dispositivos móviles.

Al 02 de enero del 2020 CoDi reportó 1,600,222 cuentas válidas, de las cuales 133,379 (8.33%) habían realizado alguna operación de pago (71,995) o cobro (61,384) (Pixel, 2020). Este resultado estaba por debajo de las expectativas que expresó la Asociación de Bancos de México, quienes proyectaban cerrar el año 2019 con casi dos millones de cuentas (Pixel, 2020) y apenas superaba las estimaciones de Banxico de cuentas asociadas para el mismo año; logrando sólo realizar el 7% del 1.8 millones de transferencias estimadas para esa fecha (Banxico, 2021). Para diciembre del 2020, los números se dispararon llegando a un total de 6,142,203 cuentas validadas, de las cuales 300,564 habían realizado al menos una transferencia (Morales, 2020) debido principalmente por el incremento de las compras en línea a partir del establecimiento de las medidas de confinamiento, la distancia social e incluso el cierre de establecimientos físicos. De acuerdo con el Banco de Pagos Internacionales con base en Suiza el uso de CoDi mostró un crecimiento durante la pandemia que revirtió la tendencia de bajo crecimiento que experimentaba antes de su aparición (Morales, 2020), Tanto el volumen de transacciones de pago en línea como el valor total de las mismas, se incrementaron rápidamente pues muchos consumidores encontraron

incentivos adicionales para usar el comercio electrónico durante el confinamiento o incluso no tenían otra alternativa que usar los pagos electrónicos (Alfonso, Tombini y Zampolli, 2020).

La Dificultad en el Uso de Pagos Electrónicos Móviles

Las nuevas plataformas móviles de pago electrónico proporcionan una alternativa a los sistemas de pago en efectivo y a los pagos electrónicos más tradicionales como el uso de la tarjeta de crédito. Aunque los pagos electrónicos constituyen un método más conveniente para realizar transacciones comerciales o financieras, los clientes no han optado por los pagos electrónicos como se esperaba. Investigaciones previas han investigado este problema y han identificado que hay una variedad de factores que obstaculizan la adopción de los pagos electrónicos por parte de clientes y pequeños negocios comerciales. La principal razón parece radicar en la percepción de que no existe una ventaja determinante frente a otras opciones de pago. Otros posibles obstáculos son la fragmentación de las opciones de pago móvil, la falta de conocimiento de los consumidores sobre la funcionalidad, los viejos hábitos, imagen y riesgos potenciales relacionados con los proveedores de servicios y la necesidad de aprobación social. La adopción de innovaciones tecnológicas como los pagos móviles a menudo requiere esfuerzo y aprendizaje por parte del consumidor y los riesgos de seguridad y de privacidad percibidos, junto con los riesgos de dependencia del teléfono móvil son obstáculos críticos en el proceso de adopción (Eriksson, Gökhan, y Stenius, 2021). Las innovaciones tecnológicas suponen cambios para los consumidores que muchas veces no están dispuestos a aceptar fácilmente. La teoría de la resistencia a la innovación explica que la resistencia del consumidor a la adopción de nuevas tecnologías se puede clasificar en dos dimensiones principales: 1) barreras funcionales y 2) barreras psicológicas (Ram y Seth, 1989).

La dimensión funcional incluye, a su vez tres barreras: de uso, valor y riesgo, que surgen cuando un consumidor espera cambios sustanciales al adoptar la innovación. La dimensión psicológica de resistencia, por otra parte, comprende la tradición y la imagen, y surgen cuando las normas y las tradiciones de los consumidores no se alinean con sus percepciones de la imagen del servicio ofrecido. Investigaciones anteriores sugieren que estas cinco barreras son muy relevantes en el contexto de los servicios financieros digitales, entre ellos los pagos electrónicos. El riesgo percibido constituye una barrera de riesgo asociada con la incertidumbre y los posibles efectos secundarios no anticipados relacionados con las innovaciones, lo que disminuye la probabilidad de utilizar las tecnologías de pago móviles (Dahlberg, Guo y Ondrus, 2015; De Kerviler, Demoulin y Zidda (2016); Donohue et al. (2020), Laukkanen, 2006; Mallat, 2007). En contraparte, la confianza percibida en la plataforma aumenta la intención de uso exceptuando los estratos de menores ingresos (Dakduk, Santalla-Banderalli y Ribamar-Siqueira, 2020). Ardiansah et al. (2020) indica que la facilidad de uso media la relación entre percepción de seguridad y la intención de compra en línea. Estos estudios publicados previamente nos llevan a proponer las siguientes hipótesis:

H₁: A mayor edad menor intención de uso de CoDi

H₂: A mayor edad mayor percepción de dificultad de uso de CoDi

H₃: A mayor edad menor confianza en CoDi

H₄: La dificultad de uso percibida disminuye la intención de uso de CoDi

H₅: La confianza en la aplicación incrementa la intención de uso del CoDi

METODOLOGÍA

El presente estudio es exploratorio y descriptivo, para examinar la intención de uso de la plataforma de pagos móviles CoDi entre hombres y mujeres mexicanas de diversas edades durante el confinamiento por la pandemia COVID-19. Así mismo, se evalúa el impacto de la facilidad de uso y el riesgo a la seguridad percibidos como determinantes de la intención de uso de CoDi. Para la realización del estudio se diseñó un cuestionario que nos permitió identificar la percepción de usuarios del comercio en línea acerca de CoDi y su intención de uso para la realización de otros pagos digitales. En el cuestionario se utilizaron preguntas

de escala de Likert de 5 puntos. Adicionalmente, se solicitó a las participantes brindar información socio demográfica para lograr así un mejor análisis de la información. El cuestionario se distribuyó mediante la plataforma digital *Survey Monkey*, la cual la recolección de datos de manera virtual, compartiendo un enlace con los participantes del estudio a través de distintos medios como correo electrónico, mensajería instantánea y redes sociales. Se realizó un muestreo por conveniencia donde participaron alumnos de pregrado en universidades públicas, quienes además de contestar la encuesta la aplicaron al resto de su familia. De esta forma se logró una base de datos con información de hombres y mujeres de diversos grupos de edad y grado de estudios. La pregunta filtro para poder contestar el cuestionario es si habían realizado al menos una compra en línea en el último año. El trabajo de campo dio inicio el jueves 25 de julio del 2020 y concluyó el 05 de octubre del mismo año, época en que los participantes llevaban 5 meses o más en confinamiento. Los datos se analizaron con el paquete estadístico SPSS con el que se realizaron pruebas de Chi Cuadrada y ANOVA de un solo factor para demostrar las hipótesis planteadas.

RESULTADOS

Estadísticas Descriptivas

Se recibieron 485 respuestas de las cuales 419 fueron validadas y constituyó la muestra final de este estudio. La tabla 1 muestra las características demográficas más relevantes de los participantes, donde se observa que el grupo mayoritario fue el de los jóvenes entre 18 y 29 años (69.10%), con estudios de preparatoria (25.8%) y pregrado (60.1%), de nivel socioeconómico medio (91.6%) y pertenecientes en su mayoría a núcleos familiares de 2 a 4 personas (65.4%).

Comprobación de Hipótesis

Las 5 hipótesis fueron probadas mediante análisis de Chi Cuadrada y ANOVA de un solo factor. Para simplificar la lectura de los datos en relación a la edad, se agruparon a los participantes en base a su pertenencia a las diferentes generaciones que maneja la literatura de negocios y mercadotecnia: *Baby Boomers* (nacidos entre 1949 y 1968), Generación X (1969-1980), Millennials (1981-1993) y Generación Z (1994-2010).

Tabla 1: Impacto de la Edad en la Percepción de los Usuarios

Generación	Confianza (Promedio)	Dificultad (Promedio)	Intención de uso (promedio)**
Generación Z	2.017	3.237	2.706
Millennials	2.037	3.240	2.537
Generación X	1.950	3.133	3.216
Baby Boomers	2.114	3.157	3.052

Significancia: 0.001***; 0.05**; 0.1*. Valores bajos indican acuerdo.

En la tabla 1 se puede apreciar que la edad no demostró tener ningún impacto en la confianza en el uso de la plataforma de pagos electrónicos móviles ni en la percepción de dificultad en su operación, lo que indica que todos los grupos percibieron de manera similar ambos constructos. Sin embargo, la intención de uso si fue significativamente mayor ($p < 0.05$) en los grupos más jóvenes representados por los Millennials y la Generación Z. Así mismo, en las pruebas de Chi Cuadrada sólo resultó significativo el efecto de las generaciones sobre la intención de uso ($p < 0.05$) como se muestra en la tabla 2.

Tabla 2: Prueba de Chi Cuadrada en el Efecto de la Generación Sobre la Intención de Uso de Codi

Generación	Intención de Uso (Porcentaje)**					Total
	TA	A	I	D	TD	
Generación Z	14.4%	29.7%	35.7%	11.5%	8.7%	100%
Millennials	18.5%	29.6%	31.5%	20.4%	0.0%	100%
Generación X	3.3%	25.0%	36.7%	16.7%	18.3%	100%
Baby Boomers	10.5%	5.3%	57.9%	21.1%	5.2%	100%

Significancia: 0.001***; 0.05**; 0.1*

Con estos resultados podemos observar que hay evidencia suficiente para aseverar que la edad si tiene un impacto sobre la intención de uso de CoDi a un nivel de confianza del 95%. Por lo que se sostiene la hipótesis 1. Sin embargo, no se pudo demostrar un impacto estadísticamente significativo entre la edad o generaciones y la percepción de dificultad de uso (H_2) y el nivel de confianza depositado en la plataforma (H_3). La tabla 3 muestra los porcentajes de usuarios que están dispuestos a usar CoDi en base a la percepción de dificultad en su uso. Los resultados muestran que a medida que crece la percepción de dificultad disminuye la intención de uso ($p < 0.001$), con lo que se comprueba la hipótesis 4. Y viceversa, entre aquellos que no perciben dificultad la intención de uso de CoDi es mayor.

Tabla 3: Efecto de la Percepción de Dificultad Sobre la Intención de uso de Codi

Dificultad percibida	Intención de Uso (Porcentaje)***					Total
	TA	A	I	D	TD	
Totalmente de acuerdo	14.8%	18.5%	7.4%	25.9%	33.4%	100%
De acuerdo	2.7%	27.0%	37.9%	21.6%	10.8%	100%
Indeciso	8.0%	25.0%	43.5%	14.5%	9.0%	100%
En desacuerdo	17.3%	36.3%	34.6%	10.2%	1.6%	100%
Totalmente en desacuerdo	42.9%	21.4%	17.9%	3.6%	14.2%	100%

Significancia: 0.001***; 0.05**; 0.1*

En la tabla 4 podemos apreciar la relación entre la confianza percibida en la plataforma y la intención de uso de CoDi. Esta es relación es significativa estadísticamente ($p < 0.001$) y comprueba que existe una relación directa entre estas dos variables. A mayor percepción de confianza, mayor intención de uso de CoDi. De tal forma, que la hipótesis 5 es comprobada.

Tabla 4: Impacto de la Confianza Sobre la Intención de Uso de Codi

Confianza percibida	Intención de Uso (Porcentaje)***					Total
	TA	A	I	D	TD	
Totalmente de acuerdo	44.4%	22.2%	19.0%	4.8%	9.5%	100%
De acuerdo	11.2%	42.9%	34.8%	8.7%	2.5%	100%
Indeciso	3.8%	17.6%	49.1%	17.6%	11.9%	100%
En desacuerdo	13.0%	17.4%	21.7%	39.1%	8.7%	100%
Totalmente en desacuerdo	0.0%	15.4%	7.7%	30.8%	46.2%	100%

Significancia: 0.001***; 0.05**; 0.1*

En resumen, las hipótesis 1, 4 y 5 fueron comprobadas demostrando que existe una afectación positiva del grupo de edad y de la confianza sobre la intención de uso. Y una afectación negativa entre la percepción de dificultad y la intención de uso. No hubo evidencia suficiente para comprobar las hipótesis 2 y 3, por lo que

no podemos asegurar que la edad esté relacionada con la percepción de confianza o de dificultad de uso de CoDi.

CONCLUSIONES

Con las personas confinadas en sus hogares, el comercio electrónico se fortaleció enormemente. Las ventas de comercio electrónico a nivel mundial han crecido a doble o incluso triple dígito, especialmente en categorías como los comestibles y productos para la salud. Así, desde el comienzo de la pandemia, muchos consumidores comenzaron a evitar las transacciones en efectivo y a utilizar los pagos electrónicos móviles, ya que no requieren interacción física con un humano o incluso con un dispositivo electrónico (e.g., terminal bancaria), además que son percibidos como relativamente fáciles de usar. Dicho contexto contribuyó al éxito de los pagos móviles a través de dispositivos como teléfonos y relojes inteligentes. Hasta hace poco, se podría haber argumentado que el efectivo nunca desaparecería debido en parte a la confianza inquebrantable que se tiene en su valor durante tiempos difíciles. Pero la pandemia ha cambiado la concepción de constructos como la confianza y la seguridad percibida en las operaciones comerciales y financieras, ya que ahora el manejo del efectivo (o el contacto que requiere) es considerado menos seguro para las personas.

También para los bancos, mantener y distribuir efectivo a través de su red de cajeros automáticos requiere inversiones regulares, por lo que el uso de las plataformas digitales de pago podría representar una oportunidad para disminuir sus costos. De acuerdo con el Banco Interamericano de Desarrollo (BID), los gobiernos, aunque interesados en la desmonetización de la economía han sido cautelosos sobre el desarrollo de monedas digitales. Sólo algunos países han lanzado proyectos piloto como Suecia y las Bahamas (con la E-Krona y el Sand Dollar respectivamente), pero los resultados no han sido del todo alentadores (García Zaballos e Iglesias Rodríguez, 2017). La introducción de plataformas de pago electrónico promovido por los bancos centrales de los países, está tomando cada vez más fuerza. Los gobiernos aprecian las ventajas que trae consigo el uso de las monedas electrónicas por su bajo costo operativo y el nivel de control sobre la economía que permiten. Uno de los más grandes atractivos es la fiscalización de la economía informal que representa un reto para las autoridades. Los consumidores también se benefician del uso de la moneda electrónica, al no tener que traer consigo efectivo que pueda poner en riesgo su seguridad. Especialmente en el mundo post pandemia, los consumidores se muestran reticentes al contacto personal o con dispositivos que usan muchas otras personas. El uso de su propio teléfono celular como medio de pago brinda una percepción de control sobre la posibilidad de infectarse de COVID-19. Sin embargo, para que los sistemas de pagos electrónicos móviles sean totalmente aceptados deben ser percibidos como fáciles de utilizar y tener confianza de que el sistema hará las operaciones de manera correcta. Especialmente con las generaciones de mayor edad, se debe trabajar para que sean aceptadas totalmente. El presente estudio demostró que en el caso específico de la aceptación de CoDi en México estos tres elementos constituyen elementos esenciales para su éxito.

La OECD (2020) reporta que la crisis del COVID-19 ha dinamizado el comercio electrónico en todos los países, ampliando su alcance, al incluir ahora nuevas empresas, segmentos de consumidores (e.g., personas mayores) y diferentes categorías de productos que con anterioridad no eran adquiridos en medios digitales (e.g., comestibles). Las transacciones de comercio electrónico en muchos países se han desplazado de los artículos de lujo a productos y servicios de uso diario, que son relevantes para un mayor número de personas. Algunos de los cambios en el comercio electrónico se pronostica permanezcan en el largo plazo, lo que representa un incentivo para que las empresas capitalicen sus inversiones en los nuevos canales de venta y los sistemas de pagos electrónicos (OECD, 2020). A pesar del hecho de que la pandemia de COVID-19 está acelerando la digitalización en los servicios financieros, la floreciente industria de la tecnología financiera y las economías desmonetizadas, enfrentarán grandes desafíos después de esta crisis de salud. La razón es que se espera que los ingresos por pagos (digitales y en efectivo) disminuyan debido a la desaceleración global de la actividad económica. Sin embargo, los jugadores que desarrollen un modelo de negocio adecuado sobrevivirán y estarán en una posición más fuerte para enfrentar los desafíos económicos. Los nuevos modelos de negocio deberán incluir plataformas que permitan los pagos

electrónicos móviles de manera gratuita. Los bancos pueden utilizar esto como una oportunidad para repensar y mejorar sus ofertas digitales de tal forma que les permita proporcionar viajes más fluidos a los clientes en el manejo de su dinero y la realización de actividades comerciales. Las instituciones bancarias deben considerar actualizar su infraestructura de pagos (ahora basada en la nube) para manejar el incremento de los pagos electrónicos derivado del aumento del comercio en línea que provocó el confinamiento.

Habiendo experimentado la facilidad y conveniencia de los pagos digitales en tiempos de crisis, es probable que los consumidores quieran seguir usándolos, manteniendo los crecientes volúmenes actuales una vez que la pandemia haya terminado. Los bancos deben prepararse para este resultado. Sin duda, el crecimiento de los pagos electrónicos móviles derivará en la necesidad de una mejor regulación en la industria que funcione como una guía para consumidores y pequeños negocios. El marco regulatorio en las innovaciones de plataformas digitales para pagos móviles permitiría el crecimiento sostenible de la industria y abre el camino para nuevas áreas de investigación que aporten al campo académico y al profesional. Otra línea de investigación se relaciona con la Inteligencia Artificial que se emplea en el comercio electrónico y en las plataformas de pagos móviles, pues impactan directamente al comportamiento de los consumidores, a la operación de los negocios y abre un amplio campo de discusión sobre su funcionamiento para que facilite la actividad comercial en un contexto justo para todos sus participantes.

Limitaciones del Estudio

Aunque este estudio se realizó específicamente para evaluar la aceptación de CoDi en México e identificar los atributos que determinen su aprobación y rechazo, los resultados encontrados son generalizables a las economías de otros países latinoamericanos pues las condiciones económicas y culturales son parecidas. Por esa razón sería conveniente ampliar este estudio mediante la réplica en otros países de Latino América e incluso en otros donde el contexto sociocultural y económico difieran en mayor medida. El presente estudio no identificó las diferencias de opinión entre hombres y mujeres. Sería conveniente conocer si los hombres perciben de manera diferente a las mujeres los atributos de confianza y facilidad de uso de las aplicaciones de pago móviles. De igual forma, la mayor parte de la muestra de este estudio se centró en la generación Z. En especial la Generación X y los *Baby Boomers* se ven sub representados. Ya que la Generación X fue el grupo de edad que mostró menor intención de uso del CoDi y los *Baby Boomers* aparecen como más dispuestos a probar las nuevas tecnologías de pago, es recomendable aumentar la participación de estos grupos para comprobar si estos resultados se mantienen. Por último, el presente estudio se centró en evaluar la percepción e intención de uso de los consumidores. Queda pendiente conocer el grado de aceptación, así como los disparadores o frenos que pudieran existir para los pequeños y medianos negocios, quienes por sus características son parte del mercado objetivo de las aplicaciones libres de cobro y con requisitos tecnológicos mínimos que auspician los bancos centrales de los países.

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INFLUENCIA DE LA TECNOLOGÍA DE INFORMACIÓN EN LA GESTIÓN DEL CONOCIMIENTO DE PYMES DEL SECTOR CONSTRUCCIÓN

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RESUMEN

Esta investigación tiene como objetivo analizar el nivel de implementación de la tecnología de información y comunicación en las pymes del sector construcción y cómo influye en la gestión del conocimiento empresarial. El estudio es descriptivo con diseño no experimental, transversal y la información se obtuvo mediante un instrumento que se compone por 6 reactivos y dos factores estructurados en escala tipo Likert, con 5 opciones de respuesta, se aplicó a 337 organizaciones pequeñas y medianas de diversas especialidades dentro del sector construcción. Los resultados obtenidos señalan que para el caso bajo estudio, el uso de la tecnología de información como parte de las actividades de gestión de conocimiento empresarial no se percibe como un factor que contribuya a la competitividad de las organizaciones ya que el uso de la TIC es para efectos de cumplimiento contractual, más que para preservar la información y conocimiento generado desde la misma empresa, pues son elementos presentes pero que se desarrollan de forma independiente en el contexto operacional.

PALABRAS CLAVE: Sector Construcción, Ventaja Competitiva, Sistemas De Información

THE INFLUENCE OF INFORMATION TECHNOLOGY ON KNOWLEDGE MANAGEMENT OF SMES IN THE CONSTRUCTION SECTOR

ABSTRACT

The objective of this research is to analyze the implementation level of information and communication technology in the construction sector's SMEs and its influence on business knowledge management. The research is descriptive with non-experimental transversal design, the data was gathered through an instrument integrated by 6 questions and 2 structured factors on Likert scale, with 5 options to answer, which was applied to 337 small and medium organizations with diverse specialties in the construction sector. The results of the study case indicate that the use of information technology as part of the knowledge management activities is not perceived as a factor that contributes to the organizations' competitiveness considering that the use of ICTs is for contractual compliance purposes rather than for preserving the information and knowledge generated by the company, since they are present elements that are developed independently from the operational context.

JEL: M1, M19

KEYWORDS: Construction Sector, Competitive Advantage, Information Systems

INTRODUCCIÓN

El Plan Nacional de Desarrollo de México 2019-2024 (Gobierno Federal de los Estados Unidos Mexicanos, 2019), contempla al sector construcción como una industria fundamental para la economía del país e incluye el fomento de proyectos regionales de infraestructura como el denominado Tren Maya que beneficiará a todo el sureste del país como detonante de la industria, comercio y turismo. La forma en que las organizaciones crean, transmiten, salvaguardan y almacenan el conocimiento generado mediante la realización de sus operaciones permite desarrollar una planeación estratégica de largo plazo y la tecnología de información contribuye a este fin, sin embargo en ocasiones ambas dimensiones no son prioridad en las empresas derivado de la percepción del líder y la inversión económica para implementarlas. Las organizaciones que participan en el sector construcción adquieren y generan conocimiento (GC), al desarrollar sus actividades de administración y operación, para lo cual requieren entre otras herramientas, de la tecnología de información y comunicación (TIC); el binomio GC y TIC se refleja en el diseño de estrategias y ventaja competitiva para las organizaciones (Egbu y Botterill, 2002; Delgado, 2008). Con base a lo anteriormente planteado los objetivos de la investigación son: 1. Establecer si la TIC es utilizada para dar seguimiento a las necesidades del mercado y fortalecer las actividades de comercialización, 2. Identificar si el soporte en tecnología de la organización contribuye a la gestión del conocimiento y 3. Establecer la existencia de un vínculo entre la TIC y la GC en las pymes del sector construcción de la localidad.

REVISIÓN DE LITERATURA

La contribución de la TIC para fortalecer la GC en las organizaciones pymes ha sido estudiada por diversos autores como Gargallo y Ramírez (2007), quienes consideran que el entorno en el que se ubican las empresas y las características particulares de cada entidad son elementos que influyen de manera decisiva sobre la adopción e implementación de la TIC como factor diferenciador en el mercado. Del Carpio y Miralles (2018) formularon un estudio para analizar la relación entre la innovación no tecnológica, la innovación tecnológica y las actividades no relacionadas con investigación y desarrollo para evaluar si las fuentes de conocimiento externas están asociadas con estos elementos. Los autores señalan que actividades como la adquisición de maquinaria favorece la propensión a innovar en tecnología y que se debe alentar acciones relacionadas con la investigación tecnológica en las empresas.

Artiles y Pumar (2013) estudiaron los elementos para mejorar el proceso de identificación de la GC en las organizaciones bajo la metodología ASHEN (analiza las características de la empresa y su contexto de desarrollo) y DACUM (identifica habilidades, competencias laborales, conocimientos y destrezas de los colaboradores), lo que les permitió visualizar 45 conocimientos derivados de los currículos de la muestra seleccionada y 41 conocimientos explícitos en los consultores y directivos de la empresa evaluada. Concluyeron que el aprendizaje organizacional tiene como factores negativos la ausencia de un sistema de buenas prácticas, falta de planes de desarrollo personal para compartir y ganar conocimientos y los trabajadores no tienen acceso a un repositorio electrónico para almacenar y recuperar información y conocimiento; como factores positivos se destacan el desarrollo de cursos de capacitación, estructuras flexibles y satisfacción del cliente con la mejora de resultados y experiencia del servicio.

Se han desarrollado estudios sobre la relación entre la TIC y la GC en diferentes geografías, sectores económicos y grupos empresariales que van desde el método de caso hasta estructuras organizacionales como las alianzas estratégicas que permiten a sus integrantes tener acceso a las herramientas tecnológicas de sus socios comerciales, lo que representa la adquisición de una ventaja competitiva mediante el know how, imagen de marca e incluso mecanismos de financiamiento para la adquisición de la misma, como es el caso del sector hotelero de Cuba (Gómez, Ortigueira y Romero, 2014). En el sector restaurantero, Delgado, Vargas, Rodríguez y Montes (2017) analizaron la generación de innovación como ventaja estratégica considerando la escasez de estudios que relacionan la gestión tecnológica en este sector, para lo

cual diseñaron un instrumento de medición teniendo como muestra 132 restaurantes de Playa del Carmen, México, lo que les permitió identificar 3 constructos: estrategia tecnológica, prácticas de investigación y desarrollo y asimilación tecnológica para empresas de servicios; los autores consideran que la aportación práctica del instrumento es generar información a la gerencia sobre la capacidad de innovación a través de la tecnología. Para adoptar mejores prácticas de gestión empresarial a través de la GC basada en herramientas de TIC, Díaz (2006) recomienda rescatar los procesos desarrollados en las empresas, analizar sus beneficios y convertirlos en una fuente de ventaja competitiva apoyada en las facilidades que ofrece la TIC para el logro de metas y objetivos, incluso de largo plazo.

Para lograr lo anterior, sugiere integrar aplicaciones empresariales aisladas, optimizar la gestión de procesos de negocios e incorporar soluciones de software para la GC, sin perder de vista el conocimiento tácito de los colaboradores y los equipos de trabajo. Pérez y Dressler (2007) formularon un modelo teórico con una visión integradora del papel de la TIC en la gestión del conocimiento como recurso intangible, considerando procesos como la socialización, exteriorización, combinación e interiorización de GC que puede verse afectado por tres grandes barreras de tipo temporal, espacial y jerárquico sociales. Cabe señalar que la relación TIC-GC requiere una adecuada relación entre la TIC y el factor humano que se convierte en la variable moderadora de todo el proceso. Mediante un análisis teórico, Peñaloza (2007) estudia la tecnología y la innovación como ventajas competitivas e indaga la relación existente entre competitividad–tecnología–innovación. A través de indicadores de desempeño de países desarrollados y emergentes, concluye que existe un vínculo entre el nivel de competitividad de empresas y naciones y la inversión realizada en investigación y desarrollo reflejado en ciencia básica y aplicada, que a su vez explica el rezago en estos temas que presentan los países de economías emergentes.

Tong y Shaikh (2010), estudiaron el papel de la TIC en el conocimiento generado por los países desarrollados y los resultados que se pueden obtener de la implementación de sus modelos en economías emergentes, estos investigadores mediante un estudio de caso formularon un modelo que demuestra cómo la TIC puede promover la GC eficaz. La intervención se llevó a cabo en una empresa china de telefonía móvil de reciente creación que hace frente a la disparidad económica de este país, los resultados obtenidos permitieron a los investigadores señalar que la insuficiencia en la adopción de TIC, jerarquía organizacional estricta formal e informal y la falta de políticas de apoyo son las razones de la brecha presente entre los resultados alcanzados por la organización estudiada y los reportados por las demás empresas chinas del sector. Pérez, Montes y Vázquez (2009), evaluaron la relación entre el potencial de la TIC y la GC en 162 empresas españolas del sector servicios para establecer el efecto directo de la tecnología en los procesos de generación, transferencia, codificación y almacenamiento del conocimiento, los autores concluyeron que la competencia que ostentan las organizaciones respecto a la TIC incide de forma determinante en la GC, lo que favorece sus procesos y el desarrollo de una buena estructura organizacional.

En el caso del sector construcción, Egbu y Botterill (2002), estudiaron el papel de la TIC en la GC de empresas privadas analizando 5 organizaciones medianas y grandes del Reino Unido, partiendo de las fortalezas y debilidades de las mismas y que fueron identificadas a través de un cuestionario y entrevistas para datos etnográficos. Los resultados que obtuvieron indican que las TIC convencionales son utilizadas con mayor frecuencia respecto a las innovadoras, por lo tanto, concluyeron que en el grupo estudiado la tecnología no se explota por completo y existe la necesidad de una mayor implementación acompañada de capacitación correspondiente. En México, Delgado (2008) consideró las variables de uso de la tecnología e importancia percibida por los colaboradores para contribuir a establecer las “mejores prácticas de gestión tecnológica” en el sector construcción. Mediante el método de caso desarrollado en una constructora del ramo civil, evaluó una muestra de 40 colaboradores que integran la media y alta dirección de la empresa; la correlación de los valores obtenidos le permitió señalar que en esta empresa, el personal de nivel medio y gerencial coinciden en el uso de la tecnología, no así en el caso de la gestión tecnológica, por lo que se requiere una mayor divulgación de sus bondades y ventaja competitiva en el sector.

METODOLOGÍA

El enfoque del trabajo es cuantitativo con alcance descriptivo, al tener como propósito especificar hechos que describan las características de la población bajo estudio relacionadas con las variables del problema, las cuales no fueron manipuladas. La información fue proporcionada por el cuerpo gerencial en su contexto laboral por lo tanto el diseño es no experimental transeccional. El método utilizado para la recolección de información es a través de trabajo de campo y la técnica empleada es la encuesta (Hernández, Fernández y Baptista, 2018). La población participante estuvo integrada por 337 gerentes de las pymes del sector construcción ubicadas en la ciudad de Campeche, las empresas identificadas fueron 240, según el directorio de la delegación estatal de la Cámara Mexicana de la Industria de la Construcción, al 31 de marzo de 2019, y aceptaron participar 213 lo que representa el 88% de la población inicial. El cuestionario utilizado para obtener los datos cuantitativos fue diseñado por Quijano y Magaña (2021), en un estudio previo sobre las propiedades psicométricas de un instrumento de medición y que se relaciona con el objetivo central de la investigación que es establecer la vinculación de las tecnologías de información con el conocimiento y su gestión en pymes del sector construcción; la integración y definiciones del mismo se plasman en la Tabla 1.

Tabla 1: Definiciones de la Encuesta Administrada a los Líderes de las Pymes del Sector Construcción

Dimensión	Definición Operacional	Reactivos
Requerimientos de TIC que tienen las organizaciones para la GC (RTIC-GC)	Percepción sobre el soporte en TIC que dispone la organización y le permite una adecuada gestión del conocimiento	La organización actualiza el <i>hardware/software</i> constantemente
		Todos los empleados tienen acceso a las TIC desde sus puestos de trabajo
		Las TIC son indispensables en las actividades diarias de la organización
Seguimiento del mercado a través de la TIC (SMTIC-GC)	Percepción sobre el empleo de las TIC para comercializar productos y/o servicios en la organización	La organización hace uso de las TIC para realizar comercio electrónico
		Las TIC disponibles son de fácil acceso para los empleados
		La organización hace uso de las TIC para el monitoreo de nuevos productos y/o servicios

Fuente: Adoptado de Quijano y Magaña (2021).

La validación del cuestionario la desarrollaron los autores mediante el juicio de expertos y técnicas de estadística multivariante y la fiabilidad del mismo se revisó a través del estadístico Alpha de Cronbach cuyo valor para ese grupo de datos fue de 0.85. Se replicó la prueba estableciéndose los valores en general para la variable 0.888 y sus dimensiones RTIC-GC 0.832 Y SMTIC-GC 0.844).

RESULTADOS

El análisis de los datos sociodemográficos de los gerentes de las organizaciones pymes del sector construcción en el Estado de Campeche permite establecer que la gran mayoría del cuerpo directivo esta integrado por hombres (95%), como rasgo distintivo del sector construcción; los cuales cuentan aún con una vida productiva adecuada al ubicarse entre los 45 y 52 años de edad, además un alto porcentaje tiene estudios de licenciatura afines al puesto que ocupan. El 34.4% de las organizaciones estudiadas se encuentran constituidas como sociedades mercantiles, seguidas de aquellas que están registradas bajo el régimen de personas con actividad empresarial (33.2%) y sociedades familiares (32.3%). Como parte del perfil administrativo de las organizaciones se cuestionó sobre la presencia de los obstáculos que comúnmente afrontan las empresas los cuales se presentan en la Tabla 2.

Tabla 2: Retos de la Organización Según el Tipo de Propiedad Empresarial

Retos	Único propietario		Familiar		Sociedades		Total*	
	Fr	%	Fr	%	Fr	%	Fr	%
Conseguir personal calificado	73	19.2	62	18.6	71	19	206	61.1
Competencia	53	13.9	49	14.7	61	16.3	163	48.4
Creación de estrategias de mejora	55	14.4	50	15.0	56	15.0	161	47.8
Obtener apoyos crediticios	51	13.4	41	12.3	52	13.9	144	42.7
Ser más competitivo y alcanzar estándares en calidad.	47	12.3	39	11.7	52	13.9	138	40.9
Facilitar los diversos trámites requeridos	22	5.8	25	7.5	25	6.7	72	21.4
Tener mayor acceso a la ciencia y tecnología	27	7.1	22	6.6	19	5.1	68	20.2
Estrategias de negociación	22	5.8	23	6.9	16	4.3	61	18.1
Emprender estrategias novedosas de negociación	17	4.5	11	3.3	10	2.7	38	11.3
Incurción en otros mercados	14	3.7	11	3.5	12	3.2	37	11.0

*El régimen jurídico de las empresas establece diferencias en los retos operativos más significativos, ya que coinciden en la dificultad que representa contratar recurso humano, pero los propietarios únicos y las organizaciones familiares se preocupan más por crear valor empresarial que por la competencia, lo cual se puede originar de la decisión unipersonal en la toma de decisiones. Fuente: Elaboración propia con base en información estadística. *La suma de la columna Total rebasa el tamaño de la población porque el encuestado podía elegir más de una opción.*

El contratar personal calificado para las actividades propias del sector es un problema común entre las empresas sin importar su régimen jurídico, sin embargo se observa que las organizaciones familiares y los propietarios únicos no lo consideran su principal obstáculo, pues les ofrece mayor dificultad crear estrategias de mejora lo que puede originarse de la falta de profesionalización de sus directivos. En la Tabla 3 se presentan las principales estrategias que han empleado para sobrellevar estos retos y se aprecia que desarrollar una adecuada comunicación tanto con los clientes internos como los externos los ayuda con la problemática empresarial al igual que dar un valor agregado a los servicios ofrecidos.

Tabla 3: Preponderancia de Estrategias Empresariales Según el Tipo de Propiedad

Estrategias	Único propietario		Familiar		Sociedades		Total*	
	Fr	%	Fr	%	Fr	%	Fr	%
Contar con mejor comunicación tanto interna como externa	80	28.1	78	26.8	86	27.7	244	72.4
Aplicar un valor agregado a los productos o servicios	59	20.7	66	22.7	69	22.2	194	57.6
Incrementar sus productos o servicios	51	17.9	48	16.5	47	15.1	146	43.3
Dar impulso a la simplificación administrativa	41	14.4	36	12.4	45	14.5	122	36.2
Tener mayores vínculos nacionales e internacionales	26	9.1	35	12.0	32	10.3	93	27.6
Aplicar sistemas de calidad para lograr los ISO requeridos	28	9.8	28	9.6	32	10.3	88	26.1

*Desarrollar una comunicación efectiva y eficaz es un concepto que se ha fomentado en las organizaciones participantes, sin importar la personalidad jurídica adoptada para el desarrollo de las operaciones; lo anterior favorece que las decisiones tomadas por la gerencia sean divulgadas adecuadamente en toda la organización. Fuente: Elaboración propia con base en información estadística. *La suma de la columna Total rebasa el tamaño de la población porque el encuestado podía elegir más de una opción.*

La Tabla 3 refleja que certificar los servicios que ofrecen en el mercado estas organizaciones no es preponderante dentro de las estrategias que tienen implementadas para desarrollarse y permanecer en el sector, lo que coincide con los resultados de su percepción sobre la principal ventaja competitiva que se basa en el precio (44.9%), seguida de la calidad (31.9%) y el servicio (23.2%). Respecto al nivel competitivo el 2.7% opina que sus servicios son excelentes, el 75.7% consideran que son buenos y el 21.7% los califican como regular. Con base a lo anterior su principal política es entregar oportunamente los trabajos a los clientes ya sean empresas públicas o privadas, seguido del fomento de un ambiente laboral donde se permite a los colaboradores participar de forma dinámica (Tabla 4).

Tabla 4: Políticas de Calidad para la Mejora Continua de Acuerdo al Tipo de Propiedad

Políticas	Único propietario		Familiar		Sociedades		Total*	
	Fr	%	Fr	%	Fr	%	Fr	%
Entrega oportuna a sus clientes	62	21.1	69	23.7	73	24.6	204	60.5
Ambiente laboral activo y de participación	59	20.1	49	16.8	59	19.9	167	49.6
Cumplimiento de especificaciones de sus productos o servicios	47	16	36	12.4	51	17.2	134	39.8
Cumplimiento con las disposiciones legales de las entidades reguladoras del estado	47	16	39	13.4	47	15.8	133	39.5
Beneficio recíproco con trabajadores, proveedores y clientes	43	14.6	50	17.2	34	11.4	127	37.7
Crecimiento empresarial a partir de los procesos de la organización	25	8.5	36	12.4	22	7.4	83	24.6
Otros	11	3.7	12	4.1	11	3.7	34	10.1

La estructura jurídica de las empresas analizadas no influye en las políticas de mejora continua de los procesos, ya que tienen como norma cumplir oportunamente con los servicios contratados como distintivo de sus operaciones con el apoyo de su equipo de colaboradores. Fuente: Elaboración propia con base en información estadística. *La suma de la columna Total rebasa el tamaño de la población porque el encuestado podía elegir más de una opción.

Las estrategias desarrolladas y las políticas implementadas se reflejan en las relaciones comerciales en cada sector donde prestan sus servicios y consideran que éstas son buenas con el sector gubernamental (66.2%), privado (73.9%) y social (35.9%) En la Tabla 5 se presentan los principales valores organizacionales sobre los cuales los gerentes consideran se ha edificado la empresa y que en cierta media son el reflejo de la personalidad del mismo. El servicio al cliente es el distintivo que se fomenta desde la gerencia sin importar la estructura organizacional seguida de la competitividad, aunque para las empresas familiares la honestidad es más importante, lo cual puede originarse de la influencia de la familia del líder.

Tabla 5: Valores Organizacionales de Acuerdo al Tipo de Propiedad Empresarial

Valores	Único propietario		Familiar		Sociedades		Total*	
	Fr	%	Fr	%	Fr	%	Fr	%
Excelente servicio a los clientes	82	21.2	71	20.6	81	21.3	234	69.4
Competitividad	77	19.9	56	16.3	73	19.2	206	61.1
Honestidad	63	16.3	66	19.2	64	16.8	193	57.3
Respeto, iniciativa y creatividad	58	15.0	40	11.6	58	15.3	156	46.3
Profesionalismo y eficiencia en las labores	70	12.9	54	15.7	41	10.8	145	43
Transparencia de la gestión administrativa	29	7.5	31	9	33	8.7	93	27.6
Calidad con enfoque internacional	25	6.5	21	6.1	27	7.1	73	21.7
Compromiso	3	0.8	5	1.5	3	0.8	11	3.3

En la tabla se puede observar que, entre los valores, el compromiso no destaca como uno de los más apreciados por la gerencia, quizás derivado de que se percibe como algo que debe emanar del trabajador hacia la empresa y no que deba ser recíproco entre la organización y los colaboradores. Fuente: Elaboración propia con base en información estadística. *La suma de la columna Total rebasa el tamaño de la población porque el encuestado podía elegir más de una opción.

Se determinó la media y desviación estándar de los valores obtenidos, con el objetivo de analizar los reactivos más cercanos y lejanos de los valores asignados en la encuesta, así como el nivel de dispersión de las respuestas, (Tabla 6).

Tabla 6: Estadística Descriptiva de las Dimensiones de Tecnología de Información y Comunicación

Dimensión	Reactivos	N	Valor Mínimo	Valor Máximo	Media	Desviación Estándar
Requerimientos de TIC que tienen las organizaciones para la GC (RTIC-GC)	La organización actualiza el <i>hardware/software</i> constantemente	337	1	4	3.32	0.743
	Todos los empleados tienen acceso a las TIC desde sus puestos de trabajo	337	1	4	3.09	0.762
	Las TIC son indispensables en las actividades diarias de la organización	337	1	4	3.12	0.725
Seguimiento del mercado a través de la TIC (SMTIC-GC)	La organización hace uso de las TIC para realizar comercio electrónico	337	1	4	2.95	0.837
	Las TIC disponibles son de fácil acceso para los empleados	337	1	4	3.03	0.757
	La organización hace uso de las TIC para el monitoreo de nuevos productos y/o servicios	337	1	4	3.15	0.837

La tabla indica el promedio de los valores asignados por los encuestados respecto a las variables estudiadas, en ningún caso se alcanza el valor más alto establecido, lo anterior se corrobora con la dispersión en las respuestas. Fuente: Información estadística obtenida de la encuesta.

En la dimensión Seguimiento del mercado a través de las TIC (SMTIC-GC) se ubica la media más baja del conjunto de reactivos, lo que indica que las organizaciones participantes de este sector económico no hacen uso de la tecnología para llevar a cabo comercio electrónico; mientras que en la dimensión Requerimientos de TIC para la gestión del conocimiento se ubica la media más alta relacionada con la actualización que realizan las empresas tanto de equipos como de programas de soporte para el almacenamiento y protección de información. Respecto a la desviación estándar la mayor dispersión en los reactivos corresponde a la dimensión Seguimiento del mercado y que en cierta medida se vincula con las medias más bajas de la misma dimensión. Para establecer la influencia de factores sociodemográficos y del perfil administrativo en las variables estudiadas se aplicó la prueba T de Student para pruebas independientes como el género y estado civil, y la ANOVA para determinar las diferencias de mayor importancia entre varianzas de datos agrupados como es el caso de la edad, nivel de estudios, puesto en la empresa, antigüedad de la organización, origen de la misma, antigüedad en el puesto, número de trabajadores y de subordinados.

No se identificaron diferencias estadísticas significativas para pruebas independientes entre los elementos sociodemográficos y las dimensiones estudiadas. En el caso de las varianzas se reportan diferencias con el estado civil y el giro o especialidad de la empresa, lo que permite inferir que el subsector económico al que pertenece la organización es un factor que influye en las decisiones de actualización de la TIC y el acceso a la tecnología otorgado a los colaboradores. En el caso de la dimensión Seguimiento del mercado a través de TIC se reportan diferencias respecto al nivel de estudios del gerente y el giro o especialidad de la empresa, por lo tanto se puede señalar que el nivel académico y de actualización influyen en el uso de la TIC para el monitoreo de nuevos productos o servicios. Con los datos obtenidos se construyó un indicador para identificar el nivel de percepción de las tecnologías de información en la gestión de conocimiento, al que se denominó Índice de Tecnología de Información y Comunicación (ITIC), y que se calculó mediante los siguientes pasos: a) Se obtuvo la suma de los valores asignados en cada pregunta por empresa, b) El puntaje máximo que podía obtener cualquier empresa para cada dimensión fue de 15 (5 puntos máximo por 3 ítems) y c) Se dividió el número obtenido en el inciso “a” entre 15 y el resultado se multiplicó por 100. A mayor ITIC, significa que los gerentes de las empresas participantes tienen una mejor percepción de la TIC como ventaja competitiva (Tabla 7).

Tabla 7: Índice de Tecnología de Información y Comunicación (ITIC).

Subsector	Número de Encuestas	Dimensión Requerimientos de TIC ITIC (%)	Dimensión Seguimiento de Mercado ITIC (%)
Vivienda	108	79	77
Educación	52	74	66
Agua	11	90	82
Comunicación	129	81	78
Energía	21	70	69
Especialidades	16	81	80
Promedio		79	74

ITIC= Índice de Tecnología de Información y Comunicación = $\text{Puntaje} / \text{Puntaje máximo} \times 100$. El resultado obtenido con el puntaje de las respuestas para cada empresa puede interpretarse como la percepción que tienen el gerente o socio fundador respecto a la importancia de la tecnología de información en la gestión del conocimiento organizacional. Fuente: Elaboración propia con base en promedios de las encuestas.

El promedio del ITIC de la población estudiada es de 76.5%, lo que señala que para las empresas es importante el uso de la tecnología, aunque no todos los empleados tienen acceso a la misma mediante esquemas de capacitación y no es constante la actualización del software utilizado en las actividades propias.

CONCLUSIONES

De acuerdo a lo establecido en el primer objetivo del estudio, es posible señalar que las organizaciones participantes tienen un nivel adecuado de actualización en tecnología básicamente en términos de software, como elemento necesario para formular las propuestas técnicas y presupuestos de obra con oportunidad, según los requerimientos de las bases de licitación en el caso de obra pública y las necesidades de sus clientes del sector privado. Sin embargo, la gerencia está consciente de que aún se requiere mejoras en aspectos como el acceso a la TIC para los colaboradores como elemento de las actividades diarias de la organización. Los valores obtenidos a través de la información proporcionada por la gerencia de las empresas permite inferir que estas organizaciones consideran necesario el uso de la TIC como medio para el almacenamiento y protección del conocimiento y su gestión, ya que en su mayoría están de acuerdo en que la tecnología contribuye a las actividades administrativas y operativas, sin acreditar acciones de fomento a los procesos de generación y transmisión de conocimiento basados en herramientas tecnológicas, como se planteó en el segundo objetivo de esta investigación.

Finalmente, para el caso bajo estudio el uso de la tecnología de información como parte de las actividades de gestión de conocimiento empresarial no se percibe como un factor que contribuya a la competitividad de las organizaciones ya que el uso de la TIC es para efectos de cumplimiento contractuales más que para preservar la información y conocimiento generado desde la misma empresa pues son elementos presentes que se desarrollan de forma independiente en el contexto operacional. Estas organizaciones requieren considerar a la TIC y la GC como factores que en el largo plazo pueden convertirse en ventaja competitiva y contribuir a la permanencia de las mismas dentro del sector construcción, ya que la importancia asignada desde la gerencia a estos elementos puede mejorar de acuerdo al indicador de percepción. Futuras líneas de investigación en otros contextos geográficos y económicos sobre la incidencia de la personalidad del líder en las variables estudiadas, puede contribuir a explicar las razones por las que el fomento de la inversión en tecnología y procesos de gestión de información no son percibidas como elementos de innovación empresarial.

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ALEXA: NECESITO PRIVACIDAD

Alicia De la Peña de León, Universidad Autónoma de Coahuila
Juan Bernardo Amezcua Núñez, Universidad Autónoma de Coahuila
Juana María Saucedo Soto, Universidad Autónoma de Coahuila
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RESUMEN

Cada vez es más frecuente encontrar en hogares y oficinas bocinas inteligentes que permiten a los usuarios obtener información, reproducir música e incluso, comprar en línea. Estudios previos señalan que estos equipos escuchan al usuario y comparten la información con la empresa madre que los comercializa (i.e. Google, Amazon, Apple, etc.), sin embargo, no todos los usuarios están informados y pudieran estar poniendo en riesgo su privacidad, e incluso su información financiera. Con el objetivo conocer el comportamiento de los usuarios de bocinas inteligentes y su actitud ante el riesgo de compartir su información, se realizó un estudio exploratorio con 541 adultos. Los resultados señalan que, si bien a los usuarios les preocupa su seguridad, y muestran una aversión al riesgo (34%), esto no los limita al momento de comprar y utilizar bocinas inteligentes. Nuestros hallazgos pueden ser de utilidad para el diseño de políticas claras en el manejo de datos personales; así como también en el lanzamiento de campañas de mercadotecnia social que tengan como meta educar a los usuarios de equipos inteligentes.

PALABRAS CLAVE: Asistentes de Voz, Compras en Línea, Confianza, Estrategias de Marketing, Privacidad de Datos

ALEXA: I NEED SOME PRIVACY

ABSTRACT

It is increasingly common to find smart speakers in homes and offices that allow users to obtain information, play music and even buy online. Previous studies indicate that these computers listen to the user and share the information with the parent company that markets them (i.e., Google, Amazon, Apple, etc.), however, not all users are informed and could be putting their privacy at risk, and even their financial information. With the aim of knowing the behavior of smart speaker users and their attitude towards the risk of sharing their information, an exploratory study was carried out with 541 adults. The results indicate that, although users are concerned about their safety, and show an aversion to risk (34%), this does not limit them when buying and using smart speakers. Our findings can be useful for the design of clear policies in the handling of personal data; as well as in the launching of social marketing campaigns with the goal to educate users of smart equipment.

JEL: C83, C99, D81, D83, K24, L81, M31, M39

KEYWORDS: Data Privacy, Marketing Strategies, Online Shopping, Trust, Voice Assistance Devices,

INTRODUCCIÓN

“Alexa, lee mis notificaciones!”, “¡Ok Google, enciende las luces de la cocina!”, “Siri, llama a la oficina”, son frases que con frecuencia se escuchan en millones de hogares alrededor del mundo. Pareciera que las bocinas inteligentes y/o asistentes de voz llegaron para quedarse. Integradas con tecnología que permite reconocer el lenguaje e interactuar con el usuario, se estima que el mercado de estos equipos tendrá un valor de 7,300 millones de dólares en 2025 (Market Research Future, 2021). Los asistentes digitales funcionan

mediante el uso de inteligencia artificial, además de procesar y comprender el lenguaje natural, pueden combinar información del usuario como preferencias de compra, ubicación y algunos hábitos para crear, mediante algoritmos modelos y patrones de comportamiento (Oracle, 2021).

Y si bien los dispositivos más populares para usar asistentes de voz son actualmente los *smartphones* y las bocinas inteligentes, ya existen en el mercado televisiones inteligentes, automóviles y electrodomésticos que no sólo responden a la voz de sus dueños (Petrock, 2020), sino que además llevan un registro de las interacciones con las personas, y comparten información con las empresas madre que los crearon (i.e. Google, Apple, Amazon, Samsung, etc.). Los datos personales que recaban estos dispositivos tienen como objetivo mejorar la experiencia del usuario; sin embargo, representan un riesgo para la privacidad de los consumidores (Vimalkumar et al., 2021). El objetivo de esta investigación es, por tanto, examinar la percepción que tienen los consumidores sobre los riesgos de seguridad y la confianza al utilizar asistentes de voz. En la primera sección presentamos una revisión de literatura referente al riesgo en el uso de tecnologías digitales. En seguida, presentamos la metodología del estudio, y continuamos con la presentación de resultados en la tercera sección. Finalmente, en la última sección presentamos nuestras conclusiones, propuestas de estudios futuros y las limitaciones del estudio.

REVISIÓN DE LITERATURA

La tecnología y el internet tienen entre sus ventajas el mejorar la calidad de vida y la productividad de las personas; por ello el mercado de productos denominados “inteligentes” crece día con día. Los consumidores han descubierto, por ejemplo, que con una pequeña bocina inteligente pueden controlar la temperatura e iluminación de su hogar, sintonizar su música preferida, escuchar las noticias del día, e inclusive, resurtir su despensa (Perry, 2017; Reportlinker, 2017). Las bocinas inteligentes son en realidad Asistentes Virtuales Personales (AVP o VPA por sus siglas en inglés), que pueden escuchar la voz del usuario y responder a distintos comandos, sin que la persona se mueva de su lugar (Kowalczyk, 2018), permitiéndole acceder a su cuenta de Spotify para escuchar música, conocer el clima, encender las luces, hacer compras en Amazon e incluso, reproducir series de Netflix. Los AVP son distintos a otros dispositivos tecnológicos, pues emulan rasgos humanos al conversar con el usuario en su propio idioma; además, son fáciles de operar, ya que son manos libres y responden rápidamente a comandos de voz; suelen ser muy eficientes al brindar información que el usuario solicita; y aunque pudiera ser una ventaja, siempre están escuchando e incluso observando lo que las personas hablan y hacen a su alrededor (Vimalkumar et al., 2021).

Esta última característica nos lleva a pensar en temas de privacidad, protección y seguridad del consumidor. La privacidad de información del consumidor está vinculada a la manera en que se adquiere y utiliza la información de los individuos (Bélanger & Crossler, 2011; Lau et al., 2018). Dado que los AVP al ser adquiridos se convierten en parte del mobiliario del hogar, el usuario se olvida de la posibilidad de que éstos utilicen sus datos de manera poco ética. Además, al responder a las peticiones del usuario de manera eficiente, pareciera que poco a poco se va generando una relación de confianza entre el consumidor y el equipo, quien descarga ciertas responsabilidades en el AVP, como por ejemplo el activar una alarma por las mañanas, encender las luces al anochecer, activar al robot de limpieza, etc. (Foehr & Germelmann, 2020), esperando que éstas se realicen de manera puntual... y confidencial. De hecho, estudios previos sugieren que los usuarios asignan una serie de cualidades humanas a sus equipos, lo que les da un aura de confianza (Ewers, Baier, & Höhn, 2020; Foehr & Germelmann, 2020). Lo cual nos lleva a preguntarnos: ¿qué uso le da el adulto mexicano a los AVP? ¿le preocupa su seguridad? ¿cuida la información que comparte con estos equipos? Para responder a estas preguntas realizamos una investigación, cuya metodología se describe a continuación.

METODOLOGÍA

Para la investigación se diseñó un cuestionario basado en la escala de actitud ante la privacidad de Buchanan et al., (2007) y la escala de divulgación de identidad desarrollada por Stutzman (2006), para así identificar a los consumidores que actualmente cuentan con un asistente de voz, e identificar los riesgos que perciben al utilizarlos en distintas actividades. Se utilizaron preguntas dicotómicas (respuesta Si y No) y de escala de Likert de 5 puntos. El cuestionario se aplicó utilizando la plataforma digital *Survey Monkey*, la cual permite realizar trabajo de campo enviando un enlace por correo electrónico o a través de redes sociales. Debido a la pandemia por el COVID-19 el estudio se llevó a cabo de manera remota. La selección de la muestra se realizó con adultos mexicanos mayores de 18 años. El trabajo de campo se realizó en un periodo de tres semanas en el invierno de 2021 en una ciudad del norte de México. Una vez finalizado el levantamiento de encuestas, los datos se analizaron utilizando el paquete estadístico SPSS utilizando modelos de regresión logística y general para analizar el comportamiento de los usuarios de asistentes de voz.

RESULTADOS:

Estadísticas Descriptivas

En el estudio participaron 541 adultos (59% mujeres) en un rango de edad de los 18 a 55 años, lo cual nos permitió estudiar el comportamiento de los usuarios de asistentes de voz en distintas etapas de su ciclo de vida. 46.6% de los entrevistados son estudiantes universitarios; 25% estudia y trabaja; y 23.3 % de los participantes corresponde a empleados y 5.2% son desempleados. De los entrevistados, el 93% utiliza Facebook, 78.7% utiliza Instagram, 97.2% se comunica a través de Whatsapp y el 49.4% utiliza TikTok. Únicamente un 37% de los entrevistados cuenta con un asistente de voz; destacando el uso de Siri (22.7%), Google Assistant (17.9%), Alexa 14%) y Google Home (5.5%); para actividades tan variadas como lo son escuchar música (28.5%), pedir información (30.9%), administrar la agenda personal (7.0 %), controlar otros equipos en casa u oficina (8.3%), encender/apagar luces (5.5%), e incluso, hacer llamadas telefónicas (18.1%).

Actitud Hacia el Riesgo

Una vez finalizado el análisis estadístico de los datos, se calculó el índice de aversión al riesgo de los participantes, utilizando 7 ítems. El índice obtenido es de 3.73; es decir en promedio los entrevistados prefieren evitar situaciones de riesgo, que comprometan la integridad de sus datos. Al analizar la relación entre edad, género, ocupación y nivel de estudios y la percepción de riesgo al utilizar bocinas inteligentes, encontramos una relación significativa en las variables género y edad (β : 2.945, $p=0.000$). Descubrimos que el 28.5% de los hombres se consideran arriesgados, en tanto que sólo el 19.75% de las mujeres se percibe como tal. En cuanto a la edad, los jóvenes menores de 25 años son quienes se declaran como los más arriesgados. Adicionalmente, los hallazgos señalan que un 28.3% de los participantes considera que las empresas pueden espiarlos a través de los asistentes de voz; y, por lo tanto, sólo un 10.2% se siente seguro comprando a través de estos dispositivos. El 71.7% considera que los asistentes digitales utilizan su información confidencial, particularmente para hacerles llegar mensajes publicitarios personalizados (40.5%). Es importante señalar, que si bien el 78.7% afirma conocer los riesgos que representa compartir sus datos personales al utilizar internet, redes sociales o dispositivos digitales; el 49.1% ha compartido su correo electrónico, el 47.3% ha compartido su número telefónico, e incluso información sobre sus cuentas bancarias (7.6%).

CONCLUSIONES

Esta investigación busca entender el comportamiento de las personas que utilizan asistentes virtuales y/o bocinas inteligentes y la influencia que tiene su actitud hacia el riesgo al momento de utilizarlos. Nuestros hallazgos presentan actitudes y comportamientos interesantes. De acuerdo con nuestros entrevistados, los asistentes virtuales favorecen la realización de infinidad de tareas en casa y oficina, tanto de esparcimiento como de simplificación de tareas, pues se pueden utilizar tanto para escuchar música y pasar un buen rato, como para activar robots de limpieza, vigilar el hogar, encender y apagar sistemas eléctricos y de seguridad, entre otras actividades. Si bien su costo no es muy económico, el incremento en la demanda de estos equipos, así como el surgimiento de distintas marcas en el mercado hace que cada vez más personas los adquieran, ya que no sólo son un objeto tecnológico de moda, sino que, además, simplifican distintas actividades y tareas. A medida que las personas (y también las empresas y organizaciones) descubren sus ventajas, surgen nuevas aplicaciones y usos, convirtiendo a estos pequeños equipos en verdaderos asistentes. Sin embargo, es importante notar que con la llegada de las llamadas bocinas inteligentes a hogares y oficinas surgen nuevos retos: no sólo el consumidor debe aprender a configurarlos para poder interactuar con ellos, sino que además tendrá que estar atento a la información que comparte con ellos, y el uso que les da.

Las empresas que fabrican los asistentes los han configurado para que sean equipos inteligentes, que documente información del usuario, tanto para innovar con nuevos productos, como para conocer patrones de comportamiento y hábitos de compra, lo cual se traduce en el lanzamiento de nuevos servicios, equipos más avanzados y campañas publicitarias personalizadas. Desafortunadamente, existe el riesgo de los ciber delincuentes, quienes pueden en dado caso crear aplicaciones falsas para usarse con estos equipos y obtener así, datos importantes de los usuarios, que posteriormente pudieran traducirse en robos y suplantaciones de identidad. Nuestros hallazgos sugieren que si bien las personas están conscientes de los riesgos que representa utilizar estos equipos, la novedad, la practicidad y la comodidad de uso superan el miedo a ser vigilados por las empresas, o a ser víctimas de los ciber delincuentes. Esto da pie para crear campañas de educación claras, que expliquen a los usuarios de asistentes digitales los riesgos que corren al utilizarlos y compartir de manera poco cuidadosa sus datos. Estas campañas, además, deberán proporcionar una guía para que los usuarios configuren sus dispositivos de modo tal que sus datos personales y financieros queden protegidos. De igual manera, organismos públicos deberán crear reglamentos y normas claras para el manejo seguro de los datos que los usuarios comparten en este tipo de equipos.

Limitaciones del Estudio y Estudios a Futuro

Si bien las bocinas inteligentes y/o los asistentes digitales están al alcance de todos aquellos adultos mexicanos con capacidad de compra, estudio se realizó únicamente con consumidores del norte de México; por lo que una siguiente investigación puede realizarse en otras regiones del país. Una segunda limitación se encuentra en las características de la muestra, la cual estuvo integrada en su mayoría por estudiantes y profesionistas. El siguiente estudio puede explorar las actitudes y percepciones de un grupo demográfico diferente, para así comparar hallazgos y plantear estrategias que permitan a los creadores y comercializadores de equipos inteligentes atender diferentes segmentos de mercado, por ejemplo, los adultos mayores o los niños. En el segmento de adultos mayores será interesante utilizar el Modelo de Aceptación Tecnológica de Venkatesh y Davis (1996), para identificar su actitud ante las bocinas inteligentes y la percepción que tienen del uso y manejo de los mismos. Finalmente, es importante también considerar analizar el uso que se le pueden dar a estos dispositivos inteligentes para atender a personas convalecientes en casa u hospital, invidentes o incluso, personas con alguna discapacidad motriz, que les impida utilizar el teclado de una computadora o teléfono celular.

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TURISMO RURAL EN UN ENTORNO CAFETALERO EN IXHUATLÁN DEL CAFÉ

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RESUMEN

La presente investigación es de un diagnóstico en torno a las posibilidades de desarrollar el turismo rural en el municipio de Ixhuatlán del café de manera particular relacionado con el sector cafetalero, a partir de carecer de actividades turísticas previas de cualquier naturaleza, este trabajo permitirá visualizar como se determinan las fortalezas en materia de turismo a partir de cero conocimiento en un municipio rural. La metodología empleada para esta investigación es no experimental, cualitativa, descriptiva y correlacional.

PALABRAS CLAVE: Turismo, Café, Rural, Ixhuatlán Del Café

RURAL TOURISM IN A COFFEE ENVIRONMENT IN IXHUATLÁN DEL CAFÉ

ABSTRACT

This research is a diagnosis around the possibilities of developing rural tourism in the municipality of Ixhuatlán of coffee in a particular way related to the coffee sector, from lacking previous tourist activities of any nature, this work will allow to visualize how tourism strengths are determined from zero knowledge in a rural municipality. The methodology used for this research is non-experimental, qualitative, descriptive, and correlational.

JEL: Z32

KEYWORDS: Tourism, Coffee, Rural, Ixhuatlán Coffee

INTRODUCCIÓN

Es un pueblo muy antiguo, a mediados del siglo XVI pertenecía al Partido de San Antonio Huatusco. Su primer encomendero fue Gregorio de Villalobos, heredándolo a su hijo y al morir éste, se entregó a Luis de Velasco, 2º Virrey de la Nueva España. Durante mucho tiempo se le designó con el nombre de Ixhuatlán-Córdoba, para diferenciarlo de Ixhuatlán de Madero, al norte e Ixhuatlán del Sureste.

Los primeros trazos de la villa se efectuaron en la actual cabecera aproximadamente a principios del siglo XVIII, iniciando la construcción de la Iglesia la cual se terminó aproximadamente en el año de 1905. La cual muestra signos de tres diferentes tipos de arquitectura, considerándose de tipo Misión la principal. Por decreto de 22 de noviembre de 1956 el pueblo se elevó a la categoría de Villa, con la denominación de Ixhuatlán del Café. (H. Ayuntamiento Ixhuatlán del café 2019), Es un municipio con una extensión es de 134.1 km², cerca de la región de Córdoba- Orizaba. El municipio se encuentra ubicado en la zona central montañosa del Estado, siendo su suelo irregular. (INAFED 1996). La fortaleza del municipio es la

producción del café, cuenta con lugares turísticos como: el Cerro de Ixhuatequilla, el río Jamapa, la cueva pintada (pinturas rupestres), la cueva de la Cruz y la cueva de los sacrificios, sin embargo carece de museos de gran envergadura y carece de centros históricos de importancia turística.

En el municipio se detectó la existencia una gastronomía local con ingredientes propios de la región en platillos como el mole, tamales de frijoles y de chile pero con características únicas del municipio. Las fiestas principales son la Feria del café y fiesta en honor del señor de la piña, que fue un personaje de la conquista; se dice que tenía una piña de oro que le fue robada; se realiza una exposición artesanal e industrial. Bailes populares, danzas autóctonas y folklóricas, actos religiosos, carreras de caballos, kermesses, torneo de cintas, peleas de gallos, encuentros deportivos (torneo de pesca y canotaje), mojigangas y comparsas.

El lugar se ha caracterizado por el cultivo de café de gran calidad. Por lo que representa la alternativa de la realización de turismo rural en las zonas cafetaleras, ofreciendo una experiencia única al turista, proveniente particularmente de las zonas urbanas.

REVISIÓN LITERARIA

Las zonas cafetaleras han sufrido los cambios de gobierno políticos. En 1989, la política dirigida al café en los países productores inició un proceso de cambios que implicó la disminución de los apoyos gubernamentales y el adelgazamiento de las instituciones encargadas de implementar la política cafetalera en los países productores, como el Instituto Mexicano del Café (INMECAFÉ). La transformación estructural del sector cafetalero en México, trajo consigo el incremento de los problemas de corte social, como la pobreza y la migración, debido a los impactos de la política agrícola dirigida al café, que se reflejó en la baja rentabilidad, conversión de fincas poco competitivas en el mercado global, ocasionando en algunos casos el abandono o sustitución de los cafetales por otros cultivos o por otros usos agropecuarios y por el crecimiento, siendo el caso la urbanización de municipios por el crecimiento de las ciudades aledañas. Ante el incremento de la pobreza en los espacios cafetaleros el gobierno mexicano emprendió programas sociales como mecanismos compensatorios, como Pronasol, Progresá y el programa Oportunidades entre otros. El cambio del modelo económico y las políticas de ajuste implementadas en la cafeticultura, orilló a los cafeticultores a emprender acciones para contrarrestar los efectos de la crisis cafetalera, entre ellas, destaca su incursión en la producción del café orgánico, comercio justo, café amistoso con las aves migratorias, café responsable con el medio (Claudia Apodaca-González 2014), y actualmente se está trabajando el concepto de turismo rural como alternativa para la generación de ingresos a las familias que se dedican a esta actividad.

METODOLOGÍA

Se realizó con un enfoque de corte cualitativo, se aplicaron cuestionarios, la técnica de observación, entrevistas directas con la población local. Y fue de tipo descriptivo y correlacional. La información de los recursos turísticos con los que cuenta la comunidad; es esencialmente de carácter descriptivo, debido a que el objeto de esta investigación es registrar y por tanto describir los recursos turísticos con lo que se cuenta. Finalmente, es de carácter correlacional (Hernández Sampieri 2006) debido a que, para determinar el potencial turístico se analiza la relación que existe entre la infraestructura, los servicios disponibles, y los mismos recursos turísticos disponibles.

Este enfoque consiste en analizar los componentes de un producto turístico a partir de distintas fases que van desde la recolección de datos hasta el análisis de información.

En esta investigación se empleó el FODA, se puede definir como aquella técnica de diagnóstico estratégica cuyo fin es analizar la situación actual del desarrollo turístico en un determinado territorio o iniciativa como

estrategia de desarrollo sostenible y humano. Sea cual sea la definición, el turismo con enfoque rural se debe contemplar en su diseño e implementación, la siguiente tabla da una idea del FODA de Ixhuatlán del café en materia de turismo rural.

Tabla 1: Análisis FODA

	FORTALEZAS	DEBILIDADES
INTERNAS	Posee extensas zonas cafetaleras, reconocidas en el país. Cuenta con zona arqueológica con enorme potencial para ser atractivo turístico nacional e internacional. Su infraestructura carretera permite el acceso de ciudades de gran población. Cuenta con una gastronomía con identidad propia del lugar. Los paisajes naturales y orografía permiten el desarrollo de actividades deportivas.	Carece de museos para promover turísticamente, solo operan algunos muy pequeños de interés cultural para la población local. No cuenta con lugares históricos relevantes para desarrollar el turismo cultural. Se requiere amplia capacitación en temas especializados del café y de atención al turista.
EXTERNAS	OPORTUNIDADES La oportunidad de recibir apoyos de fondos federales debido a que cumple con los requisitos para ser desarrollada desde el punto de vista de turismo rural.	AMENAZAS La injerencia de empresas extranjeras que amenazan la zonas cafetaleras

Elaborada por autores.

Por lo que se refiere al desarrollo de productos derivados del café como licores, galletas, panes, dulces y recuerdos, se descartó como una opción generadora de recursos ya que los beneficios esperados serían mínimos y su distribución costosa. Para efecto de promover el desarrollo económico del municipio partiendo de las fortalezas del lugar destacando.

RESULTADOS

La investigación permitió visualizar dos productos turísticos con gran potencial en el municipio de Ixhuatlán del café:

Hospedaje dentro de las fincas cafetaleras con vivencias de la actividad cafetalera en el municipio.

Recorridos turísticos en las fincas de café y zonas arqueológicas, turísticas y lugares de belleza natural.

Con la posibilidad de obtener financiamiento del fondo federal FIRA de turismo que permite diversos apoyos a los cafeticultores para desarrollar la infraestructura turística en el campo.

También como resultado de este trabajo se pudo apreciar una fuerte necesidad de capacitación, pero también algunos casos de resistencia a la aceptación de esta, por parte de los empresarios desde el punto de vista de invertir en los recursos humanos.

CONCLUSIONES

En conclusión, una vez evaluado el potencial turístico del municipio de Ixhuatlán del Café, se pudo determinar que hay elementos que sean la base para la planeación y desarrollo de actividades que apoyarán el desarrollo exitoso de proyectos turísticos en el ámbito rural.

Así mismo, es necesario crear un programa que fomente la conservación y manejo sustentable de los recursos naturales, donde la inversión de la infraestructura y equipamiento turístico considere la conservación de los paisajes naturales del municipio, por ejemplo, poner baños públicos ecológicos cerca de los recursos naturales, y realizar un estudio de impacto ambiental.

Para lograr lo anterior, es necesaria la concertación con autoridades estatales y federales para la inversión en infraestructura y equipamiento que promueva el turismo rural en la región, lo que permitirá a los habitantes del municipio mejorar su nivel de vida.

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PLAN ESTRATÉGICO INTEGRAL EN UNA EMPRESA COMERCIALIZADORA DE REFACCIONES INDUSTRIALES

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RESUMEN

El presente artículo detalla la implementación de un plan estratégico integral en una microempresa comercializadora de refacciones industriales de la zona centro del Estado de Veracruz, basado en el modelo Sistema Integral de Gestión y Medición de Indicadores de Logro (SIGMIL) el cual utiliza diferentes herramientas de administración e ingeniería tales como: análisis FODA; diagrama de afinidad, diagrama de Pareto, la herramienta de análisis CAME (Corregir, Afrontar, Mantener, Explotar), Diagrama de Causa-Efecto, Mapeo estratégico, Indicadores Clave de Rendimiento (KPI's) y Cuadro de Mando Integral (CMI); además se adicionaron a este modelo análisis PESTEL (Político, Económico, Sociocultural, Tecnológico, Ecológico y Legal) y las cinco fuerzas de Porter para determinar los elementos del entorno con los que interactúa la empresa y la aplicación del criterio SMART para determinar los objetivos estratégicos

PALABRAS CLAVE: Administración Estratégica, Modelo SIGMIL

COMPREHENSIVE STRATEGIC PLAN IN AN INDUSTRIAL REFACTION TRADING COMPANY

ABSTRACT

This article details the implementation of a comprehensive strategic plan in a micro-enterprise marketing industrial spare parts in the central area of the State of Veracruz. To carry it out was used the model Integral System of Management and Measurement of Achievement Indicators (SIGMIL) which handles different management and engineering tools such as: SWOT analysis; affinity diagram, Pareto diagram, CAME analysis tool (Correct, Accost, Maintain, Exploit), Cause-Effect Diagram, Strategic Mapping, Key Performance Indicators (KPI's) and Balance Scorecard (BSC); In addition, PESTEL analysis (Political, Economic, Sociocultural, Technological, Ecological and Legal) and 5 forces of Porter were added to this model to determine the elements of the environment with which the company interacts also the application of the SMART criterion to determine the strategic objectives.

JEL: M10

KEYWORDS: Strategic Management, SIGMIL Model

INTRODUCCIÓN

La administración estratégica ayuda a las empresas a conocer quiénes son, identificar sus fortalezas y debilidades, entender cómo pueden aprovechar las oportunidades y afrontar las amenazas, determinar su

filosofía así como sus objetivos estratégicos y la manera de medir el logro de los mismos. El plan estratégico de la empresa sirve como guía para el desarrollo y logro de los objetivos organizacionales. El presente trabajo plasma la aplicación de un modelo de administración estratégica en una empresa dedicada a la comercialización de refacciones industriales, la cual le da estructura y de donde surgen los proyectos estratégicos que debe desarrollar para llevar a cabo su misión y encaminarse a la visión deseada. El artículo describe la teoría, la metodología y los resultados obtenidos.

REVISIÓN LITERARIA

El modelo SIGMIL® (Sistema Integral de Gestión y Medición de Indicadores de Logro) con registros de propiedad intelectual 03-2013-032210061700-01 y título de marca: 13771145, es una derivación de la planeación estratégica, adaptado principalmente a las necesidades de las MIPYMES, con el objeto de establecer una gestión integral adecuada que les proporcione las bases para la elaboración de proyectos estratégicos y de cuadros de mando integrales. La metodología SIGMIL® conlleva a la aplicación de diecisiete pasos que conforman tres etapas donde se incorporan diversas técnicas y herramientas de ingeniería administrativa alineadas con la calidad como el principio de Pareto, el diagrama de afinidad y el cuadro de mando integral (Balanced Scorecard), este último funge como la herramienta central para el control y medición de la estrategia de la entidad. Esta metodología ha sido implementada en más de treinta y tres MIPYMES de diferentes giros, en la zona centro del estado de Veracruz (Sánchez, Aguirre, & Raygoza, 2016).

METODOLOGÍA

Etapas 1: Integración del Equipo de Trabajo

La metodología de aplicación SIGMIL®, en su primera etapa, se realizó el análisis del perfil estratégico de acuerdo con Uytterhoeven, Ackerman y Rosenblum (1977) para conocer la empresa, se comprometió al CEO mediante una junta en la que se le explicó los beneficios de la administración estratégica, se establecieron los compromisos por parte de los participantes y se programaron y calendarizaron las actividades a fin de descubrir aquellos factores que pudieran contribuir o limitar el desarrollo de las etapas subsecuentes del modelo.

Etapas 2: Diseño y Elaboración del Plan Estratégico

La segunda etapa del modelo se conformó por nueve pasos. En el primer paso se estableció la visión de la empresa la cual contesta a la pregunta ¿hacia dónde queremos ir? lo que proporciona el bosquejo y la dirección de la compañía a largo plazo (Thompson, A. Sutton, C. Peteraf, M. Janes, A. y Gamble, J., 2018). Se utilizó la herramienta de lluvia de ideas las cuales se analizaron hasta llegar a un consenso por parte de los líderes de opinión. La visión quedó redactada como se muestra a continuación: “Ser una empresa líder en el sector industrial, automotriz y comercial ofreciendo productos de excelencia otorgando el mejor precio, servicio y asesoría personalizada a nuestros clientes”. En el segundo paso se determinaron los valores organizacionales, cada empresa tiene un conjunto de valores que sirven de guía y definen su cultura (Norman, 2019) los cuales definen las creencias o actitudes deseables y compartidas por los miembros dentro de una compañía. Los líderes de opinión propusieron cuatro valores organizacionales los cuales se registraron considerando la frecuencia con la que se mencionaron. Los valores de honestidad, amabilidad, servicio, responsabilidad y puntualidad fueron los que presentaron mayor frecuencia en su mención y se agregó el sentido de pertenencia por así convenir a su filosofía a continuación se presenta en la siguiente Tabla la puntuación.

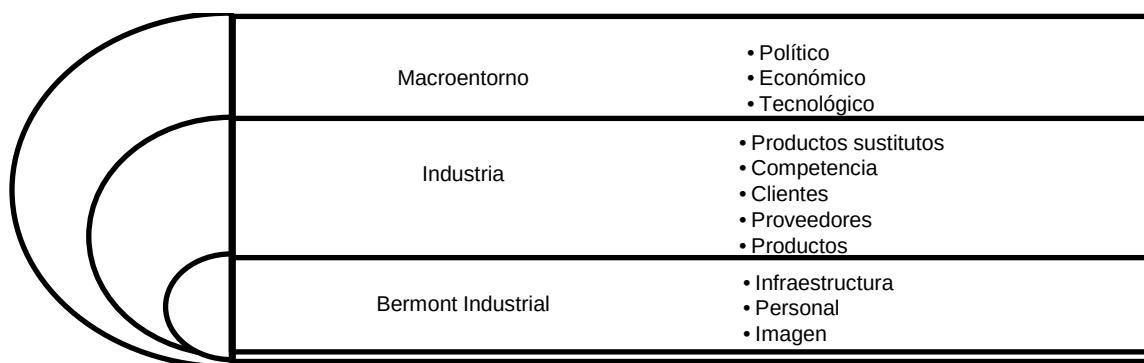
Tabla 1: Ponderación de los Valores

Valores	Líder 1	Líder 2	Líder 3	Líder 4	Líder 5	Líder 6	Líder 7	Total
Honestidad	1	1	1	1	1	1	1	7
Amabilidad			1	1	1		1	4
Servicio		1	1		1			3
Compromiso	1				1			2
Responsabilidad	1					1	1	3
Puntualidad		1				1	1	3
Calidad		1						1
Justicia			1					1
Respeto				1		1		2
Solidaridad				1				1
Pertinencia	1							1

Esta tabla revela cómo viven los valores en la empresa, cuales son los que tienen mayor posicionamiento en la mente de los líderes de opinión

Para el tercer paso se definieron los factores tanto internos como externos con los que interactúa la organización y que por lo tanto ejercen cierta influencia en la misma. Se utilizó la herramienta PESTEL para conocer los agentes externos que influyen en el entorno empresarial. PESTEL identifica los entornos político, económico, sociocultural, tecnológico, ecológico y legal, y la herramienta cinco fuerzas de Porter que permite conocer el entorno competitivo de la organización (Martínez y Milla, 2012). El resultado obtenido se muestra en la Figura 1.

Figura 1: Modelo de los Factores de la Empresa



En la Figura 1. Se dividieron los entornos en interno, competitivo del ramo y macroentorno para determinar los factores que influyen en la organización.

Posteriormente a la identificación de los factores de la empresa se aplicó el análisis FODA a cada uno debido a que esta herramienta nos ayuda a clasificar las fortalezas y debilidades internas claves de la empresa, así como las oportunidades y amenazas que se encuentran en el entorno (Cortés, 2017). De esta dinámica se obtuvo el resultado mostrado en la Figura 2.

Figura 2: Análisis FODA de la Empresa



De los factores que influyen en la empresa establecidos en la Figura 1 surgieron los elementos clave de la empresa en cuanto a su ambiente interno y externo los cuales se clasificaron en una matriz FODA

El cuarto paso es la clasificación de la información para lo cual se utilizó un diagrama de afinidad como herramienta para reunir, ordenar y agrupar los datos en relación con una temática en común (Villar, 2015) la información recabada en la Figura 2 se categorizó en seis grupos que dieron lugar a los proyectos estratégicos, el resultado se puede apreciar en la Tabla 2.

Tabla 2: Diagrama de Afinidad

Productos	Personal	Clientes	Legal	Marketing	Instalaciones
GRUPO A	GRUPO B	GRUPO C	GRUPO D	GRUPO E	GRUPO F
Disponibilidad de productos	Equipo de trabajo	Servicio técnico y asesoría personalizada a los clientes	Cumplimiento fiscal	Página WEB actualizada	Parque vehicular para entrega
Calidad de los productos	Sueldo seguro	Satisfacción del cliente	Sustitución de PET	Equipo de cómputo	Herramienta de trabajo
Variedad de productos	Capacitación en la función	Disponibilidad de horario	Disposiciones fiscales con clientes	Equipo de cómputo actualizado	Ubicación
Precio de productos	Prestaciones de ley	Estudio de mercado para reconocer las necesidades de los clientes	Políticas de importación	Diversos medios de comunicación	Adquisición de lavadora industrial
Proveedores confiables	Buen ambiente de trabajo	Ampliación de la cartera de clientes		Explorar la página WEB para la comercialización a distancia	Apertura de nuevas sucursales
Acceso a financiamiento a corto plazo	Mejores prestaciones y bonos al personal	Certificación en ISO		Proceso de registro de Marca	Adecuación de las instalaciones
Escasez de materiales	Falta de definición de puestos	Instalaciones limitadas (tamaño)		Plan de mercadotecnia: promoción	Diversificación de servicio: maquinación y fabricación de retenes
Inflación de los precios	Riesgo de trabajo por herramientas peligrosas	Se carece de servicio a domicilio en el sector comercial		Falta de convenios con paqueterías	Adquisición de equipo: máquina para fabricación de retenes
Inseguridad	Falta de capacitación en seguridad	Servicio de paquetería insuficiente		Coertura geográfica	Acceso a financiamiento a largo plazo
		Cartera de clientes limitada			largo plazo
		Falta de personal de ventas			Falta de Capacidad de la planta
		Falta de certificaciones			Falta de equipo: montacargas
		Limitaciones por la pandemia (horarios, condiciones sanitarias)			Falta de equipo: camionetas
		Incremento de la piratería			Falta de sistema de control de inventarios
		Disminución de ventas			Mala distribución de las instalaciones
		Pérdida de clientes			Capacidad de pago ante financiamientos con altos intereses

Tabla 2. Presenta la agrupación de los elementos del entorno encontrados durante el análisis FODA de la Figura 2, de los seis grupos se detectaron las temáticas: productos, personal, clientes, legal, marketing e instalaciones.

Para el quinto paso se identificaron los proyectos estratégicos que surgieron de cada uno de los grupos formados en el diagrama de afinidad y se les asignó una nomenclatura y un nombre (Tabla 3).

Tabla 3: Proyectos Estratégicos

Nomenclatura	Nombre del proyecto
PE1	Proyecto estratégico para la construcción del “Mercado Belmont”
PE2	Proyecto estratégico para el desarrollo del “Equipo Belmont”
PE3	Proyecto estratégico para alcanzar la satisfacción del cliente
PE4	Proyecto estratégico para el cumplimiento legal
PE5	Proyecto estratégico para marketing
PE6	Proyecto estratégico para alcanzar el “Sueño Belmont”

La Tabla 3 presenta la nomenclatura y los nombres de los proyectos estratégicos que surgen a partir del trabajo realizado de planeación estratégica y de la aplicación del modelo SIGMIL

Una vez que se definieron los proyectos estratégicos que se deberán implementar para contribuir al crecimiento empresarial, el paso seis requiere priorizarlos para conocer el grado de importancia e impacto para lo cual se utilizó el principio de Pareto que nos indica hacia donde debe enfocarse el 20% de los esfuerzos para resolver el 80% de los problemas (López, 2016). Los líderes priorizaron de 1 a 6 considerando la mayor puntuación a los proyectos más importantes y por ende la menor puntuación a los menos urgentes. En la Tabla 3 se observa el valor en porcentaje de los proyectos estratégicos, el orden jerárquico y su porcentaje acumulado para detectar el 80% que marca el principio de Pareto resultado de la dinámica.

Tabla 4: Priorización de los Proyectos Estratégicos

Proyecto	Puntuación	Porcentaje	% Acumulado
PE1	38	25.85%	25.85%
PE2	27	18.37%	44.22%
PE3	27	18.37%	62.59%
PE4	21	14.29%	76.87%
PE6	21	14.29%	91.61%
PE5	13	8.84%	100.00%

Se puede apreciar en la Tabla 4 que el 80% de las soluciones se encuentra entre el PE4 y el PE6 por lo que los proyectos estratégicos que necesitan desarrollarse con mayor prioridad son PE1, PE2, PE3 PE4. Aunque tuvieron el mismo porcentaje se eligió PE4 sobre PE6 por así convenir a los intereses de la empresa.

El paso siete consistió en formular la misión, la cual se define como la razón de ser de la organización, engloba la actividad estratégica y orienta su continuidad para la permanencia en el mercado (Melgar, 2009). Cada proyecto se consideró para la redacción de la misión en función de las propuestas de los líderes de opinión, basándose en la fórmula siguiente:

$$Misión = \sum_{i=1}^N PE_i$$

Donde la misión es la sumatoria de los proyectos estratégicos (PE_i) y N representa la cantidad de proyectos, para esta situación N=6. La misión de la empresa quedó redactada después de llegar a un consenso y utilizar las mejores ideas propuestas de la siguiente manera: *“Ofrecer siempre la mayor gama de productos garantizando calidad y precio, contando con el personal capacitado para brindar un servicio de asesoría de excelencia con la utilización de nuevas tecnologías para la satisfacción de nuestros clientes”* Para el paso ocho se establecieron las estrategias de crecimiento, se utilizó la herramienta CAME la cual está ligada a la matriz FODA con la que se buscó Corregir-Debilidades, Afrontar-Amenazas, Mantener-Fortalezas y Explotar-Oportunidades (ISOTools, 2017). En la Tabla 5 se presenta el ejemplo de aplicación de esta herramienta en el PE1.

Tabla 5: Análisis CAME

PE	Elemento FODA	CAME
PE1	Disponibilidad de productos	Mantener un stock en el almacén de productos disponible para venta
	Calidad de los productos	Mantener a los proveedores que ofrecen mayor calidad y servicio de garantía en sus productos
	Variedad de productos	Mantener e incrementar la variedad de productos en almacén
	Precio de productos	Mantener una diferencia de precios menor al competidor
	Proveedores confiables	Mantener una cartera de proveedores con calificación aceptable dentro de su evaluación
	Acceso a financiamiento a corto plazo	Explotar las oportunidades de financiamiento con proveedores o buscar proveedores que faciliten financiamiento
	Inventario obsoleto	Corregir con programas de liquidación la acumulación de inventario obsoleto
	Escasez de materiales	Afrontar mediante contratos con proveedores y el manejo de inventarios la escasez de materiales
	Inflación de los precios	Afrontar la posible inflación de los precios con un programa de ajuste de precios y margen de contribución de los productos
	Inseguridad	Afrontar la inseguridad con sistemas de alarmas

La tabla contiene las estrategias aplicables a los elementos que se recabaron en el análisis FODA y que fueron clasificadas en el diagrama de afinidad en el primer proyecto el cual obtuvo mayor porcentaje de impacto durante la priorización con el principio de Pareto.

Con la información anterior se definieron los objetivos estratégicos que se implementarán para cumplir con la estrategia CAME, para lo que se utilizó el criterio SMART una herramienta cuyo acrónimo en inglés es específico (S), Medible (M), Asignable (A), Realista (R) y Temporal (T) (50Minutos.es, 2016) además se le asignó una nomenclatura a cada objetivo. En la Tabla 5 se puede ver la aplicación de este criterio para PE1.

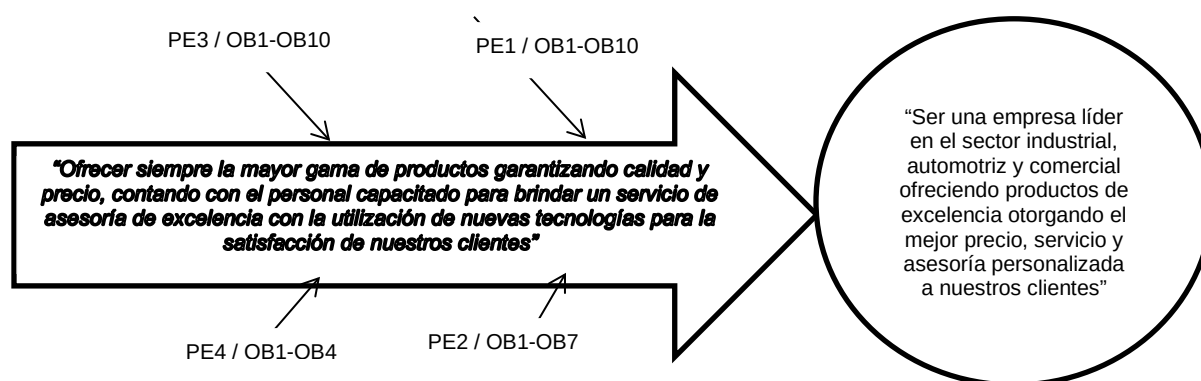
Tabla 6: Establecimiento de Objetivos

PE	CAME	S	M	A	R	T	OBJETIVO	Nom
PE1	Mantener un stock en el almacén de productos disponible para venta	Stock de producto	10% sobre rotación	Mediante control de inventario	Programa de compras	Mensual	Mantener mensualmente un stock del 10% sobre la rotación de productos	OB1
	Mantener a los proveedores que ofrecen mayor calidad y servicio de garantía en sus productos	Calidad de los productos	95% Pólizas de garantía	Convenios de compra	Trato con proveedores	Mensual	Realizar mensualmente convenios de compra que incluyan pólizas de garantía para el 95% de sus productos	OB2
	Mantener e incrementar la variedad de productos en almacén	Variedad de productos	1 producto nuevo	Adquisición de productos	Cotización y compra	Semestral	Adquirir 1 producto nuevo cada seis meses para mantener actualizado y variado nuestro almacén	OB3
	Mantener una diferencia de precios menor al competidor	Diferenciación de precios	3% por debajo del mercado	Cotización con la competencia	Solicitando presupuesto de los clientes	Diario	Aplicar la política de descuento de 3% al cliente que presente presupuesto con costo menor en su producto	OB4
	Mantener una cartera de proveedores con calificación aceptable dentro de su evaluación	Confiabilidad de proveedores	Calificación arriba de 9	Evaluación del desempeño	Asegurar calidad de producto y entregas puntuales	Anual	Calificar el desempeño de los proveedores para renovar contratos con los que tengan calificación superior a 9	OB5
	Explotar las oportunidades de financiamiento con proveedores o buscar proveedores que faciliten financiamiento	Financiamiento a corto plazo	Más de 15 días de financiamiento	Contrato con proveedores	Contar con flujo de efectivo	Anual	Establecer dentro de los contratos anuales de los proveedores financiamiento mayor a 15 días	OB6
	Corregir con programas de liquidación la acumulación de inventario obsoleto	Productos obsoletos	Reducción 5%	Programa de liquidación	Para recuperar inversión	Semestral	Establecer un programa de liquidación que reduzca el 5% del inventario obsoleto semestralmente	OB7
	Afrontar mediante contratos con proveedores y el manejo de inventarios la escasez de materiales	Escasez de materiales	Cumplimiento del 95% del contrato	Contrato con proveedores	Disposición de productos	Anual	Asegurar el 95% del cumplimiento de los contratos con proveedores dentro de la política de compras	OB8
	Afrontar la posible inflación de los precios con un programa de ajuste de precios y margen de contribución de los productos	Inflación de precios	35% de margen de contribución	Ajuste de precios	Mediante ajuste de precio de compra y venta	Anual	Realizar anualmente un ajuste de precios que garantice el 35% de margen de contribución en los productos	OB9
	Afrontar la inseguridad con sistemas de alarmas	Inseguridad	instalación de 1 sistema de seguridad	Adquisición de sistema antirrobo	Contratación con compañía de seguridad	Anual	Contratar con una compañía de seguridad un sistema antirrobo	OB10

En la Tabla 6 se puede apreciar cómo se aplicó el criterio SMART para identificar los objetivos organizacionales derivados de este proyecto.

El último paso de la segunda etapa del modelo consistió en el direccionamiento de los objetivos estratégicos, donde con un diagrama de causa-efecto se pudo identificar y clasificar la relación causal (López, 2016) de los objetivos organizacionales de cada proyecto estratégico, a su vez como estos definen la misión necesaria para el direccionamiento hacia el cumplimiento de la visión. La Figura 3 presenta este resumen.

Figura 3: Diagrama Causa-Efecto



La Figura 3 muestra como los proyectos están respaldados por objetivo que a su vez alimentan la misión y ésta los conduce hacia su visión organizacional.

Etapa 3: Diseño del Cuadro de Mando Integral.

La tercera y última etapa del modelo constó de tres pasos, el primero fué desarrollar el mapa estratégico el cual abordó las cuatro perspectivas del CMI: la financiera, el cliente, los procesos internos y el crecimiento y aprendizaje (Kaplan y Norton, 2002). La Figura 4 muestra el mapa estratégico general.

Figura 4: Mapa Estratégico

Finanzas	OB6	OB:2,5	OB:1,3	5
Clientes	OB4	OB:1,2,3,4,7,8,10		8
Proceso interno	OB:1, 2, 3,5,7,8,9,10	OB6	OB:5,6,9	12
Formación y crecimiento	OB:1,3,4,7		OB4	5
Sustentabilidad			OB2	1
	PE1	PE2	PE3	PE4
	Total (31)			

La Figura 4 muestra en que factor del CMI tienen mayor peso los objetivos de cada proyecto estratégico

El segundo paso fue el diseño del sistema de medición de los objetivos mediante la implementación de KPI's (ISOToolsExcellence, 2020). La Tabla 7 presenta los indicadores para medir los objetivos de PE1.

Tabla 7: Establecimiento de Indicadores

	OB1	Rotación de productos × 0.10	OB5	No. de evaluaciones satisfactorias	OB8	Contratos cumplidos
				Total de proveedores		arriba del 95%
PE1	OB2	Convenios con 95% de garantía	OB6	Contratos con financiamiento	OB9	Productos ajustados X 1.35 de margen de utilidad
	OB3	Total de artículos – Total de artículos del semestre anterior	OB7	No. de productos rezagados	OB10	Cantidad de contratos Realizados
	OB4	Precio cotizado mayor al nuestro – 3%		Inv. de producto obsoleto del semestre anterior		

La Tabla 7 describe los indicadores con los que se medirán los objetivos de PE1.

Finalmente, el último paso del modelo consistió en la elaboración de un CMI, para el cual se utilizaron cédulas de trabajo para alimentar el sistema con el reporte de productividad y una interfaz para visualizar el logro obtenido con semaforización elaborado con el programa Excel de Microsoft office.

RESULTADOS

Con la aplicación del modelo SIGMIL® se realizó la planeación estratégica de la empresa, formulando la visión y sus valores organizacionales, dicha planeación permitió definir y priorizar los proyectos estratégicos los cuales sostienen la misión empresarial. A partir de herramientas como el FODA, CAME y SMART fue posible definir los objetivos estratégicos. La medición y el seguimiento de los proyectos estratégicos se realizará a través de la semaforización de los KPI's establecidos, facilitándose su monitoreo con la interfaz del Cuadro de Mando Integral.

CONCLUSIONES

El caso de estudio presentado en esta empresa describe la implementación de Administración Estratégica utilizando herramientas de Ingeniería Administrativa, las cuales son fundamentales en el crecimiento y competitividad de las MIPYMES. Este trabajo puede ser referente de aplicación en otras empresas a través de la transferencia del conocimiento generado en el proceso de planeación estratégica e implementación del modelo SIGMIL®. La atención a los sectores de la sociedad a través del desarrollo de proyectos de investigación e innovación son una prioridad para los programas de posgrado profesionalizantes, por lo cual la misión de las Instituciones de Estudios Superiores (IES) es fortalecer la vinculación basándose en el modelo pentahélice que atienda a los diversos actores a través de la aplicación del conocimiento que impulse el desarrollo económico y social del país.

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PERSPECTIVAS DE EMPRESARIOS ZACAPOAXTECOS SOBRE DESARROLLO, Y SUSTENTABILIDAD APRENDIDAS DURANTE LA PANDEMIA COVID – 19

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RESUMEN

El motor del empleo en México son las micro, pequeñas y medianas empresas (MiPyMEs), según INEGI 7 de cada 10 de los empleos formales en México son generados por las MiPyMEs. En la Agenda 2030, se contemplan como un instrumento para lograr objetivos del Desarrollo Sustentable. Pero estas forman parte de una incipiente estructura económica en los países en desarrollo. En México el 95.4% son microempresas, lamentablemente entre más pequeñas son, aumentan el riesgo a desaparecer en el primer y segundo año ante condiciones de presión como las generadas por la pandemia de COVID – 19; incrementando con ello el desempleo, y poniendo en riesgo el sustento de las familias. Las familias buscan oportunidades para sobrevivir incrementando la informalidad y problemas sociales como la delincuencia y el deterioro ambiental. Sin embargo los pequeños empresarios tienen la actitud para cambiar el enfoque de sus negocios hacia una política de sostenibilidad. Para ello se requiere que los encargados de la política pública sean incluyentes, y vean en los pequeños negocios la mejor forma de fomentar los empleos regionales.

PALABRAS CLAVE: Pandemia, Sustentabilidad, Empresas

DEVELOPMENT AND SUSTAINABILITY PERSPECTIVES OF ZACAPOAXTEC BUSINESSES LEARNED DURING THE COVID-19 PANDEMIC

ABSTRACT

The engine of employment in Mexico are micro, small and medium-sized enterprises (MiPyMEs), according to INEGI, 7 out of 10 of formal jobs in Mexico are generated by MiPyMEs. In the 2030 Agenda, it is considered as an instrument to achieve Sustainable Development objectives. But these are part of an incipient economic structure in developing countries. In Mexico, 95.4% are micro-enterprises, unfortunately the smaller they are, the risk of disappearing in the first and second year was found in the face of pressure conditions such as those generated by the COVID-19 pandemic; thereby increasing unemployment, and putting the livelihood of families at risk. Environmental families seek opportunities to survive by increasing informality and social problems such as crime and deterioration. However, small entrepreneurs have the attitude to change the focus of their businesses towards a sustainability policy. This requires public policy makers to be inclusive, and see small businesses as the best way to promote regional jobs

JEL: A13 D62 M21 O44

KEY WORDS: Pandemic, Sustainability, Companies

INTRODUCCIÓN

Las empresas juegan un papel vital en la economía de cualquier país, los economistas señalan como la segunda unidad económica de importancia, la primera son los hogares. Empresas y hogares completan el funcionamiento de una economía simple. Pero las estructuras empresariales no todas las veces gozan de cabal salud, y la pandemia del coronavirus vino a ser un catalizador del declive de muchas de ellas en la actual crisis económica. La Organización Internacional de Trabajo (OIT, 2020) estima que esta crisis puede destruir 305 millones de empleos en el mundo¹. El Fondo Monetario Internacional (FMI) apunta también a una recesión muy grave, en enero de 2020 se esperaba un crecimiento positivo de la renta per cápita en más de 160 países y en abril se estimó que más de 170 países experimentarán un crecimiento negativo. En el caso mexicano el INEGI confirmó una caída del 8.5%. Estas estimaciones anticipan un mayor impacto entre las pequeñas y medianas empresas y los pequeños productores. La OIT prevé numerosas quiebras entre las pymes como consecuencia de la crisis económica y la OCDE ha estimado que es posible que más del 50% de las pymes no sobrevivan en los próximos meses.

En el caso mexicano, las empresas forman parte de una estructura económica muy endeble, porque tienen un tamaño muy pequeño, por lo cual son poco competitivas y no pueden generar economías a escala. A esta situación se le suma el impacto de la pandemia. La *Encuesta Nacional sobre Productividad y Competitividad de las Micro, Pequeñas y Medianas Empresas (ENAPROCE)* realizada en 2018 por el *Instituto Nacional de Estadística y Geografía (INEGI)*, estima que el 52% del Producto Interno Bruto (PIB) del país es generado por las pequeñas y medianas empresas (PyMEs) y generan 7 de cada 10 de los empleos formales en México.

Datos del INEGI en 2019, arrojan que el 95.4% de PyMEs son microempresas; un 3.6% pequeñas empresas y 0.8% medianas empresas, así mismo se manifiesta una correlación directa que nos dice que entre más pequeña es la empresa, tiene más dificultades para adaptarse a las exigencias y condiciones incrementando el riesgo a desaparecer en el primer o segundo año de vida; por ejemplo se estima sólo el 42.6% de las empresas que tienen hasta dos empleados seguirá en funciones al segundo año y en el caso de empresas de 6 a 10 empleados pueden llegar a un 65.8% de sobrevivencia al 2 año. Esto se vuelve un reto estructural que nos habla de lo volátil y fluctuante que puede ser el empleo en México ante condiciones de presión para las microempresas, ejemplo de esto es lo generado por la pandemia de COVID - 19, la cual paralizó la economía mundial, incrementando el desempleo, poniendo en riesgo el sustento de las familias, quienes en su necesidad han incrementado la actividad laboral desde la informalidad para poder sobrevivir; según el INEGI La ocupación informal en julio de 2020 ascendió a 27.3 millones, al tiempo que la Tasa de Informalidad Laboral 1 (TIL1) se situó en 54.9%. Esto sumado al hecho de que aun con el incremento del 5% en el salario mínimo (\$185.56 en zona libre de la frontera y \$123.22 el resto del país) acordado en 2020 por la Comisión Nacional de Salarios Mínimos (CONASAMI) dista aún de lograr que cualquiera que cuente con un empleo, tenga garantizado poder cubrir sus gastos básicos y mantener en situaciones dignas a una familia promedio mexicana de 5 integrantes. La pandemia también trajo a poner sobre la mesa, cuestiones sustentables del medio ambiente y la recuperación sostenible y resiliente de las empresas. La Organización de las Naciones Unidas (ONU, 2020) en su informe *Pymes y Covid: hacia una recuperación sostenible* afirma que El papel de las pymes en esta recuperación sostenible es esencial, su flexibilidad y capacidad de adaptación suponen una oportunidad para salir reforzadas frente a esta situación. La apuesta por la sostenibilidad puede dotar a las pymes de una mayor resiliencia ante situaciones futuras.

REVISIÓN DE LITERATURA

Muller (2020) señala como uno de los retos al que las empresas se enfrentan con la crisis del COVID-19 es conciliar resiliencia empresarial con responsabilidad social. Esta responsabilidad social no puede dejar de lado al medio ambiente, y los Objetivos de Desarrollo Sustentable (ODS) de la Agenda 2030 de la ONU, porque los empresarios enfrentan un dilema ético entre aprovechar en su beneficio las oportunidades de

negocios que pueda generar la actual pandemia o la responsabilidad que tienen con sociedad. Useche, et al (2021) concluye que las pymes requieren atender sus necesidades sociales y los requerimientos económicos que impone el mercado nacional e internacional y para ello deben diseñar estrategias interactivas para preservar la salud y adecuar sus acciones a la tecnología, estimular la capacidad de rápida adaptación ante adversidades e insertar su direccionamiento con los objetivos de desarrollo sostenible. Ante un escenario adverso internacional global es importante conocer el impacto local de la pandemia, y las reflexiones sobre la sustentabilidad de los negocios.

Porque, si el motor del empleo en México son las MiPyMEs, Los afectos de la pandemia actual en las empresas de la región de Zacapaoxtla, afecta la absorción de la mano de obra. ¿Qué opinan estos empresarios de la situación que viven a un año de la pandemia?, ¿Cuáles han sido sus acciones en este periodo de pandemia? ¿Cuáles son sus perspectivas a futuro? ¿Qué oportunidades ven para mejorar a partir de este contexto?, la presente investigación se basó en reuniones participativas, con el objetivo de a conocer la percepción de un grupo de empresarios del municipio de Zacapaoxtla, en la Sierra Nororiental de estado de Puebla, quienes comparten las lecciones que les deja la pandemia COVID -19 y sus perspectivas a futuro en pro de la sustentabilidad desde un enfoque territorial local con la intención de que este conocimiento detone propuestas de solución y oportunidades para su municipio y la región.

METODOLOGÍA

El estudio se realizó en el municipio de Zacapaoxtla a un grupo de empresarios sobre los impactos de la pandemia, la sustentabilidad socio ambiental del municipio y la región. La reunión fue modalidad presencial bajo el enfoque participativo, el investigador realizó una facilitación del diálogo desde un carácter neutral por medio de preguntas detonadoras estructuradas por bloques para generar lluvia de ideas y estructurar un diagnóstico de percepción, recurriendo a los ODS como marcos de referencia para ponderar los impactos, contribuciones y retos. Los bloques de preguntas fueron estructuradas bajo los siguientes ejes: Recabar las opiniones de los empresarios sobre los impactos de la pandemia en sus negocios y el desarrollo territorial.

Identificar buenas prácticas desde la corresponsabilidad social realizadas como empresarios Zacapaoxtecos en tiempos de pandemia.

Recuperar la percepción sobre sus contribuciones en favor del cumplimiento de los Objetivos de Desarrollo Sostenible (ODS) en sus actividades.

Identificar propuestas de acción para colaborar en la construcción de un Zacapaoxtla y región más sustentable. (Socialmente más justo, Ambientalmente responsable, Económicamente productivo)

RESULTADOS

Los Principales Aprendizajes Derivados de la Pandemia

Con los cambios observados en el mercado derivado de la pandemia las compras se hacían desde internet, esto impulsó a los empresarios zacapaoxtecos a actualizarse.

Fue evidente la vulnerabilidad social, se generó una respuesta inmediata para salvaguardar la integridad propia, del personal, los clientes y ciudadanía.

Fue necesario tomar la iniciativa sin necesidad de que las autoridades lo indicarán con el objetivo de brindar confianza al cliente (desde las condiciones de sanidad)

Los compradores priorizaron sus compras, llegaban a comprar productos específicos y limitaron su

consumo para cuidar su economía, por lo que se mejoró la atención al cliente, la forma de tratarlos, se favoreció a ofrecerle opciones de pago aceptando tarjetas y pago electrónico.

Se rompieron paradigmas, se observó que el trabajo desde casa “home office” (escuelas, oficinas) puede ser eficiente y conlleva un cambio en el mercado, pues compras de temporada que eran recurrentes año con año (por ejemplo el sector papelería) se vieron comprometidas, evidenciando la necesidad de trabajar en esquemas para favorecer a cultura de la prevención, la planificación y la gestión del riesgo.

Se fortaleció desde la negociación, pues fue necesario recurrir frecuentemente a esta habilidad con los proveedores y los clientes, para generar estabilidad en el mercado local.

Se revisaron los procesos para minimizar los gastos, redefinir actividades o cargos eran obsoletos, cuales son prioritarios y cuáles deberían ser incorporados.

La tecnología entró a todos lados y los impulsó a entrar a la par.

No importa el nivel económico o educativo que sustentan las personas, a nivel de valores se tuvo que concientizar a todo tipo de personas sobre la importancia de cumplir las medidas sanitarias.

Ratificaron su interdependencia territorial “nosotros vendemos y movilizamos mercancías y servicios para diversos municipios hermanos de la Sierra y ellos nos movilizan a nosotros con sus compras”

Lealtad al cliente, evitando aprovecharse de ellos incrementado precios, se prefiere ganar poco pero constante, y mantener relaciones a largo plazo.

Las Mejores Prácticas de Responsabilidad Social Durante la Pandemia Fueron

Cumplir las medidas de restricción marcadas por las autoridades sanitarias

Evitar la simulación de la carencia, favoreciendo un control en los precios desde una visión de “NO ABUSO” como un código ético implícito entre los empresarios Zacapoaxtecos.

Confianza en el cliente, manteniendo créditos en un escenario de incertidumbre, asumiendo los riesgos que esto implica

Tomar la iniciativa (antes que el gobierno local lo indicara) para generar una campaña informativa y de concientización (interna y externa) sobre las medidas sanitarias de prevención de contagio del COVID - 19. (Impresos, spots, brigadas)

Participar, proponer y cooperar en mesas de trabajo multi sector (Sector salud, comercio, transportes, Consejo de Participación Ciudadana, Gobierno local) para incentivar acuerdos y en ciertos momentos presionar a las autoridades locales para aplicar las medidas de prevención para reducir la propagación del COVID - 19. Se buscó mantener en la medida de lo posible al personal, en algunos casos reduciendo los turnos o dando descansos.

A Nivel de Prácticas Específicas Por Empresario

Algunos empresarios otorgaron préstamos sin intereses a empleados de confianza.

En el caso de un empresario, él se dio a la tarea de generar campañas de empatía para la no discriminación a los enfermos de COVID, promoción de la lectura y el dibujo para fomentar el “quedate en casa” otorgando

una premiación a las participaciones más destacadas. Se favoreció la compra de productos locales que productores y emprendedores iban ofreciendo a los negocios de los empresarios (ya sea frutas, comida, postres, entre otros).

Valores / Actitudes Que Practican los Empresarios en Zacapoaxtecos

Integridad
 Respeto al cliente
 Respeto a uno mismo
 Confianza
 Legado, lealtad con los valores heredados de generación en generación
 Compromiso social (cliente, empleado, proveedor)
 Cultura del trabajo (esforzarnos mucho y todo el tiempo)
 Responsabilidad
 Amor al pueblo, el territorio, la comunidad (familia, amigos, vecinos)
 Respeto entre el gremio
 Compañerismo
 Calidad

La Percepción Sobre Sus Contribuciones en Favor del Cumplimiento de los Objetivos de Desarrollo Sostenible (ODS) en Sus Actividades Es

Al analizar los 17 Objetivos de Desarrollo Sostenible, los empresarios pudieron identificar los que desde su percepción conectan más con su ámbito y experiencia. Se utilizó la escala “Alto, medio, bajo y nulo” para clasificar sus contribuciones.

Tabla 1: Percepción de los Empresarios Sobre los Objetivos de la Agenda 2030

Objetivo	Nivel de Contribución Local	Argumento
ODS 8 “Trabajo decente y crecimiento económico”	Alto	Aun en condiciones de pandemia, se ha buscado favorecer que las personas conserven sus empleos y puedan llevar sustento a sus hogares, así mismo se ha cuidado cumplir con los protocolos para salvaguardar condiciones laborales seguras y se busca cumplir con normas de seguridad social.
ODS 3 “Garantizar una vida sana y promover el bienestar para todos en todas las edades”	Alto	Esto conecta con la meta 8.8 “Proteger los derechos laborales y promover un entorno de trabajo seguro y sin riesgos para todos los trabajadores, incluidos los trabajadores migrantes, en particular las mujeres migrantes y las personas con empleos precarios” Se tomó iniciativa por el cumplimiento de los protocolos de prevención, así mismo se incentivó la cooperación con los demás sectores de la sociedad y el gobierno para generar acciones de prevención y reducción del contagio del COVID - 19.
ODS 17 “Alianzas para lograr los objetivos”	Alto	Esto conecta con la meta 3.d Reforzar la capacidad de todos los países, en particular los países en desarrollo, en materia de alerta temprana, reducción de riesgos y gestión de los riesgos para la salud nacional y mundial. Ejemplo de esto fue la participación en las mesas de trabajo multi sector para generar acuerdos en pro de las medidas de prevención y la reactivación económica local.
ODS 7 “Garantizar el acceso a una energía asequible, segura, sostenible y moderna”	Nulo	17.17 Fomentar y promover la constitución de alianzas eficaces en las esferas pública, público-privada y de la sociedad civil, aprovechando la experiencia y las estrategias de obtención de recursos de las alianzas Consideran que es algo que no han trabajado, pero que es un tema muy relevante.

Elaboración propia con base a las reuniones participativas, la tabla muestra el grado de percepción de los empresarios.

Se Pide de las Autoridades

Seguridad, para prevenir asaltos u cualquier acto delictivo

Que los cargos públicos referentes a industria y comercio sean asignados a personas con el perfil y experiencia para cumplir con sus tareas.

Honestidad en las formas de actuar

Establecer mecanismos de comunicación efectiva con los empresarios

Promover la sinergia gobierno - empresarios para favorecer procesos participativos que permitan emitir opiniones, recomendaciones y sumar esfuerzos para generar proyectos de gran impacto en beneficio de todos.

T
ransparencia

Reconocimiento a los méritos de las diversas iniciativas ciudadanas para evitar que sean expuestas con fines publicitarios o políticos.

Ser empáticos

Se Busca Para la Población

Ayudar a concientizarlos sobre la importancia del las medidas de prevención

Fomentar una cultura de corresponsabilidad

Apoyar la formación laboral de l@s Zacapoaxtecos

Promover actitudes y valores en pro del deseo de trabajar y mejorar perfiles.

Se Propone a la Academia

Vinculación empresarios - academia para identificar oportunidades conjuntas.

Que puedan orientar al comercio y las PyMEs para identificar mejoras y oportunidades.

Ayudar en la búsqueda de nuevas oportunidades para el manejo y aprovechamiento de los residuos generados desde las empresas.

Ser un ente capacitador para mejorar las habilidades del personal de las PyMEs del municipio.

Motivar el emprendimiento en sus estudiantes y en los pobladores.

Lo Que Les Gustaría Aportar a los Empresarios Zacapoaxtecos Es

Favorecer la contratación en el esquema de “trabajo decente y digno”

Generar un proyecto de banco de alimentos en beneficio de las personas en situaciones de marginación y pobreza.

Promover obras sociales con los recursos obtenidos del aprovechamiento y optimización de recursos o residuos como el cartón.

Fomentar un plan de formación y profesionalización para sus empleados, futuros prospectos de empleados y jóvenes desde un enfoque de triple aporte (Gobierno - academia - empresarios) con la intención de incrementar

La posibilidad de contribuir con becas para apoyar el desarrollo de investigación científica aplicada para solucionar problemas en beneficio de Zacapoaxtla y la región.

Apoyar en la mentoría a jóvenes emprendedores para que puedan consolidar su formación.

CONCLUSIONES

El presente trabajo logra dar una radiografía distinta, mostrando el rol que juegan las PyMEs a nivel territorial está basado en relaciones más estrechas, donde existe un vínculo cercano entre el empresario y sus clientes, pues son parte de una misma comunidad, existen un reconocimiento de la interdependencia del bienestar y desarrollo común incluso a nivel territorial “nosotros movilizamos a la sierra y ellos nos movilizan a nosotros”.

Esta forma de relación empresarial describe una estrategia de negocios contextualizada, que no solo contempla la rentabilidad económica, sino que integra un fuerte sentido de pertenencia al territorio, un conjunto de valores que incluyen la integridad, el respeto al cliente, respeto a las personas, la corresponsabilidad, el compromiso, la calidad, compañerismo, el amor al territorio (Zacapoaxtla) y lealtad a los valores y el legado heredado de generación en generación.

Es por este conjunto de valores y actitudes que destaca la participación activa y la iniciativa de los empresarios a sumarse con diversos sectores para lograr acciones conjuntas en beneficio global de la comunidad, lo cual es una gran oportunidad para generar proyectos conjuntos desde un enfoque de cooperación entre sociedad, empresa, academia y gobierno.

Desde una visión estratégica a largo plazo, una posibilidad sería focalizar esfuerzos especialmente el desarrollo de capacidades de los jóvenes, pues según la Encuesta Nacional de la Dinámica Demográfica (ENADID, 2018) uno de cada cuatro habitantes del país es joven y en un futuro cercano serán la fuerza productiva del país y su nivel de competencia podría condicionar el éxito o el fracaso del desarrollo de la nación y en este caso específico el de Zacapoaxtla.

Las perspectivas de Empresarios de Zacapoaxtecos sobre desarrollo dan un ejemplo de apertura, incentivando a los diferentes sectores sociales a sumarse para avanzar hacia la gestión sustentable de Zacapoaxtla, sirviendo de buen ejemplo para otros territorios.

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EVALUACIÓN DEL PERFIL DE EGRESO A MITAD DE UN PROGRAMA UNIVERSITARIO PARA FAVORECER EL EMPRENDIMIENTO EN PYMES.

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RESUMEN

El presente trabajo tiene como objetivo recopilar y analizar información que permita verificar los avances en el perfil de egreso del programa de Administración y Dirección de Pequeñas y Medianas Empresas (Pymes), de la Facultad de Contaduría Pública de la Benemérita Universidad Autónoma de Puebla (BUAP), mismos que permitan a mitad de la carrera universitaria generar estrategias para la facilitar un ecosistema emprendedor más eficiente, y centrado en las necesidades locales; con la finalidad de redactar propuestas que permitan lograr de mejor manera uno de los desempeños que ofrece el programa. Los resultados de la muestra son expresados de forma cualitativa y con estimadores de proporción. Finalmente, se consiguieron resultados sobre los intereses y retos que manifiesten los estudiantes; con el fin de apoyar en lo necesario a la creación, y formación y permanencia de pymes, que puedan de manera más constante y eficiente generar emprendimientos entre los egresados.

PALABRAS CLAVE: Educación Superior, Creación de Empleo, Desempleo en Jóvenes

UNDERGRADUATE BUSINESS STUDENT PROFILE EVALUATION AND ORIENTATION TOWARD SMES ENTREPRENEURSHIP

ABSTRACT

This work aims to collect and analyze information that allows to verify the progress in the egress profile of the program of Administration and Management of Small and Medium-sized Enterprises (SMEs), of the Faculty of Public Accounting of the Meritorious Autonomous University of Puebla (BUAP), which allow in the middle of the university career to generate strategies to facilitate a more efficient entrepreneurial ecosystem, and focused on local needs; in order to draft proposals to better achieve one of the performances offered by the program. Sample results are expressed qualitatively and with proportion estimators. Finally, results were achieved on the interests and challenges that students manifest; in order to support the creation, and training and permanence of SMEs, which can more consistently and efficiently generate endeavors among graduates.

JEL: I21, J23, J64

KEY WORDS: Bachelor's Degree, Job Creation, Youth Unemployment.

INTRODUCCIÓN

Dentro del programa de Administración y Dirección de Pymes (ADPymes) de la FCP de la BUAP, uno de los desempeños del egresado será en el sector privado, en donde “Será capaz de crear y/o dirigir pequeñas y medianas empresas que requieran de la aplicación de procesos innovadores, tanto en el sector primario,

industrial y de servicios, optimizando sus recursos para generar el mayor valor económico y/o social integral... Además, pretende acotar la complejidad del fenómeno emprendedor, así como la aplicación de las distintas estrategias de aprendizaje que permitan fortalecer las competencias y habilidades de los alumnos que le permitan creer que las opciones de emprender. Para lograr este objetivo, se recopiló información proveniente de artículos de revista y entrevistas a los alumnos del programa que cursan al presente dicho programa.

REVISIÓN LITERARIA

En las últimas décadas emprender se ha vuelto de suma importancia en la educación, ante la necesidad de superar los constantes y crecientes problemas económicos. Particularmente, durante el año 2020 la pandemia sumió a las economías de Latinoamérica en una profunda crisis económica que anuló los logros obtenidos en una década según la Comisión Económica para América Latina (CEPAL) (Filgueira, Galindo, Giambruno, Blofield; 2020)., 2020). Así como el consecuente impacto en materia de empleo y pobreza. La necesidad cada vez mayor y urgente de empleo. Las estrategias económicas deben de ser aplicadas para cada uno de los aspectos importantes. El agravamiento de la crisis de empleo y la falta de oportunidades es una situación delicada. Durante los últimos años en México, el emprendimiento ha sido una estrategia que se planeó como necesidad a la creciente tasa de desempleo, sobre todo entre los jóvenes recién egresados. En ese sentido surgió desde hace algunos años el programa ADPymes, mismo que cobra relevancia durante por la situación que actualmente vive la economía mexicana. La Benemérita Universidad Autónoma de Puebla (BUAP), ha sido sin duda una de las instituciones que vislumbró desde hace unos años la necesidad de crear programas encaminados a la creación de empresas entre sus egresados. Un ecosistema de emprendimiento social necesita, pues, centros de formación que acompañen a los emprendedores sociales en su actuar en el mercado y que ayuden a crear una “cultura” de sector. Una cultura que además de hacer avanzar el conocimiento de la profesión y de las herramientas de aprendizaje de esta, también hace avanzar a las organizaciones del sector y contribuye a su fortalecimiento institucional. La “gestión” de las organizaciones del sector, su eficiencia y eficacia, su capacidad de innovación, son las que van a permitir avanzar al sector como tal (Domènech y Navarro, 2011).

Por su parte, es importante integrar un enfoque de carácter Neo-Schumpeteriano, donde se definen marcadas diferencias entre tipos de emprendedores; al respecto, Marlerba y McKelvey (2020) determinan un competente consenso de dicho *corpus* teórico al distinguir el ecosistema emprendedor de personas de negocios *versus* empresarios, donde el primer concepto se refiere a la organización industrial que replica la competencia perfecta dada la ampliación de negocios integrados en actividades de sencilla réplica y rutinarias actividades productivas, además de presentar incapacidad de acumular capital físico a través del tiempo y cuya elasticidad ingreso de la demanda es prácticamente nula, y por lo que en general son proyectos de inversión que tienden al fracaso por un estancamiento de su productividad y reducción de beneficios. Sin embargo, en cuanto a la segunda clasificación, se repara en que un empresario es aquella persona que busca constantemente la innovación mediante nuevas organizaciones de aprendizaje que utilizan y transforman el conocimiento existente, como un proceso de aprendizaje y resolución de problemas que busca beneficiarse de la identificación, creación y explotación de oportunidades, y que está condicionado por los vínculos y redes; y que además, no presenta una estructura de competencia derivada de fácil y evidente réplica, además incrementar sus volúmenes de ventas en seguimiento de los ingresos salariales crecientes. En el programa se ofrece un perfil de egreso enfocado en el emprendimiento “El egresado de la Licenciatura en Administración y Dirección de PyMES será un profesionista, altamente competitivo, crítico, con liderazgo, ética, espíritu emprendedor y sentido humano, que enfocará sus esfuerzos en tomar decisiones que generen un alto valor agregado a las PyMES en su creación y desarrollo (BUAP, 2020, p. 2)”. Con uno de los campos de trabajo más ambiciosos del programa que indica “Privado: Será capaz de crear y/o dirigir pequeñas y medianas empresas que requieran de la aplicación de procesos innovadores, tanto en el sector primario, industrial y de servicios, optimizando sus recursos para generar el mayor valor económico y/o social integral (BUAP, 2020, p 3)”. Sin embargo, el egresado debe mostrar un

plan estratégico para considerar presentar para financiamiento, hasta ese momento se consideraría que aprendió y que está listo para intentar emprender. El mercado laboral demanda capacidades y habilidades que antes no se consideraban: escrupulosidad, trabajo en equipo, creatividad, capacidad de desenvolverse en ambientes multiculturales (Santiesteban, 2020). En ese caso la Universidad ha tenido un eje de acciones dentro de su propia oferta académica que corresponden a este programa: “Generar nuevos programas educativos de nivel superior con esquemas modulares por competencias, a través de una o más unidades académicas en modalidades mixtas (BUAP, 2017)”, por lo cual este programa se oferta en dos modalidades: presencial y a distancia (en línea).

Dentro de la sociedad existe un poco de menos interés en los títulos, más interés en adquirir capacidades, “Desarrollo de competencias para la empleabilidad (BUAP, 2017)”. Dentro de la Universidad éste es uno de los programas clave para poder fortalecer no solo adquirir las capacidades sino hacer realidad proyectos productivos en el esquema Pyme “Impulsar el programa de Incubación, Aceleración de Empresas y Proyectos Sustentables, mediante la participación de docentes, investigadores y estudiantes”, por lo cual se trabaja de forma conjunta entre dos facultades, y con el enfoque de autoempleo a través del impulso a la creación de Pymes, además de que busca que la estructura de escuelas y facultades, pueda ser aprovechada. Según Santiesteban (2020) “...el conocimiento dejó de ser fuente de poder, en la actualidad lo importante es saber qué hacer con él, cómo buscarlo (Santiesteban, 2021). Por lo cual, es primordial aplicar en todo lo posible el modelo que se encuentra en letra dentro del plan institucional, no se trata entonces de aprobar las asignaturas, responden cuestionarios, aprobar exámenes, sino más bien hacer las preguntas, sobre todo ver la utilidad de cada conocimiento (Hernández, 2014). La universidad tiene experiencia en implementar el modelo, por la experiencia de regionalización donde de una manera clara se presenta la departamentalización y con menos recursos se produce un impacto mayor (Santiesteban, 2020). Profesores que tienen clase con estudiantes de diversos programas, y laboratorios para toda la oferta del complejo regional, dando pie a la interacción interdisciplinaria de los estudiantes.

METODOLOGÍA

Para la realización del presente se compiló información relevante sobre el tema en libros, artículos científicos y revistas especializadas. Se realizó un estudio exploratorio, descriptivo y explicativo para verificar el avance a la mitad del programa la situación que guarda el contexto al respecto del perfil de egreso en el tema emprendedor. Se trata de una investigación no es experimental, más bien transversal. Se elaboró un cuestionario basado en los diferentes recursos consultados. Se aplicó una prueba piloto a 31 estudiantes de la Facultad de Contaduría Pública, que se encuentran cursando el programa de licenciatura. Con los resultados anteriores se realizó un cuestionario que se aplicó a 60 estudiantes para recopilar datos. Dicha prueba consta de 21 preguntas, y se aplicó en marzo y abril del año 2021, durante el periodo de primavera. Es una muestra no probabilística intencional que consta de 51 estudiantes matriculados en la licenciatura del programa en Administración y Dirección de Pymes de la BUAP entre el quinto y sexto semestres. Se presentan los resultados de la prueba y se realizan algunas estimaciones con respecto a las proporciones encontradas; así como la descripción de la muestra. Al final se realizan recomendaciones de acuerdo con los efectos obtenidos, con la única finalidad de mejorar el desempeño durante el tiempo que resta del programa para dichos escolares.

RESULTADOS

Tabla 1: Ofrecimiento del Programa Vs La Percepción de los Alumnos

Conocimientos Que se Ofrece en el Programa es el Siguiente:	Comentarios de los Alumnos Al Respecto:
De Teorías Económico Administrativas, que permitan aplicar procesos administrativos que fomenten la eficiencia y la calidad en las PyMES considerando la dimensión económica, social, cultural y legal de su entorno a través de la toma de decisiones éticas, comprometidas con el desarrollo sostenible (BUAP, 2020). Jurídicos para fundamentar el marco legal de las PyMES en el ámbito regional, local e Internacional. Fiscales, que le faciliten la interpretación y aplicación, en los diferentes entornos, de las leyes de tributación de las pequeñas y medianas empresas en el ámbito regional y nacional De emprendedurismo que generarán ideas disruptivas y empresas innovadoras que ofrecerán mayor valor al mercado al que van dirigido. Contables para establecer normas y procedimientos de control interno que clasifiquen y registren las operaciones para la construcción de información financiera, con el uso de las Tics, para la toma de decisiones (BUAP, 2020).	En cada emprendimiento es necesario presentar un plan de negocios a personas que te pueden financiar el proyecto, te van a solicitar datos financieros y no he entendido cómo y de dónde los puedes extraer. Para llevar con éxito un negocio, se requiere de un sistema de control interno, cualquier negocio por pequeño que sea, necesita de un plan, y por supuesto recibir información para entender cómo se establece un sistema, cuál sería su inversión para tener un presupuesto a modo. Después de todo, el control interno tiene como objetivo salvaguardar los activos, promover la eficiencia en las operaciones de un negocio o de una compañía, así como aumentar el grado de confianza en la información financiera, luego entonces ello me detiene en el momento de querer hacer una empresa o desarrollar un negocio, ya que no lo había considerado como parte importante del desempeño de una empresa o negocio. Los profesores han comentado a los alumnos durante la clase que existen bastantes formas de organizar un negocio desde el momento que se abre o se inicia, por ejemplo, desde una persona física que tributa en un Régimen de Pequeños Contribuyentes, hasta crear una Sociedad con una sola persona, llamada Sociedad por Acciones Simplificada (SAS) y que se puede integrar con un solo dueño, hasta conocer las sociedades anónimas y de capital variable. Pero que el tipo de organización dependerá de los objetivos del negocio, de los posibles dueños, de la actividad del negocio, de la zona donde se pueda aperturar, de los clientes o proveedores que se consigan, o bien del producto o servicio que añada valor a la sociedad, entre varios otros aspectos y eso me provoca incertidumbre y por supuesto me bloqueo mentalmente, para decidir si hago emprendimiento o mejor busco primero un trabajo En la parte fiscal los alumnos parece que están algo desorientados de cómo se maneja un negocio, ya que hoy en día sabemos que se realiza a través de internet y existen diversas figuras como lo comentamos en el punto anterior, algunas de ellas tienen un costo inicial, ya que sabemos que hay que pagarle a un notario o fedatario público para constituir un negocio "formalmente". La contabilidad y las finanzas son una parte importante para tener éxito en los negocios ya sean pequeños o medianos, sin embargo, no se tiene a bien conocido para qué sirve llevar contabilidad en un negocio, la complejidad de esta tarea, y en caso de contratar personal para llevarla por especialistas, probablemente cuesta muy caro contratar a uno de ellos. El fisco obliga a llevar contabilidad, pero muchas veces los negocios pequeños, llevan sus obligaciones fiscales dentro de la página del Sistema de Administración Tributaria (SAT), y de este servicio no es bien sabido y explicado bien, hasta qué tamaño de negocio esto es válido o procedente. La contabilidad es primordial, es sabido que se analiza la información financiera para conseguir créditos para emprender. Sin embargo, los administradores, podrían necesitar que algún experto les explique de manera fácil los estados financieros que ayudan a conseguir créditos y también a analizar si el negocio o la empresa está logrando sus metas y objetivos. Sobre las materias de auditoría administrativa, los maestros al parecer no explicaron de la importancia del control interno y que éste inicia desde la forma de organización que adopte un negocio y me gustaría saber cómo podemos iniciar con un manual de organización, es decir, más que un manual, qué forma de organización e debe adoptar cuando el negocio está integrado sólo por su dueño o emprendedor, en algunos casos tal vez nos pudiéramos asociar dos o tres compañeros para emprender un negocio. También conocimos el desempeño de las empresas familiares que es cuando te apoyas con las aportaciones en dinero o en trabajo con tu familia y ello representa un reto, no sé cómo se le puede dar órdenes a un integrante familiar o si éste necesita adaptarse al sistema de organización. Con respecto a los impuestos, se sabe que el fisco cobra por obtener ingresos o utilidades, pero no sabemos cuánto hay que pagarle, cómo hay que pagarle y la suma de los costos fiscales para abrir un negocio. Como es sabido que en el caso de contratar personal hay que pagar prestaciones sociales y cubrir contribuciones locales, pero no sabemos cuánto hay que pagar para incluir dicha información en un presupuesto de inversión inicial. Los especialistas han dicho que depende de la figura o tipo de organización legal que escojamos para nuestro negocio. Cuando eres un pequeño negocio o estas por iniciar uno, desconocemos la carga fiscal que se debe incorporar en dicho negocio. Se visto en programas de emprendedores que las personas que te pueden apoyar financieramente solicitan información financiera, como: márgenes de utilidad, costos de tu producto o servicio, gastos generales de operación, así como el monto inicial del capital requerido para iniciar un negocio, y en las materias de contabilidad y finanzas que llevamos no nos han sabido orientar sobre estos tópicos, entre otros. Por otra parte, en tutoriales para llevar a cabo un emprendimiento (un negocio) he visto que solicitan datos no financieros, como sería el caso del número de personas o clientes que puedes atender, el inventario inicial para arrancar tu negocio, el número de personas mínimo que necesitas (empleados o trabajadores) para que inicies un negocio y otros datos como el punto de equilibrio, y no tenemos claro dónde o cómo generar dicha información.

Al menos el 90% de los alumnos, con la proporción de alumnos que desean coordinar un equipo de trabajo con 95% de confianza, se determina que 0.549 de acuerdo y 0.235 de total acuerdo suman 0.778 de

proporción de alumnos que están dispuestos a coordinar un equipo, con lo cual se concluye que solo entre 0.7874 y 0.7805 estarían dispuestos en realidad a hacerlo, es decir, una proporción relativamente más baja de lo esperado. Al menos el 90% de los alumnos, con la proporción de alumnos que desean liderar un equipo de trabajo con 95% de confianza, se determina que 0.51 de acuerdo y 0.157 de total acuerdo suman 0.6617 de proporción de alumnos que están dispuestos a coordinar un equipo, con lo cual se concluye que solo entre 0.6651 y 0.6582 estarían dispuestos en realidad a hacerlo, es decir, una proporción relativamente más baja de lo esperado. La mayoría de los proyectos son de tipo comercial y no de innovación. Las principales preocupaciones de los estudiantes se resumen a las siguientes: falta de apoyo económico para su proyecto, falta de tiempo debido a sus obligaciones escolares, falta de conocimiento para trámites, miedo al fracaso, carencia de conocimientos contables y fiscales, falta de experiencia en empresas, falta de plan de negocio estructurado.

CONCLUSIONES

Como se puede apreciar a poco más de la mitad del programa los alumnos se pueden decir que sí tienen la intención de emprender, sin embargo, no tienen idea completada de lo que implica en la realidad. La mayor parte de ellos necesita hacerlo por la falta de empleo, pero la mayor preocupación es la falta de tiempo y recursos para poder hacerlo. Se propone realizar eventos que les permitan presentar sus planes a entidades financieras que les admitan enfrentar en tiempo real las observaciones que deben hacer a sus propios planes de negocio. Algo muy importante es que no tienen mucha idea de los tres aspectos del desarrollo sostenible que deben cumplir para asegurar los recursos de su propio emprendimiento. Se propone tener talleres especializados en la realización del programa, más allá de las clases que reciben, con la finalidad de aplicar los conocimientos técnicos a la hora de implementar el plan. La realidad que la mayoría de ellos se aprecia pueden observar es la falta de empleo y la necesidad urgente de generar sus propios empleos, por lo cual es momento de aprovechar el programa Xprende BUAP, de forma eficiente toda vez que algunos no conocen la forma de relacionarse con compañeros de las diferentes disciplinas para incorporar y generar valor a sus planteamientos. Finalmente se propone que los egresados puedan presentar un plan estratégico de negocio para poder egresar, así como realizar un servicio social enfocado a la realización de dicho plan. Si bien muchos de los alumnos acceden a titulación por promedio, es primordial asegurar que tienen la capacitación para poder emprender un proyecto, considerando la gravedad del desempleo que debido a la pandemia empeoró en los últimos años. Sobre todo, apoyarles en los primeros pasos para que ellos tengan seguridad y sigan. Después de todo, la creación de autoempleo no debe ser una entelequia, sino una realidad dadas las circunstancias y el contexto; ya que por ahora son pocos estudiantes pueden aprovechar las ventajas del modelo educativo en lo referente al emprendimiento, muchos de ellos siguen pensando solo en un alto rendimiento académico.

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RELACION DE LA RENTABILIDAD FINANCIERA EN MIPYMES Y LOS ESTUDIANTES DE PREGRADO DE UNA UNIVERSIDAD PÚBLICA

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RESUMEN

Las micro, medianas y pequeñas empresas como unidades económicas y sociales tienen interés por ser eficientes y ser fácilmente convertibles atendiendo los cambios de su entorno social, económico, tecnológico y ambiental, en base a ello se realiza esta investigación descriptiva, no experimental de tipo transversal correlacional, en 30 organizaciones del sector turístico del Municipio de Campeche durante el segundo semestre del 2020 a fin de establecer la forma en que los estudiantes de pregrado de administración y finanzas de una Universidad Pública influyen con las competencias profesionales adquiridas en el logro de sus resultados financieros. La variable dependiente es la rentabilidad financiera y como independientes se establecen las 10 competencias profesionales de los 30 estudiantes que participan en la vida económica de esas organizaciones. Mediante el modelo matemático de correlación se obtiene una ecuación con valor significativo $R = 0.821$ y $R^2 = 0.674$ que orientan a considerar que existe una relación positivas entre las variables independientes con la dependiente; infiere que a medida que se cumplan satisfactoriamente los conceptos de competencia llevará a la empresa a maximizar sus rentabilidad financiera.

PALABRAS CLAVE: Rentabilidad Financiera, Estudiantes de Pregrado, Competencias Profesionales, Mipymes.

RELATIONSHIP OF FINANCIAL AND NON-FINANCIAL PERFORMANCE INDICATORS TO THE PROFITABILITY OF MIPYMES

ABSTRACT

Micro, medium and small enterprises as economic and social units have an interest in being efficient and easily convertible taking into account the changes of their social, economic, technological and environmental environment, based on this is carried out this descriptive, non-experimental research of a cross-cutting correlate type, in 30 organizations in the tourism sector of the Municipality of Campeche during the second half of 2020 in order to establish the way in which undergraduate students of administration and finance of a Public University influence with the professional skills acquired in the achievement of its financial results. The dependent variable is financial profitability and as independent the 10 professional competencies of the 30 students participating in the economic life of these organizations are established. The mathematical correlation model obtains an equation with significant value $R = 0.821$ and $R^2 = 0.674$ that guide to consider that there is a positive relationship between the independent variables with the dependent; infers that as the concepts of competition are successfully met, it will lead the company to maximize its financial profitability.

JEL: M10

KEY WORDS: Financial Profitability, Undergraduate Students, Professional Competencies, Mipymes.

INTRODUCCIÓN

A través de los tiempos las empresas han sobresalido del entorno en donde se han instalado, desarrollando habilidades de adaptación a cualquier evento. Como todo cambio existe la necesidad de desarrollar estrategias, formas de financiamiento, abatimiento de costos y gastos e infinidad de ideas para optimizar los recursos disponibles e incrementar la eficiencia financiera hasta alcanzar los objetivos que se han planeado. La promoción del recurso humano es un aspecto sensible y gran jerarquía en las empresas, es en este rubro donde se refleja la eficiencia y la rentabilidad esperada (Calderón et al, 2015), es sutil y vital y se va condicionando a la estructura empresarial. Las empresas del sector turístico poseen características similares en cuanto a la gestión de los recursos humanos como son: distribución orgánica, tipo de estructura de negocios, tecnologías y procesos, y principalmente, el enfoque a resultados de este capital humano (Quintanilla, 2012; Rodríguez y Álvarez, 2017).

El talento humano es un fuerte promotor de los recursos que los inversionistas han depositado en la organización, sobre todo si cuentan con una correcta adopción de competencias profesionales emanadas de una Universidad, aunque no reconocidos legalmente como tales son los socios permanentes de la empresa al aportar su esfuerzo y compromiso (Castilla, 2008). Sin embargo, hay que analizar si realmente este tipo de personas son recompensadas adecuadamente conforme aportan a la función económica del ente (Cañas y Millán, 2004). La gestión por competencias deriva del estudio de los recursos humanos con antecedentes en estudios de su comportamiento dentro del campo de la psicología, aquí se manifiestan características inherentes al individuo entrelazados con sus conocimientos y motivación hacia el mejor desempeño profesional. Existen escasas aportaciones que muestren que contar con profesionales calificados y con competencias bien adheridas incrementa los resultados de las empresas; sin embargo, existen marcos jurídicos que califican como necesaria la vinculación del sector público con el sector privado y las universidades, que puede impulsar su crecimiento económico.

La aportación de este trabajo de investigación se constituye en una propuesta de modelo matemático probabilístico que condiciona la rentabilidad financiera en función a las competencias profesionales de los estudiantes de pregrado de una Universidad Pública de la especialidad de Administración y Finanzas, parte de la escasa información de trabajos orientados a este aspecto, donde las organizaciones no han determinado la vinculación existente de sus resultados con la gestión del capital humano con competencias definidas, encontrándose en desventaja para generar mejor riqueza en la empresa. Tomando este inicio se establece la pregunta de investigación: ¿Si las Mipymes del sector turístico en Campeche contarán con un modelo matemático donde se relacionen las variables rentabilidad financiera/competencias profesionales, pueden generar estrategias para mejorar su crecimiento económico? El cuerpo de investigadores de este trabajo ha puesto su empeño en demostrar que los estudiantes de una Universidad Pública con competencias profesionales cimentadas, a través de una adecuada gestión del talento humano de la organización, pueden llegar a influir en los resultados financieros, y partir de aquí para proyectar con el modelo que se obtenga, estrategias que orienten al crecimiento económico de la organización.

REVISIÓN DE LA LITERATURA

En un corto tiempo al presente, el statu quo como cultura organizacional preservada durante mucho tiempo ha dado un giro contundente al verse involucrada la innovación, la aceptación y adaptación al cambio, mismo que no sólo fue a nivel financiero sino también a nivel de las relaciones humanas dentro de las entidades. Financieramente al hablar de una verdadera adaptación, conlleva a idear alternativas de financiamiento y con ello su exhaustivo análisis por medio de indicadores que permitan confiabilidad, eficacia y eficiencia en sus datos, conceptos que han sido estudiados por autores como Portuondo (1985), Weston (1994) y Santiesteban (2005). Indicador imprescindible para determinar esta adaptación y eficiencia

del trabajo es aquella noción aplicada a la mezcla de elementos materiales, financieros y humanos, conocido como Rentabilidad, llevando para ello la comparación de los medios utilizados en el proceso y el resultado final del mismo (Bustamante, 2015). Que en otras palabras y a la voz de Roux (2015) esta tasa se traduce en qué tanto se retribuirán los recursos utilizados en el proceso; mencionando igual que los elementos mayormente utilizados son los cuatro elementos de gestión significativas, conocidos como activos, capital (material, financiero y humano) capital y las utilidades.

En esta sintonía y como parte fundamental de lo narrado anteriormente, es de vital importancia el análisis de la gestión del talento humano (GTH), tomando en cuenta este como parte esencial para llevar a cabo los procesos en cualquier entidad, viéndose reflejado este en la eficacia, eficiencia y rentabilidad programada (Calderón et al, 2015). Variando éste de manera sutil en cada organización, dependiendo del propio giro de la empresa, la cultura, las zonas geográficas y un sinfín de elementos de adaptación. Ante esta situación, el desarrollo de la técnica de recursos humanos conocida como la Gestión por Competencias, destacando en esta sintonía los trabajos de los autores franceses Mandon (1990), Levy-Leboyer (1997) y Le Boterf (1991), desarrollando la idea de que las competencias es una visión constructiva, mencionando el hecho de que no es posible disociar que tanta formación y/o experiencia sea aprendida por una persona durante su desarrollo en cierto trabajo, haciendo hincapié que la especialización de las tareas juega papel importante en este proceso, influyendo éste no solo en las áreas económicas empresariales, sino que es determinante en el campo de la psicología, educación e incluso la administración de las instituciones públicas, para el mejor manejo, la eficacia, eficiencia y calidad de ésta (Dolan et al, 2003).

Es de real importancia el hecho de crear un valor a las actividades realizadas y con ello el logro de resultados positivos, como lo menciona Busato y Col (2013), enfocándose no solamente en realizar el trabajo (eficacia), sino de igual forma tomando en cuenta el cumplimiento de los resultados y alcance de los objetivos permitiendo llevar a cabo una correcta asignación de funciones al personal que conforma la entidad. Es importante entonces establecer el punto de partida, arranque o acercamiento de la nueva fuerza laboral que llega con la necesidad de ganar experiencia en la actividad que desee desarrollar, por lo que es esencial tener en cuenta las etapas del proceso de la Gestión del Talento Humano, siendo el primero de ellos la admisión de personas en donde el mercado de trabajo a través de diferentes medios intenta atraer al mercado de recursos humanos, conformado por personas con distintos grados de preparación y desarrollo en cierta actividad, donde es importante el análisis de su preparación, en caso de ser nuevo en el ámbito laboral, segmentando el mercado laboral de acuerdo a diferentes necesidades. (Chiavenato, 2015)

METODOLOGIA

Tipo y Diseño de la Investigación

El presente trabajo se llevó a cabo mediante una investigación de tipo no experimental correlacional, pues se basa en establecer la correlación entre dos variables sin que el investigador influya en el objeto de la investigación, sin inferir en ninguna situación de las variables en estudio, sino de estudiar las situaciones ya existentes, se tiene un grupo de 30 empresas de las cuales se va a observar e interpretar la relación existente entre el indicador financiero de rentabilidad financiera y las competencias profesionales de estudiantes de pregrado de administración y finanzas de una universidad pública del municipio de Campeche que se encuentran laborando en ellas; para el cálculo de la rentabilidad financiera se utilizó el método de Razones Financieras, analizando los componentes principales de los estados financieros. Para la determinación del grado de adquisición de las competencias profesionales de los estudiantes de pregrado y la aplicación en su ámbito laboral se utilizan cuestionarios para la recolección de datos en forma directa, método considerado como cuantitativo por Hernández et al. (2010). El instrumento está conformado por las 10 competencias a evaluar mediante una escala tipo Likert, con cinco opciones de respuesta: nada = 1, poco = 2, algo = 3, bastante = 4, mucho = 5.

Población y Muestra

La población queda definida por la cantidad de persona y entes a la cual hace referencia el estudio estadístico y que marca la directriz de la investigación, seleccionada con ciertas características o especificaciones representativas de las cuales fueron recolectados los datos. La población es: “el conjunto de todos los casos que concuerdan con determinadas especificaciones” por Hernández, Fernández y Baptista (2014), (p.174). También expresa Palella y Martins (2008), que la población es: “un conjunto de unidades de las que desea obtener información sobre las que se va a generar conclusiones” (p.83) misma que se seleccionó de acuerdo con la naturaleza del problema para generalizar los datos recolectados; en este sentido, la población es el conjunto de todos los casos que concuerdan con una serie de especificaciones y sobre la cual se pretende generalizar los resultados (Hernández, Fernández y Baptista.2006).

PROCEDIMIENTO

A las 30 pequeñas empresas de la ciudad de Campeche, Estado de Campeche, se les requiere sus estados financieros básicos: Estado de Posición Financiera o Balance General y el Estado de Resultados por el ejercicio comprendido del 1º de enero al 31 de diciembre del 2020, de donde se obtienen datos cuantitativos para el estudio de la rentabilidad.

Con la información obtenida de la tabla anterior se aplican el modelo financiero de rentabilidad, reflejado en la Tabla 1.

Tabla 1: Modelo Financiero de Rentabilidad Financiera

Modelo	Fórmula
Rentabilidad Financiera	$RF = \frac{\text{Beneficios Despues de Impuesto}}{\text{Fondos Propios Promedios}}$

El modelo que sirve de base para la investigación está representado en la Tabla 2. Fuente: Elaboración propia

Se presentan las 10 competencias profesionales variable independiente que se someten a análisis en el estudio.

Hipótesis

Hi = Las competencias profesionales influyen directamente en la obtención de los resultados financieros.

Ho = Las competencias profesionales no influyen directamente en la obtención de los resultados financieros.

RESULTADOS

La información obtenida en el cálculo del indicador Rentabilidad Financiera mediante el modelo matemático oscila entre el 0.08 y 0.83, lo que significa que por cada peso invertido en activos la empresa recibe entre \$0.08 y \$0.83. y la recolección de los datos obtenidos de las competencias profesionales en la aplicación del instrumento a los estudiantes de pregrado de las 30 empresas en análisis, se encuentran en un rango de entre 3 y 5 o sea entre algo y mucho de acuerdo a la escala establecida. Los datos se someten al modelo de regresión lineal simple cuyo objetivo es tratar de explicar la relación que existe entre una variable dependiente Y (variable respuesta) que para este caso es la Rentabilidad Financiera, y un conjunto de variables independientes (variables explicativas) X1,..., Xn siendo las competencias profesionales de la licenciatura en administración y finanzas

Al efectuar la asociación de la Rentabilidad Financiera y las competencias profesionales, utilizando la herramienta estadística SPSS versión 23, se obtiene el modelo de regresión y correlación múltiple conforme a lo siguiente: *Resultados de la Regresión y Correlación simple entre el indicador financiero Rentabilidad Financiera el índice de devolución de ventas.*

Las variables independientes – X₁- “Desarrolla una planeación estratégica táctica y operativa”, X₂- “Identificar y administrar los riesgos de negocios de las organizaciones”, X₃- “Identificar y optimizar los procesos de los negocios de las organizaciones.”, X₄- “Desarrollar, implementar y gestionar sistemas de control administrativo al igual que evaluar el desempeño.”, X₅- “Identificar las interrelaciones funcionales de la organización.”, X₆- “Elaborar, evaluar y administrar proyectos empresariales en diferentes tipos de organizaciones.”, X₇- “Interpretar la información financiera y contable para la toma de decisiones gerenciales”, X₈- “Usar la información de costos para la planeación, el control y la toma de decisiones.”, X₉- “Tomar decisiones de inversión, financiamiento y gestión de recursos financieros de la empresa.”, y X₁₀- “Detectar oportunidades para emprender nuevos negocios y/o desarrollar nuevos productos.” Todas las variables sometidas fueron incluidas en el modelo y aceptadas para el análisis al ser su valor diferente a cero.

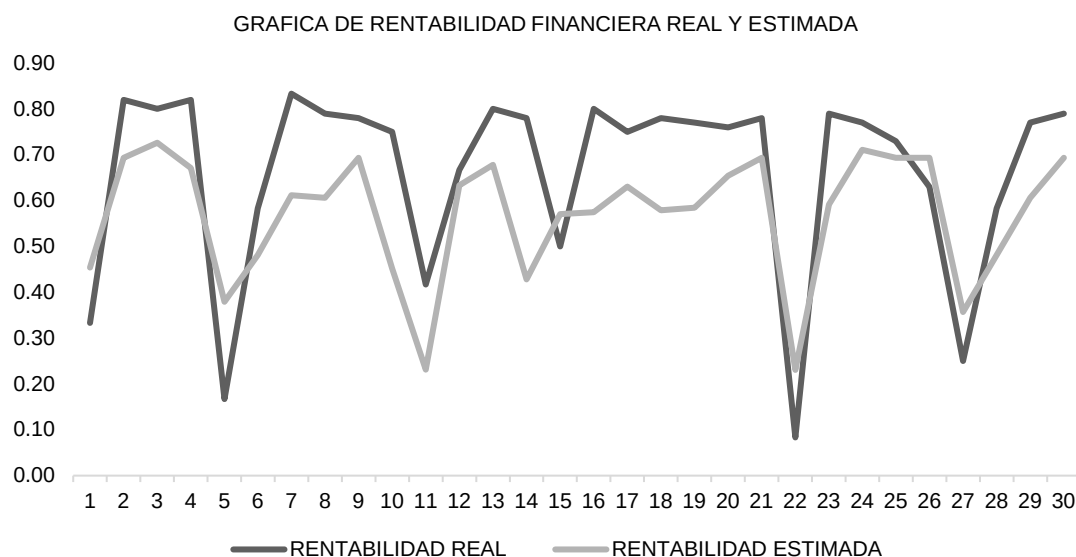
La variable dependiente : Y₁ “Rentabilidad Financiera” presenta un coeficiente de correlación múltiple (R) del 0.821, su coeficiente de determinación (R²) es de 0.674, el Error Típico de la Estimación de 0.14727, con un nivel de significancia de 0.05.

El análisis de la varianza (ANOVA) arroja un estadístico F con valor de mayor 3.932 al nivel de significancia que es de 0.05. Se muestra el valor de la constante (a) que adquiere Y cuando los valores de las variables independientes son iguales a cero y el valor de los coeficientes B (Betas), con el 95% de valor de confianza, para cada una de la variable independientes “X” estos valores representa la variabilidad de la variable Y (respuesta) por cada unidad de variación en las variables independientes X (explicativas). La ecuación de regresión y correlación múltiple resultante al sustituir los valores de la tabla 8, en el modelo matemático anterior es:

$Y = -0.593 + 0.075X_1 - 0.012X_2 - 0.008X_3 + 0.063X_4 + 0.060X_5 - 0.036X_6 + 0.172X_7 - 0.143X_8 + 0.078X_9 + 0.39X_{10}$ La bondad de ajuste de un modelo estadístico describe lo bien que se ajusta un conjunto de observaciones. Las medidas de bondad en general resumen la discrepancia entre los valores observados y los valores esperados en el modelo de estudio. Se efectúa la verificación del modelo antes descrito mediante la verificación de la bondad del ajuste, sustituyendo los valores reales en la ecuación para tener el valor estimado de la rentabilidad y se compararlo el valor real.

Véase Figura 1

Figura1:Rentabilida Financiera Real y Estimada.



Sustituyendo los valores con la realidad empresarial se obtiene la Figura 2 que muestra la razonabilidad de la prueba aplicada.
Fuente: Elaboración propia utilizando el modelo matemático determinado.

CONCLUSIONES Y LIMITACIONES

Los resultados confirman la buena relación que existe entre los valores de la rentabilidad financiera y el grado de aceptación y aplicación de las competencias profesionales de los estudiantes de pregrado en el desempeño de sus funciones para con las empresas analizadas, lo reafirma el valor de 0.821 del coeficiente de regresión y correlación múltiple de Pearson, entendiendo que el 82.1% del valor de la rentabilidad financiera puede ser explicada por los de las competencias profesionales cuyos valores en el estudio fluctúan entre 3(algo) y 5(mucho) de acuerdo a los valores de Likert establecidos. Reforzando lo anterior en la gráfica de bondad y ajuste se representa el similar comportamiento que existe entre la tendencia de la rentabilidad financiera real y estimada. Los resultados de la rentabilidad financiera de 0.08 y 0.83 podría considerarse de buenos ante la situación de la crisis mundial de salud que conocemos que ha afectado a la economía y al crecimiento de las empresas, en el caso que nos ocupa podríamos afirmar que la base teórica de las competencias profesionales adquiridas en las aulas por partes de los estudiantes tuvieron la debida interpretación e implementación al llevarlo cabo a la practica en situaciones reales en el ámbito laboral en que se desempeñan originando por ende beneficios a sus empleadores. Cabe destacar que el modelo matemático resultante de esta investigación queda limitado a las empresas cuyas características sean de las condiciones similares a las analizadas y los resultados no podrían generalizarse a otros entes.

RECOMENDACIONES

Los resultados podrían considerarse buenos, con tendencia a una mejoría integral al coordinar una mayor relación de cooperación entre las cámaras empresariales y las autoridades educativas, la vinculación empresa/universidad es importante toda vez que permite conocer los aspectos medulares que la sociedad necesita para mejorar su crecimiento y desarrollo, y las universidades enfoquen sus modelos educativos de competencias a promover estos aprendizajes que beneficiarán la relación de ambos. La educación por competencias vendrá a ser el instrumento generador de estrategias que impulsen la rentabilidad en las

organizaciones. Fortalecer el vínculo entre estado/universidad/empresa llevará a mejorar las condiciones económicas del Estado, la Universidad y la Empresa, con el replanteamiento de los aprendizajes competitivos en los estudiantes.

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LA MISIÓN INVESTIGATIVA DE LA UNIVERSIDAD Y SU RELACIONAMIENTO EXTERNO

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RESUMEN

La investigación como una de las funciones prioritarias de la sociedad del saber, ha sido considerada una revolución académica que invita a la Universidad a investigar constantemente, considerando que la ciencia no es un problema completamente resuelto. Von Humboldt afirmaba que la investigación debe ser orientada hacia la producción del conocimiento y hacia la satisfacción de las necesidades sociales. Desde 1980 hasta comienzos del siglo XXI, se dieron cambios fundamentales en el papel de la sociedad del conocimiento, que han contribuido directamente al crecimiento económico. El financiamiento estatal ha sido cada vez más escaso y depende del aporte de la investigación a las prioridades de desarrollo de la nación. La actividad científica perdió autonomía y la Universidad tuvo que identificar fuentes alternas de recursos, por lo que se centró más en la investigación aplicada. Además, se empezó a exigir a los investigadores una mayor responsabilidad hacia las demandas del entorno socio económico, al buscar un mayor impacto con la investigación e innovación, generada en los grupos, institutos, centros de investigación y las universidades. Todo esto, a fin de lograr la cooperación entre la universidad, la empresa y el sector estatal, para generar procesos de innovación con impacto social.

JEL: I21, I23

PALABRAS CLAVE: Misión, Investigación, Universidad, Sociedad del Conocimiento, Impacto Social

MISSION OF UNIVERSITY RESEARCH AND ITS EXTERNAL RELATIONSHIPS

ABSTRACT

Research, as one of the main functions of the knowledge society, has been considered an academic revolution that invites university to conduct research constantly. This, because science is not yet an issue completely dealt with. Hence, Von Humboldt claims that research should be oriented toward knowledge production and the meeting of social needs. Since 1980 until the beginning of the Twenty-first Century, major changes in the role of the knowledge society have taken place which have directly led to social and economic growth. But state funding for research has steadily decreased and is being conditioned to the contribution of research to national development priorities. Thus, scientists are no longer autonomous and university is forced to seek external alternative funding, which has led to a major focus on applied research. Together with this, researchers are required to take on greater responsibility in meeting the demands of the social and economic sectors, thus seeking a greater impact of research and innovation conducted by groups, institutes, centers, and universities, at large. All this with the purpose of strengthening the cooperation among university, the business sector, and the state sector, leading to the generation of high-impact social innovation processes.

KEYWORDS: Mission, Research, University, Knowledge Society, Social Impact

ANÁLISIS DESCRIPTIVO DEL PROCESO DE SUCESIÓN EN EMPRESAS FAMILIARES DE PICHINCHA

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RESUMEN

El objetivo del estudio es realizar un análisis descriptivo de los indicadores más representativos del proceso de sucesión en las empresas familiares. Se analiza una muestra aleatoria simple de 374 empresas familiares ubicadas en la provincia de Pichincha. La información reportada por el representante de la empresa se obtiene de los portales web de diferentes entidades de control. El análisis descriptivo se realiza a través del coeficiente de variación de los indicadores cuantitativos, análisis de frecuencias para los indicadores cualitativos y de los coeficientes de correlación y contingencia de Pearson respectivamente. Los resultados se contrastan entre sí, conforme dicta la teoría de la Agencia y el modelo de los Tres Círculos. Se observa correlación de baja intensidad pero estadísticamente significativa entre todos los indicadores de la variable de estudio, excepto Autonomía financiera, Mujeres accionistas y Valor de la acción. Se concluye que Autonomía financiera y Solvencia empresarial son indicadores heterogéneos y de alta variabilidad, en cuanto responden mayormente a las decisiones del gobierno corporativo. La preparación para la sucesión en las empresas familiares de Pichincha depende del tiempo para planificar el proceso de cambio generacional y de ciertas características del gobierno corporativo. El 67% de las empresas familiares de Pichincha han alcanzado la fase de madurez, que corresponde a la mitad del camino recorrido para el primer cambio generacional. En consecuencia, es el momento adecuado para iniciar el proceso de planificación de la sucesión.

PALABRAS CLAVE: Empresa familiar, indicadores de sucesión, teoría de la agencia

DESCRIPTIVE ANALYSIS OF THE SUCCESSION PROCESS IN FAMILY BUSINESSES IN PICHINCHA

ABSTRACT

The objective of the study is to carry out a descriptive analysis of the most representative indicators of the succession process in family businesses. A simple random sample of 374 family businesses located in the province of Pichincha is analyzed. The information reported by the company representative is obtained from the web portals of different control entities. The descriptive analysis is carried out through the coefficient of variation of the quantitative indicators, frequency analysis for the qualitative indicators and Pearson's correlation and contingency coefficients respectively. The results are contrasted with each other, as dictated by the Agency theory and the Three Circles model. A low intensity but statistically significant correlation is observed between all the indicators of the study variable, except Financial autonomy, Women shareholders and Share value. It is concluded that financial autonomy and business solvency are heterogeneous indicators with high variability, inasmuch as they respond mostly to corporate governance decisions. Preparation for succession in Pichincha family businesses depends on the time to plan the generational change process and on certain characteristics of corporate governance. 67% of family businesses in Pichincha have reached the maturity phase, which corresponds to the halfway point for the first generational change. Consequently, it is the right time to start the succession planning process.

JEL: M10

KEYWORDS: Family Business, Succession Indicators, Agency Theory

INTRODUCCIÓN

El tejido empresarial en Ecuador puede clasificarse por tamaño, actividad económica y poder accionario familiar. Según la Superintendencia de Compañías, Valores y Seguros (SCVS) al 2019 existen 91.691 empresas activas. El 60% son microempresas, 28% pequeñas empresas, 8% medianas empresas y únicamente el 4% son empresas grandes (SCVS, 2020) (INEC, 2018). Alrededor del 65,9% de las grandes empresas, 88% de las medianas y el 90% de las microempresas ecuatorianas son familiares. El 76% de estas empresas se encuentran en la primera generación, 22% en la segunda y solo el 2% alcanzan la tercera generación. Además, el 64% de las empresas familiares tienen alrededor de 40 años de existencia, es decir, se encuentran a puertas del recambio generacional (Camino-Mogro & Bermudez-Barrenzuela, 2018).

En este contexto se configura la presente investigación con el objetivo de realizar un análisis descriptivo de los indicadores más representativos del proceso de sucesión en las empresas familiares de Pichincha. Es parte del trabajo de titulación cuya finalidad es analizar los factores de sucesión que inciden en la supervivencia empresarial, según el tamaño y giro de las empresas familiares, para contribuir desde sus resultados a promover ideas y generar discusión al interior de las cámaras de industria y de producción de Pichincha. De este modo mejorar las condiciones sistémicas y de la institucionalidad de apoyo a este importante sector. El documento se organiza como sigue. Se expone el enfoque teórico que da soporte al estudio, posteriormente se describe el diseño metodológico conforme con el objetivo de investigación. A continuación, los principales resultados del análisis de factores más representativos del proceso de sucesión. Finalmente se presentan las conclusiones y referencias bibliográficas en las que se basa el estudio.

REVISIÓN DE LITERATURA

Tagiuri y Davis (1982) proponen el modelo de los tres círculos que muestra a la empresa familiar como un sistema conformado por tres subsistemas, *Empresa, Familia y Propiedad*. El primero contempla metas, políticas y plan estratégico; el segundo incluye el consejo familiar, plan de sucesión, planes de retiro y ambiente de trabajo; y, el tercer subsistema integra los acuerdos de compra y venta de acciones, socialización de testamentos y manejo de información financiera (López & Ruíz, 2016). La planificación del proceso de sucesión involucra a los tres subsistemas y conseguir su equilibrio asegura un traspaso generacional exitoso. La sucesión constituye un conjunto de etapas que la empresa familiar atraviesa como resultado del paso de los años y afectan a la dirección, gobierno y familia (Rivolta, 2018). El proceso de toma de decisiones obedece al nivel generacional, lo que determina relaciones de agencia propios de la separación entre propiedad y gestión (Ramírez, 2015). Seong, Goh, Tan y Mohd (2017) señalan que las empresas familiares no están exentas de los conflictos entre dueños-directivos, por ende el problema de agencia puede incluso transferirse a problemas en la familia. Algunos expertos coinciden en que la Teoría de la Agencia aplicada al estudio de la empresa familiar constituye una base teórica sólida sobre la cual fundamentar el estudio de la planificación del proceso de sucesión. La presente investigación toma como fundamento dicha teoría, la cual explica las relaciones de agencia que tienen lugar entre los tres ejes: empresa, familia y propiedad. Por lo que facilita el análisis descriptivo de los indicadores más representativos que permiten comprender los factores de sucesión de las empresas familiares de Pichincha.

METODOLOGÍA

La presente investigación sostiene un enfoque mixto, de tipo descriptivo, diseño no experimental y corte transversal. Se considera un muestreo probabilístico aleatorio por estratos, a partir de las cifras obtenidas en la clasificación por actividad económica que la SCVS utiliza en su ranking empresarial. En la provincia

de Pichincha se tienen 18645 empresas activas, se excluyen aquellas que no forman parte del grupo de estudio. Esto es: empresas grandes, sucursales extranjeras, empresas públicas, organizaciones sin fines de lucro y organizaciones no gubernamentales (Camino-Mogro & Bermudez-Barrenzuela, 2018). Por consiguiente el marco muestral queda conformado por 14692 empresas, de las cuales se estudian a 374. La información se obtiene de fuentes secundarias, a través de rastreo manual de data por empresa, según las bases obtenidas de la SCVS, al Servicio de Rentas Internas (SRI) y al Banco Central del Ecuador (BCE) en calidad de entes de control. El análisis descriptivo se realiza a través del coeficiente de variación de los indicadores cuantitativos, análisis de frecuencias para los indicadores cualitativos y de los coeficientes de correlación y contingencia de Pearson respectivamente. En las tablas 1, 2 y 3 se observa la operacionalización de variables por subsistema empresa, familia y propiedad respectivamente.

Tabla 1: Operacionalización de Variables Subsistema Empresa

Dimensión	Factor de Sucesión	No.	Indicador
Supervivencia empresarial	Etapa del ciclo de vida empresarial	1	Crecimiento (0-5 años); Madurez (6-20 años); Declive (20-30 años).
	Confianza empresarial	2	Índice de confianza empresarial por sector.
	Influencia de las políticas públicas	3	Índice de puestos de trabajo – IPT.
Gobierno corporativo	Eficiencia directiva	4	Rotación del activo
	Autonomía financiera	5	Endeudamiento del patrimonio. Ratio > 0,60 empresa excesivamente endeudada; < 0,40 recursos propios insuficientemente aprovechados
	Sentido de pertenencia	6	Incrementos en el capital social
Protección de la reputación empresarial	Generación de la dirección	7	Primera, Segunda, Tercera, Cuarta generaciones
	Solvencia empresarial	8	Ratio de solvencia <1,5 situación de quiebra; =1,5 en equilibrio, 5 activos improductivos
	Ética empresarial	9	Transparencia de cumplimiento con los entes de control.
	Liderazgo empresarial	10	Puesto obtenido en el ranking empresarial 2019.

En la primera columna se observan las dimensiones relacionadas al subsistema Empresa, a continuación los factores que se articulan a estas dimensiones y que inciden en el proceso de sucesión de una empresa familiar. En la tercera columna el número que identifica los indicadores por cada factor, a partir de los cuales se extrae la información de fuentes oficiales de los entes de control.

Tabla 2: Operacionalización de Variables Subsistema Familia

Dimensión	Factor de Sucesión	No.	Indicador
Relación de agencia	Parentesco accionario	11	Porcentaje de acciones en manos de la familia.
	Costos de agencia	12	Parentesco accionista-directivo
	Riesgo moral	13	Indicador de poder de decisión de la alta dirección. Alto: > 75%, Medio: > 50,01% y < 75%, Bajo: > 20,01% < 50%
Preparación para la sucesión	Solapamiento de roles	14	Roles simultáneos.
	Edad del gerente general	15	Edad
	Estado civil del gerente general	16	Estado civil
	Proximidad de la sucesión	17	Año de constitución
	Nivel educativo del gerente general	18	Primaria, Secundaria, Tercer nivel, Cuarto nivel
Enfoque de género	Cesión de propiedad	19	Transferencias de acciones
	Mujeres en el árbol accionario	20	Género femenino
	Género del gerente general	21	Género
Antecedentes empresariales	Familia empresaria	22	Participación accionaria del GG en otras compañías
	Experiencia	23	Participación del GG en calidad de administradores en otras compañías.

En la primera columna se observan las dimensiones relacionadas al subsistema Familia, a continuación los factores que se articulan a estas dimensiones y que inciden en el proceso de sucesión de una empresa familiar. En la tercera columna el número que identifica los indicadores por cada factor, a partir de los cuales se extrae la información de fuentes oficiales de los entes de control.

Tabla 3: Operacionalización de Variables Subsistema Propiedad

Dimensión	Factor de Sucesión	No.	Indicador
Atomización de la propiedad	Estructura de propiedad	24	Número de accionistas
	Estructura de la propiedad	25	Número de familias propietarias de la empresa
Compromiso del patrimonio	Valor de la acción	26	Valor contable de la acción
	Rentabilidad sobre el patrimonio	27	Mayor ROE más rentable

En la primera columna se observan las dimensiones relacionadas al subsistema Propiedad, a continuación los factores que se articulan a estas dimensiones y que inciden en el proceso de sucesión de una empresa familiar. En la tercera columna el número que identifica los indicadores por cada factor, a partir de los cuales se extrae la información de fuentes oficiales de los entes de control.

RESULTADOS

El coeficiente de variación de los indicadores cuantitativos permite medir la dispersión de los datos respecto a la media, cuanto mayor sea su valor, mayor será la representatividad de la media. El factor de sucesión *Autonomía financiera*, correspondiente a la dimensión *Gobierno corporativo* del subsistema *Empresa*, prevalece sobre los demás con un valor de 7,8, que se calcula a través del indicador de endeudamiento del patrimonio. Valor que muestra la heterogeneidad respecto a su promedio. Se podría explicar en la medida que depende de las decisiones que toma el gobierno corporativo (Ahrens, Calabrò, Huybrechts, & Woywode, 2019). En el extremo, el mayor valor de homogeneidad (0,0051) se registra en el factor *Proximidad de la sucesión*, que corresponde a la dimensión *Preparación para la sucesión* del subsistema *Familia*. Resultado que refleja el alto nivel de mortandad que atraviesan los negocios familiares y su dificultad de avanzar más allá de la segunda generación (BBVA, 2015).

Del análisis de frecuencias de los indicadores cualitativos, se destaca que el 67% de las empresas familiares de Pichincha alcanzaron la fase de madurez, al contrastar con la *Proximidad de la sucesión*, este resultado se explica por el cambio de generación que se realiza en la primera etapa. En cuanto al gobierno corporativo, el 98% se encuentra en la primera generación de la dirección y propiedad, resultado que se corresponde con los obtenidos en los factores *Ciclo de vida* y *Proximidad de la sucesión* y concuerda con varios teóricos sobre la sucesión como factor significativo que incide en la mortalidad empresarial. El factor *Ética empresarial* revela que el 88% de estas empresas es transparente con el cumplimiento de sus obligaciones. Respecto a los *Costos de agencia*, el 90% guarda parentesco entre accionista-directivo. Resultado que define al altruismo miope e incertidumbre como problemas de agencia en el proceso de sucesión (Michel & Kammerlander, 2015). El 60% de los gerentes generales tienen experiencia previa como altos directivos, este factor se mide a través de su participación en otras compañías en calidad de administradores (Ahrens, Calabrò, Huybrechts, & Woywode, 2019). Por otra parte, el *Liderazgo empresarial* se destaca por su correlación con cuatro factores: Eficiencia directiva, Proximidad de sucesión, Influencia de las políticas y Edad del gerente general. Con los tres primeros la relación es directa y con el último es inversa. Así mismo el ROE muestra correlación directa con Propiedad familiar, Estructura de la propiedad y Edad del gerente general. Autonomía financiera, Valor de la acción, Solvencia empresarial y Mujeres accionarias, no registran ningún tipo de correlación con el resto de factores.

CONCLUSIONES

La mayor parte de las empresas familiares de Pichincha se encuentran a la mitad del camino de un cambio generacional, por ende es el momento adecuado para iniciar el proceso de planificación de la sucesión, aprovechando que la mayoría evidencian una alta eficiencia en la administración de la alta dirección. Así mismo, casi en la totalidad de empresas, el Gobierno corporativo se encuentra en la primera generación de la dirección y propiedad, lo que se corresponde con el Ciclo de vida y Proximidad de la sucesión. Evidencia que confirma a la Sucesión como factor significativo que incide en la mortalidad de las empresas familiares

estudiadas. Por otro lado, estas empresas familiares ponen principal atención a la protección de la reputación empresarial frente a sus *stakeholders*, inclusive a costa del deficiente uso de otros recursos por parte del gobierno corporativo. Sin embargo, también se hace evidente en la transparencia frente al cumplimiento de sus obligaciones con los entes de control. El estudio también devela que el altruismo miope e incertidumbre, están presentes como problemas de agencia en el proceso de sucesión. Así mismo, los Costos de agencia, Riesgo moral y Solapamiento de roles, ratifican que la Teoría de la agencia explica en mejor medida los problemas socio-familiares que se presentan en el proceso de sucesión. Para dar continuidad al estudio se analizará la variación de los factores de sucesión en la empresa familiar según su tamaño y actividad económica.

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TAMAÑO Y ACTIVIDAD ECONÓMICA COMO VARIABLES EXPLICATIVAS DE LA SUCESIÓN EN EMPRESAS FAMILIARES DE PICHINCHA

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RESUMEN

Se propone como objetivo establecer la variación de los factores de sucesión en la empresa familiar según su tamaño y actividad económica. La investigación es de corte transversal, de tipo de diseño no experimental y correlacional. Para tal efecto se establece como variable dependiente el índice de sucesión de las empresas familiares ubicadas en la provincia de Pichincha. El índice agrupa los factores identificados previamente en una primera fase de investigación. Las variables independientes categóricas, tamaño y actividad económica, se cuantifican a través del análisis de componentes principales no lineales. Técnica que mejora la combinación lineal de las variables, lo que posibilita utilizar una regresión lineal bivariada para explicar su incidencia sobre la sucesión de las empresas estudiadas. Los resultados muestran que la sucesión empresarial se explica en un 98,1% por el tamaño y actividad económica. Se concluye que los factores de sucesión organizados en las dimensiones, empresa, familia y propiedad son diferentes según el tamaño y el giro del negocio. Sin embargo, las características propias de cada industria en Pichincha priman por sobre las del tamaño. La supervivencia de las empresas familiares de Pichincha se relaciona con su actividad económica y la coyuntura propia de cada industria, así como también de aspectos internos tanto familiares como de gestión.

PALABRAS CLAVE: Empresa Familiar, Índice de Sucesión, Tamaño Y Actividad Económica

SIZE AND ECONOMIC ACTIVITY AS EXPLANATORY VARIABLES OF THE SUCCESSION IN PICHINCHA FAMILY BUSINESSES

ABSTRACT

It is proposed as an objective to establish the variation of the succession factors in the family business according to its size and economic activity. Cross-sectional research, non-experimental and correlational design type. For this purpose, the succession index of family businesses located in the province of Pichincha is established as a dependent variable. The index groups the factors previously identified in a first phase of research. The categorical independent variables, size and economic activity, are quantified through the analysis of non-linear principal components. Technique that improves the linear combination of the variables, which makes it possible to use a bivariate linear regression to explain its impact on the succession of the companies studied. The results show that business succession is explained by 98.1% by size and economic activity. It is concluded that the succession factors organized in the dimensions, company, family and property are different according to the size and line of business. However, the characteristics of each industry in Pichincha prevail over those of size. The survival of family businesses in Pichincha is related to their economic activity and the situation of each industry, as well as internal aspects, both family and management.

JEL: M10

KEYWORDS: Family business, succession index, size and economic activity

INTRODUCCIÓN

Ecuador observa una baja integración de los diferentes actores y gremios empresariales alrededor de programas o proyectos para mejorar el fortalecimiento de las micro, pequeñas y medianas empresas (MIPYMES). Si bien, el principal factor de mortandad en las empresas familiares corresponde a una inadecuada planificación de la sucesión, su causa responde a una falta de acompañamiento de las asociaciones empresariales y su escaso apalancamiento en la academia. Según resultados de la fase previa de estudio, el valor de ISE (0,33%) de las empresas familiares que participan en el estudio pone en evidencia su bajo nivel de preparación para el cambio generacional y se aplica a los 3 subsistemas que componen la empresa familiar. Se requiere desarrollar una estrategia de supervivencia que incluya entre otros aspectos, destinar más recursos para su profesionalización, rediseñar el marco de implementación de políticas, diversificar la economía, fomentar la actualización tecnológica y promover el empleo.

En este contexto se estructura esta fase de investigación con el objetivo de establecer la variación de los factores de sucesión en la empresa familiar según su tamaño y actividad económica, para contribuir a la generación de propuestas al interior de las cámaras de industria y de producción de Pichincha. El estudio se realiza con la información obtenida previamente de las bases de datos de distintas entidades de control, sobre indicadores establecidos para los 27 factores que inciden en la sucesión de las empresas familiares.

El documento se organiza como sigue. Se expone el enfoque teórico que da soporte a esta fase de estudio, posteriormente se describe el diseño metodológico conforme con el objetivo de investigación. A continuación, se presenta el modelo de regresión a través del cual se explica el proceso de sucesión en función de las variables tamaño y actividad económica. Finalmente se presentan las conclusiones y referencias bibliográficas en las que se basa el estudio.

REVISIÓN DE LITERATURA

La sucesión constituye un conjunto de etapas que la empresa familiar atraviesa como resultado del paso de los años y afectan a la dirección, gobierno y familia (Rivolta, 2018). El Índice de Sucesión Empresarial (ISE) se calcula a través de la técnica de escalamiento óptimo, particularmente el análisis de componentes principales no lineales, que brinda una amplia posibilidad de analizar la incidencia de los factores en el comportamiento observado en las empresas familiares. Es un indicador que mide el nivel de importancia que las familias empresarias otorgan a los factores que intervienen en un proceso de sucesión. Se expresa de forma porcentual en un rango de 0 a 100, el rango de 0 a 39% representa importancia baja, de 40 a 69% importancia media y de 70% a 100% importancia alta. El análisis de regresión lineal clásico minimiza las diferencias de la suma de los cuadrados entre una variable predictora y una combinación ponderada de variables de respuesta. El análisis de regresión categórica aplica los datos de la respuesta en forma de categorías, con el propósito de predecir la probabilidad de ocurrencia en función de dos o más variables independientes. Esta regresión cuantifica los datos categóricos mediante la asignación de valores numéricos a las categorías (ACP), obteniéndose una ecuación de regresión lineal óptima para las variables transformadas (IBM, 2020), (Navarro, Casas, & González, 2010).

METODOLOGÍA

Esta fase de investigación es cuantitativa de tipo correlacional, de diseño no experimental y corte transversal. Se consideran las 374 MIPYMES de la provincia de Pichincha, resultado de un muestreo probabilístico aleatorio por estratos. La información de la variable dependiente se obtiene de los valores ISE calculados en una fase previa de investigación. Las variables independientes consideradas en el estudio

son Tamaño (MIPYMES) y Actividad Económica (18 sectores según el CIIU, se exceptúa el sector O porque corresponde al sector público).

RESULTADOS

Verificados los supuestos de linealidad e independencia que garantizan la validez del modelo, en la Tabla 1 se resume el modelo de regresión lineal bivariado (Cayuela, 2014). El coeficiente de determinación ajustado es 0,981 por lo tanto se valida el mismo. Esto quiere decir, que la sucesión empresarial se explica en un 98,1% por las variables explicativas correspondientes al tamaño y actividad económica (Vilà, Torrado, & Reguant, 2019).

Tabla 1: Resumen del Modelo de Regresión Lineal

Modelo	R	R Cuadrado ^b	R Cuadrado Ajustado	Error Estándar de la Estimación	Durbin-Watson
1	,991 ^a	0,981	0,98	5,47278	1,949

a Predictores: Pequeña, Microempresa, Minas y canteras, Salud humana, Distribución de agua, Agricultura, Alojamiento, Enseñanza, Arte, Suministro de energía, Manufacturas, Financieras, Construcción, Administrativos, Inmobiliaria, Información, Comercio, Transporte, Científico técnico. *b* Para la regresión a través del origen, R cuadrado mide la proporción de la variabilidad en la variable dependiente sobre el origen explicado por la regresión. *c* Variable dependiente: Índice_sucesión Se muestra el resumen del modelo que reporta directamente el SPSS. Se asume independencia entre los residuos cuando $1,5 \leq DW \leq 2,5$ por lo que se concluye que el supuesto de independencia sí se cumple.

Verificada la validez del modelo de regresión se realiza la prueba de hipótesis que ratifica la relación entre las variables de estudio: La variación de los factores de sucesión organizados en las dimensiones empresa, familia y propiedad son diferentes según el tamaño y el giro del negocio. Para establecer dicha relación, se realiza una tabla ANOVA en el modelo de regresión cuyo supuesto yace en la relación causa-efecto de las variables X, Y. Se comprueba que las variables X: Tamaño empresarial y Actividad económica, sí explican de manera significativa la variabilidad en la variable Y Sucesión empresarial, representada a través del ISE. Finalmente, para responder a la hipótesis expuesta se procede al análisis de los niveles de significancia de los coeficientes de regresión. Una vez analizados los resultados en los niveles de significancia por tamaño y por actividad económica, existen marcadas diferencias. La variable actividad económica: Comercio, Científico Técnico, Transporte, Administrativos, Información y Manufactura explican de mejor forma (mayor significancia) la variabilidad en la sucesión empresarial, los criterios correspondientes a la variable tamaño empresarial: Microempresa, aportan también información valiosa (menor significancia) en cuanto a la supervivencia de ese sector empresarial familiar en Pichincha.

CONCLUSIONES

Se concluye que las características propias de cada industria en Pichincha priman por sobre las del tamaño, en cuanto a supervivencia empresarial se refiere. Es decir, la supervivencia de las empresas familiares de Pichincha se relaciona con la actividad económica que desempeña y la coyuntura propia de cada industria, así como también de aspectos internos tanto familiares como de gestión. El estudio abre la posibilidad de ampliar el estudio a empresas familiares de otras provincias del Ecuador, así como también realizar estudios longitudinales del manejo intergeneracional en relación a la eficiencia, ventaja competitiva y riesgos de las MIPYMES.

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PARTICIPACIÓN FEMENINA EN CARGOS GERENCIALES DE PEQUEÑAS Y MEDIANAS EMPRESAS DEL SECTOR DE MANUFACTURA

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Cynthia Dayana Guanoluiza Cárdenas, Universidad de las Fuerzas Armadas-ESPE

RESUMEN

El objetivo de estudio es caracterizar la participación femenina en cargos gerenciales de pequeñas y medianas empresas del sector manufacturero. La información correspondiente al 2019 se obtiene de las páginas Web de entidades oficiales, para el total de empresas afiliadas a la Cámara de la Pequeña y Mediana Empresa de Pichincha. Los resultados dejan ver una brecha marcada respecto a la participación por género en cargos gerenciales, que se explican a través de los postulados de la teoría del laberinto de cristal. La escasa presencia de la mujer en cargos gerenciales es producto de los múltiples obstáculos que deben sortear debido a la variedad de roles que cumplen. Por otro lado se ponen en evidencia otras distinciones importantes. Empresas de subsectores que suponen mayor nivel de riesgo o fortaleza física son dirigidas por gerentes de género masculino. La participación de la mujer en cargos gerenciales prevalece en el subsector de alimentos. Respecto al nivel de formación de grado y tecnológica, se observa que los gerentes generales de género femenino registran mayor porcentaje que los de género masculino. Variables como tamaño, ciclo de vida y condición familiar de las empresas estudiadas, no observan diferencias significativas de género en los cargos gerenciales. Se destaca el mayor acceso de la mujer a la educación superior, sin embargo son los hombres quienes tienen mayor presencia en el campo laboral, especialmente en los cargos directivos de pequeñas y medianas empresas del sector manufacturero, pese a no tener estudios superiores.

PALABRAS CLAVE: Pequeñas y Medianas Empresas, Participación Femenina, Gerentes Generales

FEMALE PARTICIPATION IN MANAGEMENT POSITIONS OF SMALL AND MEDIUM-SIZED COMPANIES IN THE MANUFACTURING SECTOR

ABSTRACT

The objective of the study is to characterize the female participation in managerial positions of small and medium-sized companies in the manufacturing sector. The information corresponding to 2019 is obtained from the websites of official entities, for the total number of companies affiliated with the Chamber of Small and Medium Enterprises of Pichincha. The results reveal a marked gap regarding participation by gender in managerial positions, which are explained through the postulates of the crystal maze theory. The scarce presence of women in managerial positions is the product of the multiple obstacles that they must overcome due to the variety of roles they fulfill. On the other hand, other important distinctions are highlighted. Companies in subsectors that pose a higher level of risk or physical strength are led by male managers. The participation of women in managerial positions prevails in the food subsector. Regarding the level of undergraduate and technological training, it is observed that female general managers register a higher percentage than those of male gender. Variables such as size, life cycle and family condition of the companies studied do not observe significant gender differences in managerial positions. The greater access of women to higher education stands out, however it is men who have a greater presence in the

labor field, especially in managerial positions in small and medium-sized companies in the manufacturing sector, despite not having higher education.

JEL: M10

KEYWORDS: Small and Medium-Sized Enterprises, Female Participation, General Managers

INTRODUCCIÓN

La equidad de género no solo se perciba como un derecho fundamental, sino también como los cimientos de sociedades sostenibles, prósperas y pacíficas (ONU MUJERES, 2017). Los estudios de género como una perspectiva para el análisis de las organizaciones, surgen con la finalidad de evidenciar y dar respuesta a marcadas asimetrías de poder entre hombres y mujeres. Gran parte de estos estudios se desarrollan en las grandes empresas, por ser estos espacios donde la búsqueda de la equidad de género resulta más perceptible. En las Pequeñas y Medianas Empresas (PYMES), este objetivo no se impulsa de la misma forma, por lo tanto, son escasos los registros de investigaciones similares (Vázquez & Urbiola, 2014). En este contexto, surge el interés por estudiar la relación entre la participación femenina en cargos gerenciales y las características de las PYMES manufactureras del Distrito Metropolitano de Quito en el año 2019, para contribuir a los estudios de género en las organizaciones y sensibilizar sobre la equidad de género e igualdad de oportunidades. En una primera fase se plantea como objetivo caracterizar la participación femenina en cargos gerenciales de este importante sector. Este documento se estructura de la siguiente forma. Se expone el enfoque teórico que da soporte a la investigación, posteriormente se describe el diseño metodológico conforme con el objetivo de investigación. A continuación, se presentan resultados relevantes que caracterizan las empresas estudiadas, seguidamente se plantean las conclusiones y finalmente referencias bibliográficas en las que se basa el estudio.

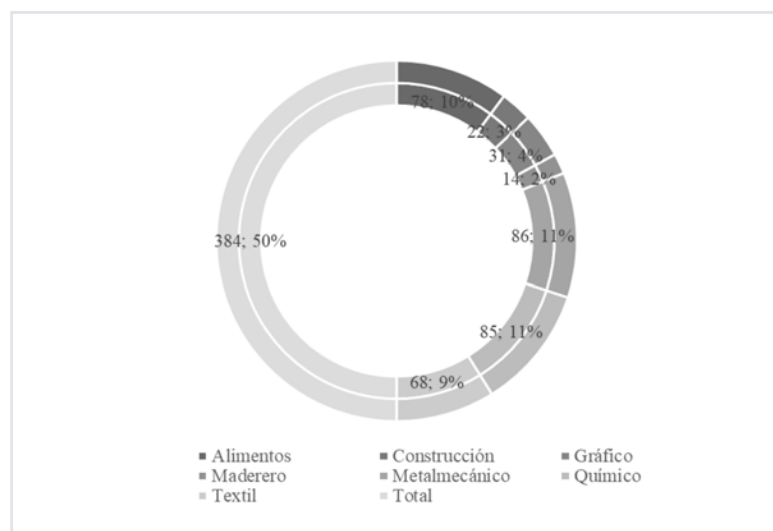
REVISIÓN DE LITERATURA

Eagly y Karau (2002) señalan que el origen de la Teoría de la Congruencia de Rol de Género se remonta al análisis del prejuicio que surge en la mujer cuando ocupa cargos gerenciales. Entonces cuando un trabajo no es congruente con el género de quien lo desempeña, existirán dificultades para alcanzar o mantenerlo. Producto de ello se generan expectativas acerca de la conducta de hombres y mujeres, agrupados en los denominados roles de género. Morrison, White y Van Velsor (1987) son pioneras en el desarrollo del denominado *techo de cristal*. El entorno sugería que una gran cantidad de mujeres se encontraban impedidas de acceder a cargos directivos. Entonces, la metáfora se refiere a la presencia de una sutil barrera transparente que limita el ascenso profesional de la mujer. Camarena y Saavedra (2018) destacan que la presencia de este *techo* limita sus oportunidades profesionales, pues las estructuras jerárquicas en las organizaciones se rigen por reglas masculinas que conservan al perfil masculino, como el prototipo de empleado ideal. Eagly y Carli (2007) proponen una actualización a la teoría del techo de cristal. A criterio de las autoras, la metáfora no es correcta debido a que se sustenta en la creencia de que hombres y mujeres tienen las mismas oportunidades para ascender a nivel jerárquico. Sin embargo, como mencionan, las trabas no solo se presentan en el ascenso, las múltiples dificultades se van presentando en el trayecto.

METODOLOGÍA

El estudio es de enfoque mixto, de tipo descriptivo, diseño no experimental y corte transversal. La población objeto de estudio corresponde a las 384 PYMES manufactureras del DMQ afiliadas a la Cámara de la Pequeña y Mediana Empresa de Pichincha (CAPEIPI) distribuidas en siete subsectores. La información se obtiene de las páginas Web de entidades oficiales al 2019 de la CAPEIPI y Superintendencia de Compañías y la Secretaría Nacional de Educación Superior Ciencia Tecnología e Innovación (SENESCYT).

Figura 1: PYMES Manufactureras de la CAPEIPI Ubicadas en Quito



Entretrejo PYMES Manufactureras del DMQ afiliadas a la CAPEIPI (2019), distribuidas en los siete subsectores productivos.

Las variables de estudio son: Género del gerente general, nivel de formación profesional, tamaño de la empresa, edad de la empresa, carácter familiar y subsector.

RESULTADOS

El análisis descriptivo proporciona una síntesis de la información y muestra las tendencias claves de las variables que permiten caracterizar la participación femenina en cargos gerenciales de este importante sector de PYMES de Pichincha, se realiza a partir de los resultados que se muestran en la Tabla 1.

Variables	Frecuencia	Porcentaje (%)	Porcentaje acumulado
Género			
Masculino	294	76,60	76,60
Femenino	90	23,40	100,00
Nivel de formación profesional			
No registra formación profesional	206	53,65	53,65
Tercer nivel tecnológico	15	3,91	57,55
Tercer nivel de grado	114	29,69	87,24
Posgrado tecnológico	2	0,52	87,76
Posgrado académico	47	12,24	100,00
Subsector			
Alimenticio	78	20,31	20,31
Construcción	22	5,73	26,04
Gráfico	31	8,07	34,11
Maderero	14	3,65	37,76
Metalmecánico	86	22,40	60,16
Químico	85	22,14	82,29
Textil	68	17,71	100,00
Tamaño de la empresa			
Pequeña	243	63,28	63,28
Mediana	141	36,72	100,00
Edad de la empresa			
Joven (0 a 4 años)	9	2,34	2,34
Mediana edad (5 a 24 años)	243	63,28	65,63
Vieja (más de 25 años)	132	34,38	100,00
Carácter familiar			
Empresa no familiar	60	15,625	15,625
Empresa familiar	324	84,375	100
Total	384	100	100

Las PYMES manufactureras del DMQ afiliadas a la CAPEIPI se caracterizan por estar dirigidas principalmente por gerentes de género masculino (76,6%), que en su mayoría, no registran formación profesional (53,65%). Estas empresas operan principalmente en los subsectores metalmecánico (22,40%) y químico (22,14%). Son mayoritariamente de tamaño pequeño (63,28%), de mediana edad (63,28%) y de carácter familiar (84,38%). Esto es congruente con lo expuesto por el Banco Mundial (2020) y García, González y Murillo (2017) que los hombres tienen mejores probabilidades de insertarse en industrias mejores remuneradas como la manufactura. Las empresas que registran participación femenina en cargos gerenciales, principalmente pertenecen al subsector de alimentos (26,7%), son de tamaño pequeño (67,8%), de mediana edad (72,20%) y de carácter familiar (84,40%). Respecto al nivel de formación, el 50% de las gerentes generales no registra formación profesional, el 40% registra formación de tercer nivel y un 10% formación de cuarto nivel. En la misma dirección, ONU (2020) señala que la mujer apenas representa el 35% de total de graduados en carreras relacionadas a la ciencia, tecnología, ingeniería y matemática. De allí que tenga menor participación en esta área productiva. Por otro lado, es importante mencionar que el contexto expuesto, no es una realidad ajena en las grandes empresas ecuatorianas, pues según Deloitte (2020) la gestión femenina en empresas de manufactura representa apenas el 16%.

CONCLUSIONES

La brecha respecto a participación por género en cargos gerenciales, puede explicarse a través de la teoría del laberinto de cristal. En la medida que la escasa presencia de la mujer en cargos gerenciales es producto de los múltiples obstáculos que se les presentan. La inequidad en la repartición de tareas doméstica provoca en la mujer una triple carga laboral (vida profesional, maternidad y cuidado del hogar). Todo esto en conjunto dificulta el ascenso hacia cargos directivos dado el grado de responsabilidad, autoridad y compromiso que el puesto requiere y que no es congruente con el estereotipo femenino. Pese a que la mujer tiene mayores oportunidades de acceso a la educación superior, los hombres siguen manteniendo mayores oportunidades laborales. En el sector manufacturero, esta situación es aún más evidente, puesto que la participación de la mujer en cargos gerenciales prevalece en subsectores que suponen menores riesgos, esfuerzos físicos o especialización en áreas técnicas.

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EL CONTEXTO VOCACIONAL COMO MODELO PEDAGÓGICO PARA LA ENSEÑANZA DE LAS MATEMÁTICAS

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RESUMEN

A través de este artículo de investigación se presentará un modelo educativo para la enseñanza de las matemáticas a partir de situaciones en contextos reales dentro de las especialidades vocacionales. Este modelo surge como resultado de mi investigación, donde se estudió el aprendizaje de las matemáticas a partir de situaciones en contextos reales. Este estudio surgió a partir de la necesidad de transformar el paradigma tradicional de la enseñanza de las matemáticas. Como parte de los hallazgos, se encontró que los estudiantes aprenden mejor las matemáticas cuando estas tienen un sentido práctico y útil en sus actividades diarias. En esta investigación se utilizó una metodología cualitativa, bajo el diseño estudio de caso de tipo instrumental.

PALABRAS CLAVES: Etnomatemática, Matemática Realista, Etnomodelaje, Educación Tradicional, Modelos Matemáticos

THE VOCATIONAL CONTEXT AS A PEDAGOGICAL MODEL FOR TEACHING MATHEMATICS

ABSTRACT

Through this research article, an educational model for the teaching of mathematics will be presented from situations in real contexts within the vocational specialties. This model arises as a result of my research, where the learning of mathematics was studied from situations in real contexts. This study arose from the need to transform the traditional paradigm of mathematics teaching. As part of the findings, it was found that students learn mathematics best when it has a practical and useful sense in their daily activities. In this research a qualitative methodology was used, under the design of an instrumental case study.

JEL: A22, A29, C00, C02, C21, C26, C, 31, C61, C63, C67, C51

KEYWORDS: Ethnomatematics, Realistic Mathematics, Ethnomodelage, Traditional Education, Mathematical Models

INTRODUCCIÓN

Hoy día muchos docentes que enseñan la materia de matemáticas en las escuelas utilizan una metodología tradicional enseñanza, modelando la matemática en las clases de manera abstracta y fuera de contextos reales y pertinentes para los estudiantes. Durante los últimos años, se ha observado que este tipo de enseñanza de enseñanza trae consigo una serie de limitaciones que le dificulta a la mayoría de los estudiantes comprender los contenidos matemáticos que se enseñan según el nivel que cursan. Además, en ocasiones sienten apatía hacia esta disciplina, por su difícil comprensión. En este sentido, Pedroza y colegas (2016), encontraron en su estudio sobre las actitudes de los estudiantes hacia las matemáticas, que casi la mitad de los estudiantes encuestados se muestran indiferentes en relación hacia esta disciplina. Esto refleja que los estudiantes en general necesitan motivación y una enseñanza de las matemáticas con sentido, a partir de situaciones en contextos reales y pertinentes para estos.

REVISIÓN DE LITERATURA

En la década de los 80, la NCTM (Concilio Nacional de Maestros de Matemáticas por sus siglas en español) propuso que el énfasis del contenido en los currículos de matemáticas debía ser conducente a la enseñanza de las matemáticas desde la solución de problemas. Para esta década, existió una controversia relacionada a la práctica de educar desde la solución de problemas matemáticos desde la matemática pura o resolver problemas aplicados a un contexto de forma integral con otras disciplinas. De acuerdo Schoenfeld (2004), esta controversia, sobre cómo se deben enseñar las matemáticas, se convirtió en una disputa entre investigadores y docentes de esta disciplina durante la década de los 80's y no fue a partir de esa fecha que la NCTM recomendó que se incluyera la solución de problemas en los currículos de matemática.

Hoy día a pesar de que se propone enseñar la matemática en contexto en muchas escuelas continúen enseñando las matemáticas de forma tradicional, abstracta y sin sentido práctico. Schunk (2012) en este sentido mencionó que las quejas más comunes en el ámbito educativo, es precisamente que la enseñanza se enfoca demasiado en el contenido y presta poca atención al contexto. Asimismo, Surywati y Kamisah (2018) mencionaron que el aprendizaje contextual tiene una función transformadora en función de mejorar el papel del maestro como educador, de manera que su función en el proceso de enseñanza debe ser como guía o facilitador del aprendizaje.

El modelo educativo que emergió de esta investigación se fundamenta en dos Teorías de Educación matemática, la Matemática Realista propuesta por Freudenthal y la Etnomatemática propuesto por D' Ambrosio. Según Freudenthal (1991), la matemática está presente e inmersa en las actividades realizadas por el individuo en su diario vivir. Por lo tanto, ve esas conexiones como fenomenologías, considerando además que pueden ser utilizadas como herramientas didácticas (Freudenthal, 1991). La Etnomatemática, por su parte, como teoría educativa reconoce la existencia de una variedad de estilos de aprendizaje. D'Ambrosio (2016) por su parte, mencionó que la Etnomatemática, dentro de su estructura pedagógica aborda las distintas formas de conocimiento matemático y la definió, como un programa de investigación que tiene como propósito entender el conocimiento y la utilidad de las matemáticas que se da a lo largo de la historia de la humanidad y cómo estas se contextualizan en diferentes grupos culturales.

Por otro lado, tanto la Etnomatemática como la Matemática Realista, como una teoría educativa, considera la matematización como una de las etapas más importantes en el proceso del modelaje matemático (Rosa & Orey, 2018). Ellos mencionaron que la modelación matemática forma parte de la acción pedagógica en la Etnomatemática y dentro de su composición epistemológica, reconoce la modelación matemática como un método de enseñanza. En este sentido, la Etnomatemática reconoce los modelos matemáticos dentro de la cultura como “etnomodelos” (Rosa y Orey, 2016).

METODOLOGÍA

En este estudio se utilizó una metodología cualitativa, bajo el diseño de estudio de caso. Además, participaron estudiantes y docentes de escuelas superior vocacionales. No obstante, cabe destacar que dentro de las especialidades vocacionales estudiadas se encuentra, la enfermería, la fotografía y las artes culnarias. Todas estas especialidades formaron parte del análisis de documentos utilizando el modelo de análisis de información propuesto por Straus y Corbin (2008).

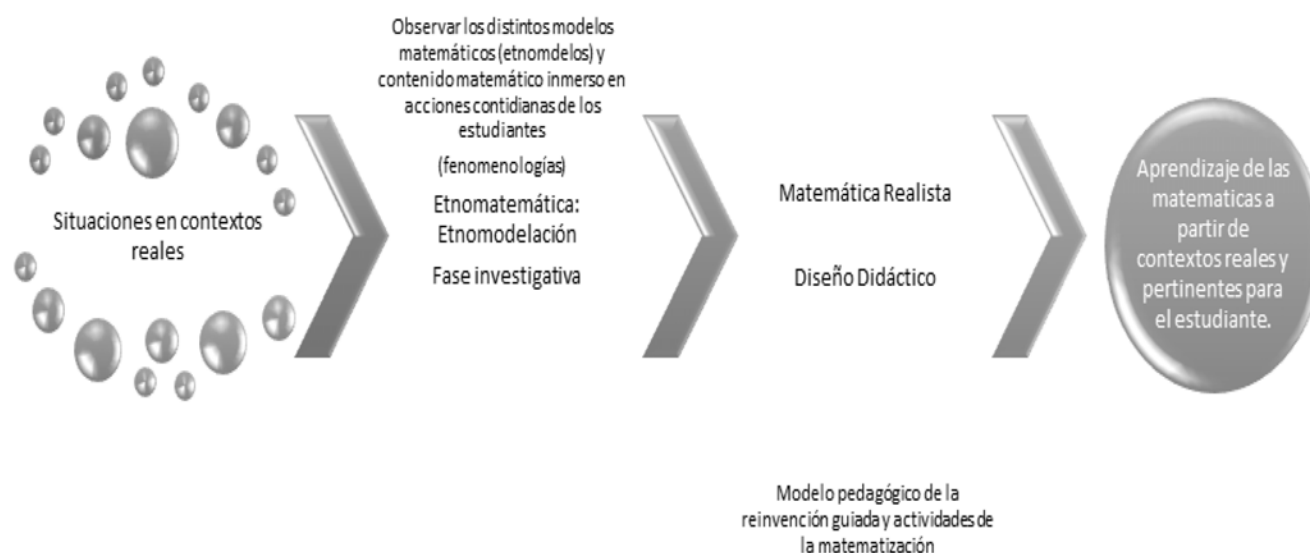
RESULTADOS

Dentro de los resultados más destacados en esta investigación se encuentra que los estudiantes matematizaron distintas situaciones en contexto, utilizando contenido matemático y crearon modelos informales de la situación presentada. Además, los estudiantes reconocieron que aprenden mejor las

matemáticas cuando se enseñen a partir de situaciones en contextos reales y con utilidad práctica en la vida cotidiana.

Como resultado de esta investigación, luego de analizar la información obtenida a partir de los resultados de esta investigación, emergió un modelo educativo para la enseñanza de las matemáticas a partir de situaciones en contextos reales. A continuación, se muestra el modelo en la Figura 1.

Figura 1: Diagrama General del Modelo Propuesto Para la Educación Matemática en Contexto



CONCLUSIONES

Para fortalecer el currículo de matemática en las escuelas vocacionales, es imperativo que se creen nuevas formas de enseñar las matemáticas. En este sentido, se identificó la necesidad de crear currículos integrados para las escuelas vocacionales, donde se enseñen las matemáticas a través de situaciones en contextos reales de las especialidades vocacionales.

Por otro lado, los estudiantes lograron matematizar las situaciones presentadas de diversas formas. Asimismo, los participantes reconocieron que aprenden mejor las matemáticas se da mejor cuando se enseñen a partir de situaciones en contextos reales y pertinente para los estudiantes. También, se observó que tanto los estudiantes como los maestros participantes no estaban conscientes de la mayoría del contenido matemático que se encuentra inmerso dentro de la especialidad estudiada. Estos contenidos en su gran mayoría se identificaron de forma implícita en las actividades realizadas dentro de las especialidades estudiadas.

La enseñanza de las matemáticas no depende únicamente de explicar bien el contenido o mantener un control dentro de la sala de clase, es importante que los estudiantes tengan la confianza de aclarar sus dudas y crear conocimiento matemático. En este sentido, una de las recomendaciones para los maestros de matemática en general es que indaguen con sus estudiantes sus inquietudes y establezcan un acuerdo para mejorar su aprendizaje.

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EL ECOSISTEMA DEL EMPRENDIMIENTO FEMENINO EN COLOMBIA Y BOGOTÁ REGIÓN

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RESUMEN

El propósito de esta ponencia es, en el marco del desarrollo del proyecto de investigación "El ecosistema del emprendimiento femenino en algunas localidades y municipios de Bogotá región y su aporte al desarrollo social y económico del país en los últimos 10 años (2009- 2019)"1 mostrar, algunas aproximaciones teóricas relacionadas con la actividad emprendedora de la mujer en Colombia y, de manera particular, en Bogotá – Región. Los avances en el proceso de revisión teórica que los investigadores han adelantado dan cuenta que el emprendimiento femenino sigue siendo un fenómeno complejo pues, además de mayores oportunidades para las mujeres, se requiere que sus actitudes y capacidades sean valoradas positivamente por la sociedad.

PALABRAS CLAVE: Emprendimiento Femenino, Rol, Impacto, Fomento y Desafíos

THE FEMALE ENTREPRENEURSHIP ECOSYSTEM IN COLOMBIA AND BOGOTÁ REGION

ABSTRACT

The purpose of this presentation is, within the framework of the development of the research project "The ecosystem of female entrepreneurship in some localities and municipalities of Bogotá region and its contribution to the social and economic development of the country in the last 10 years (2009-2019) show, some theoretical approaches related to the entrepreneurial activity of women in Colombia and, in particular, in Bogotá - Region The advances in the theoretical review process that the researchers have advanced show that female entrepreneurship continues to be a complex phenomenon Thus, in addition to greater opportunities for women, their attitudes and capacities are required to be positively valued by society.

JEL: B21, D04, D21, J16

KEYWORDS: Ecosystem, Female Entrepreneurship, Colombia, Bogotá Región

INTRODUCCIÓN

El emprendimiento y las iniciativas de empresa han ganado gran importancia ante la complejidad de los entornos socio económicos y culturales influenciados por la pandemia Situación que ha traído consigo, a nivel universal altos niveles de desempleo, y un sin número de personas reevaluando su quehacer diario ante la necesidad de generar sus propios recursos, de iniciar sus propios negocios, y trascender de ser empleados dependientes a ser empleadores/independientes.

Habitualmente, y entorno al que hacer de la mujer, actualmente se habla de igualdad de oportunidades. Con ello se hace referencia a la manera cómo las mujeres han buscado, por años, mayor inclusión y un trato

equitativo con sus pares hombres en el mercado de trabajo, en los diferentes sectores de actividad, en sus categorías profesionales, en los salarios, así como en la disminución de la brecha de género o distancia que hay entre ambos en el autoempleo. (Estos factores enunciados son variables de interés en relación a la igualdad, no significa que estén superados).

Sin dejar a un lado la significación y el impacto que en las últimas décadas han tenido estudios o los avances jurídicos y normativos relacionados con la igualdad de género, con esta ponencia buscamos poner de relevancia las aproximaciones teóricas relacionadas con las dificultades y retos que han tenido que enfrentar las mujeres en el momento de emprender. Lo anterior, agravado tanto por el panorama actual de crisis económica o pandémica, como por la falta de recursos y ayuda para llevar a cabo su proyecto emprendedor.

En efecto, la estructura social como la institucional a través del tiempo han creado diferencias en el emprendimiento masculino y femenino. La mujer se siente más insegura en el momento

de crear una empresa debido a que encuentra más puntos hostiles en el entorno que la rodea. Además, existen otros factores, como los contextuales, demográficos y psicológicos que influyen negativamente en el emprendimiento femenino. Por citar un ejemplo, la crisis actual ha llevado a la mujer a invertir más en el sector del consumo y menos en tecnología, por lo que el sector de la inversión es otro factor que se debe tener en cuenta en los procesos emprendedores liderados por Mujeres, otro hecho relevante es que ellas suelen crear empresas más pequeñas que los hombres y son menos ambiciosas en cuanto a la obtención de beneficios.

En este contexto, es importante tener en cuenta que es a partir del Siglo XX, concretamente entre los años ochenta y comienzos del noventa, cuando se da inicio al desarrollo de investigaciones relacionadas con la actividad empresarial femenina. En 1998, la Organización para la Cooperación y el Desarrollo Económicos (OCDE) afirmó que este incremento se dio particularmente en países con economías robustas duplicando el número de mujeres emprendedoras, sobre el total de emprendedores regulares por porción de año.

Investigaciones posteriores (Hisrich, O'Brien y Bowen: 1981-84; Cromie, 1987y Kaplan, 1988) trataron aspectos muchos más concretos relacionados con el emprendimiento femenino. En efecto, dichos estudios se centraron en las diferencias de género en la empresa, la experiencia y la formación de la empresaria, diversidad de emprendimientos por actividad o solo ante la motivación para desempeñarse como mujer empresaria, superando de alguna forma las premisas existentes; Sin embargo, dichas investigaciones han sido cuestionadas o criticadas por basarse en teorías y métodos propuestos desde la experiencia masculina (sesgo androcéntrico).

Actualmente, investigaciones como las de Heibrunn (2004) y Marlow (2006) se han centrado en las barreras que toda mujer empresaria encuentra, no solo en la creación empresarial, sino durante el desarrollo de la compañía. En dichas investigaciones se afirma que esas barreras, fuera del seno de la empresa, imposibilitan el desarrollo de la capacidad de la mujer; a la vez que pretenden mostrar que la mujer puede estar limitada por factores tales como: a) la relación existente de la vida profesional con la estabilidad y el cuidado familiar) la falta de acceso a redes de información, mercados o contactos propios de su actividad c) la resiliencia del inversionista que se niega a apoyar empresas dirigidas por mujeres.

Aunque también existen otros estudios (Schoon y Duckworth, 2012) que aseguran que los hombres tienen más intención de ser emprendedores que las mujeres. Algunos otros estudios (Colombo y Grilli, 2005; Weinberg et al, 2011) aseguran que los factores formales (políticas de apoyo no económicas, financiación y formación) condicionan el proceso emprendedor en la mujer. En cambio, otros estudios (Gnyawali y Fogel, 1994; Davidsson y Honig, 2003; Van Gelderen et al, 2005; Baughn et al, 2006; DeClerq y Arenius, 2006) sugieren que estos factores, los formales, tienen un efecto positivo sobre la mujer emprendedora. Por otro lado, otras investigaciones (Álvarez, Noguera y Urbano, 2012), establecen que los factores informales

(rol familiar y percepción de competencias para emprender) son más relevantes que los anteriores (factores formales), ya que son otros que dificultan el emprendimiento femenino, según GEM (2014), tal como habíamos apuntado Fisher et al (1993), Rosa y Dawson (2006), Brush et al (2009) y Frailie y Robb (2009), contradicen esta información, puesto que consideran que la percepción de habilidades en el emprendimiento tienen resultados positivos. En definitiva, tanto con los factores formales como con los informales, si la mujer emprendedora los sabe aprovechar para su interés en el emprendimiento, pueden ser positivos; pero si no sabe sacarles rendimientos a estos factores pueden ser aspectos que limitan su emprendimiento. Otro aspecto que es importante destacar se relaciona con el rol de la mujer en la sociedad. Tanto los informes GEM (2011, 2012 y 2014) como los estudios de Baughn et al (2006) y Langowitz y Minniti (2007) corroboran que la mujer posee una serie de responsabilidades familiares y del hogar que limitan el emprendimiento femenino respecto del masculino.

APROXIMACIONES TEÓRICAS

El emprendimiento femenino es un concepto que ha ganado importancia a nivel mundial y es actualmente debatido en diferentes contextos internacionales. Para Emakunde (2014, p.73) El empoderamiento “es un camino efectivo y sólido de las mujeres que conduce a la salida y a la eliminación de los cautiverios que las enajenan personalmente y como género”

... y agrega que “Llamamos empoderarse al proceso de transformación mediante el cual cada mujer, poco a poco y en ocasiones a grandes pasos, deja de ser objeto de la historia, la política y la cultura, deja de ser el objeto de los otros, es decir deja de ser-para-otros y se convierte en sujeta de la propia vida, en ser-para-sí misma, en protagonista de la historia, la cultura, la política y la vida social”.

En el caso de Bogotá - Región, donde la oferta de trabajo, a pesar del dinamismo empresarial, es escasa y el empleo se ofrece en muchos casos con condiciones de precariedad, el emprendimiento de la mujer ha sido una opción de autogestión económica y se articula al bienestar familiar (A Herrera, 2020). La discusión frente a la temática se estudia desde diferentes perspectivas; en lo funcional, responde a cuestionamientos como ¿qué hacer para emprender?, desde el punto de vista de las humanidades en el sujeto ¿quién emprende, por qué? Y para qué?, y desde las ciencias en gestión ¿cómo emprender? La discusión del emprendimiento desde diversas disciplinas ha permitido la construcción del campo de conocimiento pero, a la vez, ha dificultado su estudio por la falta de un modelo teórico aceptado y global de todos los elementos que lo conforman y la interrelación entre los mismos (Osorio y Pereira, 2011).

Una detallada revisión bibliográfica orientada por Trujillo Londoño (2019) muestra que cuando se habla de emprendimiento, directamente se dirige la atención a la creación de empresas. Es decir, el emprendimiento es visto generalmente desde una perspectiva económica; así las cosas Al-Dajani y Marlow (2013) lo percibe como una actividad individual centrada en la ganancia económica. Sin embargo, cuando se enfoca en quién desarrolla el emprendimiento, variables como género y edad empiezan a ser relevantes, ya que condicionan la forma en la que los individuos se insertan en la actividad económica y las relaciones que producen estas condiciones. Así, en los últimos años, el estudio sobre emprendimiento se ha centrado en el análisis desde la perspectiva de género (Ortiz, 2017), lo que ha visibilizado procesos de empoderamiento.

Al igual que Castiblanco (2013), Saavedra y Camarena (2015) mencionan que las mujeres emprendedoras, y dentro de la formalidad de una Mi pyme, priorizan la calidad de vida sobre la rentabilidad, al dedicar menos horas a sus empresas. Por otro lado, algunas de las dificultades que enfrentan ellas, es la aversión al riesgo, lo que limita el acceso a financiamiento externo y, a su vez, al crecimiento del emprendimiento. Pero es clara la limitación de que tienen mayores dificultades para acceder a financiamiento por las condiciones de sus empresas, lo que hace que las garantías y requisitos de las entidades financieras sean mayores y las condiciones de financiación como tasas o montos sean poco favorables.

Po otra parte, las políticas y programas para las mujeres empresarias parecieran no ser tan efectivas, porque, más allá de la motivación debida, no muestran un avance significativo en el aspecto económico. Para revisar el emprendimiento en el contexto colombiano se ha tomado, también, como referente, el reporte Global Entrepreneurship Monitor Colombia (GEM) y los aportes de Escandón y cols., 2016; quienes con una metodología cuantitativa contribuyen a construir el perfil del emprendedor colombiano según sus características socio- económicas diferenciadas por géneros (hombres y mujeres); Según este reporte, existen motivaciones diferenciadas que impulsan a los emprendedores a desarrollar sus negocios; desde quienes emprenden por necesidad apremiante (como forma de autoempleo y generación de ingresos básicos para subsistir) y quienes lo hacen como una oportunidad de negocio. Según la Tasa de Actividad Emprendedora (TEA) por sus siglas en inglés Total Early-Stage Entrepreneurial Activity).

En Colombia las mujeres son motivadas por la obtención de independencia, lo que se contrasta con los hombres, quienes en mayor número emprenden para mantener su nivel de ingresos. Cabe anotar que por cada hombre que emprende por necesidad, 2,5% emprenden por oportunidad; mientras que por cada mujer que emprende por necesidad, 1,8% emprenden por oportunidad. Estos resultados muestran nuevamente cómo el género diferencia los intereses de quien emprende y refuerzan la idea de que las mujeres priorizan bienestar sobre rendimiento económico.

El reporte GEM Colombia (Escandón y cols., 2016) también discrimina los datos de los emprendedores por edad. Se evidencia que para mujeres entre 25-34 años, la proporción de actividades emprendedoras por oportunidad aumenta. A partir de este rango, la proporción disminuye para el resto de las edades. Es así como el emprendimiento por motivos de necesidad aumenta de manera directamente proporcional con la edad. Lo anterior aplica para mujeres emprendedoras nacientes y en desarrollo; las emprendedoras ya establecidas, entre 18-24 años, emprenden en mayor medida por oportunidad (83,3 %), y aquellas entre 45-54 años emprenden mayoritariamente por necesidad (66,7 %).

La motivación de emprender también se diferencia según el nivel de educación. Las mujeres con estudios de secundaria emprenden con mayor proporción, seguidas de las mujeres con educación universitaria. En este ítem, los emprendimientos por oportunidad se dan en mayor medida por mujeres con educación universitaria y los emprendimientos por necesidad son establecidos principalmente por mujeres con educación secundaria (no existen diferencias significativas entre géneros). En general, se evidencia que, a mayor nivel de formación, disminuyen los emprendimientos por necesidad y aumentan los emprendimientos por oportunidad (Escandón y cols., 2016).

Así mismo, el reporte GEM Colombia muestra la baja efectividad de estrategias que han tenido éxito en economías desarrolladas, al ser aplicadas a economías en etapas de crecimiento. Esto destaca la importancia del contexto que moldea o condiciona el emprendimiento, lo cual es consistente con lo mencionado por Saavedra y Camarena (2015) respecto a la existencia de políticas y programas poco efectivos para el emprendimiento. Los anteriores estudios indagan sobre las motivaciones y limitaciones de emprendimientos de mujeres.

A continuación, se incorporan investigaciones que se centran en el emprendimiento femenino en regiones rurales. Estas investigaciones en conjunto con las ya mencionadas, son relevantes para realizar la caracterización de la mujer emprendedora (urbana y rural) en función de los elementos de empoderamiento. Warren (2004) realiza una investigación centrada en la identidad para comprender la actividad emprendedora temprana. Realiza estudios de caso de cuatro mujeres en proceso de cambio de carrera hacia el emprendimiento. Por medio del análisis del discurso, examina cómo la identidad es transformada y reconstruida por medio del reconocimiento y la participación en comunidades de práctica (community of practice - CoPs2). El estudio de Warren (2004) se enmarca en un condado rural del Reino Unido, en donde las mujeres hacían parte de una red de relaciones en la que compartían problemas, soluciones y conocimientos sobre el desarrollo del espíritu emprendedor en la región.

En el estudio de Hernández, Herrera, y Chávez (2015) pone de manifiesto que alrededor de las empresas se forma un espacio reflexivo de pertenencia, identidad grupal, socialización y particularmente centrado en el intercambio de experiencias, el estudio de Warren (2004) refiere que en las CoPs, (asociaciones voluntarias) las mujeres desarrollan redes de relaciones en las que comparten aprendizajes, contactos y se identifican con modelos a seguir. Estas formas solidarias inciden en el proceso de legitimar y conciliar las identidades alrededor de la familia, el género, el profesionalismo y el emprendimiento, con mayor énfasis en el contexto rural colombiano, por mujeres rurales que se articulan alrededor de la producción, comercialización y creación de proyectos en el ámbito público y privado. Este componente asociativo aporta a la capacitación y adquisición de habilidades y competencias de la emprendedora rural (Moreno, 2015)

Los aportes de (Acosta y cols., 2017) muestran que las mujeres inician sus emprendimientos como una alternativa ante la falta de oportunidades y empleo, aspectos que se ven limitados, entre otros muchos factores por las condiciones de capacitación, estado civil, formación académica y edad. Las habilidades de las mujeres emprendedoras son auto agenciadas de acuerdo con las necesidades, ya que existen programas de formación para el emprendimiento y apoyos a proyectos productivos, pero las emprendedoras rurales no logran acceder a ellos por la misma ausencia de formación para aplicar a los programas (Acosta y cols., 2017). Al igual que Saavedra y Camarena (2015), Acosta y cols. (2017) revelan que las mujeres tienen dificultades para acceder a créditos bancarios y evitan afrontar nuevos emprendimientos.

Los aportes de la investigación de Vaca y Buitrago (2017) en relación con el propósito de Bogotá - Región, también caracterizan a las mujeres emprendedoras rurales del municipio de Chía-Cundinamarca (Colombia), por medio de 93 encuestas a mujeres que participan en grupos o programas que incentivan el emprendimiento. En este contexto rural, encuentran al igual que Escandón y cols. (2016), un mayor porcentaje de mujeres que emprenden por necesidad. En lo que difieren respecto al reporte de GEM Colombia (Escandón y cols., 2016), es que las mujeres con mayor propensión al emprendimiento tienen entre 36 y 45 años. Según Vaca y Buitrago (2017), las mujeres de este municipio tienden a tener hijos a edades tempranas y se dedican al cuidado del hogar de forma exclusiva, buscando alternativas para la generación de ingresos y el sostenimiento de sus familias años después. Una situación que es común en municipios como Soacha Funza y Ciudad Bolívar.

EL ESPIRITU EMPRENDEDOR DE LA MUJER

Según la Real Academia Española (RAE), define como emprendedor a la persona que emprende con acciones, negocios informales o empresas de servicio innovador. Por su parte, Schumpeter (1944) señaló que los nuevos análisis e ideas sugieren que la innovación no nace, en cierto modo, de un empresario innovador como un solo agente que coopera en su proceso, sino que nace del comportamiento y/o acciones producidas en el seno de la empresa. E indudablemente es el espíritu emprendedor de la mujer es una tendencia en el mundo actual en el que se destaca su aporte al desarrollo de la economía país, sino también en el bienestar de la familia;

En el año 2010, la Organización de las Naciones Unidas (ONU) difundió los Principios para el Empoderamiento de la Mujer, una serie de lineamientos destinados a empresas del sector privado que ofrecen la promoción o la orientación sobre cómo empoderar a las mujeres en tres escenarios: el lugar del trabajo, el mercado y la comunidad. Desde su presentación, más de 850 Directores Ejecutivos de todo el mundo han firmado la Declaración de Apoyo de los CEO a los Principios para el empoderamiento de las mujeres. Esos Principios son los siguientes: 1. Establecer un liderazgo empresarial de alto nivel que promueva la igualdad de género. 2. Tratar a todas las mujeres y los hombres de manera justa en el entorno de trabajo, lo cual implica el respeto y la promoción de los derechos humanos y la no discriminación. 3. Asegurar la salud, seguridad y bienestar de todas las trabajadoras. 4. Promover la educación, la formación y el desarrollo profesional de las mujeres. 5. Implementar un desarrollo empresarial, cadenas de suministro

y prácticas de marketing que empoderen a las mujeres. 6. Promover la igualdad a través de iniciativas de la comunidad e incidencia. 7. Evaluar e informar públicamente los avances de las medidas a favor de la igualdad de género.

Propender por un liderazgo empresarial de la mujer a un alto nivel que promueva la igualdad de género y fomente el desarrollo profesional femenino, son medidas muy importantes. Incrementar la participación femenina en roles de liderazgo ha estado asociado con la responsabilidad social de las empresas, las políticas públicas de inclusión e igualdad; sin embargo, para que haya y cambios, las iniciativas de liderazgo femenino necesitan aceptación, asignación de recursos y definición de metas desde las esferas más altas de una sociedad.

Los sistemas productivos y empresariales latinoamericanos han comenzado a comprender que, al integrar las MiPymes que lideran las mujeres en sus cadenas de valor, las economías locales, pueden alcanzar sus objetivos financieros y sociales. Incorporar más mujeres a la cadena de valor ayuda a las compañías a contratar más productos locales y participar en sus comunidades, diversificar su base de proveedores y de distribución, y ampliar su participación en el mercado entre bases de clientes emergentes. Ampliar la base aumenta la competencia y es además favorable en términos de negocios.

El sector privado, en coordinación con las políticas públicas, tienen un enorme potencial de mejorar la rentabilidad y la sostenibilidad empresarial a través del empoderamiento de las mujeres en roles de liderazgo y en cargos en empresas, así como en toda la cadena de valor.

Ante la amplia diversidad cultural y regional que existe en Colombia, no es fácil describir en un patrón comportamental a la mujer colombiana; factores tan determinantes como su lugar de nacimiento, las oportunidades de su formación, pero si nos llevan a concluir sin temor que la mujer colombiana indiscutiblemente es una mujer emprendedora, luchadora, abnegada, recursiva y muy perseverante. En veces un poco terca y orgullosa, con un sexto sentido o suspicacia muy desarrollada, de un carácter fuerte y temperamental ante el enojo. Lo que hace del análisis del perfil de la mujer emprendedora una tarea que merece un análisis estudio más detallado y minucioso y es precisamente lo que se pretende justificar en el escenario de la investigación y en el propósito de esta comunicación.

EMPRENDIMIENTO FEMENINO EN BOGOTÁ – REGIÓN

Con base en la bibliografía del emprendimiento y las habilidades “del emprendedor” anteriormente referenciada, evidenciamos cómo se muestra la relación entre capacidad de gestión, el riesgo, educación y entrenamiento diferente, para focalizar el empoderamiento de Bogotá - Región, como factor clave de programas de sensibilización, que empoderen la mujer y contribuyan para que estén en capacidad de desarrollar de una forma mas estructurada y sostenible sus empoderamientos.

Muchas mujeres emprendedoras, en los diferentes municipios seleccionados para la investigación, justifican sus actividades como mecanismo de supervivencia, bienestar familiar o de responsabilidades económicas adquiridas en el pasado; pero no hablan o no conocen del empoderamiento, otras se sienten solas frente a las adversidades; otras toman contacto con esta conciencia de mujer en una sociedad moderna a través de organizaciones empresariales y asociaciones de mujeres.

Según el informe de la Cámara de Cio de Bogotá (2019) y un trimestre antes de la pandemia sanitaria actual, Bogotá sigue consolidándose como el motor de desarrollo económico del país con un total de 756.017 empresas y establecimientos de comercio activas, de las cuales 124.706 fueron creados entre enero y septiembre, de 2019 que representan más del 6 % que las registradas en el mismo periodo del año anterior. De las empresas creadas en el transcurso del año inmediatamente anterior 123.791 son microempresas; 620

son pequeñas; 81 medianas y 34 grandes. Suba es la localidad en la que más se crearon empresas con 13.723; seguida de Kennedy con 11.552; y Engativá con 9.888.

La presencia de las mujeres en los emprendimientos formales crece constantemente. Según cifras del Banco Mundial, (2019) en América Latina y el Caribe, el 50% de las empresas tiene una mujer entre sus principales propietarios. En el caso de Bogotá, el 72% de los emprendimientos cuenta con una mujer en su junta directiva, según datos recientemente publicados por Invest in Bogotá.

En términos generales, en los últimos años el emprendimiento femenino ha presentado un patrón de crecimiento destacado. Entre 2014 y 2019, el número de mujeres vinculadas al modelo de servicios empresariales de la Cámara de Comercio de Bogotá pasó de 2.437 a 7.462. Y al tenor de ello, la capital de la Republica sigue siendo una incubadora de servicios, de acuerdo con el sector económico y tipo de organización, el primer puesto; según la cantidad de empresas y establecimientos creados, es el de comercio al por mayor y al por menor, y reparación de vehículos automotores y motocicletas, con un total de 41.259 empresas, seguido de alojamiento y servicios de comida con 18.841 y de industrias manufactureras con 11.865. Del total de empresas al cierre del año 2012 y bajo la condición de activas (756.017), 688.805 son microempresas; 47.984 son pequeñas; 13.971 son medianas y grandes 5.257. Suba es la localidad con mayor número de empresas con 78.713; seguida de Kennedy con 65.082 y Engativá con 60.999.

Durante tres días, la Cámara de Comercio anualmente y en desarrollo del Go Fest inspira a los emprendedores, acercándolos a las tendencias e innovaciones que marcan la pauta en el emprendimiento a nivel nacional e internacional, quienes propician el relacionamiento a través de redes de contacto entre emprendedores, inversionistas, compradores y el ecosistema en general, para abrir oportunidades reales de crecimiento empresarial e impulsar el desarrollo de la economía de la Ciudad y la Región.

Por su parte Invest Bogotá muestra que la mayor concentración de emprendedores se ubica en el rango de edades entre los 33 y 42 años, con un 37,5 %; seguido por el rango de edades

En Bogotá región, municipios como Soacha o localidades como Ciudad Bolívar, se evidenciaron índices más elevados de mujeres emprendedoras y una menor brecha de participación entre hombres y mujeres emprendedores que otras localidades. Sin embargo, la gran mayoría de las empresas de estas comunidades que son dirigidas por mujeres no logran crecer o expandirse más allá de la categoría de talleres de maquila, o microempresas de economías informales, lo cual reduce el potencial de ingresos de estos emprendimientos. El porcentaje de PyME formales de acuerdo con bases de datos como los de la cámara de comercio o los informes de las secretarías de desarrollo económico en Bogotá para el año 2018, en las cuales las mujeres son titulares de una participación de al menos el 51% es de apenas el 22%, y la proporción de empresas con una mujer como máxima directiva es de apenas el 21%. Las encuestas a empresas muestran que las empresas que pertenecen a mujeres tienen entre un 9% y 36% menos empleados que aquellas que pertenecen a los hombres, incluso a nivel micro. Solamente la mitad de las empresas establecidas que pertenecen a mujeres de la región están creando empleos para otros, en comparación con el 62% en sus pares masculinos.

CONCLUSIONES

El emprendimiento es un concepto que ha venido ganado importancia y es aplicable a diferentes contextos en la actualidad; sobresale en economías emergentes principalmente por ser evaluado como una opción que impulsa el desarrollo y la sostenibilidad desde el individuo. En las investigaciones consultadas hasta ahora para el desarrollo del proyecto, se evidencia como las mujeres han ido adquiriendo gran importancia en el desarrollo tanto social como económico y cultural en lo referente a actividades de emprendimiento. Esto porque se han abierto espacios de participación no sólo en la ocupación de cargos directivos en todo tipo de organizaciones, sino que cada vez han creado emprendimientos y generando nuevos modelos de negocio.

El emprendimiento femenino es denominado como la motivación que posee la mujer en cuanto a su incursión o papel dentro de la innovación y desarrollo de la economía que se presenta en su entorno. Se entiende, entonces, como ese rol que juega la mujer dentro de la concepción del ámbito de la construcción y avance social dentro del sistema económico (Kargwell, 2012).

En cuanto a los estudios sobre emprendimiento en Bogotá – Región, estos aún son incipientes. La poca información que se tiene es la que proveen las Cámaras de Comercio o las Alcaldías Municipales a través de los planes de Desarrollo locales. Estos estudios muestran que las mujeres de Bogotá - Región se muestran ante el emprendimiento en la actualidad y a futuro moderadamente optimistas y consideran su independencia económica como una opción viable de vida y de desarrollo profesional. Este optimismo puede estar directamente relacionado con los buenos desempeños que ha tenido la economía del departamento de Cundinamarca y la Alcaldía Mayor De Bogotá en los últimos años.

Se ha logrado evidenciar que el mundo de la mujer es complejo y diverso, marcado por la desigualdad, las inequidades, injusticia y violencia, pero que, al mismo tiempo, muy marcado por cambios, interrogantes y profundas transformaciones en sus entornos socio económicos y culturales. La mujer en Bogotá Región, han salido del medio privado, y se enfrentan a nuevos retos, roles y apreciaciones sobre sí mismas; ante estas circunstancias retoman el poder personal para trascender en forma creativa y emprendedora por su bienestar y el de sus familias más allá de los poderes patriarcales que la limitan.

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RECONOCIMIENTO

Los autores agradecen el apoyo logístico y financiero de la Universidad De La Salle en Bogotá Colombia, Vicerrectoría de Investigación y Transferencia (VRIT). Asimismo, agradecen los comentarios de los árbitros y editores del IBFR. Y en particular de Mercedes Jalbert, Managing Editor los cuales contribuyeron a mejorar la calidad esta publicación.

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ANÁLISIS Y DETERMINACIÓN DEL IMPUESTO SOBRE LA RENTA, DEL RÉGIMEN DE INCORPORACIÓN FISCAL DE UNA MICRO EMPRESA PERSONA FÍSICA, CON ACTIVIDAD PREPONDERANTE DE ABARROTES

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RESUMEN

El Régimen de Incorporación Fiscal, es recomendable para los contribuyentes que inician sus operaciones y estiman que sus ingresos del ejercicio no rebasarán de \$ 2,000,000.00 (Dos millones de pesos 00/100 M.N.), este régimen les da la facilidad de obtener mayor liquidez al momento de realizar el pago de sus impuestos, para aquellos micro empresarios que buscan en un futuro hacer crecer su negocio. La presente investigación se respalda por una metodología que se enfoca en el proceso del método cualitativo y cuantitativo, por lo que se recaba información sustentada en fuentes de información documental y de encuestas; entre otros. De un universo de 3444 tiendas de abarrotes, se realizó una encuesta a 203 contribuyentes y el resultado muestra que actualmente el 100% de las tiendas de abarrotes de Tecomán, Colima que se clasifican como micro empresas, ya que están en el rango de 1 a 10 trabajadores como lo cita el INEGI. (INEGI, 2014). Este trabajo de investigación se realizó con el propósito de analizar el Impuesto Sobre la Renta de los sujetos pertenecientes a este régimen y conocer los estímulos fiscales de una persona física, con actividad comercial, ya que existe una necesidad de estar informado de los beneficios y desventajas con los que cuentan. El objetivo de investigación es analizar y determinar el Impuesto Sobre la Renta, del Régimen de Incorporación Fiscal de una Micro Empresa, persona física, con la actividad comercial de abarrotes, enunciar sus características, así como el cálculo de sus impuestos, mediante casos prácticos.

PALABRAS CLAVE: Impuesto Sobre la Renta, Microempresas, Persona Física, Régimen de Incorporación Fiscal

ANALYSIS AND DETERMINATION OF THE INCOME TAX, OF THE TAX INCORPORATION REGIME OF A MICRO ENTERPRISE NATURAL PERSON, WITH PREPONDERING ACTIVITY OF ABARROTES

ABSTRACT

The Tax Incorporation Regime is recommended for taxpayers who start their operations and it is estimated that the income for the year will not exceed \$ 2,000,000.00 (Two million pesos 00/100 MN), this regime gives them the facility to obtain greater liquidity to the At the moment of making the payment of your taxes, for those microentrepreneurs who are looking in the future to grow their business. This research is supported by a methodology that focuses on the qualitative and quantitative process, so information is collected based on sources of documentary information and surveys; among others. Out of a universe of 3444 grocery stores, a survey was conducted on 203 taxpayers and the result shows that 100% of the

grocery stores in Tecoman, Colima, which are classified as micro-enterprises, are currently used in the range of 1 to 10 workers as cited by INEGI. (INEGI, 2014). This research work was carried out with the purpose of analyzing the income tax of subjects, relationships, knowledge, physical activity, commercial activity, and the need to be informed about the benefits and disadvantages they have. The objective of the investigation is to analyze and determine the Income Tax, the Regime of Tax Incorporation of a Micro Company, the individual, the commercial activity of groceries, stating their characteristics, as well as the calculation of their taxes, by using of practical cases.

JEL: G0, M2, M4, H0, H2

KEYWORDS: Income Tax, Microenterprises, Individuals, Tax Incorporation Regime

INTRODUCCIÓN

“Introducción, la cual incluye el planteamiento del problema (objetivos, y preguntas de investigación, así como la justificación del estudio), el contexto general de la investigación (cómo y dónde se realizó), las variables y términos de la investigación y sus definiciones, así como las limitaciones de ésta.”(SAMPIERI, 2014). La presente investigación se realizó con el fin de analizar el impuesto sobre la renta del Régimen De Incorporación Fiscal de una microempresa, con actividad comercial, ya que de acuerdo a la transición fiscal que sucede en México, el contribuyente que tribute en el Régimen de Incorporación Fiscal, permanecerá por un periodo no mayor de 10 años con el propósito de que en ese tiempo el contribuyente sea capaz de calcular, declarar y pagar sus impuestos correctamente y mediante este proceso logre integrarse al régimen general en el cual se determinarán sus impuestos correspondientes. La base principal de los ingresos tributarios es la Constitución Política De Los Estados Unidos Mexicanos (CPEUM) con fundamento en el artículo 31 fracción IV, se está obligado a contribuir para el gasto público, así de la Federación, como de los Estados, de la Ciudad de México y del Municipio en que residan, de la manera proporcional y equitativa que dispongan las leyes.

Los contribuyentes personas físicas que realicen únicamente actividades empresariales, que enajenen bienes o presten servicios por los que no se requiera para su realización título profesional, con fundamento en el artículo 111 de la ley del impuesto sobre la renta podrán optar por pagar el impuesto sobre la renta en los términos establecidos en esta Sección, siempre que los ingresos propios de su actividad empresarial obtenidos en el ejercicio inmediato anterior, no hubieran excedido de la cantidad de dos millones de pesos. Los contribuyentes a que se refiere el párrafo anterior que inicien actividades, podrán optar por pagar el impuesto conforme a lo establecido en este artículo, cuando estimen que sus ingresos del ejercicio no excederán del límite a que se refiere el mismo. Cuando en el ejercicio citado realicen operaciones por un periodo menor de doce meses, para determinar el monto a que se refiere el párrafo anterior, dividirán los ingresos manifestados entre el número de días que comprende el periodo y el resultado se multiplicará por 365 días; si la cantidad obtenida excede del importe del monto citado, en el ejercicio siguiente no se podrá tributar conforme a esta Sección. En la ciudad de Tecmán, Colima existen aproximadamente 3444 Contribuyentes dedicados a la actividad comercial con venta de abarrotes a los cuales se les determina el impuesto bimestralmente con una sola exhibición de su pago, por lo regular es un pago mínimo correspondiente de \$301.00 a \$400.00 Bimestrales, los contribuyentes de este régimen tienen la opción de presentar una sola factura de ingresos bimestralmente al público en general, sin llevar una contabilidad electrónica, con menos requisitos porque es un régimen de transición, que beneficia al contribuyente al no caer en infracciones que marca el código fiscal de la federación y que puede influir en su capital de trabajo, liquidez y flujo de efectivo.

Planteamiento del Problema

“El planteamiento del problema es el centro, el corazón de la investigación: dicta o define los métodos” (SAMPIERI 2014). El principal problema que se refleja en la presente investigación recae en los contribuyentes que pertenecen al régimen de incorporación fiscal y realizan una actividad comercial, ya que desconocen sus beneficios y lo que éste conlleva, así como también la forma correcta del cálculo del impuesto a pagar, facilidades, entre otros, en general todo lo que este régimen les puede traer, no sólo para presentar sus declaraciones ante el Servicio de Administración Tributaria (SAT), sino también para aplicar y utilizar a su favor lo dispuesto en las leyes, para con esto obtener mayor flujo de efectivo, logren incrementar su capital de trabajo en beneficio de su negocio.

Objetivos

“Señalan a lo que se aspira en la investigación y deben expresarse con claridad, pues son las guías del estudio” (SAMPIERI, 2014). El objeto de estudio de nuestra investigación son las tiendas de abarrotes, las cuales el Instituto Nacional de Estadística y Geografía (INEGI), clasifica como microempresas utilizando como criterio el número de personal ocupado. (INEGI, 2014). Las Microempresas, son un motor de crecimiento en la economía nacional, ocupan en 95 por ciento del total de las empresas, según la Secretaría de Economía. La problemática que existe en esta investigación se desarrolla principalmente en analizar y determinar el ISR de una persona física con actividad comercial, y sobre todo dar a conocer a los contribuyentes los aspectos importantes sobre el régimen de incorporación fiscal ya que actualmente no todas las personas que pertenecen al RIF aplican los beneficios que este trae consigo.

Objetivo General

El objetivo general de la investigación es realizar el análisis y determinación del impuesto sobre la renta, del régimen de incorporación fiscal de una micro empresa persona física, con la actividad comercial de abarrotes

Objetivos Específicos

Analizar los fundamentos legales el Régimen de Incorporación Fiscal en la Ley del Impuesto Sobre la Renta. Identificar los beneficios que la Ley del Impuesto Sobre la Renta proporciona a los contribuyentes. Determinar el Impuesto Sobre la Renta a pagar de una persona física, perteneciente al Régimen de Incorporación Fiscal (RIF) , con actividad comercial de abarrotes.

HIPÓTESIS

Las hipótesis son las guías de una investigación o estudio. Las hipótesis indican lo que tratamos de probar y se definen como explicaciones tentativas del fenómeno investigado. (SAMPIERI, 2014)

H1: Las personas que tributan en el Régimen de Incorporación Fiscal conocen los beneficios que la LISR les otorga y los aplican en su negocio.

H2: Los contribuyentes que tributan en el Régimen de Incorporación Fiscal no tienen el conocimiento acerca de las facilidades que otorga la Ley del Impuesto sobre la Renta, dispone para dicho Régimen.

Preguntas de Investigación

“Preguntas que orientan hacia las respuestas que se buscan con la investigación. No deben utilizar términos ambiguos ni abstractos”. (SAMPIERI, 2014).

¿Cuáles son las personas que pueden pertenecer al Régimen de Incorporación Fiscal (RIF)?
¿Cuál es el límite de ingresos para tributar en el Régimen de Incorporación Fiscal (RIF)?
¿Por qué los contribuyentes del RIF desconocen los beneficios de este régimen?

Justificación

“La justificación de la investigación indica el porqué de la investigación exponiendo sus razones. Por medio de la justificación debemos demostrar que el estudio es necesario e importante” (SAMPIERI, 2014) La investigación se basa en el análisis de la Ley del Impuesto sobre la Renta del Régimen de Incorporación Fiscal con actividad comercial de una tienda de abarrotes, si tiene el conocimiento de los beneficios que le otorga dicho Régimen y los aplica en sus declaraciones bimestrales. Existe como problemática en el municipio de Tecmán, Colima, de acuerdo a los resultados obtenidos el 80% de los contribuyentes pertenecientes al RIF, desconocen de los derechos que pueden gozar, puesto que no los aplican conforme a la Ley o prefieren no darse de alta siendo que les corresponde estar en dicho Régimen.

MARCO TEÓRICO

“*Marco teórico:* Se debe desarrollar cuando se identifica una o varias teorías que pueden dar base teórica a la solución del problema de investigación. El marco teórico será una descripción detallada de cada uno de los elementos esenciales de la teoría, de tal manera que la formulación del problema y su solución sean una deducción lógica de ella. Este marco también puede estar constituido por una teoría específica creada por el investigador.” (SAMPIERI, 2014).

Antecedentes

Hay que recordar que el Régimen de Pequeños Contribuyentes tiene su origen en la Ley del Impuesto Sobre la Renta de 1996, el cual fue evolucionando mediante diversas reformas fiscales a lo largo de 18 años, hasta llegar a su fin el 31 de diciembre de 2013. Quizá el principal atractivo de este régimen en su inicio, como ya se comentó, fue la simplificación para el cálculo del impuesto, el cual se calculaba para efectos del ISR la tasa del 2.5% sobre el total de ingresos, sin restar deducción alguna. La constitución política de los estados unidos mexicanos en su artículo 31 fracción iv, considera que todos los mexicanos debemos contribuir al gasto público de una manera proporcional y equitativa

Marco Histórico

Antecedentes del Régimen de Incorporación Fiscal (RIF)

Iniciativa del Titular del Ejecutivo Federal. El 8 de septiembre de 2013, el Titular del Ejecutivo Federal presentó la iniciativa de Reforma Hacendaria, en la cual se propone la expedición de una nueva LISR para el 2014. Dictamen y Aprobación por la Cámara de Diputados y Senadores. El Dictamen de la Comisión de Hacienda y Crédito Público de la H. Cámara de Diputados, aprobándose la iniciativa con sus modificaciones por el Pleno de la Cámara de Diputados y de la Cámara de Senadores, por lo que el día 31 de octubre de 2013, se publicó en la Gaceta Parlamentaria.

Marco Legal

“*Marco legal:* Establece la relación legal o normativa en la que se encuadra la investigación, y que es básica para explicar el problema a investigar. Este tipo de marco es propio de los estudios exploratorios.” (SAMPIERI, 2014).

Ley del Impuesto Sobre la Renta

Artículo 111.- Sujetos personas físicas que podrán optar por pagar el impuesto sobre la renta, siempre que los ingresos propios no hubieran excedido de la cantidad de dos millones de pesos.

Artículo 112.- Obligaciones de los contribuyentes del Régimen de Incorporación Fiscal (RIF).

Artículo 113. Contribuyentes enajenen la totalidad de la negociación, activos, gastos y cargos de los enajenados, el adquirente no podrá tributar en esta Sección.

Código Fiscal de la Federación

Artículo 1º Obligaciones de las personas físicas y morales.

Artículo 2º Clasificación de las contribuciones.

Reglamento de la Ley del Impuesto Sobre la Renta

Artículo 186. Contribuyentes personas físicas que destinen una parte de su casa-habitación exclusivamente para los fines de su negocio, podrán deducir la parte proporcional del importe de las rentas pagadas.

Resolución Miscelánea Fiscal 2018

Regla 3.13.2. Opción para realizar el pago en efectivo por la adquisición de gasolina para los contribuyentes que tributan en el RIF.

Regla 2.9.2. Podrán presentar las declaraciones bimestrales definitivas.

Marco Conceptual

Marco conceptual. - Es la elaboración conceptual del problema. En él aparecen las definiciones de las variables contempladas en el problema y en los objetivos de investigación, y de los términos claves que van a ser usados con mayor frecuencia. Tales definiciones las hace el investigador de acuerdo a su criterio, a las definiciones propuestas por otros investigadores y, en caso tal, a la teoría en la que se apoya la investigación. "(SAMPIERI, 2014).

Impuestos: Artículo 2o. del Código Fiscal de la Federación (CFF): contribuciones establecidas en ley que deben pagar las personas físicas y morales que se encuentran en la situación jurídica.

Impuesto Sobre La Renta (Isr): Según el Glosario del Servicio de Administración Tributaria (SAT), el Impuesto Sobre la Renta es el que grava toda utilidad que genere un bien o una actividad y que constituya un incremento en el patrimonio del contribuyente.

Régimen De Incorporación Fiscal: En el RIF, se encuentran los contribuyentes personas físicas que realizan únicamente actividades empresariales, enajenan bienes o prestan servicios por los que no se requiere para su realización título profesional.

Micro: Micro es una palabra cuya etimología es griega, y su significado es pequeño.

Empresa: De conformidad con el artículo 25 del código de comercio es toda actividad económica organizada para la producción, transformación, circulación, administración o custodia de bienes, o para la prestación de servicios.

Personas Físicas: De conformidad con las Normas de Información Financiera (NIF), los Postulados Básicos A-2, se asume como una unidad de negocios independiente de su propietario, con personalidad y capital contable propios.

Marco Geográfico

“*Marco geográfico:* En algunos casos es importante demarcar la zona geográfica donde se realizará el estudio, ya sea especificando las coordenadas geográficas o utilizando mapas y croquis.” (SAMPIERI, 2014).

El estudio de esta investigación se llevó a cabo en la República Mexicana, en el Estado de Colima, dentro del Municipio de Tecmán, en la zona sureste de dicho municipio, en las cuales se encuestaron 203 Tiendas de Abarrotes, según el INEGI, existen 3,444 Tiendas de Abarrotes en el Municipio de Tecmán.

METODOLOGÍA

“La metodología constituye la médula del plan, se refiere a la descripción de las unidades de análisis o de investigación, las técnicas de observación y recolección de datos, los instrumentos, los procedimientos y las técnicas de análisis.” (Baena, 2010).

Enfoque Mixto

“El enfoque mixto es una combinación de los métodos cuantitativos y cualitativos, debido a que recolecta, analiza y vincula datos de los dos métodos, para dar respuesta al planteamiento del problema.” (LARA, 2013). Este enfoque fue de suma importancia, puesto que se pudo analizar el Impuesto Sobre la Renta (ISR) de las tiendas de abarrotes, clasificadas como microempresas, que pertenecen en el Régimen de Incorporación Fiscal de conformidad con la Ley del Impuesto sobre la Renta así mismo obtener un dato numérico con la determinación del ISR a pagar, mediante una declaración. De un universo de 3444 negocios de este régimen, con un nivel de confianza del 95%, y un margen de error del 5%, dando una base de 203, cuestionarios aplicados, para obtener la información, base para esta investigación.

RESULTADOS

Una vez aplicados los cuestionarios a contribuyentes pertenecientes al Régimen de Incorporación Fiscal (RIF), propietarios de una microempresa con actividad comercial de abarrotes, en el municipio de Tecmán, Colima. Se pueden mostrar los resultados obtenidos de acuerdo a los análisis estadísticos correspondientes, la descripción de los mismos, como las variables que integraron a esta investigación, así lo muestran las siguientes gráficas de acuerdo a los resultados obtenidos. El 77% de contribuyentes si cuenta con el registro federal de contribuyentes, y el 23% no está registrado y se encuentra en el comercio informal. El 50% paga más de \$ 400.00 pesos mensuales en este régimen, por desconocimiento en la aplicación de la base del impuesto. El 23% paga \$300.00 mensuales, y el resto menos de \$200.00. Al preguntarles si conocen los beneficios que tiene este régimen en cuestión de pagos de las compras, gastos e inversión realizadas en sus operaciones comerciales, contestaron que el 80% desconoce las deducciones de este régimen, y el 20% si las conoce, por lo cual los contribuyentes se encuentran en pagos en exceso, por no deducir estos conceptos importantes para determinar la base de sus impuestos. Los beneficios que obtienen al pertenecer a este régimen son los siguientes:

Reducción de impuestos de acuerdo a la tabla de porcentajes de acuerdo al número de años que tengan tributando en este regimen.

Deducción inmediata de su activo no circulante.

Opción de realizar el pago en efectivo por adquisición de gasolina hasta por \$5,000.00
Los gastos no tienen límite, siempre y cuando sean estrictamente indispensable.

Las compras e inversiones pueden pagarse en efectivo siempre y cuando no excedan de \$5,000.00
No se realiza el pago del impuesto sobre la renta en el primer año del ejercicio fiscal.

Si los ingresos no exceden de \$ 300,000.00, no se realiza el pago del iva y ieys, por operaciones en público en general.

CONCLUSIONES

De acuerdo a los resultados obtenidos de la presente investigación, el 77% de los contribuyentes pertenecientes al Régimen de Incorporación Fiscal,(RIF), si cuentan con el registro Federal de Contribuyentes, ante el sistema de Administración Tributaria(SAT); sin embargo, no conocen todos los beneficios que les otorga la Ley del Impuesto Sobre la Renta, el Reglamento del Impuesto Sobre la Renta y la Miscelánea 2020, es decir las legislaciones que regulan dicho Impuesto; por lo tanto, no lo aplican en sus cálculos de ISR, al momento de realizar sus declaraciones. Podemos afirmar que los estímulos fiscales que conocen los contribuyentes de este régimen son, la Reducción de ISR conforme a la tabla de porcentajes y de acuerdo al número de años que tengan tributando en el régimen; opción para realizar el pago en efectivo por la adquisición de gasolina hasta 5 mil pesos; que las Compras e inversiones pueden pagarse en efectivo; siempre y cuando no excedan los 5,000.00 pesos; que no se realiza el pago del ISR, durante el primer año, entre otras. Sin embargo, ninguna de las personas encuestadas, conoce de los estímulos de, Deducción inmediata de Activo No Circulante y que los Gastos no tienen limitante, siempre y cuando sean estrictamente indispensables. Es preocupante, que el 18% de los contribuyentes que tributan en el RIF, no cuentan con ninguna información acerca del Régimen en el que pertenecen y, por lo tanto, desconocen los beneficios que la Ley les otorga. En México, es el mayor número de contribuyentes que desconocen los beneficios del sistema tributario y a su vez fortalecen su economía. Fortaleciendo así su capital de trabajo.

Recomendaciones

Capacitación en el Régimen de Incorporación Fiscal a las Micro Empresas Cursos de capacitación, que se brinden a los contribuyentes, para darles a conocer información precisa y oportuna acerca de dicho Régimen, en cuanto, a todo lo que éste implica, las ventajas de tributar en el mismo, los estímulos fiscales que otorga la legislación, presentación de sus declaraciones, entre otros. Que los Contribuyentes del Régimen de Incorporación Fiscal pidan asesoría a un Contador Público En nuestra opinión, los contribuyentes del RIF, deben pedir asesoría a un Contador Público, incluso, sus servicios para que éste les lleve la contabilidad y les realice las declaraciones bimestrales, con el objetivo de que cumplan con sus obligaciones fiscales ante el Servicio de Administración Tributaria, y obtengan conocimiento acerca de su actividad comercial de abarrotes, como lo que todo esto conlleva.

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ANÁLISIS DE LOS REQUISITOS DE LAS DEDUCCIONES PERSONALES Y SU EFECTO FISCAL EN EL CÁLCULO Y DETERMINACIÓN DEL IMPUESTO SOBRE LA RENTA DEL EJERCICIO DE LOS CONTRIBUYENTES DEL RÉGIMEN DE SUELDOS Y SALARIOS

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RESUMEN

Debido a la basta legislación tributaria que existe sobre el tema y a la complejidad con la que se encuentra redactada la misma; resulta difícil para los contribuyentes poder comprender lo que las disposiciones fiscales nos tratan de decir. Para poder asimilar el contenido de las leyes se necesita realizar un análisis profundo, lo cual implica una búsqueda de información dentro de las normativas, lo cual genera una idea errónea y la dispersión de la información que marca la ley. Para que los contribuyentes del régimen de sueldos y salarios e ingresos asimilados a salarios interpreten el tecnicismo con el cual se encuentra redactada la información sobre las deducciones personales que pueden aplicar en el cálculo de su impuesto anual, se realiza esta investigación; donde se analizan las disposiciones que señalan las leyes tributarias, sobre los requisitos que deben cumplir las deducciones para que puedan ser efectivamente acreditadas y reconocidas por las autoridades competentes. La aplicación de deducciones personales genera un efecto fiscal en el cálculo del impuesto del ejercicio de los contribuyentes, siendo uno de los principales la posible devolución del saldo a favor del Impuesto Sobre la Renta (ISR). Las deducciones analizadas en la presente investigación son las contenidas en las fracciones I, a la VIII del artículo 151 de la Ley del Impuesto Sobre la Renta (LISR). Estas deducciones tienen diferentes características, topes y limitantes, que se analizarán en el capítulo I de esta investigación.

PALABRAS CLAVE: Personas Físicas de Sueldos y Salarios, Deducciones Autorizadas, Beneficios del Impuesto Sobre La Renta.

ABSTRACT

Due to the plenty tax legislation that exists about this topic and the complexity with which it is written, it is difficult for taxpayers to understand what the tax provisions try to tell us. To be able to assimilate the content of the laws, an in-depth analysis is necessary, which implies a search for information within the regulations, which generates an erroneous idea and the dispersion of the information established by law. In order to achieve that the taxpayers of the wage and salary system and income assimilated to wages interpret the technique with which the information about the personal deductions that can be applied in the calculation of their annual tax is written, this research is done; where the provisions indicated by the tax laws are analyzed, on the requirements that deductions must meet so that they can be effectively accredited and recognized by the competent authorities. The application of personal deductions generates a tax effect in the tax calculation of the fiscal year of the taxpayers, being one of the main ones the possible return of the balance in favor of the income tax. The deductions analyzed in the present research are those contained in section I, to VIII of the article 151 of the law on income tax. These deductions have different characteristics, limits and limitations that will be analyzed in chapter I of this research.

JEL: G0, J3, M5, H0, H2

KEYWORDS: Physical Persons of Wages and Salaries, Authorized Deductions, Income Tax Benefits.

INTRODUCCIÓN

Esta investigación trata sobre los requisitos que deben de contener las deducciones personales del artículo 151 de la LISR, para que sean consideradas autorizadas, y puedan ser aplicadas por las personas físicas que tributan en el régimen de sueldos y salarios e ingresos asimilados a salarios en el cálculo de su impuesto anual, para lo cual se hace un análisis del efecto fiscal que estas representan al ser consideradas; con la finalidad de que los contribuyentes conozcan el efecto que causa la aplicación de estas deducciones en la determinación del impuesto del ejercicio. De conformidad con el artículo 31 de la Constitución Política de los Estados Unidos Mexicanos menciona (CPEUM), que una de las obligaciones de los mexicanos es “contribuir para los gastos públicos, así de la Federación, como de los Estados, de la Ciudad de México y del Municipio en que residan, de la manera proporcional y equitativa que dispongan las leyes” (Mexicanos, 2016). El Artículo 1 del código fiscal de la federación (CFF), menciona que “las personas físicas y morales, están obligadas a contribuir para los gastos públicos conforme a las leyes fiscales respectivas” (LECHUGA, 2018) La Ley del Impuesto sobre la Renta (LISR) en su artículo 90 hace referencia a los sujetos del impuesto mencionando lo siguiente “están obligadas al pago del impuesto establecido en este Título, las personas físicas residentes en México que obtengan ingresos en efectivo, en bienes, devengado cuando en los términos de este Título señale, en crédito, en servicios en los casos que señale esta Ley, o de cualquier otro tipo. También están obligadas al pago del impuesto, las personas físicas residentes en el extranjero que realicen actividades empresariales o presten servicios personales independientes, en el país, a través de un establecimiento permanente, por los ingresos atribuibles a éste” (LECHUGA, 2018).

Estos principios de proporcionalidad y equidad se reflejan en la ley del impuesto sobre la renta (ISR), en su título IV, el cual hace mención a la forma en la cual están obligadas a contribuir las personas físicas ante este impuesto, que se determina a base de tarifas progresivas que van de acorde a la cantidad de ingresos que estos perciben en un periodo determinado. Al ser contribuyentes de un mismo impuesto estos reciben un tratamiento igual en tanto a acumulación de ingresos gravables, deducciones permitidas, plazos de pago, etcétera; cumpliéndose así el principio de equidad. Partiendo de la obligación que tienen los contribuyentes de aportar al gasto público conforme a las bases fundamentales de las leyes fiscales que rigen en nuestro país, esta investigación está enfocada a los señalamientos que marca la LISR, en su título IV, capítulo I referente a las personas físicas que tributan en el régimen de sueldos y salarios e ingresos asimilados a salarios, en específico al análisis de cada uno de los requisitos de las deducciones personales y su efecto fiscal, con las cuales se pueden obtener diversos efectos en el cálculo del impuesto del ejercicio

Planteamiento del Problema

La problemática de esta investigación se plantea en el momento que surge la idea de analizar cada uno de los requisitos de las deducciones personales que comprende la Ley del Impuesto sobre la Renta aplicables únicamente a las personas físicas y ver qué efecto fiscal tienen las mismas al ser aplicadas en el cálculo del impuesto del ejercicio. “Consiste en describir de manera amplia la situación objeto de estudio, ubicándola en un contexto que permita comprender su origen y relaciones” (ARIAS, 2011) “Una tarea de planteamiento de un problema abierto puede no requerir la ejecución de un procedimiento conocido, sino una exploración de la situación a la que se referirá el problema y su solución. Los estudiantes no tienen una rutina que seguir cuando generan problemas a partir de unas condiciones dadas, sino que deben reflexionar sobre su manera de resolver problemas y considerar cómo podría modificarse, ampliarse y clarificarse de modo eficiente”. (SAMPIERI, 2010) “Plantear el problema de investigación cuantitativa consiste en afinar y estructurar más

formalmente la idea de investigación, desarrollando cinco elementos de la investigación: objetivos, preguntas, justificación, viabilidad y evaluación de las deferencias – ciencias” (SAMPIERI, 2010).

"El planteamiento de una investigación no puede realizarse si no se hace explícito aquello que nos proponemos conocer: es siempre necesario distinguir entre lo que se sabe y lo que no se sabe con respecto a un tema para definir claramente el problema que se va a investigar" (SABINO, 2008). De acuerdo con la definición de planteamiento de problema propuesta por los autores antes citados, la presente investigación está relacionada con análisis de los requisitos que deben contener las deducciones personales autorizadas y el efecto fiscal que estas generan en el cálculo y determinación del ISR del ejercicio de los contribuyentes del régimen de sueldos y salarios e ingresos asimilados a salarios. La principal problemática que tienen los contribuyentes de este régimen es que al no estar obligados a presentar sus declaraciones y pago del impuesto directamente, presenten desconocimiento sobre las disposiciones que marcan las leyes tributarias, lo que da lugar a que desconozcan lo que marca la LISR, en cuanto a la opción que tienen estos para poder presentar su declaración anual, así como que deducciones autorizadas pueden acreditarse en la determinación y cálculo del impuesto del ejercicio, con las cuales podrían reducir su base de impuesto u obtener la devolución de saldo a favor de ISR. Es por esto que surge la necesidad de llevar a cabo esta investigación con el fin de dar a conocer cuáles son las deducciones autorizadas que marca el artículo 151 de la LISR, así como cada uno de sus requisitos, para que el contribuyente visualice el efecto fiscal que se produce al aplicar dichas deducciones en el cálculo del impuesto anual. Consiste en describir de manera amplia la situación objeto de estudio, ubicándola en un contexto que permita comprender su origen y relaciones” (ARIAS, 2011). La problemática de esta investigación se plantea en el momento que surge la idea de analizar cada uno de los requisitos de las deducciones personales que comprende la Ley del Impuesto sobre la Renta aplicables únicamente a las personas físicas y ver qué efecto fiscal tienen las mismas al ser aplicadas en el cálculo del impuesto del ejercicio.

Objetivos

Los objetivos específicos de la presente investigación son los siguientes:

Dar a conocer cuáles son las deducciones personales que pueden acreditar las personas físicas que obtengan ingresos por salarios al calcular su impuesto anual.

Analizar cada uno de los requisitos que deben cumplir las deducciones personales autorizadas, para que estas puedan ser consideradas acreditadas por la Secretaría de Administración Tributaria (SAT).

Conocer los beneficios que tienen los contribuyentes del régimen de sueldos y salarios e ingresos asimilados a salarios cuando optan por presentar su declaración anual.

Examinar el efecto fiscal que se produce en la determinación y cálculo del Impuesto Sobre la Renta (ISR) de los contribuyentes del régimen de sueldos y salarios e ingresos asimilados a salarios, cuando estos realizan el acreditamiento de las deducciones personales autorizadas.

Preguntas de Investigación

¿Cuáles son las deducciones autorizadas que pueden aplicar las personas que tributan en el régimen de sueldos y salarios e ingresos asimilados a salarios?

¿Qué requisitos deben contener las deducciones personales para puedan ser consideradas autorizadas?

¿Qué beneficios tienen los contribuyentes del régimen de sueldos y salarios e ingresos asimilados a salarios que optan por presentar declaración anual?

¿Qué efecto fiscal se genera una vez que el contribuyente opta por presentar su declaración y aplica deducciones personales?

Justificación

Se espera que de esta investigación se puedan resolver las diferentes incertidumbres e interrogantes que surjan en relación a las deducciones personales de los contribuyentes del régimen de sueldos y salarios e ingresos asimilados a salarios, entorno a las limitantes, topes y requerimientos que éstas mismas están obligadas a cumplir para poder ser reconocidas por el fisco federal. Las deducciones personales del artículo 151 de la LISR con el paso de los años, se definen los diferentes conceptos que se abordan con mayor frecuencia en el desarrollo del presente estudio, La aportación de diferentes autores nos permitió desarrollar el contenido teórico- práctico de la indagación, donde se plantean las disposiciones de las leyes tributarias, como lo es la LISR y su reglamento, así como las resoluciones misceláneas existentes, además de diferentes fuentes primarias y secundarias; así como revistas, libros, páginas web, las cuales dan el sustento teórico a la investigación.

MARCO TEÓRICO

Las deducciones personales han sido de gran utilidad en el cálculo del impuesto anual de los contribuyentes, sin embargo, durante las últimas reformas fiscales, la LISR ha sufrido modificaciones en los artículos que corresponden a dichas deducciones, causando un impacto significativo para los contribuyentes en la presentación de la declaración anual. En el 2011, Se otorgó un estímulo fiscal mediante decreto a las personas físicas que consistía en disminuir de la base gravable para ISR el pago de colegiaturas del nivel básico al medio superior que efectuaran. En el 2014, Se emitió una nueva Ley del Impuesto Sobre la Renta, donde se realizó una restructuración al numeral del artículo correspondiente a las deducciones personales pasando del 176 al 151. Se estableció un límite al monto total de las deducciones que el contribuyente podría efectuar a su favor, siendo este la cantidad menor entre 4 salarios mínimos elevados al año y el 10% de sus ingresos totales. En el 2016, Se especificó que los gastos efectuados por compra o alquiler de aparatos para la rehabilitación o restablecimiento del paciente que derivaran de incapacidades que la Ley federal del Trabajo en su artículo 477 señala o bien de discapacidades en los términos de la Ley General para la Inclusión de las Personas con Discapacidad (LGIPD), serian deducibles. Se estableció un aumento al límite global de las deducciones personales, pasando del 10% de la totalidad de los ingresos que se tenía establecido para el 2015, aun 15% y de 4 salarios mínimos a 5 elevados al año. Para el ejercicio 2017 se agregó como deducción personal adicional dentro de la fracción I del artículo 151 de la LISR, los pagos efectuados por consultas con psicólogos y nutriólogos.

Marco Legal

Para esta investigación se consultaron los siguientes ordenamientos fiscales:

Constitución Política De Los Estados Unidos Mexicanos (C.P.E.U.M.): Se consultó el artículo 31, en específico su fracción IV; de donde se origina la obligación de contribuir al gasto público de todos los mexicanos.

Ley Del Impuesto Sobre La Renta (L.I.S.R.): Se analizaron los siguientes artículos; el 98, 150, 151 y 152.

Reglamento De La Ley Del Impuesto Sobre La Renta(R.L.I.S.R.): De este reglamento se tomaron como referencia los artículos 181, 182, 250, 253, 264, 266 y 268.

Resolución Miscelánea Fiscal 2018 (R.M.F.): Se consultaron las siguientes reglas generales, 3.17.2, 3.17.8,

3.17.11 y 11.3.2.

Decretos Fiscales: Se analizó el decreto que compila diversos beneficios fiscales y establece medidas de simplificación administrativa del año 2013, en sus artículos 1.8 al 1.10.

Marco Conceptual

Los conceptos que se abordan con mayor frecuencia dentro de la investigación son:

Contribuyente: “todo individuo que por tener una actividad económica está obligado a contribuir para el financiamiento del gasto público, de acuerdo con las leyes fiscales. Dicho individuo puede ser nacional o extranjero, persona física o moral o bien ser una entidad pública o privada” (SAT).

Impuesto Sobre la Renta: “es el que grava toda utilidad que genere un bien o una actividad y que constituya un incremento en el patrimonio del contribuyente, en un periodo fiscal determinado, cualquiera que sea su naturaleza, origen o denominación” (SAT).

Declaración: “Documento oficial con el que un Contribuyente presenta información referente a sus operaciones efectuadas en un periodo determinado” (SAT).

Ejercicio fiscal : “cuando las leyes fiscales establezcan que las contribuciones se calcularán por ejercicios fiscales, éstos coincidirán con el año de calendario” (Art. 11, CFF).

Deducción personal: “gastos que las personas físicas pueden disminuir de su ingreso acumulable en la Declaración Anual del ejercicio, como honorarios médicos, dentales y hospitalarios; gastos funerales y donativos, entre otros” (SAT).

Sujetos Obligados a Presentar Declaración Anual

De acuerdo a la fracción III, del artículo 98 de la LISR señala la obligación de presentar declaración anual en los siguientes supuestos:

Cuando además de sueldos y salarios, obtengan otro tipo de ingreso;
Comunique de manera escrita a su empleador;
Se deje de laborar de forma definitiva antes del 31 de diciembre;
Labore de forma simultanea para dos o más empleadores;
Al obtener ingresos por salarios en el extranjero y estos se repatrien a México;
Se perciban ingresos de personas no obligadas a retener ISR; o
En el momento que se obtengan en un ejercicio, ingresos por salarios superiores a \$400,000.00.

Sujetos no Obligados a Presentar Declaración Anual

De conformidad con el artículo 182 del RLISR, aun cuando se deje de laborar de manera definitiva antes del 31 de diciembre, no se tendrá la obligación; cuando los ingresos sean exclusivos por salarios, se obtengan en territorio mexicano y no excedan de \$400,000.00. La regla 3.17.12 de la RMF 2018 establece que, cuando en un mismo ejercicio se obtengan ingresos distintos al salario, no se tendrá la obligación de declarar cuando estos sean ingresos por intereses que no excedan de \$20,000.00. Dentro de esta misma regla se releva de la obligación de declarar a quienes hayan obtenido exclusivamente ingresos por salarios de un solo empleador, aun cuando hayan excedido de \$400,000.00.

Gastos Por Honorarios Médicos, Dentales, en Psicología, Nutrición y Gastos Hospitalarios

Cuando se efectúen gastos por este tipo de conceptos se deberán de cumplir los siguientes requisitos:
Se deben de efectuar a favor del contribuyente o sus beneficiarios, siempre que estos últimos no obtengan ingresos iguales o superiores a \$ 29,419.00 (UMA elevada al año) en el ejercicio.
Este tipo de gastos deberán de efectuarse por un medio de pago distinto al efectivo.
Se deberá de contar con el comprobante fiscal que ampare dicha erogación.
Las personas que presten los servicios deberán de contar con título profesional legalmente expedido.

Gastos Funerarios

Una característica de esta deducción es que no tiene ninguna limitante en cuanto al método de pago, ya que se puede realizar por cualquier forma.
Deben de efectuarse a favor del contribuyente o sus beneficiarios.
Dicho gasto solo será deducible en la parte que no exceda de \$29,419.00 (UMA elevada al año).
Se deberá de contar con el comprobante fiscal que ampare dicha erogación.

Donativos no Onerosos ni Remunerativos

Serán considerados deducibles cuando se otorguen a favor de la federación, de donatarias autorizadas por el SAT o a programas de escuela empresa (Art. 151, fracción III, LISR).

El monto del donativo a favor de donatarias autorizadas no debe exceder del 7% de los ingresos acumulables del contribuyente o del 4% de dichos ingresos cuando sean a favor de la federación.
Se deberá de contar con el comprobante fiscal que ampare dicha erogación

Intereses Reales Efectivamente Pagados

Se tomarán como deducción personal los intereses reales pagados que deriven de créditos hipotecarios por la adquisición de casa habitación siempre y cuando el monto de dicho crédito no exceda de 750,000 UDI'S; equivalente a \$4,500,000.00 aproximadamente en 2018 (Art. 151, fracción IV, LISR).

El RLISR en su artículo 253 establece que las instituciones hipotecarias deberán de entregar a sus contribuyentes el comprobante fiscal o constancia que acredite los intereses realmente pagados en el ejercicio.

Aportaciones Complementarias de Retiro

Serán deducibles las aportaciones voluntarias y complementarias hasta un monto del 10% de los ingresos acumulables del ejercicio, sin que exceda de la cantidad de 5 UMAS elevadas al año, que en 2018 equivale a \$147,095.00 (Art. 151, fracción V, LISR).

Estas aportaciones para ser consideradas deducción deben de permanecer en la cuenta hasta que el contribuyente cumpla 65 años de edad.
Se deberá de contar con el comprobante fiscal que ampare dicha erogación.

Primas de Seguros y Gastos Médicos

Este tipo de primas serán deducibles siempre y cuando cubran gastos médicos establecidos en la fracción I del artículo 151 y los beneficiarios de dicho seguro sean el contribuyente o sus ascendientes o descendientes en línea recta.

Este tipo de erogaciones se deben de realizar por un medio de pago distinto al efectivo. Se deberá de contar con el comprobante fiscal que ampare dicha erogación.

Transportacion Escolar Obligatoria

Los pagos efectuados a favor de sus hijos y nietos del contribuyente serán deducibles cuando estos sean de carácter obligatorio o bien este gasto se incluya en la colegiatura para todos los alumnos. Esta erogación debe de ser realizada mediante un medio distinto al efectivo. Se deberá de contar con el comprobante fiscal que ampare dicha erogación.

Pago de Impuestos Cedulares (Locales)

Como ultima deducción personal, la fracción VIII del artículo 151 de la LISR establece que; el pago que realice el contribuyente por impuestos estatales que graven directamente sus ingresos, serán deducibles en la presentación de su declaración anual, cuando la tasa de dicho impuesto no rebase del 5%.

Limite Máximo de las Deducciones Personales

De conformidad al último párrafo del artículo 151 de la LISR, las deducciones personales con las que cuente un contribuyente, no podrán exceder en su conjunto de la cantidad que resulte menor; entre 5 UMAS elevadas al año, que en 2018 es equivalente a \$147,095.00 (ciento cuarenta y siete mil noventa y cinco pesos 00/100 M.N.) o el 15% de sus ingresos totales, incluyendo los exentos.

Pagos Por Servicios de Enseñanza

Adicionalmente a las deducciones personales los contribuyentes podrán disminuir de sus ingresos acumulables del ejercicio, los pagos que se efectúen por servicios de enseñanza correspondientes al nivel básico y medio superior cuando: Se realicen a favor del contribuyente o sus ascendientes o descendientes en línea recta. Los pagos por colegiatura deben de realizarse mediante un medio distinto al efectivo.

Límites de Deducción Anual Por Nivel Educativo

Nivel Educativo	Límite Anual de Deducción
Preescolar	\$ 14,200.00
Primaria	\$ 12,900.00
Secundaria	\$ 19,900.00
Profesional Técnico	\$ 17,100.00
Bachillerato o su equivalente	\$ 24,500.00

FUENTE: Decreto por el que se otorga un estímulo fiscal a las personas físicas en relación con los pagos por servicios educativos publicado en el Diario Oficial de la Federación (2013).

Conforme a la Ley del Impuesto sobre la Renta (ISR) en su artículo 28, fracción XXX señala que los ingresos exentos pagados a los trabajadores únicamente podrían ser deducibles en un 53% o un 47% según proceda. Asimismo, la Resolución Miscelánea Fiscal para 2016, en la regla 3.3.1.29., establece el procedimiento para determinar si el total de los ingresos exentos pagados a los trabajadores se podrá deducir al 53% ó 47%

METODOLOGÍA

“Un enfoque cualitativo es la recopilación y análisis de los datos para afinar las preguntas de investigación o revelar nuevas interrogantes en el proceso de interpretación”. Hernández Sampieri, Fernández Collado & Baptista Lucio (2014). Cuando se opta por utilizar el método cualitativo dentro de la investigación se tiene que realizar un análisis de manera lógica, por lo cual dentro de esta indagación se utilizaron procesos de exploración y descripción sobre los datos ya existentes sobre las deducciones personales autorizadas, los cuales nos permitieron generar teorías lógicas del porqué, no todas las personas del régimen de sueldos y salarios e ingresos asimilados a salarios optan por aplicar en la presentación de la declaración anual las deducciones personales.

RESULTADOS

Caso práctico donde se aplican las deducciones personales, obteniendo un efecto fiscal favorable al contribuyente. Es importante que el contribuyente, aplique todas las deducciones correspondientes para que la base para determinar el impuesto sea la correcta, así mismo vea reflejado su devolución automática en un término de 5 días, con base a las facilidades administrativas que emite el Sistema de Administración tributaria en México. De acuerdo al artículo 22, sexto párrafo del Código Fiscal de la Federación, la devolución de un saldo a favor debe efectuarse dentro del plazo de los 40 días siguientes a la fecha de presentación de la solicitud ante la autoridad fiscal competente, siempre y cuando cumpla con los datos requeridos.

Tabla 1: Mecánica de Cálculo y Determinación de ISR del Ejercicio 2016

TOTAL INGRESOS POR SALARIOS	\$ 131,955.31
(-) TOTAL DE INGRESOS EXENTOS POR SALARIOS	\$ 3,858.22
(=) TOTAL DE INGRESOS ACUMULABLES POR SALARIOS	\$ 128,097.09
(-) TOTAL DE DEDUCCIONES PERSONALES *	\$ 4,567.39
(=) BASE DEL ISR	\$ 123,529.70
(-) LÍMITE INFERIOR	\$ 103,218.01
(=) EXCEDENTE DEL LÍMITE INFERIOR	\$ 20,311.69
(X) POR CIENTO APLICABLE SOBRE EL EXCEDENTE DEL LÍMITE INFERIOR	17.92%
(=) IMPUESTO MARGINAL	\$ 3,639.85
(+) CUOTA FIJA	\$ 9,438.47
(=) ISR DETERMINADO	\$ 13,078.32
(-) SUBSIDIO PARA EL EMPLEO QUE LE CORRESPONDÓ DURANTE EL EJERCICIO	\$ -
(=) ISR CAUSADO DEL EJERCICIO	\$ 13,078.00
(-) ISR RETENIDO DURANTE EL EJERCICIO	\$ 14,038.00
(=) ISR A FAVOR	-\$ 960.00

Fuente elaboración propia en base al artículo 152 ISR 2016

CONCLUSIÓN

La LISR en su artículo 151 establece una serie de conceptos que son considerados como deducciones personales, las cuales los contribuyentes del régimen de sueldos y salarios e ingresos asimilados a salarios deben de conocer, y así mismo identificar cada uno de los lineamientos, limitantes, topes y restricciones que caracterizan a las mismas. El conocimiento de los requisitos que deben de cumplir las erogaciones para ser consideradas como deducción personal es muy importante, ya que, al cumplir con cada uno de los requisitos establecidos por la autoridad fiscal, estas podrían ser utilizadas en la presentación de la declaración anual del contribuyente, reduciendo la base gravable para ISR, generando un efecto fiscal favorable al contribuyente; siendo este la devolución de impuesto a favor.

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PROTOCOLO PARA LA EFECTIVA TRANSICIÓN GENERACIONAL DE LAS EMPRESAS FAMILIARES DEL MUNICIPIO DE TECOMÁN, COLIMA

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RESUMEN

La presente investigación realiza una identificación y análisis de las problemáticas más frecuentes a las que se enfrenta una empresa familiar del municipio de Tecomán, Colima. Así mismo pretende brindar apoyo a este tipo de empresas para lograr la efectiva transición generacional mediante un protocolo que englobe los lineamientos y actividades fundamentales que todo tipo de empresa familiar debe de tener en orden para estar en condiciones de ser dirigida por la siguiente generación, el cual sugiera apoyo de profesionales para el manejo de problemáticas específicas que se relacionen con situaciones tanto administrativas como emocionales que son escenarios particulares de estas empresas. Es importante mencionar que en Colima las consultorías no se especializan en la atención exclusiva de empresas de organización familiar como ocurre en otros estados, existen en cambio grandes cantidades de universidades y consultores particulares que apoyan a la creación de nuevas empresas, con incubadoras, consultorías, entre otras estrategias; sin embargo se deja desprotegida la permanencia de estos nuevos emprendimientos de los cuáles la mayoría se tratan de esfuerzos familiares, existen datos que revelan que en el momento de decidirse o verse obligado a realizar una sucesión por diversas circunstancias tienden a quebrar y posteriormente cerrar, realidad que abre también la posibilidad de futuros estudios que evalúen la pertinencia de esta actividad. Para el logro de lo anterior, se llevará a cabo un estudio exploratorio y descriptivo en los cuales se logre recuperar la mayor cantidad de información posible acerca de estas empresas, su forma de operar, sus estructuras administrativas, procesos, entre otras características singulares de ellas; de la misma manera experiencias reales de sucesiones tanto de casos de éxito como casos que no lograron el cometido que sirvan de apoyo en la comprensión de las problemáticas y necesidades a las que se enfrentan para de esta manera surja una propuesta sólida y aplicable a nuestra realidad.

PALABRAS CLAVE: Empresas Familiares, Transiciones Generacionales, Protocolos de Sucesión

ABSTRACT

this research carries out an identification and analysis of the most frequent problems faced by a family business in the municipality of Tecomán, Colima. likewise, it intends to provide support to this type of company to achieve an effective generational transition through a protocol that encompasses the fundamental guidelines and activities that all types of family businesses must have in order to be in a position to be directed by the next generation, the which suggests support from professionals for the management of specific problems that are related to both administrative and emotional situations that are particular scenarios of these companies. It is important to mention that in Colima the consultancies do not specialize in the exclusive attention of family organization companies as occurs in other states, there are instead large numbers of universities and private consultants that support the creation of new companies, with incubators, consultancies, among other strategies; However, the permanence of these new ventures is left unprotected, most of which are family endeavors, there is data that reveals that at the time of deciding

or being forced to carry out a succession due to various circumstances they tend to go bankrupt and later close, reality which also opens up the possibility of future studies evaluating the relevance of this activity. To achieve the above, an exploratory and descriptive study will be carried out in which it is possible to recover as much information as possible about these companies, their way of operating, their administrative structures, processes, among other unique characteristics of them. ; In the same way, real experiences of successions both of success stories and cases that did not achieve the task that serve as support in the understanding of the problems and needs that they face so that a solid proposal arises and applicable to our reality.

JEL: MO, M1, M12, L26

KEYWORDS: Family Businesses, Generational Transitions, Succession Protocols

INTRODUCCIÓN

Emprender un nuevo negocio es generalmente una decisión que necesita ser tomada a conciencia y con mucha determinación y es que el emprender un nuevo negocio implica muchos riesgos, esfuerzo e inversión. Es evidente el peligro que corre una persona al momento de decidirse a emprender, cambiar el recibir una nómina quincenal a pagar una nómina sin tener la certeza si quedara un poco de utilidades o incluso para pagarse un sueldo. Sin embargo, el emprendimiento es un estilo de vida que muchas personas deciden tomar, dedicarte a lo que más te gusta y tener el poder de toma de decisiones son algunas de las ventajas que te brinda emprender y en México “son cada vez más emprendedores que deciden generar un impacto en el país” (Senderos, 2018); de estos nuevos emprendimientos un gran número comienza con el apoyo de su familia, se estima que el 89% de los nuevos emprendimientos arrancaron con dinero propio o de familia contra el 3% que recibieron una inversión formal (Senderos, 2018). Debido a la evidente incertidumbre financiera en los primeros años de la empresa, es muy común que la familia se involucre y con el tiempo forme parte de la estructura organizacional.

Los datos de la longevidad de estas nuevas empresas son muy poco alentadores de acuerdo a un artículo de Entrepreneur “75% de las empresas cierran antes de terminar el segundo año”, a este dato agreguemos que de las empresas familiares que logran permanecer y consolidarse al momento de realizar la jubilación o retiro del fundador sólo tres de cada 10 son dirigidas por la segunda generación y apenas una llega a la tercera generación (El Universal, 2012). Los retos a los que una empresa familiar se enfrenta son diversos, incluso en algunas ocasiones más desafiantes que los de una empresa que no sea de esta clase, esto debido a que aunados a situaciones de gerencia, financieras y logísticas intervienen asuntos personales y emocionales entre quienes tienen el deseo de continuar con la dirección de ellas o incluso entre quienes no desean permanecer.

Planteamiento del Problema

Las empresas familiares representan una parte muy importante del sostén económico del país, se estima que cerca del 90% de las empresas son familiares, y que generan el 67% del empleo del país (Ferrón et al., 2016), sin embargo la mayor parte de estas empresas no logran sobrevivir a la segunda sucesión generacional y terminan en bancarrota; los datos reflejan que en las empresas familiares el 60% no llega a la segunda generación, y tan sólo entre un 10% y un 15% alcanzan la tercera generación (Birley, 1986 y Ward, 1987). Los principales problemas de las empresas familiares son la falta de profesionalización en sus negocios, conflictos emocionales, falta de planes de sucesión y poca comunicación efectiva entre los miembros que la integran. (El socio de Salles Saint Grant Thornton, Mario Rizo) Ante esto, es importante que las empresas familiares cuenten con un protocolo que garantice la efectiva sucesión generacional, los grandes esfuerzos con los que se mantiene una nueva empresa a flote deben de considerarse y tomarse muy en serio por el resto de la familia, asumir un compromiso en el rol de la empresa, respetar las jerarquías que

la estructura organizacional indica y lo más importante velar por los intereses de la empresa/negocio y no por los intereses personales ya que en la mayoría de estas empresas las utilidades de las mismas son su principal sostén económico.

Muchas de las empresas familiares multinacionales como Wal-Mart, Ford, Volkswagen, Samsung, comenzaron, y algunas incluso continúan siendo, empresas familiares y han realizado la sucesión de hasta 4 generaciones (The top 250 multinational family firms, 2019). En la ciudad de Colima encontramos el caso de “La Marina”, inaugurada y dirigida por la familia Brun desde 1887; “La Marina”, durante más de 100 años ha superado con éxito la sucesión de 3 generaciones y se ha pronunciado como una de las empresas de vanguardia internacional, reconocida como una de las mejores empresas mexicanas de Deloitte, Banamex e ITESM por sus procesos de negocios (La Marina, 2019). Son numerosas las historias de pequeños negocios familiares que logran en su primer generación tener una estabilidad económica y grandes utilidades pero que a la primera sucesión la familia simplemente no logra llegar a algún acuerdo, terminan con la liquidez del negocio, se ven obligados a vender patrimonio y terminan por cerrar; tal pareciera que la única persona capaz de mantener a flote el negocio es el propio fundador y su ausencia es sinónimo de pérdida. El potencial de éxito de las empresas familiares bien consolidadas es significativo y benéfico para la economía del estado, brindar apoyo y asesoría a empresas familiares ayudará en gran medida a que estas empresas continúen, se desarrollen y perduren.

Preguntas de Investigación

¿Cuáles son los principales obstáculos a los que se enfrenta una empresa familiar al momento de pretender o verse obligado a realizar una sucesión familiar?

¿Cómo es la salud organizacional de una empresa familiar que ha pasado por una o varias sucesiones?

¿Cuál o cuáles han sido las estrategias utilizadas empíricamente por empresas familiares para apoyarse en el proceso de transición?

¿Cuántas empresas que han logrado una efectiva transición generacional se apoyaron de un asesor/consultor o contaron con un protocolo familiar?

Objeto De Estudio

Para la presente investigación serán objeto de estudio las empresas familiares del municipio de Tecomán, estado de Colima que se encuentren en etapas de crecimiento o madurez, de la misma manera serán de interés aquellas empresas cuya actual administración corresponda a la segunda o incluso tercera sucesión generacional.

Objetivo General

Contribuir en la efectiva sucesión de las empresas familiares del municipio de Tecomán, estado de Colima mediante un protocolo que brinde apoyo en la preparación tanto de la empresa como de la familia para el logro de una correcta transición generacional comprometida en mantener y posteriormente expandir el negocio, el cual a su vez permita el empleo de más personal y aporte más beneficios a la economía del estado

Objetivos Específicos

- a) Diagnosticar los desafíos más frecuentes a los que se enfrentan los negocios familiares.
- b) Identificar los problemas raíz de las dificultades administrativas y operativas de las empresas familiares.

c) Crear un protocolo familiar que apoye en la efectiva transición generacional de las empresas del municipio.

HIPÓTESIS

H1. Más del 90% de empresas familiares estudiadas en esta investigación del municipio de Tecomán no cuentan con un protocolo familiar que apoye en la efectiva sucesión generacional.

H2. Las empresas familiares que han logrado una o más sucesiones sin el apoyo de un consultor o un protocolo familiar se encuentran con grandes problemáticas organizacionales que repercuten en las utilidades de las mismas.

H3. A las empresas familiares del municipio de Tecomán, Colima., les sería de gran utilidad el contar con un protocolo que les brinde apoyo y asesoría para consolidar su negocio y prepararse para la transición generacional.

Justificación

Las problemáticas a las que se enfrentan las familias en el momento de realizar una transición generacional son objeto de estudios de muchos investigadores de otros países como Venezuela, Argentina, España, entre otros, pero muy poco en México. La bibliografía del tema es muy escasa en nuestro país, los trabajos recuperados son en su mayoría de estudiantes e investigadores de ciudades como México, Puebla, Monterrey, Querétaro y Nuevo León. Año con año la Universidad de Monterrey convoca a investigadores de diferentes países, fundamentalmente de Latinoamérica y España, para presentar sus trabajos en el campo de las empresas familiares y reconoce a las ganadoras con el Premio UDEM Adalberto Viesca Sada; los doctores Jorge Durán Encalada y Juan Manuel San Martín Reyna investigadores de la Universidad de las Américas de Puebla (UDLAP), han sido reconocidos con esta distinción en dos ocasiones, en 2013 lo hicieron con la presentación de su trabajo “Radiografía de la empresa familiar en México”, del cual se publicó un libro (Universidad de las Américas Puebla, 2017).

Es importante mencionar que la universidad de las Américas de Puebla (UDLAP) creó en el 2010 el Centro de Investigaciones de Empresas Familiares (CIEF) con el objetivo de desarrollar investigación, brindar asesoría y consultoría para contribuir a la generación y difusión de conocimiento de la Empresa Familiar en México (Universidad de las Américas Puebla, 2017), en ese mismo sentido la Universidad de Monterrey cuenta con el Centro de Empresas Familiares el cual busca la continuidad de las empresas a través de la unión y el compromiso de las familias propietarias, ofrecen un servicio que abarca las relaciones familia-empresa, asesoría jurídica y asesoría psicológica (Universidad de Monterrey, 2019), además, la UDEM imparte un diplomado en empresas familiares el cual está dirigido a los miembros de las familias empresarias y tiene como objetivo desarrollar las habilidades para un manejo eficaz de la empresa y la familia (Universidad de Monterrey, 2019). De la misma forma como existen pocas universidades en el país que se interesan por el estudio de las empresas familiares y sus transiciones generacionales, son pocas compañías que se dedican a realizar consultorías y asesorías a este tipo de empresas.

Se observan un gran número de consultorías e incubadoras que fomentan el emprendimiento, los esfuerzos para que dichos emprendimientos lleguen a una etapa de maduración o consolidación disminuyen y evidentemente la preparación para que las empresas pasen a ser operadas por la siguiente generación es aún menor. De acuerdo con Marcelo Lebendiker en entrevista para el periódico “El financiero” en lugar de que los nuevos emprendimientos impacten en el crecimiento económico y generen empleo, lo que sucede es una reasignación de recursos permanente entre las que nacen y las que mueren por lo tanto “se mantiene el *stock* de pymes, pero es un *stock* que se renueva cada tres años, no crece” (El Financiero, 2015).

MARCO TEÓRICO

Histórico

Es una realidad que las empresas familiares representan desde hace mucho tiempo una parte muy importante del tejido empresarial del sistema económico a nivel mundial razón por la que en los últimos años ha surgido una amplia literatura sobre el tema, tratando de definir y analizar sus conflictos con la finalidad de contribuir a la longevidad de este tipo de empresas. (Radiografía de la empresa familiar en México), de acuerdo a información recabada gran parte de la productividad en México está asentada en empresas de este tipo, pues ellas representan el 83% de la totalidad y la aportación del 53% del Producto Interno Bruto (PIB) (Universidad de las Américas Puebla, 2017); de la misma manera en el libro “Radiografía de la empresa familiar en México” (2017) se afirma que “las empresas familiares son la base del sistema económico del país”. De manera histórica las empresas familiares han constituido las primeras formas de organización humana de las actividades comerciales e industriales (Barroso y Barriuso, 2014).

En ellas se puede distinguir no solo una conexión de sangre entre los miembros, sino que al criarse en el mismo núcleo familiar comparten también valores socio-económicos y culturales que fortalece los lazos familiares. No obstante que son formas de organización empresarial muy antiguas, no fue hasta la década de los 80 cuando comienzan a intensificarse sus estudios y se colocan en el foco de atención de muchos investigadores (Barroso & Barriuso, 2014), algunos autores argumentan que las primeras publicaciones de artículos relacionados con estas organizaciones en Estados Unidos aparecen a principios de la década de los 60's (Benavides et al., 2011). En un estudio muy completo por parte de Benavides, Guzmán y Quintana en el 2014 en dónde se realizó una búsqueda y compilación de los artículos publicados referentes a las empresas familiares se pudo observar el creciente interés con el tema, de acuerdo con su búsqueda del periodo comprendido entre 1961 a 1982 se publicaron 7 trabajos mientras que tan sólo en el año 2008 se publicaron 60. Las empresas familiares tienen una gran relevancia en el desarrollo económico de un país, de acuerdo con información de Barroso & Barriuso (2014) en su publicación llamada “Empresas familiares” tan solo en Estados Unidos las empresas familiares representan el 80% del total de organizaciones ocupando así el 50% de los trabajadores, en la Unión Europea supone el 60% de las empresas en donde 17 millones de empresas familiares cuentan con más de 100 millones de trabajadores y representan el 25% de las 100 primeras empresas europeas. Nos dice, además, que en España ellas representan el 85% del total de las empresas las cuales generan el 70% de la ocupación laboral. Las cifras en México indican que cerca del 90% de las empresas son familiares, y que generan el 67% del empleo del país (Ferrón et al., 2016).

MARCO CONCEPTUAL

Emprendimiento

Desde el punto de vista de negocios y empresas Link (1989) lo define como el especialista en asumir las responsabilidades por las decisiones propias de localización y el uso de bienes, recursos e instituciones, de otra manera, un “ágil aprovechador y captador de información y recursos” con la facultad para detectar oportunidades de negocios y aprovecharlas. Según Ibáñez (2001), señalan que el termino emprender describe a cualquier miembro de la economía cuyas actividades son novedosas de alguna forma, así como a personas que, en definitiva, huyen de rutinas y practicas aceptadas por la mayoría. Dichos individuos se caracterizan por su capacidad para crear e innovar; es decir salen de la costumbre y hacen cosas diferentes para mejorar lo existente.

Negocio

Para Luhmann (1996), el concepto de riesgo se refiere a la posibilidad de daños futuros debido a decisiones particulares. Las decisiones que se toman en el presente condicionan lo que acontecerá en el futuro, aunque

no se sabe de qué modo. El riesgo está caracterizado por el hecho de que, no obstante la posibilidad de consecuencias negativas, conviene, de cualquier modo, decidir mejor de una manera que de otra. Por lo tanto indica Luhmann (1996), el riesgo depende de la atribución de los daños (posibles o efectivamente decididos) debido a una resolución que se toma en el sistema, mientras que peligro se entiende como una posibilidad de daño digna de atención, se habla de riesgo solo en el caso en que el daño se hace posible como consecuencia de una decisión tomada en el sistema y que no puede acontecer sin que hubiera mediado tal decisión.

Riesgos : El riesgo económico hace referencia a la incertidumbre producida en el rendimiento de la inversión debida a los cambios producidos en la situación económica del sector en el que opera la empresa. Así, a modo de ejemplo, dicho riesgo puede provenir de: la política de gestión de la empresa, la política de distribución de productos o servicios, la aparición de nuevos competidores, la alteración en los gustos de los consumidores, etcétera.

Inversión : Colocación de recursos financieros que la empresa realiza para obtener un rendimiento de ellos, o bien recibir dividendos que ayuden a aumentar el capital de la empresa. “Existen inversiones a corto y largo plazo”. Las inversiones a corto plazo son colocaciones que son prácticamente efectivas en cualquier momento, mientras que las de largo plazo representan un poco más de riesgo dentro del mercado

Empresas Familiares : Aún no existe un acuerdo que determine qué se entiende por empresa familiar, lo que, en muchas ocasiones, de acuerdo con Barroso & Barriuso (2014), dificulta la comparación de resultados de estudios que se realizan en distintas regiones. Pensadores clásicos como Dyer (1986), Gallo y Vilaseca (1996) o Ward y Dolan (1998) afirman que la definición de empresa familiar debe considerar tres condicionamientos fundamentales: 1. una o dos familias poseen más de 50 % de la propiedad de la empresa, 2. existen miembros de la familia que ocupan cargos directivos o ejecutivos en la empresa y 3. los miembros de la familia consideran que la empresa va a ser transferida a las siguientes generaciones. Gallo y Domenec (2004) afirman que una definición precisa de las empresas de familia está aún muy lejana; sin embargo, las caracterizan como aquellas empresas cuyo poder de decisión está en una familia, las responsabilidades de gobierno y dirección son desempeñadas por algunos de sus miembros y como mínimo algunos integrantes de la segunda generación están incorporados en la empresa.

Operativamente, de acuerdo con Lozano Posso (2000), la empresa familiar también puede definirse como un tipo de unidad empresarial que suele operar a partir de la disponibilidad de capital y trabajo de origen familiar o doméstico, y en la cual las relaciones laborales presentan elementos diferenciadores con respecto a otro tipo de organizaciones empresariales. Soto Maciel (2013), la define como aquella compañía donde la mayoría de los votos está en manos de la familia controladora, incluyendo al fundador, el cual busca heredar la empresa a sus descendientes, obligándolos a conservar las raíces y los valores que permitan mantener la unidad familiar a través del patrimonio (Steckerl, 2006). Por su parte Barroso, et al. (2012) la define como la propiedad y/o dirección de una empresa que se encuentra en manos de una familia, la cual tiene vocación de continuidad, ya que desean que la organización continúe en un futuro en manos de sus descendientes. Todas las conceptualizaciones anteriores refieren a dos aspectos muy importantes: la gestión y la propiedad.

Sucesiones familiares: La Sucesión se refiere a la transferencia del poder de decisión y la propiedad a la siguiente generación, en busca de la continuidad de la empresa en manos de la familia. Comúnmente no se realiza con suficiente planeación para evitar las dificultades que ello acarrea, como la resistencia al retiro del poder, específicamente cuando se es propietario único, fundador y gerente simultáneamente. Existe una coincidencia unánime de los expertos al señalar que el principal inconveniente de las empresas familiares radica en la dificultad de mantener la continuidad a lo largo de distintas generaciones. De esta manera, la planificación de la sucesión consiste en establecer una estrategia hereditaria en la que entran en juego las reglas de parentesco. El matrimonio unifica, la herencia separa, la propiedad permanece. Dentro del marco

legal vigente, cada empresa familiar diseña una estrategia hereditaria particular que no puede ser prevista de antemano. Por lo general, en la mayoría de las empresas familiares, la falta de preparación de las generaciones sucesivas para manejar las demandas de una empresa creciente y una familia mucho mayor genera una gran crisis (Soto Maciel, 2013).

METODOLOGÍA

El presente trabajo será, de acuerdo a sus objetivos, de investigación aplicada y basándose en el nivel de profundización en el objeto de estudio una investigación primeramente exploratoria debido a que se pretende conocer las características de las empresas familiares, así como su organización y problemáticas particulares. También será explicativa puesto que se realizarán las aplicaciones de instrumentos adecuados para poder identificar la raíz de los principales retos a los que se enfrentan y repercuten al momento de realizar una transición generacional. Con base a los datos que se emplearan será una investigación mixta, lo anterior debido a que se pretende tener una mejora en el ambiente laboral que se refleje en los procesos y comunicación efectiva; Realizar la evaluación tanto cualitativa como cuantitativa permitirá tener un asomo real de los resultados finales, sin embargo para fines de la presente, sólo se analizará la mejora de procesos y esto no necesariamente debe verse traducido en mayores utilidades, sin embargo queda abierto el estudio para continuar con él y poder analizar una empresa después de realizar una sucesión apoyándose del presente material y entonces será importante analizar otro tipo de elementos y su primer objetivo e indicador de una efectiva sucesión será el no tener pérdidas. La finalidad de la presente es la creación de un protocolo que sirva de base para cualquier empresa que desee realizar una transición generacional, sin embargo, es importante agregar que cada caso tiene particularidades que necesitan ser analizadas de forma singular.

RESULTADOS

Primeramente, se debe tomar en cuenta el diseño que se le dará a la estructura organizativa del negocio, como un elemento que va a permitir a la empresa organizar los medios de que dispone, que le sirva como soporte para la determinación de criterios, que permitan a las unidades formadas, la coordinación y el establecimiento de canales de comunicación para el libre tránsito de información hacia todos los lugares, y llevar a cabo una buena coordinación en la toma de decisiones. Debe tomarse muy en cuenta que, entre los elementos que más destacan en dicha estructura, se encuentran las personas y los activos fijos que son utilizados para la elaboración de los bienes o servicios que la empresa destinará. Por lo tanto, la asistencia de las personas que se incluirán en la estructura del negocio, formarán parte de la responsabilidad de elaborar u ofrecer los servicios que se presten. Esto hace que los recursos humanos que formen parte del nuevo negocio, sean importantes para la toma de decisiones y el logro de los objetivos a alcanzar. De igual forma, juegan un papel muy importante los elementos que integran el subsistema de producción, ya que el desarrollo de un sistema de transformación eficiente que sea capaz de elaborar esos bienes o servicios, será una también de suma importancia para el sostenimiento de la estructura establecida.

CONCLUSIONES

Se proponen solamente dos tipos de estructuras que pueden funcionar para aquellos que pretenden montar su propio negocio, sobre todo si se ven en la necesidad de desarrollar y ampliar su estructura organizativa.

Estructura lineal: Una de las formas que adoptan los nuevos negocios es la estructura lineal o también denominada simple, que presenta un poco comportamiento formalizado en virtud del tamaño reducido con el que inicia, pero a su vez permitirá el desarrollo de la misma. Con frecuencia, en este tipo de estructura el director general y el propietario son el mismo, por lo tanto, la coordinación de enlace lo lleva a cabo una sola persona que es responsable del trabajo de los demás, dando órdenes y centralizando todas las decisiones y autoridad en sus manos. Aunque, en esta forma sencilla el propietario debe estar preparado para una

transacción más formalizada de acuerdo a las exigencias de crecimiento que se le presente. Es adecuada esta estructura para aplicarse a un nuevo y pequeño negocio.

Estructura Funcional: En este tipo de estructura se realiza la separación del trabajo sobre la determinación de pasos, procesos y actividades llevados a cabo para la obtención de un resultado final, es decir, existe la aparición de la especialización de tareas del núcleo de operaciones, que viene a ser la parte más importante en los procedimientos estandarizados. Con la implementación de ciertas normas, que viene ser similar a la departamentalización por funciones, ya que las tareas se encuentran agrupadas sobre la base de la función, en donde el poder se encuentra relativamente centralizado. Es recomendable este tipo de estructura cuando las organizaciones están en pleno desarrollo, cuando surge un conjunto de tareas sencillas y repetitivas, en volumen suficiente como para normalizar el trabajo los cuales tienen que ser elaboradas con precisión y consistentemente. Este tipo de estructura puede ser aplicado a empresas medianas o aquellas que están en crecimiento. Aunque existe la desventaja de que hay una preocupación de las personas en el trabajo de su unidad que del servicio o producto o servicio. Además, las personas que llevan a cabo diferentes funciones, se encuentran separadas una de otras y esto afecta la coordinación que existe entre unas y otras. En este caso, la recomendación es que en cada uno de los tres campos que dependen de la dirección general, se responsabilice de que dicha coordinación fluya entre los mismos y hacia la dirección general, propiciando de esta forma una comunicación recíproca entre los mismos.

Recomendaciones

Es importante pues que los empresarios, emprendedores de negocios, cuenten con un protocolo de seguimiento generacional de las actividades y servicios de la empresa, contar con un documento o plan que prevea todas las contingencias que se presenten anticipándose a posibles respuestas, minimizando el riesgo del empresario. También en el plan se justifica el origen de los ingresos, la aplicación de los recursos y porqué va a ser rentable el negocio. El emprendedor debe contar con un documento en el que se mencionan todos los detalles y que le permite comprobar si se ha olvidado de algún dato importante. Asimismo, con este protocolo, podrán hacer simulaciones y supuestos que le resultan analizar en la realidad. El contenido debe ser breve, conciso, claro y que impacte. De esta forma podrá recibir el mensaje de manera efectiva y con rapidez,

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CAMBIOS DE PARADIGMAS ORGANIZACIONALES EN MÉXICO, DERIVADOS POR LA PANDEMIA DEL AÑO 2020

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RESUMEN

Este trabajo pretende analizar los cambios sociales desde la perspectiva organizacional en México, derivados de la pandemia que inició en el año 2020; de acuerdo a la Organización de las Naciones Unidas, el virus se propagó desde Asia hacia al resto del mundo, afectando principalmente a los adultos mayores; esta situación dio lugar a que los gobiernos definieran e implementaran acciones para proteger a los ciudadanos, una de ellas consistió en cerrar en forma temporal los negocios y empresas cuyas actividades no eran indispensables. En el transcurso de los meses y a raíz de la demanda empresarial y social, el gobierno fue permitiendo la apertura en forma paulatina de los negocios, sin embargo debían integrar procedimientos para poder abrir con acceso limitado. Sobre esta idea, es objetivo de estudio analizar los cambios de paradigmas organizacionales derivados de la pandemia del año 2020 y que puso a las empresas en situación de riesgo, para ello se contó con información documental, encuestas aplicadas, estudio de artículos y textos, así como la observación directa. El alcance de este trabajo es descriptivo, mixto y se pretende concluir en las acciones por las optaron las diferentes organizaciones.

PALABRAS CLAVE: Cambios Sociales, Paradigmas Organizacionales, Pandemia

CHANGES OF PARADIGMS ORGANIZATIONAL IN MEXICO, DERIVED BY THE PANDEMIC OF YEAR 2020

ABSTRACT

This work aims to analyze social change from the organizational perspective in Mexico, derived from the pandemic that began in 2020; according to the United Nations, the virus spread from Asia to the rest of the world, affecting mainly the elderly; this situation led governments to define and implement actions to protect citizens, one of which consisted of temporarily closing businesses and companies whose activities were not essential. Over the months and as a result of business and social demand, the government was allowing the gradual opening of businesses, however they had to integrate procedures to be able to open with limited access. On this idea, the objective of the study is to analyze the changes in organizational paradigms derived from the pandemic of 2020 and that put companies at risk, for this purpose there was documentary information, applied surveys, study of articles and texts, as well as observation direct. The scope of this work is descriptive, mixed and it intends to conclude in the actions chosen by the different organizations.

JEL: D23, D73, E32, F65, G01, J65, L32

KEYWORDS: Social Changes, Organizational Paradigms, Pandemic

INTRODUCCIÓN

La organización forma parte del proceso administrativo, para (Barzelay, 2000) organizar quiere decir dividir las responsabilidades del trabajo y delegar en cada puesto la autoridad indispensable sobre la gente y la materia de que se tratará. Esta definición ha sido por más de 40 años aceptada por diversos autores, cuyas argumentaciones y deliberaciones se enmarcan en la práctica de la administración. Hasta la fecha, la funcionalidad de esta definición no ha cambiado, de aquí que, en este trabajo se pretende rescatar los clásicos de los estudios organizacionales.

Un problema aún no resuelto, es el grado en que las instituciones representan las respuestas óptimas a las necesidades sociales (Powell & Dimaggio, 2001), si en años anteriores la sociedad desarrollaba sus estructuras formales en contextos institucionalizados y comerciales cuya legitimidad la daba el mismo ciudadano, ya fuera del sector público o privado, como Olias de Lima (2001) sugiere la visión de clientelismo. La respuesta a los cambios organizacionales derivados de la pandemia del 20-21, tardó meses en implementarse y aún a la fecha no hay organismo que pueda validar la bonanza de los nuevos procedimientos.

REVISIÓN DE LITERATURA

En primer término se define lo que es una organización, para ello Hall (1996) retoma a Etzioni (1964) cuando argumenta que las organizaciones son unidades sociales (o agrupamientos humanos) contruidos y reconstruidos de forma deliberada para buscar metas específicas (se agregó el énfasis), por ejemplo: hospitales, iglesias, prisiones grupos étnicos y familias entre otros. De acuerdo a Daft (2011) las organizaciones son: 1) entidades sociales, 2) están dirigidas a las metas, 3) están diseñadas como sistemas de actividades estructurales y coordinadas en forma deliberada y 4) están vinculadas al entorno. El elemento básico de una organización es que están constituídas por actores y las relaciones entre ellos.

Las organizaciones también son activos que contribuyen en el proceso de cambio social y éste a su vez como agente revolucionario; (Hall, 1996) retomando a Scott (1964) incluye el concepto de fronteras organizacionales como componente de la conceptualización, así como a Katz y Khun (1978) que incluyen el ambiente como fuente de insumos.

Para tener éxito, una organizacional obtiene poder y apoyo en la sociedad (Hall, 1996), de aquí que, las modificaciones en los procesos administrativos, tuvieron que ser aceptados por la sociedad para que se pudieran implementar, obteniendo su valor y lograr los resultados esperados. Es decir, los procesos cambiaron, por ejemplo: el acceso a un lugar público, se restringió a mitad el acceso a las personas, así como la desinfección de las personas en la entrada de los negocios y restaurantes además de la toma de temperatura que se dio en casi todos los establecimientos, independientemente de las características de éste. Los problemas, los actores y las percepciones no son elementos fortuitos sino que son un derivado de intereses, metas y estrategias de los diferentes grupos de actores que componen y que desarrollan la actividad social.

Para definir las acciones, cada organismo debe fijar su estrategia, es decir, realizar un diagnóstico estratégico (DE) que contemplen no sólo los síntomas, sino el problema, de manera que no debe considerarse como una fotografía sola o aislada la realidad, sino que analice todos sus componentes para después sintetizarla en una unidad de forma completa. (Arellano, Lepore, Zamudio, & Blanco, 2012). Ahora bien, la estrategia de una organización constituye un patrón específico de decisiones y acciones que los tomadores de decisión definen para aprovechar sus competencias esenciales y así alcanzar una ventaja competitiva (Jones, 2008). Antes de la pandemia, las organizaciones luchaban contra las presiones competitivas globales y crecientes, a veces de tecnología, otras de liderazgo en el mercado, otras contra el

ambiente, pero todos en su diseño organizacional contemplaban los problemas a los que se enfrentaban, de aquí surja la necesidad del cambio; durante el año 2020, todas las organizaciones se enfrentaron al enemigo silencioso del cierre de negocios, limitaciones en el acceso, acciones que debían de acatar para no cerrar en forma definitiva y nuevos decretos del Estado, entendiendo como Estado en la versión de Marx y Engels (1845) retomado por Bobbio (2005) aquella entidad cuya base natural es la sociedad civil, el hombre de la sociedad civil, es decir, el hombre independiente, unido a otro hombre sólo por el vínculo del interés privado y de la necesidad natural inconsciente. En esa misma línea, se entiende por sociedad civil la esfera de las relaciones sociales que no está regulada por el gobierno (Bobbio, 2005). La historia ha demostrado que la adopción por parte del gobierno de las ideas de la administración genérica, se ha hecho de manera irreflexiva.

Otro elemento importante a considerar es el contexto en el que operan las organizaciones; los factores contextuales incluyen el tamaño de la organización, la tecnología, la cultura interna (o clima organizacional), el ambiente y factores de cultura nacional. Por ejemplo, si se considera el acceso a un cinema, ¿cuál es el tamaño de la organización?, su ambiente, cultura y el clima organizacional. Durante la pandemia y mucho tiempo después, las salas de proyección cinematográfica fueron castigados severamente porque no tenían las condiciones ambientales que ofrecer al público. Basta con que una condición no exista y todo lo demás queda sin efecto.

Crisis Financiera

La problemática sanitaria y restricciones en el aforo derivaron en una crisis financiera, que aunque no es motivo de estudio en este trabajo, vale la pena comentar. De acuerdo a (Crozier, 1992) la señal evidente, que siempre está presente y que pone todo en movimiento, *es la falta de dinero*. Esta situación se dio en casi todo los negocios al estar la gente encerrada, sin salir de sus hogares. Detrás de una crisis financiera viene una *crisis de decisión*, con condiciones de cambio -independientemente el motivo-, es más difícil tomar una decisión, y en México se padeció mucho de ello. Finalmente y atrás de una crisis de decisión viene una *crisis de confianza* en las políticas públicas.

Figura 1. Crisis del cambio



Fuente: Crozier (1992). Elaboración: propia

De la imagen anterior y acotado a las condiciones por la pandemia que se dieron en el 20-21, las organizaciones tuvieron que enfrentar en primer lugar, crisis de dinero por dos situaciones: bajó la afluencia de usuarios y los costos en que incurrió para adquirir los desinfectantes. En segundo lugar, la crisis de decisión la enfrentaron aquellas organizaciones que carecían de flujo de dinero para conservar sus negocios, y en tercer lugar, la crisis de confianza que tuvieron los usuarios para volver a frecuentar esos negocios. Las innovaciones han sido de carácter procedimental, es decir, cambios relacionados para sobrellevar la situación epidemiológica que se presentó en cuanto al acceso, la atención, la selección de productos y el trato con los clientes en cada organismo que vende productos y presta servicios. Por último, el concepto de pandemia de Covid-19 es un virus que causa enfermedades (desde el resfriado común hasta enfermedades respiratorias graves) y circulan entre humanos y animales.

METODOLOGÍA

De acuerdo a Hernández, Fernández & Baptista (2014) la variables son propiedades que pueden fluctuar, son susceptibles de medirse u observarse, por ejemplo, la variable de género, la edad, el aprendizaje de

conceptos, entre otros. Las variables que se deben clasificar dependen en gran medida del tamaño, el clima organizacional, su ambiente y cultura. Las variables en este caso, se sujetarán al momento 20-21 en que una sociedad determinada se desenvuelve y donde las organizaciones buscan permanecer. Las variables para este estudio fueron: a) el grado de desinfección, b) el tipo de organización encaminada a la comercialización de productos o la oferta de servicios y c) la edad. Además del trabajo documental y estudio de textos, se diseñó una encuesta que se distribuyó vía redes sociales, debido a que no podía encuestarse en forma directa; la encuesta tuvo un día de duración y se llevó a cabo en la ciudad de Veracruz y la zona conurbada de Boca del Río, encontrándose en ese momento en color naranja, de acuerdo al semáforo epidemiológico de México. La encuesta se encuentra en la siguiente dirección electrónica: <https://forms.office.com/r/BDVLFV3700>.

Del Universo y la Muestra

De acuerdo al Instituto Nacional de Estadística y Geografía (INEGI) 2020 los habitantes del estado de Veracruz Ignacio de la Llave son 8'062,579, de los cuales se excluyó a los menores de 0 a 15 años. Ahora bien, los habitantes de Boca del Río son 144,550 y de la ciudad de Veracruz 607,209, sobre ese universo de 751,759 se calculó la muestra, de acuerdo a lo siguiente:

$$n = \frac{z^2 \alpha / 2 e^2}{e^2} \quad \text{Donde: } z^2 \text{ corresponde al nivel de confianza elegido } \alpha \text{ la varianza poblacional y } e = \text{error máximo} \quad (1)$$

Se calculó el número de encuestas sobre la siguiente base: 1) Universo aproximado de 751,759 habitantes de la ciudad de Veracruz y la zona conurbada de Boca del Río, 2) Error máximo aceptable para el estimador total .025, 3) Grado de confianza del 90% y 4) Tasa de respuesta del 100%

z^2 corresponde al nivel de confianza elegido, siendo de 1.90

α^2 : varianza poblacional que fue .751759 de acuerdo a cifras del INEGI (2020) y $e^2 = .025$

Sustituyendo se obtiene:

$$n = \frac{1.90 * 1.90 * .751759}{.025} = 108 \text{ encuestas.}$$

Planteamiento

En los años 2020 y 2021, el mundo registró, de acuerdo a la Organización Mundial de la Salud (OMS) una pandemia de la época contemporánea, donde se vieron afectados todos los países del orbe, con excepción de la Antártida; los gobiernos de cada país, de acuerdo a sus políticas y cultura implementaron formas para tratar de continuar con la vida cotidiana de las personas, de las comercializadoras, de los centros de producción -ya fuera en la ciudad o en el campo-, dando pautas a la modificación de los procesos y formas de trabajo. Cada organización vio modificada su posición en el mercado y tuvo la necesidad de implementar cambios, éstos significaban el aumento de recursos financieros, modificación en la plantilla laboral, afectaciones salariales y actualización de su producción para adaptarla al momento que se vivía. Las organizaciones, con excepción de las farmacéuticas adolecieron de liquidez y solvencia, y en México, más de 10,000 entre pequeñas y medianas empresas -de acuerdo al Instituto Mexicano del Seguro Social- cerraron, al igual que 900 empresas grandes. También hay que decir, que otras organizaciones como las de reparto a domicilio, prosperaron.

El Proceso de Recolección

La encuesta que se llevó a cabo, se diseñó con el software de Forms, donde el mismo paquete arroja resultados y gráficas. La encuesta fue respondida por diversos grupos sociales en forma anónima. Toda vez que se tuvieron las 108 encuestas, se cerró el proceso de recolección y se procedió a analizar los datos. La

encuesta estuvo dirigida a actores con celular, se excluyeron menores de 15 años y tuvo una duración aproximada de 8 horas.

RESULTADOS

Las preguntas fueron: 1. Edad, 2. Durante la pandemia usted tuvo que asistir a: (opciones), 3. De los lugares a los que asistió, cuál de ellos implementó cambios en la forma de acceder (opciones), 4. De las opciones, cuáles limitaron el aforo, 5. De las opciones, cuáles implementaron el arco de desinfección, 6. Qué empresas llevaron el producto al cliente, 7. Qué servicios se ofrecieron en línea, 8. Pregunta subjetiva y de apreciación, 9. Si el encuestado opina que los cambios van a permanecer por años y 10. Si la pandemia le dejó algún aprendizaje. En cada pregunta se dieron opciones y en las conclusiones y por razones de espacio, se limitara a la Tabla 2., sin embargo el porcentaje de respuestas de acuerdo a la edad, se muestra en la Tabla 1 como sigue:

Tabla 1: Porcentaje de Respuestas por Edad

Edad en Años	Respuestas	Porcentaje
Menor de 25	29	26.85
De 25 a 40	16	14.81
De 41 a 60	33	30.55
Mayor de 60	30	27.77

En la Tabla 1 se observa que la edad del mayor número de encuestados osciló entre 41 y 60 años, siendo el menor, el de 25 a 40 años. Se realizó un cálculo de la proporción de los datos respecto al total que son 108 encuestados, por lo tanto, menores de 25 fueron en proporción, el 26.85 % y así, sucesivamente. Esa proporción se consideró para realizar el cálculo del siguiente resumen de información.

CONCLUSIONES

En la siguiente Tabla 2. Resumen de información, se pretende mostrar cuales organizaciones mostraron un cambio en la forma de atención al público y en el caso de empleados, cómo se modificó su forma de trabajo, así mismo qué organizaciones realizaron cambios en sus procedimientos. Cabe aclarar que la Organización Mundial de la Salud aún no levanta la condición de pandemia.

Tabla 2: Resumen de Enformación

Edad	Preguntas								
	2			4			6		
Infor.	Mercado	Hospitales	Trabajo	Mercado	Hospitales	Trabajo	Mercado	Restaurantes	Hospitales
en %	Super	Farmacias		Super	Farmacias		Super	Cocinas	Farmacias
Menor de 25	26.04	17.45	12.08	16.65	9.13	8.59	17.45	16.92	16.11
de 25 a 40	14.37	9.63	6.66	9.18	5.04	4.74	9.63	9.33	8.89
de 41 a 60	29.63	19.86	13.75	18.94	10.39	9.78	19.86	19.25	18.33
Mayor de 60	26.94	18.05	12.50	17.22	9.44	8.89	18.05	17.50	16.66
Suma	96.98	64.99	44.99	61.99	33.99	31.99	64.99	62.99	59.99
Resultados	97	65	45	62	34	32	65	63	60

En la Tabla 2 se muestran los resultados mas relevantes de las opciones que se dieron, siendo los mercados y supermercados los que buscaron implementar medidas, como la toma de temperatura, el gel de desinfección, guardia que vigilaba el aforo, el envío de mercancía al hogar, mamparas de protección en las cajas entre otras. También los hospitales y farmacias implementaron medidas, sin embargo se aprecia que ocuparon un segundo lugar. Los actores que debían asistir a su trabajo también notaron que se implementaron medidas de desinfección. De la pregunta 7 relacionada a los servicios en línea, el 90.74 % consideró que fueron las escuelas las que ofrecieron un servicio en línea. Por último, el 67.59 % considera que estos cambios van a permanecer por años y en la pregunta 10, relacionada a si les dejó algún aprendizaje, el 96 % manifestó que sí.

En base a lo expuesto, se elaboran tres conclusiones relacionadas a los cambios de paradigmas organizacionales originados por la pandemia del 2020: la primera consiste en que los negocios que suministran los alimentos adoptaron medidas para evitar el contagio, en menor grado fueron los hospitales, siendo que posiblemente éstos últimos debían adoptar medidas mas estrictas para evitar la propagación del virus; segunda, los negocios de reparto y las empresas que habilitaron esta estrategia de reparto, al momento han logrado subsistir; tercera, las escuelas en general fueron quienes llevaron los servicios educativos en línea, con sus problemas sobre todo ante un alumnado que no estaba preparado ni con recursos ni con competencias educativas para trabajar en línea.

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DESIGUALDAD EN LOS REGÍMENES IMPOSITIVOS PARA PERSONAS MORALES Y SOCIEDADES Y SU IMPACTO EN LA COMPETITIVIDAD DE LAS MIPYMES

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RESUMEN

México es el país de la desigualdad, en el ámbito fiscal no es la excepción, esto impacta significativamente la economía de las empresas, donde la igualdad y la equidad constitucional no son una prioridad gubernamental, existen sectores privilegiados dentro de los regímenes fiscales en la Ley del Impuesto sobre la Renta. En México datos oficiales del (INEGI, 2016) demuestran que las MiPymes no llegan al décimo año de vida una de las causas es la carga tributaria excesiva, así como los nulos beneficios que tienen en relación con las grandes empresas las cuales tienen ventajas fiscales preferentes. La finalidad de este trabajo es demostrar las desventajas del Régimen General de Ley VS los beneficios del Régimen Opcional para Grupo de Sociedades, mediante el análisis legal y estudio de caso además de la aplicación de un instrumento de recolección de datos que coadyuve a demostrar que la carga impositiva es más alta en un régimen que en otro afectando la competitividad de las MiPymes al ver decrecer su capital de trabajo.

PALABRAS CLAVE: Competitividad, MiPymes, Regímenes Fiscales

INEQUALITY IN TAX REGIMES FOR LEGAL PERSONS AND COMPANIES AND ITS IMPACT ON THE COMPETITIVENESS OF MSMEs

ABSTRACT

Mexico is the country of inequality, in the fiscal field it is not the exception, this significantly impacts the economy of companies, where equality and constitutional equity are not a government priority, there are privileged sectors within the tax regimes in the Law of the Income Tax. In Mexico official data of (INEGI, 2016) show that MSMEs do not reach the tenth year of life one of the causes is excessive tax burden, as well as the null benefits they have in relation to large companies which have preferential tax advantages. The purpose of this work is to demonstrate the disadvantages of the General Regime of Law VS the benefits of the Optional Regime for Group of Societies, by means of the legal analysis and case study in addition to the application of a data collection instrument that helps to demonstrate that the Tax burden is higher in one regime than in another, affecting the competitiveness of MSMEs as their working capital decreases.

JEL: M1, M2, M4

KEYWORDS: Competitiveness, MSMEs, Fiscal Regimes

INTRODUCCIÓN

México es el país de los absurdos donde la igualdad y la equidad son un discurso político, puesto que a los delincuentes se les trata como personas honorables y a los contribuyentes cumplidos en caso de errores u

omisiones se les tipifica como defraudadores fiscales según el artículo 109 Fracción V del Código Fiscal de la Federación.

La recaudación de impuestos federales entre las Pymes y las empresas multinacionales ha creado paradigma entre lo que se recauda y lo que se estima recaudar, por principio constitucional de equidad, las MiPymes deberían aportar menos que las multinacionales.

En la práctica es diferente ya que los que producen menos pagan más y los que producen más pagan menos, esto se debe a que el trato es desigual, evidentemente el gobierno apoya a los grandes contribuyentes resultando que las MiPymes realizan erogaciones más altas en impuestos.

Los grandes contribuyentes deben aportar lo que les corresponde al contar con mayor capacidad financiera, lo anterior no es congruente con la realidad como menciona el autor (Barcelata Chávez) “El Régimen de Consolidación Fiscal del Impuesto sobre la renta ha permitido que las más grandes, ricas y poderosas empresas del país, paguen cantidades ridículas de impuestos comparado con lo que realmente tendrían que pagar”

La (OCDE, 2017) señalo que México se encuentra dentro de los índices más grandes de desigualdad fiscal, pero también hace mención a la notable incapacidad de la política fiscal, luego entonces nuestro país simula no darse cuenta del gran problema que enfrenta al beneficiar económicamente a un sector de contribuyentes en este país. “De poco más de 4 millones de empresas existentes en México durante 2014, el 97.6% son microempresas y concentran el 75.4% del personal ocupado total, seguidas por las empresas pequeñas con el 2.0% y el 13.5% y las medianas que representan el 0.4% y el 11.1%, respectivamente”. (INEGI, Se Difunden Estadísticas Detalladas Sobre las Micro, Pequeñas y Medianas Empresas del País, 2016)

REVISIÓN LITERARIA

“Del estudio legal del impuesto, en relación con los principios que sobre la materia recoge la Constitución Política del país, obtenemos que todo impuesto debe reunir las siguientes características. Debe ser proporcional y equitativo. Esta característica, consagrada también por el artículo 31, fracción IV de nuestra Ley Fundamental constituye una autentica garantía individual. Flores Zavala afirma que ambas palabras son un solo concepto y significan justicia en la imposición, es decir, recogen el principio de justicia de Adam Smith y, por lo tanto, esta característica se refiere a que los impuestos deben ser establecidos en función de la capacidad contributiva de las personas a quienes va dirigido”. (Rodriguez Lobato, 1998, pág. 65)

“El principio de proporcionalidad consiste en “tratar a los iguales como iguales y a los desiguales como desiguales”. El de equidad significa, siguiendo a Margain Manautou, “que el impacto del tributo sea el mismo para todos los comprendidos en la misma situación”. (Diep Diep, 2000, pág. 65)

Daniel Diep menciona que ambos conceptos constituyen un riesgo ante el tributo por lo cual no se debe violar la ley. “Cabe enunciar la jerarquización de leyes, en sentido histórico como sigue:

Ley Fundamental: Constitución Política de los Estados Unidos Mexicanos., Leyes Orgánicas: Las que regulan la estructura o funcionamiento de alguno de los órganos del estado., Leyes Reglamentarias: Las que desarrollan en detalle algún precepto en la Constitución., Leyes Ordinarias: Son el simple resultado de una actividad del congreso autorizada por la Constitución.

En sentido arquitectónico – y ya no histórico – podríamos decir que los cimientos de todo nuestro edificio legal están en la Constitución”. (Diep Diep, 2000, pág. 65)

“La proporcionalidad radica entonces, en la cuantía del impuesto que cada contribuyente debe pagar, en relación con el valor de su patrimonio y en relación con su capacidad de pago. Por otra parte, para que una ley fiscal sea equitativa, debe cumplir con requisitos de naturaleza jurídica, conforme a los cuales pretende que la carga fiscal sea justa y no injusta. Si el impuesto no es general, porque no se aplica a todos los sujetos que se encuentren en el supuesto previsto por la ley, sería inequitativo, de la misma manera si se establecieran excepciones que beneficien a algunos contribuyentes, por lo que el impuesto no sería uniforme”. (Orrantía Arellano, 1998)

“Este término fue creado por la ciencia del derecho para denominar al acuerdo colectivo de voluntades de varias personas físicas, para que, de manera más o menos permanente, se proponen crear un ente con personalidad distinta a la de sus miembros integrantes y que frecuentemente, contando con un patrimonio propio, realizan una combinación de capital y trabajo, para la realización de objetivos comunes a las personas que la integran.” (Mabarak Cerecedo, 2008, pág. 182)

Debido a la gran actividad estos entes jurídicos se constituyen de personas morales y de personas físicas, o bien de personas morales con otra persona moral diferente a esto se le conoce con el nombre de sociedades mercantiles o holdings.

“El problema planteado por los sabios italianos de la segunda mitad del siglo XVIII afectaba a la distribución del impuesto. Aquellos hombres tenían ciertamente convicciones precisas en la cuestión. Luchaban contra la arbitrariedad de los grandes y privilegiados que intentaban todos los procedimientos para rechazar el peso del impuesto sobre los débiles y sobre los plebeyos, por lo cual exigían la igualdad objetiva del tributo. Paguemos las cosas por lo que valen, por lo que rinden, sin mirar a la persona que los posee: nobles y plebeyos eclesiásticos y seglares, todos sean llamados a pagar impuestos en razón de las cosas poseídas. Fue la gran conquista del siglo de las luces y su mérito se atribuyó después a los hombres de la Revolución francesa que la extendieron por Europa.

Pero los hombres de gobierno de Víctor Amadeo II y los de María Teresa habían ya puesto en práctica la idea en el Piamonte y en Lombardía.

La batalla contra los privilegios era, sin embargo, asunto diferente de la batalla contra la incertidumbre, y una y otra se mantiene netamente separadas. En el siglo XIX los privilegios asumieron otros nombres y la distribución del impuesto experimento una tendencia a volverse nuevamente personal. No se trata de distribuir el impuesto, sino de determinación y valoración de la base imponible. El descubrimiento italiano de la “renta normal” se refiere exclusivamente al problema de determinación y evaluación de la base imponible. Se puede haber resuelto el problema de evaluación en el sentido deseado por Vincenzo De Miro, Pompeo Nero, Gianrinaldo Carli y Carlo Cattaneo; esto es, se puede abrazar la idea de determinar y evaluar las rentas “normales” en vez de las “efectivas”, y al mismo tiempo se puede distribuir sobre esta base el impuesto con criterios de personalidad y no de realidad, sobre el patrimonio y no sobre la renta, con alícuotas variables crecientes en vez de constantes.

El sacerdote de la justicia tributaria afirma que la proposición: “el impuesto produce efectos definibles como buenos cuando es razonado en función de la renta normal de las cosas poseídas por el contribuyente” es un instrumento inventado por los ricos y sus jenízaros para combatir la progresividad” (Einaudi, 1963, págs. 310-311)

“La tercera condición para obtener la calificación de justo cualquier tributo o sistema tributario, se relaciona con el objeto gravado. Es normalmente inaceptable el tributo o sistema tributario que, en circunstancias ordinarias, grava el mínimo vital considerado relativamente no solo en función del individuo, sino de la familia media y calculando con datos objetivos de estadística socioeconómica. Ese mínimo vital ha de reconocerse legalmente con flexibilidad y suficiente dinamismo de modificación, de acuerdo con la

elevación del costo de la vida, índices de precios e inflación y parámetros semejantes, más bien dentro de los límites técnicos que de los éticos. Además, lo gravado por encima del mínimo vital y dentro de la posibilidad de tributación justa, se debe establecer una clara distinción entre las rentas y bienes procedentes del trabajo personal y los originados por otro título. Por exigencias morales, aquellos tienen que gravarse bastante menos.

Por cuanto ve al enlace del objeto o actividad gravada con etnicidad de la tributación directa o indirecta, es suficiente con pesar en la injusticia de un tributo directo que grave por debajo del mínimo vital y en la posible justicia de un tributo indirecto gravando artículos no vitales sino de verdadero lujo, por último, la justicia tributaria debe fundarse en una clara progresividad o por lo menos en un sistema proporcional estricto y realista que pague más el que más tiene”. (Sanchez Leon, 1986, pág. 277)

METODOLOGÍA

Para lograr el objetivo de este trabajo de investigación se realiza un análisis conceptual del Régimen General de Ley y el Régimen General para Grupo de Sociedades aplicable para personas morales, así como un estudio de caso. Además, para reforzar el sustento teórico se aplicó un instrumento de recolección de datos para validar lo expuesto en la investigación documental, dicho instrumento se aplicó en empresas de la Región Lerma del Edo de México y sus alrededores, aunque esta tendencia se repite “según cifras del padrón de contribuyentes activos de la SHCP actualizada a agosto del 2019 donde nos muestra que 1,655,857 personas morales se encuentran en el régimen General de ley por solo 983 que pertenecen al Régimen Opcional para grupo de sociedades” (SAT, 2019). La muestra se realizó de manera aleatoria tomando como referencia que la empresa tuviera menos de 250 trabajadores.

RESULTADOS

A partir del 1 de enero del 2014 en la LISR se creó un nuevo régimen opcional para grupo de sociedades que se encuentra estipulado en el artículo 59 de la misma ley, se puede decir que sustituyó al régimen de consolidación fiscal, este nuevo régimen cuenta con particulares beneficios fiscales para los grandes contribuyentes, excluyendo a los del régimen general de ley dando un trato desigual a los iguales cuando la constitución estipula el principio de equidad y proporcionalidad es muy clara cuando dice que se debe tratar igual a los iguales y desigual a los desiguales.

Entonces porque la ley les brinda privilegios solo a los grandes contribuyentes, son unos monstruos de empresas ya que ganan millones de pesos en nuestro país gracias al consumo de todos los mexicanos y de todo lo que ganan no pagan sus impuestos como deberían de hacerlo ya que la ley les da facilidades como la de comprar empresas que tengan pérdida fiscal para que su utilidad disminuya y por lo tanto su impuesto va a disminuir y peor aún si compran activos, su utilidad es mínima en comparación de todo lo que generan, con todo esto el fisco apoya a que los grandes contribuyentes más que apoyo les brinda beneficios adicionales respecto a los demás contribuyentes.

Estudio de Caso

Aplicación práctica en relación al pago de impuestos de dos personas morales con igual constitución jurídica, pero una tributando en el Régimen General de Ley y la otra en el Régimen Opcional para Grupo de Sociedades.

Caso Práctico del Régimen General de Ley

Tabla 1: Empresa en el Régimen General de Ley

Empresa A en Régimen General de Ley		
	Ingresos acumulables	\$150,856,789.00
-	Deducciones autorizadas	\$ 99,623,145.00
-	PTU	\$ 1,020,000.00
=	Utilidad fiscal	\$ 50,213,644.00
-	Perdida Fiscal	\$ -
=	Resultado Fiscal	\$ 50,213,644.00
*	30%	*30%
=	ISR anual causado	\$ 15,064,093.20

En esta tabla se muestra el cálculo anual de una persona moral que tributa en el Régimen General de Ley, su impuesto causado es de \$15-064,093.20 Las personas morales deberán calcular el impuesto sobre la renta, aplicando al resultado fiscal obtenido en el ejercicio la tasa del 30%. Fuente: Elaboración propia con estricto apego al texto de LISR (Artículo 9)

Caso Práctico del Régimen Opcional para Grupo de Sociedades

Tabla 2: Empresa A Integradora

Empresa A Integradora		
	Ingresos acumulables	\$ 350,856,789.00
-	Deducciones autorizadas	\$ 99,623,145.00
-	PTU	\$ 1,020,000.00
=	Utilidad fiscal	\$ 250,213,644.00
-	Perdida Fiscal	\$ -
=	Resultado Fiscal	\$ 250,213,644.00
*	30%	*30%
=	ISR anual causado	\$ 75,064,093.20

En esta tabla se muestra el cálculo anual de la empresa integradora que pertenece al Régimen Opcional para Grupo de Sociedades. Fuente: Elaboración propia con estricto apego al texto de LISR (Artículo 9)

Tabla 3: Empresa B Integrada

Empresa B Integrada		
	Ingresos acumulables	\$ 900,978,526.00
-	Deducciones autorizadas	\$ 999,591,236.00
-	PTU	\$ 850,000.00
=	Utilidad fiscal	-\$ 99,462,710.00
+	Perdida Fiscal	\$ 1,500,000.00
=	Resultado Fiscal	-\$ (100,962,710.00)
*	30%	*30%
=	ISR anual causado	\$ -

En esta tabla se muestra el cálculo anual de la empresa b integrada. Fuente: Elaboración propia con estricto apego al texto de LISR (Artículo 9)

Tabla 4: Empresa C Integrada

Empresa C Integrada		
	Ingresos acumulables	\$ 235,596,321.00
-	Deducciones autorizadas	\$ 350,456,987.00
-	PTU	\$ 250,000.00
=	Utilidad fiscal	-\$ 115,110,666.00
+	Perdida Fiscal	\$ 5,500,000.00
=	Resultado Fiscal	-\$ (120,610,666.00)
*	30%	*30%
=	ISR anual causado	\$ -

En esta tabla se muestra el cálculo anual de la empresa c integrada. Fuente: Elaboración propia con estricto apego al texto de LISR (Artículo 9)

Tabla 5: Resultado Fiscal Integrado

Compañía	Resultado Fiscal de c/una	Participación en la Integración	Resultado Fiscal Integrado
Compañía A (integradora)	\$ 250,213,644.00	100%	\$ 250,213,644.00
Compañía B (integrada)	-\$ 100,962,710.00	80%	-\$ 80,770,168.00
Compañía C (integrada)	-\$ 120,610,666.00	80%	-\$ 96,488,532.80
		RFI=	\$ 72,954,943.20

En esta tabla se muestra el procedimiento para obtener el resultado integrado en el cual se encuentran las tres empresas. Fuente: Elaboración propia con apego al texto de LISR (Artículo 64)

Tabla 6: Factor del Resultado Fiscal Integrado

Factor del Resultado Fiscal Integrado (RFI)	
RFI	\$ 72,954,943.20
/La suma de los resultados fiscales en participación integrable (a+b)	\$ 169,443,476.00
= Factor de RFI	43%

En esta tabla se muestra el resultado fiscal integrado expresado en porcentaje. Fuente: Elaboración propia con apego al texto de LISR (Artículo 64)

Tabla 7: Procedimiento

Compañía	Resultado Fiscal de c/una	X 30%	ISR Individual (30%)	X % Integrable	Suma del % Integrable	X RFI	Igual al ISR en % Integrable	ISR en % No Integrable	ISR Que Se Difiere a 3 Años
Compañía A (integradora)	\$250,213,644.00	30%	\$75,064,093	100%	\$75,064,093.20	43%	\$32,319,312.52		\$42,744,780.68
Compañía B (integrada)	-\$100,962,710.00	30%		80%		43%	\$ -	\$ -	\$ -
Compañía C (integrada)	-\$120,610,666.00	30%	\$ -	80%	\$ -	43%	\$ -		\$ -
			\$75,064,093				\$32,319,312.52		\$42,744,780.68

En la tabla se muestra el procedimiento para obtener el impuesto sobre la renta que se va a diferir en un tiempo de tres años y el que se debe pagar en el tiempo establecido. Fuente: Elaboración propia con apego al texto de LISR (Artículo 64-65)

Tabla 8: Impuesto a pagar

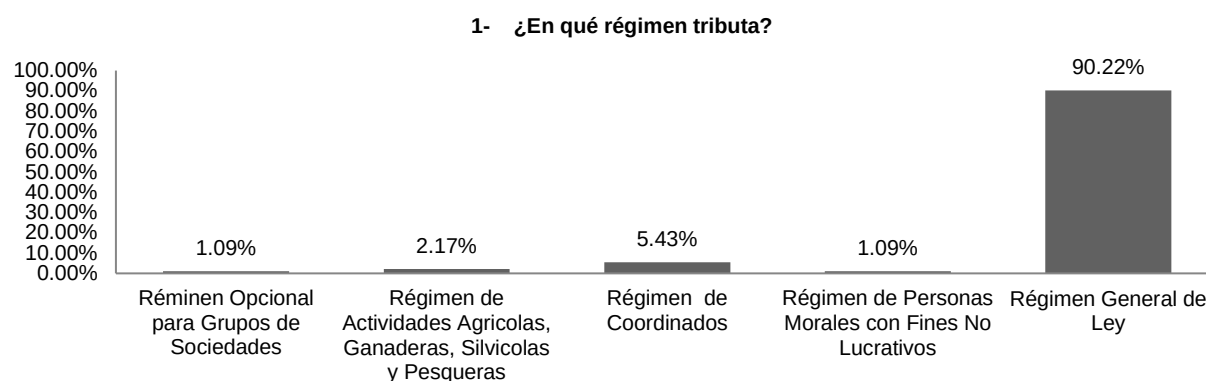
Impuesto a Pagar en el Ejercicio	
.	
+	Monto del ISR Relativo a la Participación Integrable \$ 32,319,312.52
+	ISR en la Participación no Integrable \$ -
=	Impuesto por Pagar en el Ejercicio \$ 32,319,312.52

En la tabla se muestra el desarrollo para obtener el impuesto que debe pagar en una sola exhibición, tienen el beneficio de pagar el restante de su impuesto en un lapso de 3 años, lo cual es una cantidad muy considerable. Fuente: Elaboración propia con apego al texto de LISR (Artículo 64-65)

A continuación, se muestran los resultados de las encuestadas aplicadas, en las cuales se obtuvieron los siguientes resultados, sin embargo, no se colocaron las 10 graficas por falta de espacio, pero el 66.30% de los contribuyentes encuestados conocen los beneficios del régimen fiscal al que pertenecen, y el 62% se encuentran en un rango de 1 a 10 años tributando y el 62% de los contribuyentes afirmo que ellos pagan más impuestos que los grandes contribuyentes, el 61% de los encuestados afirmaron que al momento de

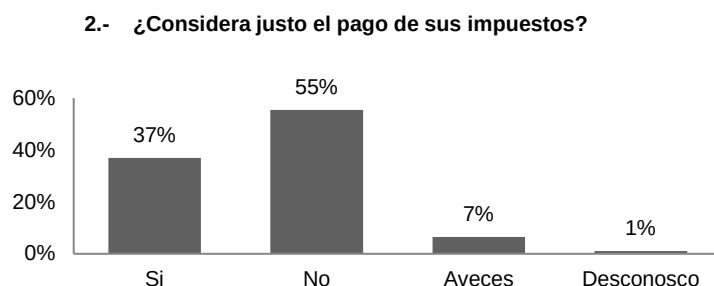
efectuar su pago de impuestos se ve afectado su flujo de efectivo porque los descapitaliza, el 62% no cuentan con una partida presupuestal para el pago de sus impuestos, el 51% de los encuestados pagan en tiempo y forma sus impuestos para evitar sanciones por la autoridad y el 72% de los contribuyentes si conocen sus obligaciones fiscales.

Figura 2: Pago de Impuestos Justo



En esta figura se muestra que como resultado de las encuestas aplicadas en la región de Santiago Tlanguistenco y sus alrededores el 90.22% de las empresas se encuentran tributando en el Régimen General de Ley lo que reafirma la teoría que la mayoría de las empresas en México se encuentran en el régimen antes mencionado y el 8.69% en regímenes especiales por su actividad, y solo el 1.09% se encuentra en el Régimen Opcional para Grupo de Sociedades los cuales tienen acceso a los privilegios del mismo. Elaboración: Fuente Propia.

Figura 2: Pago de Impuestos Justo



En esta figura se muestra que más de la mitad de los encuestados, es decir que el 55% no considera justo el pago de sus impuestos ya que ellos se dan cuenta mediante diversos medios que los grandes contribuyentes reciben privilegios fiscales por las leyes en la materia, cuando ellos no reciben ese beneficio, por lo tanto, es injusto el pago de impuestos. Elaboración: Fuente Propia.

Recomendaciones

Congruencia en la promulgación y expedición de leyes fiscales: En nuestro país la recaudación fiscal vía pago de impuestos esta soportada básicamente por las personas físicas y las Pymes que son el motor de la economía, según fuentes oficiales este sector es el que provee de empleo y bienestar a una mayor cantidad de mexicanos, irónicamente estos sectores son los más vulnerables para el órgano fiscalizador pues en vez de otorgar más beneficios y prerrogativas al momento de hacer el pago del tributo se busca de una manera exagerada elevar el pago de sus contribuciones restando cada vez más conceptos de los que ellos pueden echar mano para poder realizar pagos más acordes a su capacidad económica.

Capacitación de los profesionales de la contaduría: En México todo se hace por costumbre copiando ya sea a medios locales o medios extranjeros de hecho en las instituciones de educación públicas o privadas se enseña a los futuros contadores públicos a seguir líneas comunes utilizadas en la mayoría de los casos por seguir patrones establecidos, es decir si se va a constituir una empresa lo primero que se le viene a la mente

es una sociedad anónima de capital variable esto sin tomar en cuenta que este tipo de sociedades es la que más pone en riesgo el patrimonio de un socio, en este mismo tenor cuando se da de alta una sociedad no se analiza de manera adecuada en que régimen de tributación se tendrían más ventajas para optimizar el pago de los impuestos.

Realizar una correcta planeación financiera: Desafortunadamente se observa que una gran parte de los contribuyentes no llevan a cabo esta etapa y por lo tanto corren los riesgos de un futuro incierto pues sin una planeación estratégica del negocio no se pueden observar con claridad las ventajas y desventajas en las cuales una organización se encuentra pues una de las definiciones más adecuadas de finanzas según el autor Gitman es el arte y ciencia de administrar el dinero.

Subsanar la violación al principio de equidad en el pago de contribuciones: La proporción significa que las contribuciones deben ir acordes a la capacidad contributiva de los sujetos pasivos esto a todas luces no sucede pues en México existen dos grandes grupos de sujetos pasivos catalogados por la autoridad tributaria que son los contribuyentes y los grandes contribuyentes, mientras que a los primeros se les trata de exprimir al máximo a los segundos que uno pensaría que son los que más contribuyen a l gasto publico sucede que no, pues son los que menos pagan impuestos en este país debido a las facilidades y privilegios que les proporcionan las propias autoridades fiscales. Por lo anteriormente citado el estado debe hacer una revisión minuciosa de los regímenes fiscales existentes para evitar la violación a este principio constitucional que afecta el desarrollo económico del país pues no incentiva la inversión y por ende el desarrollo económico del país.

Subsanar la violación al principio de proporcionalidad en el pago de contribuciones: Consiste en recibir un trato igual se le suele definir como un equivalente de la justicia es decir que se impongan contribuciones justas para todo tipo de contribuyentes sin hacer ninguna distinción y en el caso que nos ocupa esta distinción se hace desde la perspectiva de la capacidad económica del sujeto pasivo, pues en teoría 2 empresas legalmente constituidas deberían ser tratadas en igualdad de condiciones pero la realidad dista mucho de este principio por que con la creación del régimen opcional para grupos de sociedades ya no existe este precepto pues con la aplicación del régimen antes citado ya no se trata igual a los iguales si no desigual a los iguales, por lo tanto al igual que en el punto anterior se debe hacer un análisis y una revisión exhaustiva para evitar que se viole este precepto constitucional desde la promulgación de las leyes en la materia es decir del impuesto sobre la renta.

Revisión de los regímenes fiscales para dar un trato igual a los iguales: Cuando hablamos de empresas hablamos de entes jurídicos con personalidad jurídica propia estos entes son iguales independientemente si unos son pequeños y otros grandes por lo tanto tendrían que tener el mismo tratamiento fiscal, pero para personas morales existen 2 posibilidades de tributar en el caso de impuesto sobre la renta que son el régimen general y el régimen opcional para grupos de sociedades, mientras que para el primero no existe la posibilidad de unir 2 resultados fiscales para el segundo si, lo que da ventajas y privilegios para uno que no tiene otro, y estamos hablando primero de un mismo impuesto, misma forma de constitución de sociedades pero un tratamiento diferente.

CONCLUSIONES

Una vez desarrollado este artículo podemos concluir en lo siguiente:

El papel que juegan los gobernantes en las políticas públicas de un país, tiene un gran impacto en la economía mexicana, en el caso de las políticas fiscales no es la excepción, ya que se ve reflejado en la carga tributaria que imponen pues son decisiones arbitrarias no razonables, en primer lugar la mayoría de los contribuyentes personas morales se encuentran en el Régimen General de ley porque están en la situación prevista por la ley, es decir están obligados a pertenecer a este régimen porque se encuentran en

el supuesto de ley y porque su capacidad financiera está condicionada a ello, puesto que una Pyme no está en condiciones de crear o comprar una o más empresas para poder consolidar sus resultados tanto financieros como fiscales, supuesto que si tiene el Régimen Opcional para Grupo de Sociedades el cual según la propia autoridad hacendaria este régimen ofrece flexibilidad organizacional a las empresas para que consoliden financiera y fiscalmente.

A través del régimen de consolidación fiscal los grupos podrán diferir parte del impuesto sobre la renta por pagar, toda vez que entre otros supuestos las pérdidas fiscales generadas por una empresa podrán ser amortizadas por las utilidades generadas por otra u otras empresas del grupo empresarial.

Se reafirma mediante los resultados de las encuestas que los grandes contribuyentes son tratados de manera diferente y en la propia Ley del Impuesto Sobre la Renta no los confirma con el Régimen Opcional para Grupo de Sociedades, ya que este fue creado especialmente para las grandes empresas que tienen suficiente solvencia económica para disfrutar de los privilegios que se encuentran establecidos en la ley, esto da un sustento y veracidad que a los iguales se les trata de manera desigual.

De acuerdo a datos estadísticos del INEGI el promedio de vida de las MiPymes es de 9.1 años y los resultados que obtuvimos son realmente impactantes ya que la mayoría de los contribuyentes se encuentran en un rango de 1 a 10 años tributando, intervienen muchos factores y uno de ellos es la carga tributaria que reciben con mayor peso, la falta de solvencia económica que los ha perseguido durante años y no les ha permitido crecer debido a que deben ser puntual con el pago de sus impuestos para evitar multas y recargos también la falta de una buena planeación financiera no por el hecho de ser pequeñas o medianas empresas no lo necesitan, al contrario es una buena base para poder administrar sus recursos y generar un crecimiento económico.

En nuestro país existe una gran discriminación fiscal ya que no es justo el pago de impuestos que se les imponen a los contribuyentes los que ganan más terminan pagando menos impuestos y los que ganan menos pagan más, debido a la falta de conciencia de las autoridades fiscales y mala toma de decisiones afectan a los menos culpables y más vulnerables, la propia autoridad se basa en criterios infundados su meta solo es recabar más impuesto a costa de lo que sea, sin pensar ni analizar cómo hacerlo de una manera correcta, no existiría una violación de principios constitucionales si se aplicaran las mismas condiciones a los mismos contribuyentes es decir que se cumpliera un trato justo y proporcional tratando igual a los iguales y desigual a los desiguales.

Se necesita reactivar el mercado interno a través de regímenes fiscales que propicien la inversión mediante mecanismos que permitan a las empresas crecer financieramente lo cual permitirá la creación de nuevos empleos lo que genera bienestar en la sociedad ya que incrementa las oportunidades para los miembros de una familia en general, esto es la autoridad piensa que incrementando las obligaciones y reduciendo las posibilidades de deducción está realizando un planeación efectiva en la recaudación de impuestos pero lo único que está logrando es ser un lastre para las empresas, un lastre que les impide crecer y desarrollarse ya que el resultado fiscal que obtiene con todas las prohibiciones que está manejando la autoridad es más alto lo que propicia un mayor pago de impuestos y lo que obviamente reduce las posibilidades de crecimiento y expansión de una organización ya que si existe menos capital de trabajo existen menos posibilidades de inversión y por lo tanto se procede al recorte de personal cosa que para nada beneficia la economía de un país.

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BIOGRAFÍA

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REFLEXIONES SOBRE LA EDUCACIÓN SUPERIOR EN TIEMPOS DE PANDEMIA. CASO: UNIVERSIDAD VERACRUZANA

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RESUMEN

En este trabajo se analizan los cambios desde la perspectiva funcional y tecnológica, que se llevó a cabo en las instituciones de educación superior en México, originadas por la pandemia del Covid-19. De acuerdo a la Organización Mundial de la Salud, la pandemia inició en Wuhan, China a finales del año 2019 y se propagó en el mundo en el primer trimestre del año 2020 hasta la fecha en que se escribió este trabajo. La pandemia tomó por sorpresa a todas las organizaciones, incluyendo a las educativas de todos los niveles, desde el preescolar hasta el posgrado. Por su parte los gobiernos, tuvieron que restringir las actividades de todo lo que no era necesario, es decir, sólo los suministros de alimentos permanecieron abiertos. De aquí que, las instituciones educativas, se vieron en la necesidad de suspender la enseñanza en forma presencial. Sobre esta idea es objetivo de esta investigación hacer unas reflexiones relacionadas a los cambios en las instituciones de educación superior en tiempos de pandemia, desde la perspectiva funcional y tecnológica. Esta investigación es descriptiva, mixta y busca concluir en una evaluación de los cambios.

PALABRAS CLAVE: Educación Superior, Tecnología, Perspectiva Funcional.

REFLECTIONS ON HIGHER EDUCATION IN TIMES OF PANDEMIC. CASE: UNIVERSIDAD VERACRUZANA

ABSTRACT

This work analyzes the changes from the functional and technological perspective, that took place in higher education institutions in Mexico, caused by the Covid-19 pandemic. According to the World Health Organization, the pandemic began in Wuhan, China at the end of 2019 and spread throughout the world in the first quarter of 2020 until the date this work was written. The pandemic took all organizations by surprise, including educational organizations at all levels, from preschool to graduate school. Governments, for their part, had to restrict activities to everything that was not necessary, that is, only food supplies remained open. Hence, educational institutions, were forced to suspend face-to-face teaching. On this idea, the objective of this research is to make some reflections related to the changes in higher education institutions in times of pandemic, from the functional and technological perspective. This research is descriptive, mixed and seeks to conclude in an evaluation of the changes.

JEL: I20, I21, I23, I29, O30, O33

KEYWORDS: Higher Education, Technology, Functional Perspective

INTRODUCCIÓN

De acuerdo a la Agenda Davos del World Economic Forum 2021, a lo largo de la pandemia, la tecnología ha sido un salvavidas para la supervivencia, tanto personal como empresarial, y ahora se considera clave para la recuperación (Markovitz, 2021). Las Agendas internacionales son un parteaguas para la regulación de decisiones en las organizaciones a nivel global, de aquí que, considerando la tecnología como parte de la cuarta revolución industrial, se haría necesario revisar su funcionalidad aplicada a la educación, es decir, la tecnología educativa o EdTech; sin embargo, no en todos los países funciona en el mismo nivel de desarrollo, esto es, hay una brecha digital en función de la economía del país y del sector al que atiende. Así, en México la brecha digital en las instituciones de educación superior depende en gran medida si es pública o privada, si es urbana o rural y dependiendo del volumen de alumnos inscritos. El caso que se ocupa en este trabajo, corresponde a una institución de educación superior de carácter público, la Universidad Veracruzana, localizada a lo largo del territorio veracruzano, en el noreste de México, con cinco sedes: Veracruz-Boca del Río, Córdoba-Orizaba, Coatzacoalcos-Minatitlán, Poza Rica-Tuxpan y Xalapa que es la central. Sobre esta idea, es objetivo de este trabajo reflexionar sobre los cambios funcionales y tecnológicos que se llevaron a cabo en las instituciones de educación superior, originados por la pandemia de los años 2020-2021.

REVISIÓN DE LITERATURA

Retomado la Agenda Davos 2021, la pandemia ha acelerado el despliegue de nuevas tecnologías de la cuarta revolución industrial, rediseñando la forma en que trabajamos, compramos, aprendemos, socializamos e incluso acudimos al médico en formas que probablemente permanecerán por años (Sault, 2021) algo semejante ocurre con las nuevas habilidades de autogestión como el aprendizaje activo, la resiliencia, la tolerancia al estrés y la flexibilidad (Whiting, 2020), habilidades y competencias que todos los estudiantes, independientemente del nivel escolar, han tenido que desarrollar. En la revisión de la literatura se encuentra en primer lugar a Rodrik (2014) cuando refiriéndose a las políticas, en este caso educativas, argumenta que funcionan de maravilla en ciertos lugares, en otros puede tener efectos endebles, involuntarios o negativos. En el contexto económico de este trabajo acotado a las instituciones de educación superior, se pueden clasificar de acuerdo a: 1) el origen de sus fondos, en universidades públicas y estatales, universidades y tecnológicos privados e institutos tecnológicos con recursos federales y 2) de acuerdo a su localización, en universidades y tecnológicos urbanos y escuelas rurales. Las instituciones de educación superior (IES), independientemente del origen de sus recursos o su localización buscan generar conocimiento en el estudiante, mismo que se ciñe sobre una estructura cognitiva, entendiendo que la estructura cognitiva de acuerdo Díaz & Hernández (2010), está integrada por esquemas de conocimiento, que son abstracciones o generalizaciones que los individuos hacen a partir de los objetos, hechos y conceptos, y de sus interrelaciones. Aunado a lo expuesto, el estudiante debe traer una serie de antecedentes y conocimientos previos, vivencias, un vocabulario y un marco de referencia personal que constituye su madurez intelectual. En la enseñanza presencial se busca que los estudiantes hablen, debatan, pregunten y participen en actividades de aprendizaje profundo (Exley & Dennick, 2009). A partir del mes de marzo del 2019, la interrelación entre docente-estudiante y estudiante-estudiante, ha dificultado el aprendizaje profundo y significativo, aunado a la flexibilidad que se le ha dado al estudiante en sus talleres y prácticas, donde difícilmente logra hacer una abstracción del conocimiento.

Ahora bien, la tecnología se ha transformado radicalmente desde sus inicios en 1993, cuando internet tuvo un impresionante crecimiento siendo éste un sistema global que conecta computadoras en el orbe y ha modificado de manera fundamental la navegación por diferentes portales (Fountain, 2013); aunque el concepto de navegación está más encaminado a los barcos y aeronaves, en los últimos 20 años, se utiliza este concepto para relacionar la conexión digital entre dos puntos identificados. El concepto de tecnología no tiene una definición única, de acuerdo a Hidalgo, León & Pavón (2014), es un estudio sistemático de las técnicas para hacer o construir cosas (Enciclopedia Británica), también es un conjunto de medios creados

por el ser humano para facilitar su medio ambiente (R. Van Wyk, 1996), por último, la tecnología es un medio y no un fin en sí mismo. La funcionalidad es un concepto que aborda Talcott-Parson retomado por Garoz (2018) cuando elabora una clasificación que sigue de forma general algunos postulados y sus ideas respecto a las instituciones y su carácter funcional, entendiendo éste como la manera en que las sociedades se dota de distintas herramientas en función de la necesidad y objetivos a lograr, de aquí que, la perspectiva funcional representa todo lo necesario para que la sociedad continúe y sobreviva. Uniendo la idea de los dos conceptos, la funcionalidad y la tecnología aplicados a los tiempos de pandemia, permite evaluar las herramientas tecnológicas que las instituciones de educación superior se vieron precisadas a usar para subsanar, en este caso, las clases presenciales y dar así, continuidad a los cursos. Estudiantes, docentes y autoridades usaron las plataformas tecnológicas para continuar con ciertas restricciones las actividades inherentes en cada caso. Las restricciones para estudiantes universitarios consistieron en una serie de limitaciones tecnológicas, por ejemplo: no todos los estudiantes tenían computadora propia, su señal de internet era débil, debían compartir los equipos en su familia, además, la señal de internet era débil.

Pregunta e Hipótesis

La pregunta que se plantea es: ¿cuál es la funcionalidad en la implementación de la tecnología, de las clases no presenciales para estudiantes universitarios durante la pandemia de los años 2020 y 2021?

H₁. Los estudiantes universitarios vieron mermado su proceso educativo debido a la pandemia de los años 2020 y 2021, inherente a la poca funcionalidad y débil tecnología en sus hogares.

METODOLOGÍA

La propuesta metodológica tiene como base el sujeto de estudio, en este caso la Universidad Veracruzana, región Veracruz donde se levantó una encuesta para indagar si el estudiante tiene: equipo de cómputo propio, lugar acondicionado para estudiar, señal de internet robusta y continua y una escala de likert para evaluar su rendimiento actual. Para Hernández, Fernández & Baptista (2014) las variables son propiedades que pueden fluctuar y son susceptibles de medirse u observarse, por ejemplo, la funcionalidad y la tecnología, ambas variables relacionadas a las clases no presenciales que se impartieron a los estudiantes. La Universidad Veracruzana, cuenta con 87,388 alumnos y 6,235 docentes, donde tanto docentes como estudiantes debían contar con el equipo adecuado, la señal de internet robusta y el lugar adecuado para el proceso de enseñanza aprendizaje. Se calculó el número de encuestas sobre la siguiente base: universo aproximado de 87,388 estudiantes de la Universidad Veracruzana, repartidos en sus 5 sedes, error máximo aceptable para el estimador total .25, grado de confianza del 90% y tasa de respuesta del 100%

Planteamiento

Todos los programas educativos a nivel nacional, se vieron afectados por la paralización de actividades producto de la pandemia de los años 2020-2021. La suspensión de clases presenciales en todos los niveles ha tenido un grave impacto en la calidad educativa, sin embargo, ésta no es motivo de estudio en este trabajo, pero sí a quienes impactó y las herramientas que tenían para hacer frente a esta nueva situación, es decir, a los estudiantes, siendo ellos el objeto de estudio en esta investigación. Las clases presenciales cambiaron a clases virtuales, requiriendo que tanto estudiantes como maestros gozaran de herramientas tecnológicas y el lugar adecuado para tomar e impartir las clases. La suspensión de clases presenciales comenzó en marzo del 2020 y para el período escolar 2020-2021, las clases virtuales reflejaron una merma por diversos factores, uno de ellos fue que las bibliotecas fueron cerradas, ver Anexo -1-, y los estudiantes no contaban con los libros de textos -Anexo 2- ni con los lugares donde podían acceder a la tecnología; otro factor importante fue que algunos docentes carecían de las competencias para impartir por plataforma sus clases en línea, las instituciones no estaban preparadas para ello, a pesar de que se impartieron algunos

cursos emergentes para maestros. Esta situación derivó en un desajuste de los jóvenes universitarios para continuar con sus estudios, donde una de las situaciones fue la escasa funcionalidad de las estrategias tomadas y la carencia de tecnología de muchos estudiantes.

El Proceso de Recolección

El proceso de acopio de información estuvo integrado por el estudio documentativo y una encuesta. Stanton, Etzel, & Walker (2007) definen tres métodos para obtener datos primarios y son: la encuesta, la observación y la experimentación, aunque normalmente no se aplican los tres en un mismo proyecto; cada método tiene sus pro y contras, la elección del método dependerá de la naturaleza del problema, aunque también influirá en ellas el tiempo y el dinero disponibles para realizar el proyecto. El método elegido fue la encuesta y se aplicó a estudiantes universitarios vía telefónica que están inscritos actualmente en la región Veracruz. La matrícula refleja el año de ingreso del estudiante, correspondiendo al 44.4% matrícula del año 2016 y 55.5% a estudiantes inscritos en el año 2017, en ambos casos son estudiantes de últimos semestres.

RESULTADOS

La siguiente tabla muestra la proporción de respuestas de acuerdo a la matrícula de los estudiantes.

Tabla 1. Relación de la Funcionalidad y Tecnología de Estudiantes Universitarios

Num.	Item	Sí	No	Total
1	Tienen computadora	61.1	38.8	99.9
2	Espacio adecuado para estudio	66.6	33.3	99.9
3	Señal robusta de internet	55.5	44.4	99.9

Las respuestas de los estudiantes no son exactas ya que dentro de los que no tienen computadora dijeron que iban a casa de familiares y amigos a tomar la clase; respecto al espacio adecuado para el estudio, el 33.3 % dijo que debía tomar sus clases en horarios de trabajo, en esta situación dijeron que sus jefes les daban permiso pero que el aprovechamiento no era igual a que si estuvieran en el salón de clase. Relacionado a la señal de internet, todos coincidían que su señal no era excelente debido a fallas técnicas, pero el 44.4 % dijo que definitivamente tenía mala señal por diversas causas, siendo la principal de ellas que eran foráneos.

Relacionado a la pregunta acerca de su rendimiento, las respuestas fueron: el 27.7 % dijo que su rendimiento se mantuvo, en un rango de 8-9 por tener facilidad de adaptarse en línea, el 38.8% manifestó que su rendimiento había sido entre el 7-8, argumentando que algunas clases no fueron impartidas en la forma en que les hubiera gustado y perdieron motivación y rendimiento; por último, el 33.3 % refirió que su rendimiento fue de 6-7 debido a que cuentan con otras ocupaciones que interfieren con sus horarios escolares.

CONCLUSIONES

Durante la pandemia de los años 2020-2021, las actividades del sector educativo cambiaron drásticamente; de impartir enseñanza en forma presencial pasó a las clases en forma virtual, en donde al menos el 38% de estudiantes universitarios de instituciones públicas no tenía equipo de cómputo propio, además carecían del lugar adecuado para recibir sus clases. Los factores de distracción fueron muchas, siendo los más relevantes: su hogar se encuentra en zonas rurales donde la señal de internet es débil o discontinua, falta de motivación por parte de los docentes, y por último, la necesidad de trabajar y compartir sus horarios de trabajo con las horas de clase. Sobre esa base, se puede decir que la hipótesis planteada acerca de si los estudiantes universitarios vieron mermado su proceso educativo por la pandemia de los años 2020-2021, relacionada a la poca funcionalidad y tecnología en sus hogares, quedó demostrada. Por último, cabe mencionar que los cursos no estaban diseñados para ser impartidos en línea y los profesores tuvieron que adecuar su material y dinámica de clase presencial a trabajo virtual. Las reflexiones que se pueden plantear, están basadas en estudiantes universitarios de instituciones públicas de educación superior, en primer lugar se considera su

situación económica. Los estudiantes carecen de los recursos económicos necesarios para hacerse de equipo de cómputo propio, además de libros textos, considerando que hay muchos programas educativos que les exige un uniforme y herramientas para sus prácticas. También se reflexionó, en que un estudiante no tiene un lugar privado o personal adecuado para el estudio en su hogar, tomando en consideración la casa promedio del mexicano, y por último, la ausencia de acciones para apoyar la suspensión de clases por parte del gobierno.

ANEXO 1

Figura 1: Area de Estudios, Veracruz



ANEXO 2

Figura 2: Biblioteca



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DESEMPEÑO FINANCIERO DE LAS GRANDES EMPRESAS CEMENTERAS EN COLOMBIA (2014-2019)

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RESUMEN

El presente estudio tiene como finalidad saber cuál ha sido el comportamiento de la gran empresa cementera en Colombia entre los años 2014 y 2019, mediante la interpretación y comparación de indicadores que miden su efectividad financiera y su utilidad o pérdida residual. Se encuentra que la gran empresa cementera alcanza rentabilidades de capital cada año, influenciado en especial por la orientación de la eficacia en el monitoreo de costos y gastos; no obstante, solo logra crear valor en dos años, dejando en el sexenio un valor de mercado agregado (VMA) negativo; esto porque en promedio la rentabilidad que demandan los dueños no se cubre con el promedio de rentabilidad después de impuestos del activo neto operacional. Estos resultados contrastan con los del sector afín en el ámbito global donde se obtienen mejores rendimientos y se crea VMA en el período, pero logran superar a los encontrados en países emergentes, donde se destruye más valor. Esta investigación podría profundizarse si se aplica en poblaciones homogéneas en edad, ciclo de vida y forma jurídica.

PALABRAS CLAVE: Sector Cementero, Indicadores Financieros de Efectividad, Eficiencia, Eficacia, Desempeño Financiero, Valor Económico Agregado, Valor de Mercado Agregado.

FINANCIAL PERFORMANCE OF LARGE CEMENT COMPANIES IN COLOMBIA (2014-2019)

ABSTRACT

The purpose of this study is to know what the behavior of the great company cement in Colombia between the years has been 2014 and 2019, through the interpretation and comparison of indicators that measure their financial effectiveness and their residual utility or loss. It is found that the great cement company reaches capital returns each year, especially influenced by the orientation of efficacy in cost and expenditure monitoring; However, it only manages to create value in two years, leaving a negative added market value (VMA) at sixty; This because on average the profitability demanded by owners is not covered with the average profitability after tax assets. These results contrast with those of the affinity sector in the global sphere where better yields are obtained and VMA is created in the period, but they manage to overcome those found in emerging countries, where more value is destroyed. This research could be deepened if it is applied in homogeneous populations of age, life cycle and legal form.

JEL: G10, M40, L61

KEYWORDS: Cement Sector, Financial Indicators Of Effectiveness, Efficiency, Efficacy, Financial Performance, Economic Value Added (EVA), Market Value Added (VMA)

INTRODUCCIÓN

Con este estudio se busca saber cuál ha sido el desempeño financiero de la gran empresa del sector cementero en Colombia en el período 2014-2019 y compáralo con el que ha tenido este sector en el ámbito mundial y en países emergentes. Se halla un crecimiento al inicio y final del sexenio del activo neto operacional; de igual forma, se logran cada año una rentabilidad del patrimonio, que se acrecienta hasta el 2016, para más adelante oscilar, manteniendo una relación directa con el margen neto; no obstante, tan solo

crea valor económico agregado en dos de los seis años evaluados, porque en los otros cuatro años la rentabilidad de la inversión es inferior a lo requerido por los propietarios, dando lugar a una destrucción del valor de mercado agregado en el sexenio, estos resultados superan a los encontrados en el sector de las economías emergentes, donde se destruye más valor, pero son inferiores al sector afín de la economía global donde se crea valor de mercado agregado en el período.

La investigación cuenta con las siguientes secciones: primero, la metodología y marco teórico, donde se seleccionan y describen los indicadores del desempeño financiero; segundo, el marco de referencia, en el que se examina el comportamiento financiero del sector cementero en el mundo y en países de economías emergentes; tercero, desempeño financiero de las grandes empresas del sector cemento en Colombia, en el cual se interpreta los indicadores obtenidos; posteriormente, cuarto se confrontan los resultados, y finalmente se presentan las conclusiones.

METODOLOGÍA Y MARCO TEÓRICO

En el desarrollo de este estudio se aplica un enfoque cuantitativo que permite revelar los factores que afectan su comportamiento financiero, y se emplea como metodología el análisis de tendencias de indicadores contables (Zutter & Smart 2019) y de gerencia del valor, que unidas “proporcionan una herramienta más poderosa para evaluar el desempeño” (Obaidat, 2019, p. 66). Este proceso metodológico se ha utilizado en varios proyectos de la línea de investigación de “Evaluación del desempeño financiero de empresas del sector real en Colombia”, que adelanta el Grupo de Investigación en Generación de Valor Económico de la Universidad del Valle (categoría C de Colciencias), algunos de los más recientes son: Rivera (2020, 2021a y 2021b).

Se toman en cuenta los indicadores que permiten medir el crecimiento, la eficiencia, la eficacia, la efectividad, como, también el valor económico agregado y el valor de mercado agregado.

El crecimiento se diagnostica por el aumento, disminución o estabilidad del activo neto operacional, *ANO*. “La eficiencia con la cual una empresa utiliza sus recursos, en especial los activos operacionales, según la velocidad de recuperación del dinero invertido en cada uno de los mismos” (Anaya, 2018, p. 223) se halla con la rotación de activos.

La eficacia en la gestión de las erogaciones de las empresas y su impacto sobre la utilidad se comprueba con los márgenes de utilidad (Rivera, 2017). La efectividad para alcanzar utilidades sobre el aporte económico de los empresarios se especifica con el rendimiento del patrimonio, *ROE*. En el sistema Dupont ampliado, el *ROE* es el resultado del producto de la rotación de activos, por el margen de utilidad neta y por el apalancamiento financiero, este último se determina de dividir el activo entre el patrimonio (Ross, Westerfield & Jordan, 2019).

El diagnóstico financiero fundamentado en el estudio de indicadores contables ha sido debatido porque estos surgen de informes financieros que no incluyen el riesgo, ni el costo del patrimonio (Stern & Willette, 2014), o por las políticas contables adoptadas (Atrill, 2017) que pueden variar, y por ser cortoplacista (Arnold & Lewis, 2019), restricciones que parcialmente han sido solucionados por algunos indicadores, como el *EVA* y el *VMA* que hacen parte de gerencia basada de valor.

El *EVA* es la utilidad residual que resulta de sustraer a la utilidad operacional después de impuestos (*UODI*) el cargo por el uso del capital (Stewart, 2000):

$$EVA_t = UODI_t - \text{Cargo de capital}_t, \quad (1)$$

en donde el cargo de capital igual a:

$$Cargos de capital_t = (ANO_t)(Ko_t), \quad (2)$$

El primer factor ANO_t representa el activo neto operacional del año t que resulta de adicionar al capital de trabajo neto operativo $KTNO_t$ el activo fijo neto operacional $AFNO_t$. El $KTNO_t$ resulta de restar los pasivos corrientes si costo explícito a los activos circulantes, y el $AFNO_t$ resulta de sustraer la depreciación a los activos fijos operacionales. Mientras que el segundo factor Ko_t representa el costo de todos los recursos financieros en el año t , y de acuerdo con Modigliani & Miller (1963, p. 441) se halla de la siguiente manera:

$$Ko_t = Ke(1 - L) + Ki(1 - t)L, \quad (3)$$

Siendo Ke el costo del capital propio, y L el nivel de endeudamiento que resulta de dividir la deuda con costo explícito entre el activo neto operacional, ANO . Ki es el costo de la deuda, que una vez sea descontada su protección fiscal (t) queda como $Ki(1 - t)$.

Otra forma de calcular el EVA (Stewart (2000) es:

$$EVA = (ANO_t) [(UODI_t / ANO_t) - (Ko_t)] \quad (4)$$

Donde $UODI_t / ANO_t$ es el rendimiento del activo neto operacional después de impuestos, que siguiendo el esquema del sistema Dupont es igual al producto del margen de la utilidad operacional después de impuestos y la rotación del activo neto operacional:

$$UODI_t / ANO_t = [UODI_t / Ventas_t] [Ventas_t / ANO_t] \quad (5)$$

A la diferencia entre el rendimiento después de impuestos del activo neto operacional y el costo de capital medio ponderado, se le conoce como el porcentaje de utilidad o pérdida residual.

El VMA representa el valor de mercado agregado en un periodo, y se puede determinar de la sumatoria de el valor actual de los EVAs presentados durante un lapso, la cual se puede expresar matemáticamente así:

$$VMA = \sum_{j=1}^{j=n} EVA_j / (1 + Ko_j)^j \quad (6)$$

El EVA que genera cada unidad monetaria invertida en activo neto operacional se determina así:

$$EVA_t / (ANO_t) \quad (7)$$

MARCO DE REFERENCIA

En la Tabla 1 se presenta los indicadores de efectividad y el EVA del sector suministros de la construcción para un promedio de 750 empresas en el ámbito global (SCG) en el período 2014-2019. El ROE fue positivo alrededor de un promedio del 9,0%, producto del margen de utilidad neta (4,9%), la rotación de activos totales (1,2 veces) y el apalancamiento financiero (157,2%); donde la eficacia y la eficiencia disminuyeron para el 2015, pero después aumentaron, aunque con menor continuidad en la rotación de activos, y de manera conjunta marcaron la tendencia del ROE; mientras que el apalancamiento financiero varió hasta el 2016 y después se redujo. El ROE mostró su menor y mayor valor en el 2015 (6,1%) y 2019 (12,0%), años cuando el margen de utilidad neta (3,5% y 6,4%) y la rotación de activos (1,1 veces y 1,3 veces) fueron menores y mayores respectivamente. Lo que confirma que tanto la eficacia como la eficiencia afectaron el comportamiento de la efectividad

Tabla 1: Indicadores Promedio de la SCG

Indicador	2014	2015	2016	2017	2018	2019	promedio	σ
Sistema Dupont ampliado								
ROE	8,9	6,1	6,6	10,2	10,2	12,0	9,0	2,3
Margen de utilidad neta (%)	4,5	3,5	3,6	5,5	5,7	6,4	4,9	1,2
Rotación de activos totales (veces)	1,2	1,1	1,1	1,2	1,2	1,3	1,2	0,07
Apalancamiento financiero (%)	164,5	159,7	163,7	157,4	150,4	147,2	157,2	7,1
EVA, VMA y EVA/ANO								
EVA (MMUS\$)	-609	-15.742	-6.691	2.396	7.998	34.948	3.717	
ANO (MMUS\$)	752.005	728.225	717.033	749.685	796.246	810.254	758.908	
UODI/ANO (%)	7,9	6,1	6,9	8,6	9,6	11,5	8,4	1,9
Ko (%)	8,0	8,3	7,8	8,2	8,6	7,1	8,0	0,5
Utilidad o pérdida residual (%)	-0,1	-2,2	-0,9	0,3	1,0	4,3	0,4	2,2
VMA a 1-1-2014 (MMUS\$)	9.635							
EVA/ANO (%)	-0,08	-2,16	-0,93	0,32	1,00	4,31	0,41	
Número de empresas	751	733	757	763	746	747	750	

Fuente: Elaboración propia a partir de datos de Damodaran (2020). Nota: MMUS\$ denota cifras monetarias en millones de dólares

El SCG creó un promedio anual de EVA de \$3.717 MMUS, empezando el periodo con una destrucción de valor que se incrementó a su mayor valor negativo en el 2015 (\$-15742 MMUS), el siguiente año destruye menos valor, y a partir del 2017 inicia un crecimiento positivo del EVA hasta llega al pico más alto en el 2019 (\$34.948 MMUS), este comportamiento mantiene una relación positiva con el porcentaje de utilidad residual que osciló alrededor del 0,4%, y con el indicador UODI/ANO cuyo promedio fue 8,4% , solo mantuvo una relación negativa con el Ko en tres años, que giró cerca al 8,0%. En los seis años se creó VMA por \$9.635 MMUS a 1-1-2014. Desde otro punto de vista, cuando se advierte el porcentaje de EVA que deja la cantidad invertida, se halla que fue en promedio de 0,41%, siendo menor en el 2015 (-2,16%) y mayor en el 2019 (4,31%).

El ANO decreció hasta el 2016, pero luego creció, dejando como promedio anual una inversión de \$758.908 MMUS.

Se aprecia que el ROE promedio fue superior al indicador UODI/ANO promedio, lo que permite inferir el efecto de las actividades no operacionales.

En la Tabla 2 se muestran los indicadores de efectividad y el EVA del sector suministros de la construcción en países emergentes (SCE) para un promedio de 519 empresas en el período 2014-2019. El ROE fue positivo en torno a un 7,6%, producto del margen de utilidad neta (4,8%), la rotación de activos totales (1,0 veces) y el apalancamiento financiero (153,5%), encontrándose una disminución de la eficacia y eficiencia para el 2015, luego se incrementan (salvo una caída en el 2018 de la eficacia), aunque de una manera menos frecuente en la rotación de activos; el margen de utilidad neta mantuvo una relación positiva con el ROE, convirtiéndose en el principal factor de su comportamiento; entre tanto el apalancamiento financiero fluctuó hasta el 2016 y luego descendió. El ROE presentó su menor y mayor porcentaje en el 2015 (3,6%) y 2017 (10,4%), años cuando precisamente el margen de utilidad neta fue menor (2,5%) y mayor (6,3%), lo que corrobora el efecto de la eficacia sobre el comportamiento de la efectividad.

El SCE destruyó en promedio anual un EVA de \$-5.409 MMUS, principiando el período con una destrucción, que se incrementa hasta su peor valor en el 2015 (\$-20.327 MMUS), pero luego reduce de forma progresiva la destrucción valor, hasta que en el 2019 crea valor por \$13.944 MMUS. Este comportamiento conservó una relación directa con el porcentaje de utilidad residual cuyo promedio fue del -1,4%, y con el indicador UODI/ANO que osciló alrededor del 7,3%, solo mantuvo una relación inversa con el Ko en tres años, que estuvo próxima al 8,7%. En los seis años se destruyó valor de mercado agregado por \$-28.996 MMUS a 1-1-2014. Por otro lado, el EVA promedio que deja cada unidad monetaria invertida fue de -1,45%, siendo más bajo en el 2015 (-5,33%) y más alta en el 2019 (3,13%).

El ANO disminuyó al 2015, pero aumentó después, dejando una inversión promedio anual de \$408.732 MMUS.

Tabla 2: Indicadores Promedio de la SCE

Indicador	2014	2015	2016	2017	2018	2019	promedio	σ
Sistema Dupont ampliado								
ROE	8,5	3,6	5,2	10,4	8,1	9,5	7,6	2,6
Margen de utilidad neta (%)	4,7	2,5	3,4	6,3	5,5	6,4	4,8	1,6
Rotación de activos totales (veces)	1,1	0,9	0,9	1,0	1,0	1,1	1,0	0,07
Apalancamiento financiero (%)	161,0	153,9	159,5	158,0	148,7	139,6	153,5	8,1
EVA, VMA y EVA/ANO								
EVA (MMUS\$)	-6.322	-20.327	-10.552	-5.173	-4.023	13.944	-5.409	
ANO (MMUS\$)	382.992	381.432	395.787	406.760	440.208	445.210	408.732	
UODI/ANO	6,8	3,7	5,8	7,9	8,7	10,7	7,3	2,4
Ko (%)	8,5	9,1	8,4	9,2	9,6	7,6	8,7	0,7
Utilidad o pérdida residual (%)	-1,7	-5,3	-2,7	-1,3	-0,9	3,1	-1,4	2,8
VMA a 1-1-2014 (MMUS\$)	-28.996							
EVA/ANO (%)	-1,65	-5,33	-2,67	-1,27	-0,91	3,13	-1,45	
Número de empresas	516	498	529	535	518	515	519	

Fuente: Elaboración propia a partir de datos de Damodaran (2020).
Nota: MMUS\$ denota cifras monetarias en millones de dólares.

El ROE promedio fue superior al indicador UODI/ANO promedio, dejando entrever que la desigualdad corresponde a los resultados de actividades no operacionales.

DESEMPEÑO FINANCIERO DE LAS GRANDES EMPRESAS DEL SECTOR CEMENTERO EN COLOMBIA (GSCC)

De EMIS professional (2020) se obtuvo los estados financieros del siguiente número de grandes empresas cementeras en Colombia con código industrial internacional uniforme CIIU 2394 (DANE, 2020) en el período 2014-2019: 20 para 2014 y 2017; 18 para el 2015 y 2016; 21 para el 2018 y 2019. En el anexo se muestran el número de identificación tributaria (NIT) y razón social y de cada una de ellas.

Evaluación de la Efectividad

El ROE promedio del sexenio fue de 4,8%, que resultó de la combinación del margen de utilidad neta (11,5%), la rotación de activos totales (0,3 veces) y el apalancamiento financiero (155,7%). El ROE subió hasta el 2016, después continuó con altibajos, prosiguiendo una dirección similar al margen de utilidad neta; en cambio la rotación de activos totales permaneció más constante, con solo cambios en el 2016 y 2019; mientras que el apalancamiento financiero creció cada año. El mayor ROE (8,6%) se presentó en el 2015, resultado del mayor margen de utilidad neta (22,3%) y una de las menores rotaciones de activos totales (0,2 veces) del período; en cambio, el menor ROE (0,3%) tuvo lugar en el 2017, inducido por el más bajo margen de utilidad neta (0,9%), pero no por la menor rotación de activos (0,2 veces) del sexenio; entre tanto, el apalancamiento financiero se mantuvo en valores intermedios (Tabla 3).

Tabla 3: Sistema Dupont Ampliado de la GSCC

Indicador	2014	2015	2016	2017	2018	2019	Promedio	σ
ROE (%)	6,9	8,2	8,6	0,3	2,4	2,2	4,8	3,6
Margen de utilidad neta (%)	16,4	17,0	22,3	0,9	7,0	5,3	11,5	8,3
Rotación de activos totales (veces)	0,3	0,3	0,2	0,2	0,2	0,3	0,3	0,04
Apalancamiento financiero (%)	144,7	152,7	155,1	157,1	161,8	162,6	155,7	6,6

Fuente: Elaboración propia con base en EMIS Professional (2020) y Rivera, Trejos y Quevedo (2021).

Por consiguiente, se puede colegir que, en el comportamiento de la efectividad, la orientación de la eficacia fue determinante, además fue aumentada por apalancamiento financiero.

Evaluación del Valor Económico Agregado

La gran empresa cementera colombiana destruyó un promedio anual de EVA de \$-6.322 MM. El EVA se desplomó entre el 2014 (\$34.281 MM) y 2017 (\$-36.477 MM), luego comenzó a destruir menos valor; mantuvo una relación directa con la UODI, y sus inductores, a partir del 2016 (Tabla 4). La UODI fue positiva y su promedio fue de \$36.101 MM; los promedios de la utilidad operacional e impuestos fueron de \$48.894 MM y \$12.973 MM respectivamente (parte a de la Tabla 4).

El cargo de capital siguió la misma tendencia del ANO, que solo creció al comienzo y final del sexenio, pero no del Ko, que subió hasta el 2016 y luego bajó. Los promedios del cargo de capital, ANO y Ko fueron en su orden de \$42.422 MM, \$490.008 MM y 8,5% (parte b de la Tabla 4).

Tabla 4: EVA Promedio por Empresa de la GSCC y Sus Inductores

Indicador	2014	2015	2016	2017	2018	2019	Promedio	σ
EVA (MM\$)	34.281	16.800	-8.791	-36.477	-23.354	-20.389	-6.322	
UODI (MM\$)	62.496	78.293	47.632	3.134	10.378	14.672	36.101	
Cargo de capital (MM\$)	28.215	61.493	56.422	39.611	33.731	35.062	42.422	
a. Indicadores del inductor UODI								
UAI (MM\$)	83.328	104.391	63.509	4.748	15.489	21.899	48.894	
Impuestos (MM\$)	20.832	26.098	15.877	1.614	5.111	7.227	12.793	
b. Indicadores del inductor cargo de capital								
ANO (MM\$)	384.062	606.013	514.101	480.861	466.904	488.106	490.008	
Ko (%)	7,3	10,1	11,0	8,2	7,2	7,2	8,5	1,6
c. Inductores del indicador ANO								
KTNO (MM\$)	168.818	124.986	88.238	63.798	52.895	62.667	93.567	
AFNO (MM\$)	215.245	481.028	425.863	417.063	414.009	425.439	396.441	
d. Indicadores del inductor Ko								
Ke ¹ (%)	16,2	20,7	15,8	14,0	14,5	14,8	16,0	
Ki ² (%)	7,2	8,0	11,4	9,8	7,8	7,4	8,6	
L (%)	82,2	71,7	66,6	76,6	78,3	77,6	75,5	
t (%)	25,0	25,0	25,0	34,0	33,0	33,0	29,2	
e. Sistema Dupont del índice UODI/ANO								
UODI/ ANO (%)	16,3	12,9	9,3	0,7	2,2	3,0	7,4	6,4
UODI/Ventas (%)	14,5	15,1	11,9	1,1	3,7	4,4	8,5	
Ventas/ANO (veces)	1,1	0,9	0,8	0,6	0,6	0,7	0,8	
f. Utilidad o pérdida residual								
Utilidad residual (%)	8,9	2,8	-1,7	-7,6	-5,0	-4,2	-1,1	6,0
g. Valor del mercado agregado								
VMA a 1-1-2014 (MM\$)	-14.067							
h. EVA de la inversión								
EVA/ANO (%)	8,93	2,77	-1,71	-7,59	-5,00	-4,18	-1,13	

Fuente: Elaboración propia con base en EMIS Professional (2020) y Rivera, Trejos y Quevedo (2021), Superintendencia Financiera de Colombia (2020) y Damodaran (2020). Notas: MM\$ denota cifras en millones de pesos colombianos.¹ Ver fuentes de información complementaria para su cálculo en Rivera & Alarcón (2012, p. 92). ² Se toma la tasa promedio anual de crédito preferencial o corporativo reportado por la Superintendencia Financiera de Colombia (2020).

El ANO sostuvo una relación directa con el KTNO y el AFNO, menos en el año 2015 con el KTNO. El peso del AFNO y del KTNO fueron en su orden del 80,9% y del 19,1% del ANO; en promedio el KTNO fue de \$93.567 MM, mientras que el AFNO fue de \$396.441 MM (parte c de la Tabla 4).

El Ko mantuvo una relación directa con el Ki y una relación inversa con L hasta el 2018. El Ko más alto (11,0%) se presentó en el 2016, precisamente cuando Ki fue mayor (11,4%) y L menor (66,6%) en el sexenio; mientras que el Ko más bajo se presentó en el 2018 y 2019 (7,2%) producto de la combinación de todos los inductores de Ko. Los promedios en el sexenio fueron: $K_e = 16,0\%$, $K_i = 8,6\%$, $L = 75,5\%$ y $t = 29,2\%$ (parte d. de la Tabla 4).

El indicador UODI/ANO se redujo hasta el 2017 y luego aumentó, preservando una relación directa con el EVA; igualmente, continuó la misma dirección de la razón UODI/ventas a partir del 2016, y del indicador ventas/ANO, salvo en el 2018; evidenciando que si solo se examina las actividades operacionales, el comportamiento de la efectividad de alcanzar beneficios está ligado no solo a la orientación de la eficacia en el monitoreo de costos y gastos operacionales, sino de la orientación de la eficiencia en la gestión del ANO. En el 2014 se presentó el mayor UODI/ANO (16,3%), producto del segundo mayor UODI/ventas (14,5%) y el mayor índice ventas/ANO (1,1 veces) del periodo, permitiendo generar el mayor EVA; mientras que en el 2017 sucedió lo contrario, la menor UODI/ANO (0,7%) resultado de la menor UODI/ventas (1,1%) y uno de los más bajos indicadores de ventas /ANO (0,6 veces), conduciendo a la mayor destrucción del EVA. Los promedios de los indicadores del sistema Dupont fueron: UODI/ANO (7,4%), UODI/ventas (8,5%) y ventas/ANO (0,8 veces), como se aprecia en la sección e de la Tabla 4.

El porcentaje de utilidad o pérdida residual cayó hasta el 2016, luego aumentó, manteniendo una relación positiva con el índice UODI/ANO, y una relación negativa con Ko, hasta el penúltimo año; este porcentaje residual solo fue positivo en el bienio 2014-2015, confirmando el motivo por el cual la gran empresa cementera en Colombia destruyó valor en cuatro años. El mayor porcentaje de utilidad residual tuvo lugar en el 2014 (8,9%), justamente cuando se creó más EVA; mientras que el mayor porcentaje de pérdida residual se presentó en el año 2017 (-7,6%), que fue precisamente cuando más se destruyó EVA. Además, el mayor porcentaje de utilidad o pérdida residuales está ligada con el mayor y menor indicador de UODI/ANO respectivamente, pero no corresponde con el menor o mayor Ko, lo que puede interpretarse como una mayor dependencia del porcentaje residual al rendimiento después de impuestos del activo neto operacional.

El valor de mercado agregado de la gran empresa cementera en Colombia fue de \$-14.067 MM al 01.01.2014, que reafirma la destrucción de valor entre el 2014 y el 2019, a pesar de que anualmente los indicadores de eficacia y efectividad fueron positivos, como se muestra en la Tabla 3 y partes e y g de la Tabla 4.

El EVA promedio destruido por cada peso invertido fue de -1,13%, siendo el 2014 cuando la creación fue más alta (8,93%) y el 2017 cuando la destrucción fue mayor (\$-7,59%). Ver parte h de la Tabla 4.

RESULTADOS

En esta sección se cotejan los indicadores con que se ha diagnosticado financieramente las grandes empresas del sector cementero en Colombia (GSCC) con los del sector suministro de la construcción el ámbito global (SCG) y en los países emergentes (SCE).

Crecimiento

La inversión en ANO aumentó al comienzo y final del sexenio en las GSCC, mientras que, en los pares externos después de caer al principio, crecen en los siguientes años: desde el 2017 en el SCG, y a partir del 2016 en el SCE (Tablas 1, 2 y 4).

Efectividad

El ROE fue positivo en todos los años para los tres grupos, con comportamientos fluctuantes, pero no semejantes. Al confrontar el ROE promedio de las GSCC (4,8%) con el del SCE (7,6%) y el del SCG (9,0%), y la dispersión del ROE de las GSCC (3,6%) con el del SCE (2,6%) y el del SCG (2,3%), se encontró que la efectividad de las GSCC fue inferior y con mayor riesgo. Al descomponer el ROE se halló una mayor afinidad de su comportamiento con el margen de utilidad neta en las GSCC y SCE, mientras que en el SCG el ROE estuvo influenciado tanto por el margen de utilidad neta, como la rotación de activos. Al comparar el promedio del margen de utilidad neta de las GSCC (11,5%) con la del SCE (4,8%) y la del SCG (4,9%), y la desviación estándar de este margen de las GSCC (8,3%) con el del SCE (1,6%) y el del SCG (1,2%) se encontró que la eficacia de las GSCC fue superior, pero con mayor riesgo, que las reportadas por sus pares externos; el SCG presenta la segunda mejor eficacia con el menor riesgo. El otro componente del ROE, como es la rotación de activos totales fue en promedio de 0,3 veces en las GSCC, 1,0 veces en el SCE y de 1,2 veces en el SCG, con una desviación de 0,04 veces en las GSCC y 0,07 en el SCE y en el SCG; lo que significa que la eficiencia fue inferior en las GSCC, pero menos riesgosa, que las presentadas por los sectores afines extranjeros, siendo el SCG el más eficiente. Mientras que el tercer componente del ROE, como lo es el apalancamiento financiero giró alrededor de un 155,7% en las GSCC, 153,5% en el SCE y 157,2% en el SCG, con una desviación estándar de 6,6% en el GSCC, 8,1% en el SCE y 7,1% en el SCG, revelando que las GSCC usa una proporción de deuda intermedia, pero con menor variabilidad, con relación a los dos sectores extranjeros (Tablas 1, 2 y 3).

Valor Económico Agregado

El EVA de las GSCC fue positivo en los dos primeros años, mientras en el SCE ocurrió en el último año y en el SCG en los tres últimos años; la tendencia del EVA de las GSCC fue diferente a los dos grupos foráneos, pues se redujo y solo aumentó en los dos últimos años, mientras que en los sectores extranjeros cayó en el primer año, pero después aumentó (Tablas 1, 2 y 4). Esto dio como resultado que el VMA en el sexenio fuera negativo en las GSCC (\$-6.322 MM) y en el SCE (\$-5.409 MMUS) y positivo en el SCG (\$3.717 MMUS).

Al revisar los inductores del EVA se encontró que el promedio del UODI/ANO de las GSCC (7,4%) fue superior al del SCE (7,3%), pero inferior al del SCG (8,4%), aunque con una mayor dispersión para las GSCC ($\sigma = 6,4\%$), seguido del SCE ($\sigma = 2,4\%$) y del SCG ($\sigma = 1,9\%$); mientras que el promedio del Ko de las GSCC (8,5%) fue mayor que la del SCG (8,0%), aunque menor a la del SCE (8,7%), pero con una mayor dispersión en las GSCC ($\sigma = 1,6\%$) comparado a la del SCE ($\sigma = 0,7\%$) y al del SCG (0,5%), lo que evidenció que las GSCC mantuvo una eficacia intermedia en el control de costos operativos y financieros, que solo supera a la presentada en los países emergentes.

Lo anterior dejó a las GSCC con un porcentaje de pérdida residual promedio de -1,1% y del -1,4% en el SCE, mientras que el SCG logró un porcentaje utilidad residual promedio de 0,4%. La dispersión fue mayor en las GSCC ($\sigma = 6,0\%$) que la del SCE ($\sigma = 2,8\%$), y la del SCG ($\sigma = 2,2\%$).

Al revisarse el EVA que deja cada unidad monetaria invertida, las GSCC con -1,13% estuvo por encima del SCE (-1,45%), pero por debajo del SCG (0,41%).

CONCLUSIONES

Del estudio realizado de la gran empresa cementera en Colombia entre el 2014 y 2019 se encontró un incremento al comienzo y final del sexenio del ANO, diferente a las industrias afines en el ámbito global y de países emergentes que lo hicieron en al menos los tres últimos años.

El *ROE* de la gran empresa cementera Colombia fue positivo, al igual que los sectores pares en el mundo y en países de economías emergentes; sus índices en los seis años fueron más dispersos y su promedio más bajo que los exhibidos por los sectores extranjeros, siendo esta diferencia mayor cuando se compara con el SCG. Con lo que se evidencia su menor efectividad en obtener ganancia para los dueños, y su mayor riesgo para conseguirla frente a los dos pares externos.

El comportamiento del *ROE* de la gran empresa cementera en Colombia estuvo más adherido a la dirección del margen neto, de la misma manera que el sector afín en países emergentes, aunque su eficacia fue superior a ambas. El apalancamiento financiero contribuyó a aumentar su efectividad, de una forma más amplia que las del sector de economías emergentes. En cambio, la rotación de activos fue menos preponderante en la dirección del *ROE*, y el promedio estuvo por debajo de los sectores equiparables externos, indicando su menor eficiencia en la gestión de los activos.

El promedio de las grandes empresas cementeras en Colombia destruyó *EVA* en cuatro años del sexenio, mientras que en los países emergentes se tuvo esta pérdida residual en cinco años, que contrasta con la creación de *EVA* en el entorno global por tres años, esto llevó a que el *VMA* de la cementera colombiana fuera negativo, al igual que el *SCE*, pero diferente al *SCG* que obtuvo un positivo *VMA*. El comportamiento del *EVA* de las *GSCC* conservó una correspondencia directa con la rentabilidad del activo neto operacional después de impuesto y una correspondencia inversa con el costo de capital en algunos años. Estos inductores del *EVA* fueron mejores en la industria nacional en comparación al sector de naciones emergentes, pero peores a los del sector de los países en el ámbito global, dejando en promedio un porcentaje de pérdida residual, al igual que el *SCE*, pero contrario al porcentaje de utilidad residual presentado en el *SCG*.

El porcentaje promedio de *EVA* que dejó la inversión en la gran empresa cementera en Colombia fue de \$-1,13%, aunque solo fue positiva en el *SCG*.

Este trabajo investigativo podría profundizarse para poblaciones similares en cuanto a su edad, la etapa de su ciclo de vida y su forma jurídica.

Anexo: Empresas del Sector Cementero en Colombia

NIT	Razón Social	NIT	Razón Social
890100251	Cementos Argos S.A.	900428195	Lhoist Colombia S.A.S.
860002523	Cemex Colombia S.A.	890910599	Productos Minerales Calcareos S.A.
860009808	Holcim (Colombia) S.A.	800178319	Procesadora De Cales Procecal S.A.S
900164755	Zona Franca Argos S.A.S.	900882921	Productora de Cemento S.A.S.
900570964	Ultracem S.A.S.	900646912	Caltex S.A.S.
900233101	Cementos San Marcos S.A.S	830120172	Cementos Atlas S.A.
890304607	Impadoc S.A.	900803391	Cementos Nacionales S.A.
	Molienda de La Sabana S.A.S.	900907364	Empresa Colombiana de Cementos S.A.S.
900657956			
824004657	Cementos y Calizas de la Paz S.A.	890900120	Suministros De Colombia S.A.S.
830120480	Cementos del Oriente S.A.		

Fuente: Elaboración propia con base en Superintendencia de Sociedades (2020) y Rivera, Trejos y Quevedo (2021). Nota: Se tomó las empresas con activos superiores a los 30.000 salarios mínimos legales, conforme al artículo 2 de la Ley 905 de 2004 (Congreso de Colombia, 2004).

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RECONOCIMIENTO

El autor agradece el apoyo de los estudiantes Carlos Andrés Trejos Pérez y José Luis Quevedo Suárez del Programa de Contaduría Pública de la Universidad del Valle.

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