



Attitude toward of University at Public University Central Mexico

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ABSTRACT

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The objective of the study lies in the contrasting of a theoretical model of university governance in the COVID-19 era. Given that the literature consulted warns of the impact of the pandemic on university governance, the factorial structure was confirmed. An exploratory, cross-sectional and correlational study was carried out with a sample of 180 administrators, teachers and students from a university in central Mexico, selected for their participation in the social service system and professional practices in community health institutions. Participants were contacted through their institutional email, and the confidentiality and anonymity of their responses were guaranteed. The concepts were homogenized in focus groups. The instrument was evaluated using the Delphi technique in three phases; qualifying, comparative and reiterative-reconsiderative. The University Governance Scale was applied via zoom session. The data was captured in Excel and processed in JASP. Reliability, validity, adjustment and residual coefficients were estimated for hypothesis testing. The trifactorial structure was corroborated: identity, reputation and image, although the first factor explained the highest percentage of variance and only 12 of 18 indicators correlated with its factors. The contribution of the study lies in the contrasting of the university governance model in a scenario of exposure to COVID-19, but the limit of the study lies in the non-generalization of the results to the university community.

1. Introduction

The history of university governance is long and varies across different cultures and educational systems over time [12]. The most significant milestones in the evolution of university governance: Modern universities have their roots in the Middle Ages, with institutions such as the University of Bologna (founded in 1088) and the University of Paris (founded in 1150). In this period, universities emerged as autonomous institutions of learning, governed by professors and students, with a hierarchical structure and the participation of the Church.

During the 12th and 13th centuries, the model of collegiate universities developed, in which institutions were divided into smaller colleges that awarded degrees and had a degree of autonomy. During the Middle Ages and the Renaissance, the Catholic Church had a predominant role in university governance [17]. Bishops and other ecclesiastical officials exercised great

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influence over universities and their operation. With the advent of the Enlightenment in the 18th century, changes in university governance arose. Greater academic and scientific autonomy was advocated, and the absolute authority of the Church was questioned. Throughout the 19th century, many universities in Europe became secularized and gradually freed themselves from ecclesiastical influence. National governments began to intervene more in the administration and financing of universities. At the end of the 19th century, Germany introduced a model of the modern university characterized by increased specialization and the notion of an independent university faculty. This model influenced the development of universities around the world. In the 20th century, the university system expanded globally, with different governance approaches depending on the country and culture. Some countries adopted more centralized and governmental models, while others leaned towards greater autonomy and participation of teachers and students in decision-making.

In recent times, many universities have adopted more corporate governance structures, with non-academic boards, presidents, and administrators assuming a greater role in decision-making [7]. In response to more corporate governance trends, some student and academic movements have advocated for greater democratization of decision-making, promoting broader participation of faculty, students, and staff in university affairs.

University governance remains a dynamic and evolving topic, adapting to changing social and educational needs and contexts [16]. Each university institution has its own governance structure, which may vary depending on its history, traditions and national educational systems. Governance and human capital formation are closely related, since the way in which a society or educational institution is organized and managed can significantly influence the development of human capital.

The term "human capital" refers to the set of skills, knowledge, experience, and competencies that people possess that contribute to their productivity and ability to contribute to economic and social growth [23]. The formation of human capital is achieved through education, training and the personal and professional development of people. Governance, on the other hand, refers to the structures, policies, processes, and practices by which decisions are made and authority is exercised in a society or institution. In the context of human capital formation, governance can play a role in various ways:

Decisions about the educational system, investment in education and the quality of training programs have a direct impact on the development of human capital [15]. Effective governance can ensure that there are coherent and well-focused education policies.

Governance can guarantee that all people have equal opportunities to access quality education, which will allow the development of human capital in a more equitable and effective way [3]. Governance also plays a crucial role in improving the quality of education. Establishing educational standards, constantly evaluating and improving study plans, and training teachers are fundamental aspects to develop highly qualified human capital.

Good governance can encourage investment in research and development, which translates into scientific and technological advances that contribute to the development of human capital in innovative and cutting-edge areas [22]. Well-structured governance can ensure that human capital formation is aligned with the needs of the labor market and the economy, focusing on the development of skills and competencies relevant to the current and future context.

Inclusive governance, which includes the participation of academics, human resources experts, companies and other relevant stakeholders, can contribute to a more accurate formation of human capital adapted to the demands of the work environment [14]. Effective governance committed to the formation of human capital can generate benefits both at the individual level and at the social

and economic level. By investing in education and the personal and professional development of people, sustainable growth and a fairer and more prosperous society are promoted.

The theory of university governance refers to the set of principles, models and approaches that describe and explain how decisions are made and authority is exercised in university institutions [19]. This theory addresses the power structure, the roles of the different actors and the decision-making mechanisms within a university. The theory of university governance highlights the importance of the autonomy of academic institutions. This implies that universities must have the freedom to make academic and administrative decisions without undue political interference or excessive restrictions by the government or other external entities.

University governance implies the participation of various actors in decision-making [13]. These stakeholders may include academic staff (teachers, researchers), administrative staff, students and, in some cases, government representatives or external members on the board of directors. Universities often have governing bodies that make key decisions. These bodies can vary by institution and country, but commonly include a board of trustees or governing council, an academic board, and a university president or chancellor. University governance theory emphasizes the importance of transparency in decision-making and accountability to stakeholders, including students, staff, and society at large.

University governance also considers the interaction of the university with its environment, including relationships with government, industry, the community, and other external partners [8]. Given the diversity of interests and perspectives within a university, university governance theory also examines how conflicts are managed and agreements reached between the actors involved.

The COVID-19 pandemic has had a significant impact on university governance, as academic institutions have been forced to face unprecedented challenges to ensure the continuity of education and the safety of their community [4]. The rapid spread of the virus and the need to take urgent measures to protect the university community and adjust academic and administrative operations required universities to make agile and adaptable decisions. Governance structures had to respond quickly to the new circumstances and take steps to mitigate risks and ensure continuity of learning.

Universities had to move to online teaching to prevent the spread of the virus [1]. This involved an accelerated transition to online learning platforms and technologies, requiring quick decisions on teacher training, access to technology resources, and adaptation of curricula. University governance had to implement measures to protect the health and safety of students, faculty, and staff. This included the adoption of hygiene protocols, social distancing, and possibly the implementation of testing and contact tracing.

Students faced emotional and academic challenges due to the pandemic [18]. University governance had to make decisions to provide additional support and resources to students, such as online counseling services and flexible options to complete their studies. COVID-19 created economic challenges for many universities due to declining enrollment, budget cuts, and the impact on research and business activities. Governance had to make tough decisions about the institution's budget, investment, and financial sustainability.

The pandemic highlighted the importance of scientific research and collaboration between universities and other institutions [10]. University governance had to facilitate collaboration between academics and scientists to address the challenges related to COVID-19 and contribute to the development of solutions. In times of uncertainty, transparent and effective communication was a key to maintaining the trust of the university community and external stakeholders. University governance had to clearly and constantly communicate the decisions made, the measures implemented and updates on the situation.

Studies on university governance in the COVID-19 era consist of establishing a health agenda and the impact of anti-COVID-19 policies without considering the trust between the authorities and the university community regarding the pandemic and its effects on the teaching learning [2]. Once the pandemic stopped and intensified, biomedical studies demonstrated the imminent risk in closed spaces. Consequently, risk communication became the focus of the discussion. In this way, the review of studies related to the diffusion of innovations, the usefulness of technology and the perception of risks are essential to establish the formation of intellectual capital in university governance during the pandemic.

The objective of the study is to establish the learning network of university governance in the COVID-19 era regarding the formation of intellectual capital. If governance is a regulatory system of identities, reputations and images, then it is to be expected that the pandemic will increase the stigma towards the authorities regarding the management of the health crisis and its effects in the classroom.

Are there significant differences between the theoretical structure of university governance versus student evaluations regarding the image, reputation, and identity of anti-COVID-19 policies? Hypothesis 1, there will be significant differences between the theoretical structure of governance and the empirical observations if the impact of COVID-19 on the reputation, image and identity of the parties involved is considered. Hypothesis 2, there will be significant differences between the theoretical structure of university governance with respect to the evaluations of students trained in distance, asynchronous, virtual and immersive systems. Hypothesis 3, there will be significant differences between the theoretical governance regarding the utility, innovation or risk of students in the use of technology, devices and public networks.

2. Methodology

A cross-sectional, exploratory and correlational study was carried out in a sample of 40 administrative staff (M = 45.45 DE = 12.34 age and M = 34'672.00 DE = 12'856.00 monthly income), 40 teachers (M = 52.78 DE = 18.89 age and M = 27'893.00 SD = 12'643.00 monthly income), 100 students (M = 21.3 SD = 3.4 age and M = 5'782.00 SD = 435.00 monthly income).

The Perceived University Governance Scale was used. It includes statements about the identity, reputation and image of anti-COVID-19 policies [11]. Each statement is answered with one of five options ranging from 0 = "not at all in agreement" to 5 = "quite in agreement". The reported reliability of the instrument ranges between 0.789 and 0.864, although in the study the general scale reached alpha and omega values of 0.756 and 0.764 respectively, as well as values between 0.768 and 0.794 for the subscales. The validity obtained factorial weights between 0.348 and 0.523.

Respondents were contacted through institutional mail [5]. They were sent a letter explaining the objectives of the study and those responsible for carrying it out, as well as a guarantee of confidentiality and anonymity so as not to affect their academic status. The homogenization of the concepts was established in focus groups of 10 students. The activating questions were: What instrumental policies to defeat the pandemic? Identity, reputation and image are terms that describe your opinion on anti-COVID-19 policies? Next, the Delphi technique was used to evaluate the scale. In the first phase, the judges scored the items. In the second they compared their grades with averages. In the third they reiterated their initial rating or modified it. The scale was applied in a zoom session organized in groups of 20 respondents.

The data was captured in Excel. They were analyzed in JASP version 16. The reliability, adequacy, sphericity, validity, adjustment and residual coefficients were estimated. The values

close to the unit were interpreted as evidence of non-rejection of the hypotheses, except for the residual that should have tended to zero for the contrast of the hypothesis.

3. Results

The model specification delimits the relationships between the variables and indicators. In this sense, the comparison of the theoretical model of three variables with the empirical model is specified with the eigenvalues (see Table 1).

Table 1
Kaiser-Meyer-Olkin test

| | MSA |
|-------------|-------|
| Overall MSA | 0.821 |
| r1 | 0.831 |
| r2 | 0.912 |
| r3 | 0.861 |
| r4 | 0.671 |
| r5 | 0.914 |
| r6 | 0.711 |
| r7 | 0.781 |
| r8 | 0.757 |
| r9 | 0.930 |
| r10 | 0.847 |
| r11 | 0.897 |
| r12 | 0.741 |
| r13 | 0.777 |
| r14 | 0.646 |
| r15 | 0.855 |
| r16 | 0.702 |
| r17 | 0.798 |
| r18 | 0.724 |

KMO = 0.762; Sphericity [$\chi^2 = 23.24$ (24gl) $p < 0.01$]

The eigenvalues suggest the inclusion of three variables, but the empirical test of the model, the fit and residual values indicate that the 18 indicators should be reduced to 12 and the three variables decreased to three for identity, four for reputation and four for the image (see Table 2).

The fit and residual parameters [$\chi^2 = 829.868$ (102 gl) $p < 0.001$; TLI = 0.412; BIC = 360,141; RMSEA = 0.026] suggest the non-rejection of the hypothesis regarding the significant differences between the theoretical and empirical model (see Table 3).

Table 2
 Factor loadings

| | Factor 1 | Factor 2 | Factor 3 | Uniqueness |
|-----|----------|----------|----------|------------|
| r1 | | 0.914 | | 0.166 |
| r2 | 0.950 | | | 0.097 |
| r3 | 0.907 | | | 0.102 |
| r4 | | | | 0.801 |
| r5 | 0.938 | | | 0.111 |
| r6 | 0.557 | -0.722 | 0.410 | 0.149 |
| r7 | 0.799 | | | 0.315 |
| r8 | | | -0.816 | 0.222 |
| r9 | 0.755 | | | 0.339 |
| r10 | | | -0.430 | 0.637 |
| r11 | 0.882 | | | 0.097 |
| r12 | | | | 0.902 |
| r13 | 0.516 | 0.488 | 0.515 | 0.140 |
| r14 | | | | 0.786 |
| r15 | 0.858 | -0.497 | | 0.039 |
| r16 | | 0.784 | | 0.238 |
| r17 | | | 0.894 | 0.160 |
| r18 | | 0.724 | | 0.468 |

Note: Applied rotation method is promax.

Table 3
 Factor characteristics

| | SumSq. Loadings | Proportion var. | Cumulative |
|----------|-----------------|-----------------|------------|
| Factor 1 | 6.409 | 0.356 | 0.356 |
| Factor 2 | 3.141 | 0.174 | 0.531 |
| Factor 3 | 2.682 | 0.149 | 0.680 |

4. Discussion

The present work corroborates the theoretical structure of university governance reported in the consulted literature. The findings show that the university governance structure includes identity with 34% of the total variance explained, reputation with 10% of the total variance and image with 3% of the total variance explained. The adjustment and residual parameters indicate the non-rejection of the three hypotheses related to the significant differences between the theoretical structures with respect to the empirical model. In addition, university governance with its structure of three variables can be explained from twelve indicators. Such findings are relevant to the state of the art, as the governance structure has not changed in the COVID-19 era.

Studies on university governance emphasize the regulation of anti-COVID-19 policies based on the epidemiological traffic light [9]. In this way, the red color defined the distance teaching and learning policies, the use of anti-COVID-19 devices and the management of virtual procedures, but the green traffic light deregulated the anti-pandemic measures. Such a dilemma limited university governance [6]. Progress towards a knowledge management system with the participation, representation and decision of the parties involved was limited by the pandemic [20]. In fact, the stigma towards university authorities emerged to reduce university governance to a minimal preventive expression of COVID-19.

University governance as the guiding axis of the health agenda implies the establishment of an identity, reputation and corporate image [21]. In other words, the university extension with public

and private actors suggests a biosecurity system that generates trust between the parties, although the studies indicate an institutional decoupling as a limit to governance. In fact, the present work found that the greatest amount of explained variance lies in the identity factor that measures internal trust. Meanwhile, the university governance structure includes reputation and image, but the explained variance is lower than identity. It means then that university governance was reduced to identity or internal trust between authorities, teachers and students in the face of the health crisis.

5. Conclusion

The contrast of three hypotheses related to the differences between the theoretical structures of university governance with respect to an empirical model suggests the non-rejection of identity, reputation and image as explanatory variables of the effects of COVID-19 on relations of trust between the parties involved. Administrative staff, teachers and students were exposed to the stigma towards the authorities regarding the management of the health crisis and risk communication. Precisely, a limit of the study lies in the non-generalization of the results to the study university population. In addition, the inclusion of stigma in the theoretical and empirical model is recommended to be able to contrast the leading hypothesis. The results show that the practice of university governance was reduced to an identity factor and therefore its implementation in university communication of the health crisis is recommended.

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