LEADERSHIP IN THE LITERATURE FROM 2020 TO 2024

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Abstract:

Knowledge management is a phenomenon observed in the pandemic, although focused on the translation of experiences, knowledge and skills. The objective of the study was to explore the dimensions of leadership in the context of the pandemic. An exploratory, cross-sectional and psychometric study was carried out with a sample of 457 students from a public university in central Mexico. The results show a structure of three factors that explained 54% of the variance, but the literature suggests the inclusion of a fourth and fifth factor to explain the emergence of a transformative leadership: opportunistic, entrepreneurial and innovative as COVID-19 intensifies. In relation to the state of the art, it is proposed to extend the model in order to be able to explain the impact of the coronavirus on the management of knowledge in the virtual classroom.

Keywords: *COVID-19, Exploratory Factorial Model, Knowledge Management, Virtual Clasroom.*

Introduction

Until March 2024, the pandemic has affected knowledge management as a risk scenario. In this sense, the leadership dimensions of knowledge managers emerged before the pandemic (García et al., 2021). In other words, the health crisis forced the transition from the face-to-face classroom to a virtual one. In the distance teaching and learning process, students and teachers had to acquire computational skills. In this way, COVID-19 determined significant distance learning.

The dimensions of knowledge management, understood as the translation of knowledge and skills, focused on those related to leadership (Sandooval et al., 2022). In fact, the nomenclature of this variable suggests that at least three prevail:traditional,transitional and transformational.If knowledge management is essentially the inheritance of experiences, traditional leadership is hegemonic in the structure. If management is more of a translation of knowledge, transitional leadership prevails. If management is more a matter of training skills and competencies, then transformational leadership will be hegemonic.

The inheritance of experiences is a very common practice in family organizations (García, 2022). The patriarch spreads his advice to his descendants on the org chart: it is even possible that the patriarch considers loyalty as a requirement for inheritance. In this sense, those who inherit the decision making power are not precisely relatives but rather those who have been trained by traditional leadership. In the COVID-19 era, traditional leadership has been disrupted because the coronavirus affects those of advanced age. Consequently, the organizations had to reorient their command and decision structure towards a transitional leadership.

The pandemic led family leaders to confine themselves to avoid contagion, illness and death (Sánchez et al., 2022). In this scenario, the organizations opted for a leadership that would allow them to establish the bases for a transition towards a leader who could face the risks of the SARS CoV-2 coronavirus. Transitional leadership, defined as a provisional knowledge manager, emerged in this context of the health crisis. Therefore, the organizations had to direct their efforts towards the care of the traditional patriarch and the formation of a new leader. While in the traditional classroom the patriarch decided the processes, in the virtual classroom the new leader had to focus on optimizing resources (Bustos-Aguayo et al., 2021). The austerity that characterizes the transitional leader underlies as a response to the economic and financial crisis in which the organizations and institutions were exposed. Once the pandemic was revealed as a permanent crisis, transitional leadership had to move towards innovative leadership: transformational.

In the face of the health crisis,the scarcity of resources was faced by the transitional leadership that is distinguished by the optimization of resources, but COVID-19 soon became evident as a permanent risk (García et al., 2022). In this sense, patriarchal, confined leadership and typecast transitional leadership were insufficient and gave rise to entrepreneurial leadership. The innovative manager saw the pandemic as an opportunity, even when the competitive advantages of his organization do not correspond to a crisis. Therefore, the crisis as an opportunity supposes an adaptation to change, even an anticipation of crises (Sandoval-Vázquez et al., 2021). Innovative leadership generates its opportunities from the crisis and builds a discourse of returns and opportunities. In the virtual classroom, innovative leadership is one where knowledge is produced and configured as a competitive advantage.

The aim of this paper is to explore the factorial structure of knowledge management in the context of COVID-19, considering the exposed leadership structure. Patriarchal leadership is expected to be seen at the start of the health crisis as a legacy spread between the patriarch and the followers. A speech in which the crisis and its impact on the organization and institution are announced, but given the lack of knowledge, the position is one of waiting and speculation of what would be done if the contingency is accentuated. Once the affectation of the coronavirus to older adults is announced, the patriarch confines himself and gives command of him to a provisional leader. The beginning of the pandemic is faced by the transition manager who focuses on the optimization of resources (Carreón et al., 2022). In the virtual classroom, the provisional leader is distinguished by following the traditional guidelines, but aware that he must optimize his time and effort to achieve the objectives without excluding the legacy of the patriarch (Bustos-Aguayo et al., 2022). Once the permanent crisis is accepted, the provisional leader yields his place to a leadership that specializes in seeing opportunities even in risks. Also, the transformational leader understands that motivation is central in the formation of talents. Therefore, he generates opportunities in crises and reverses the pandemic as a phase of innovation (Quiroz Campas et al., 2022). It is evident that in the virtual classroom the entrepreneurship of immersive learning and the innovation of content such as gamification revealed transformational leadership.

The question that guided this research was: Are there significant differences between the theoretical structure of knowledge management reported in the literature from 2020 to 2023 with respect to the observations of the

present study in a sample of students from a public university in central Mexico?

The premise that guides this work suggests that knowledge management in crisis presents a spectrum that goes from autocratic power to co-responsibility (Jacinto & Lirios, 2022). As the pandemic intensified, it diluted one-way communication and one-person motivation. Collaborative relationships emerged with inclusive discourses. In such a process, organizations and institutions had to learn paradigms that had only been witnessed in exceptional situations. Those organizations that faced crises such as earthquakes, terrorism or recession improvised in the assignment of functions and responsibilities. They restructured their organization chart and optimized their resources. Now, the pandemic forced the search for balance, but as the crisis spread, it reconfigured the objectives. The goals now would be based on the production of opportunities and knowledge would no longer be the result of a process but the point of entrepreneurship and innovation (Coronado et al., 2022). The new reality redefined the values of the organization and reoriented them towards biosafety. Therefore, significant differences between the theoretical and empirical frameworks are expected.

Method

Design. A non-experimental, cross-sectional and exploratory study was carried out.

Sample. A total of 457 students from a public university in the State of Mexico were surveyed, considering the semester in which they carry out professional practices, or they carry out their social service. 64% were women and 35% men. 58% said they were between 18 and 22 years old, 24% between 23 and 29 years old, and the remaining 18% said they were over 29 years old. 34% said their family income amounted to less than 3500 MXN a month *(M* = 3241, *SD* = 12.35), 51% reported a household income of between 3500 and 7000 MXN per month *(M* = 5672, *SD* = 124.35), the remaining 15% noticed that their family earned more than 7000 pesos per month (M = 8712, SD = 235.25). 67% declared to be single, 13% live in a free union and 20% in marriage.

Instrument. The Knowledge Innovation Management Scale was used, which includes 21 items alluding to communicative leadership, motivational leadership and the construction of agreements between leaders and talents. Each item includes the response options: 0 = not at all probable, 1 = very unlikely, 2 = unlikely, 3 = neither improbable nor probable, 4 = probable, 5 = very likely.

Process. The Delphi technique was used for the cultural adaptation of the instrument to the sample, asking a group of experts about the local meaning of words included in the reagents and integrating the information in the modified items. The sample was surveyed in the lobby of the library of his university, with prior written assurance that the results of this work would not affect his academic or work status, as well as the confidentiality of his answers. The information was processed in the Statistical Package for Social Sciences (SPSS version 20.0) and the software of Analysis of Structural Moments. The internal consistency of the instrument was estimated with the Cronbach alpha parameter. An exploratory factorial analysis of principal axes with promax rotation was carried out in order to establish the validity of the knowledge management construct. The model was compared with the parameters of goodness of fit (GFI) and residuals.

Values close to unity were assumed as evidence of normality, valid z and adjustment, as well as interpreted as non-rejection of the null hypothesis that establishes significant differences between the theoretical structure with respect to the observations made in the study. On the contrary, values close to zero were considered as evidence of null internal consistency, construct configuration and relationship between factors, as well as rejection of the null hypothesis.

Results

The instrument achieved an internal consistency higher than that required ($\alpha = 0.895$), as well as the subscales of communicative leadership ($\alpha = 0.890$), motivational leadership ($\alpha = 0.880$) and construction of agreements ($\alpha = 0.870$). Regarding the validity of the instrument, three factors were configured relating to communicative leadership (23% of the total variance explained), motivational leadership (17% of the total variance explained) and construction of agreements (14% of the total variance explained), which explains 54% of the total variance explained.

Once the factors were established, they were correlated to determine dependency relationships with the factor in common and the covariances were weighted to establish possible associations with other factors. The correlations and covariances between the factors, highlighting the association between communicative leadership and motivational leadership ($r = 0.621$, $p < 0.01$), but the covariance between both factors (cov = 0.314) warns that others factors would be influencing their relationship, also implying that other indicators would form the construct of knowledge management. In addition, the association between both factors suggests that these are determinants of a factor associated with knowledge management.

Once the possible dependency relationships between the factors and the probable incidence of other factors in

the construct were established, the model was contrasted. The reflective structure of knowledge management in which motivational leadership was the reflective element of knowledge management. That is to say that in the relation that the leaders keep with the talents around the production and transfer of knowledge, it is the motivation that explains this process.

The adjustment and residual parameters ⌈χ2 = 324.35 (243gl) p = 0.007; GFI = 0.977; CFI = 0.990; RMSEA = 0.008⌋ suggest the acceptance of the null hypothesis concerning the adjustment of the theoretical relations with respect to the empirical observation of these relations.

Discussion

The contribution of this work to the state of the question lies in the establishment of an exploratory model. Three factors were found that explained 54% of the variance. The results suggest the inclusion of a fourth factor that the literature identifies as innovative management after establishing communication, motivation and agreements between the parties. The fourth factor would increase the explanatory power of the model concerning knowledge management in a crisis situation. Lines of study concerning the fourth factor in relation to the three established factors will allow us to anticipate a knowledge management structure where transformational leadership emerges.

Horizontal communication is distinguished by the degree of entrepreneurship and innovation in a scenario of scarcity of resources. Therefore, the relationship between innovative and entrepreneurial management with bidirectional communication will allow explaining and predicting a consistent response of organizations to threats in their environment. For its part, the motivation to achieve objectives and goals in risk contexts would be related to innovation and entrepreneurship if the virtual classroom is considered as a knowledge management device in risk prevention. In other words, leaders who encourage learning through digital platforms activate motivational discourses focused on processes rather than relationships. In the case of agreements and co-responsibilities, entrepreneurship and innovation underlie the response to a crisis that has been reconsidered as an opportunity. In this way, the prediction of innovative management can be done from the establishment of a common agenda between the parties.

However, entrepreneurship and innovation have been explained from opportunism as an indicator of knowledge management. As the crisis intensifies, the perception of opportunities anticipates an increase in the improvisation of projects and the creation of new projects. That is, opportunism is a mediating factor of knowledge management carried out by a transitional leadership. In other words, at the beginning of the pandemic, after the traditional leadership was confined and the transitional leadership reoriented the objectives and goals, opportunism reflected a scenario of crisis and offer of solutions or proposals. In this situation, entrepreneurship and innovation take on a nuance centered on the oversupply of resources. This is the case of the virtual classroom where platforms proliferate, at the same time,there is little consensus among experts to redirect immersive, critical and collaborative learning.

Due to the above, the extension of the pandemic defines the type of leadership and the analysis of its dimensions around knowledge management in organizations and educational institutions. The first wave of the pandemic would be related to traditional leadership and its factorial structure. The second wave links to transitional leadership and from the third wave,transformational leadership emerges.

Conclusion

The aim of this work was to explore the dimensions of leadership around knowledge management in the face of the pandemic. A structure of three factors was found that explains 54% of the variance. The results suggest a new modeling of the factors and the inclusion of a factor related to innovation and entrepreneurship. For its part, the literature is consistent with the relationship between the three demonstrated factors and the fourth theoretical factor, but it also suggests a fifth factor observed at the beginning of the health crisis which predicts the fourth factor: opportunism. The observation of the five factors will allow explaining the dimensions of knowledge management in the virtual classroom whenever the pandemic intensifies.

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