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Corporate governance before, during, and after the COVID-19 pandemic: evidence from non-financial companies listed on the Mexican Stock Exchange**El gobierno corporativo antes, durante y después de la pandemia de COVID-19: evidencia de empresas no financieras cotizadas en la Bolsa Mexicana de Valores**

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ABSTRACT

Introduction: Corporate governance can strengthen oversight, transparency, and accountability among listed companies during periods of uncertainty. However, it is necessary to understand how reported compliance with these practices evolved in Mexico before, during, and after the COVID-19 pandemic.

Objective: To describe the trajectory of the corporate governance compliance index (INDEX_GC) among non-financial companies listed on the Mexican Stock Exchange between 2015 and 2024 and examine descriptive differences by period, sector, region, and company size.

Method: A quantitative, longitudinal, descriptive-comparative study was conducted using a balanced panel of 31 companies and 310 firm-year observations. The index was constructed from 143 dichotomous items in corporate best-practice questionnaires. Descriptive statistics and a sensitivity analysis that provisionally excluded an extreme observation were calculated.

Results: The overall mean was 0.8889; the pre-pandemic, pandemic, and post-pandemic means were 0.8900, 0.8983, and 0.8809, respectively. No descriptive decline was observed in 2020–2021. In 2023, the mean was 0.8493, with a minimum of 0.00 whose documentary status could not be established. Conditionally excluding that observation increased the post-pandemic mean to 0.8905.

Conclusions: Reported compliance remained relatively stable in the panel studied. Differences across sectors and periods are descriptive and sensitive to the extreme observation. The results do not demonstrate causal effects of the pandemic and do not represent all issuers in the Mexican market.

Keywords: corporate governance; COVID-19; compliance index; Mexican Stock Exchange; listed companies; longitudinal analysis

RESUMEN

Introducción: El gobierno corporativo puede fortalecer la supervisión, la transparencia y la rendición de cuentas de las empresas cotizadas ante episodios de incertidumbre. Sin embargo, resulta necesario conocer

cómo evolucionó el cumplimiento declarado de estas prácticas en México antes, durante y después de la pandemia de COVID-19.

Objetivo: Describir la trayectoria del índice de cumplimiento de gobierno corporativo (INDEX_GC) de empresas no financieras listadas en la Bolsa Mexicana de Valores entre 2015 y 2024 y examinar diferencias descriptivas por periodo, sector, región y tamaño.

Método: Se desarrolló un estudio cuantitativo, longitudinal y descriptivo-comparativo mediante un panel balanceado de 31 empresas y 310 observaciones empresa-año. El índice se construyó con 143 reactivos dicotómicos de cuestionarios de mejores prácticas corporativas. Se calcularon estadísticos descriptivos y una sensibilidad que excluyó provisionalmente un registro extremo.

Resultados: La media global fue 0,8889; las medias prepandemia, pandemia y pospandemia fueron 0,8900, 0,8983 y 0,8809, respectivamente. Durante 2020–2021 no se observó una disminución descriptiva. En 2023 la media fue 0,8493, con un mínimo de 0,00 cuya naturaleza documental no pudo establecerse. Al excluir condicionalmente ese registro, la media pospandemia aumentó a 0,8905.

Conclusiones: El cumplimiento declarado se mantuvo relativamente estable en el panel analizado. Las variaciones entre sectores y periodos son descriptivas y sensibles al registro extremo. Los resultados no demuestran efectos causales de la pandemia ni representan a todas las emisoras del mercado mexicano.

Palabras clave: gobierno corporativo; COVID-19; índice de cumplimiento; Bolsa Mexicana de Valores; empresas cotizadas; análisis longitudinal

INTRODUCTION

Corporate governance has gained more prominence in academic and regulatory debates since supervisory problems emerged after several corporate and financial crises. At the heart of it is the separation between who owns the company and who manages it. When owners delegate control, conflicts of interest, agency costs, and differences in information can arise that justify the need for oversight and transparency mechanisms Jensen and Meckling (1). Shleifer and Vishny (2) expanded on this point by analyzing how investors seek to ensure that the resources they contribute are well managed.

Institutional responses to these challenges were manifested through codes and recommendations aimed at strengthening corporate governance. Institutional precedents include the Cadbury Report and, in Mexico, the Code of Best Corporate Practices, which promoted principles of transparency, accountability, and corporate supervision. On this basis, the study examined the evolution of compliance with corporate governance practices in Mexican non-financial companies listed on the stock exchange, without subordinating its approach to the results of previous research.

This update is important because between 2015 and 2024 companies faced very different conditions. In particular, the COVID-19 pandemic changed supervisory routines, governing body meetings, risk management, internal controls, and decision-making processes. Recent literature shows that governance mechanisms were not equally responsive. In U.S. companies, Hsu and Liao (3) found that good governance helped reduce some of the impact of the crisis on volatility and stock market trading. In the United Kingdom, Hsu and Yang (4) observed poorer quality in financial reporting during the pandemic and noted that certain board attributes helped mitigate this problem.

Evidence from Asia and other emerging markets provides nuances. Le and Behl (5) link corporate governance with the responsiveness and performance of small and medium-sized enterprises. Li et

al. (6) show that in the Chinese market, certain internal mechanisms were valued differently during the crisis. Recently, Putra (7) found in Indonesian manufacturing companies that good governance is related to performance, although the pandemic altered the functioning of some mechanisms. These findings coincide in a central idea: the impact and stability of corporate governance depend on the institutional context, the type of mechanism, and the characteristics of the companies.

The discussion on corporate governance is not limited to the years of the health emergency. Alshhadat and Al-Hajaya (8) highlighted flexibility, technological infrastructure, risk management, internal control, and organizational policies as relevant elements to sustain governance in the face of disruptive situations. Bonacchi et al. (9) raised questions about governance mechanisms, regulation, and transparency in the post-pandemic stage. This background justified examining the trajectory of compliance beyond 2020 and 2021. The objective of the research was to analyze the evolution of compliance with corporate governance practices in 31 non-financial companies listed on the Mexican Stock Exchange during 2015–2024. Compliance levels were described before, during, and after the COVID-19 pandemic based on 310 company-year observations. Compliance was measured using INDEX_GC, constructed with responses to questionnaires on best corporate practices.

The COVID-19 pandemic was used as a periodization criterion, without automatically attributing the observed changes to it. Three stages were distinguished: pre-pandemic (2015–2019), pandemic (2020–2021), and post-pandemic (2022–2024). This classification made it possible to describe the annual trajectory of compliance during the ten years of study and to compare the means observed by stage, economic sector, size, and region, without interpreting such descriptive contrasts as statistically significant differences. The analysis was based on the agency theory, according to which the separation between ownership and management can generate conflicts of interest and supervisory costs Jensen and Meckling (1). The comparisons are presented as descriptive expectations of observing temporal and inter-category variations in the sample, not as statistical hypotheses subject to contrast.

From this perspective, corporate governance mechanisms make it possible to delineate responsibilities, monitor managerial performance, and reduce information asymmetries. Shleifer and Vishny (2) highlight the protection of investors and the supervision of those who manage resources. In emerging markets, Klapper and Love (10) and Leal and Carvalhal da Silva (11) provided background information for measuring governance practices through indices. More recently, Black et al. (12) examined the limitations of corporate governance business ratings in emerging markets, while Yadav and Yadav (13) constructed indices and sub-indices to assess specific dimensions of governance. These studies support the need to clearly define the components and scope of INDEX_GC.

The institutional dimension also allows the compliance index to be contextualized. La Porta et al. (14) examined how differences in legal systems and investor protection relate to corporate financing; Aguilera and Jackson (15) proposed a framework to understand the diversity of corporate governance systems across countries. For their part, the G20 and OECD Principles of Corporate Governance (16) systematize recommendations on shareholder rights, disclosure, board responsibilities, and sustainability. These contributions support the interest in describing observable corporate

governance practices, without assuming that an aggregate index allows causality or equivalence to be established between institutional contexts.

Recent literature has examined corporate governance mechanisms in relation to business characteristics, resilience, and performance. Croci et al. (17) analyzed the relationship between board characteristics and resilience to disruptive events; Jiang et al. (18) studied corporate governance and cash holdings in an emerging market; and Tran (19) considered the corporate governance index in the study of listed companies. In contrast to these explanatory approaches, the present research focuses on describing the temporal evolution of compliance with corporate governance practices of the same 31 companies during 2015–2024.

LITERATURE REVIEW

Evolution of corporate governance during crisis situations

Crisis situations test the continuity of supervisory mechanisms, but their effects are not homogeneous. In Slovakia, Musová et al. (20) observed moderate changes in specific components, without a substantial change in the overall adoption rate. In contrast, Boshnak et al. (21) identified variable associations between board attributes and performance in Saudi companies, while Tarighi et al. (22) documented changes in the relationship between governance and performance of Iranian companies. The comparison requires distinguishing the dependent variables: a change in profitability or stock market behavior does not necessarily imply a reduction in formal compliance with corporate practices. Therefore, this study examines the stated trajectory of INDEX_GC, without equating it with the effectiveness of the government.

There are also differences between operational responses and aggregate indicators. Vichitsarawong and Eng (23) analyzed asset impairments and governance in several countries; Regueira de Oliveira et al. (24) highlighted the adaptation of organizational decisions and values in a Brazilian institution, and Lombana-Coy and Salcedo (25) linked the quality of corporate institutions to investment flows in Latin America. The three studies use different units, indicators, and analytical purposes. Together, they support the importance of context and adaptation, but they do not prove that all compliance rates have evolved in the same way during COVID-19. The Mexican contrast must be placed in this diversity: it measures self-reported adherence to practices, not investment, performance, or demonstrated resilience.

Measuring compliance using corporate governance indices

Corporate governance indices synthesize heterogeneous sets of practices and their usefulness depends on the transparency of the measurement. Lagos and Vecino (26) studied the application of indicators in Colombian companies; Klapper and Love (10) and Leal and Carvalhal da Silva (11) showed their comparative usefulness in emerging markets. However, an aggregate score may mask variations in the quality of supervision or in specific dimensions. Black et al. (12) noted limitations of commercial ratings, while Yadav and Yadav (13) defended the usefulness of sub-indices. These methodological differences require specifying which items are summed, what weight each receives, and how incomplete responses are treated.

The longitudinal comparison poses an additional requirement: the content of the instrument must be equivalent between years. A constant denominator, such as the 143 items declared for INDEX_GC, makes it easier to interpret a proportion, but does not in itself prove that all the questions retain their meaning and applicability. Changes in the questionnaire, documentary omissions, and "not applicable" categories may modify the reading of the indicator. The normative reference of the G20/OECD Principles (16) allows for the organization of dimensions such as disclosure and responsibilities of the board, without replacing the verification of the coding matrix. Therefore, the results of the Mexican panel describe scores reported under a common operational definition, subject to the traceability of their records.

Continuity and changes in practices during and after the pandemic

Studies comparing periods of crisis agree that not all corporate mechanisms behave in the same way. Hsu and Liao (3) found a moderating role of certain governance features in the US market, without concluding that the effects of the crisis disappeared. Hsu and Yang (4) observed a deterioration in the quality of the UK financial report and differences according to board attributes. Li et al. (6), Le and Behl (5) and Putra (7) pointed to specific relationships between governance, response and performance in Asian markets. In contrast, Slovak findings on the continuity of the global index (20) suggest that the stability of a formal indicator may coexist with changes in particular mechanisms or outcomes.

The subsequent stage incorporates questions about internal control, digital transformation, transparency, and institutional continuity. Alshhadat and Al-Hajaya (8) emphasized organizational flexibility, while Bonacchi et al. (9) highlighted the post-pandemic regulation and disclosure agenda. These contributions do not allow us to assume a causal relationship between the health emergency and the trajectory of the Mexican index. In this work, the comparison covers the same 31 companies during 2015–2024 and is distinguished from studies that explain profitability, cash holdings, or resilience (17-19). Its contribution lies in describing the continuity of declared compliance, variations between categories, and the influence of extreme observations on descriptive conclusions.

In summary, the literature offers results that differ by country, dimension examined, unit of observation, and outcome variable. The main gap for the Mexican case is not to demonstrate a universal governance response to COVID-19, but to describe a homogeneous series of companies before, during, and after the crisis and to distinguish formal stability from unmeasured substantive changes. INDEX_GC allows us to answer this descriptive question as long as its limits of document harmonization, panel selection, and coding are recognized. Thus, the comparison of the three periods complements the international evidence without affirming that a similar average is equivalent to a similar effectiveness of boards of directors.

METHOD

The initial documentary population comprised 1,226 company-year observations of non-financial issuers during 2015–2024. The selection criteria required the availability of the annual report and the best corporate practices questionnaire in each of the ten years. 916 records (74.71%) were discarded

and 310 (25.29%) were retained, corresponding to 31 companies in a balanced panel. The available count allows us to describe the aggregate filtering, but does not individually identify the excluded issuers or the documentary cause of each discard. Corporate information comes from the Mexican Stock Exchange and issuer websites; the original download dates and routes by company and year are not included in the study material.

Sample selection and debugging

A quantitative, longitudinal and descriptive-comparative design was used whose unit of observation was the company-year. The 31 issuers remained on the panel from 2015 to 2024, with 310 repeated observations. The documents for each year constitute the source of the index and the rankings by sector, region and size. To facilitate traceability, the selection record should link each issuer and year with its annual report, its questionnaire, the date of recovery and the specific reason for inclusion or exclusion. This individual relationship is not incorporated into the results because it is not included in the information supporting this manuscript. The comparisons are not presented as inferences to all listed companies.

Construction of INDEX_GC

The Corporate Governance Compliance Index (INDEX_GC) brings together five dimensions: Shareholders' Meeting (INDEX_AA), Board of Directors (INDEX_CA), Audit Function (INDEX_FA), Evaluation and Compensation (INDEX_EC), and Finance and Planning (INDEX_FP). The reported operational definition uses 143 reference items, with a value of one for declared compliance and zero for declared non-compliance. The index expresses a proportion and not a simple average of the five sub-indices. Although the same denominator is declared for the ten years, the individual list of items and the correspondence between annual versions are not presented; therefore, this harmonization cannot be verified from the aggregated statistics.

Coding conceptually distinguishes a valid negative answer from a box without information, an absent questionnaire, and a non-applicable answer. The latter do not automatically equate to non-compliance. The use of the denominator of 143 requires determining a documented rule for each of these cases and verifying the validity of the item in each exercise. To prove comparability, a matrix with identifier, dimension, annual formulation, equivalence, and coding rule for the 143 questions is needed, as well as a dictionary of variables. The manuscript preserves the reported values, without attributing to them a reagent-by-item validation that does not appear in the available corpus.

INDEX_GC allows a descriptive comparison conditioned by the real homogeneity of the items and by the quality of the corporate questionnaires. The constancy of the denominator avoids arithmetic changes derived from the number of questions, but does not by itself resolve a change in wording or applicability. Likewise, the self-declaration of compliance does not necessarily measure the effective functioning of the control mechanisms. These restrictions particularly affect the interpretation of records close to zero and of differences between sectors. The validity of the index for broader inferences depends on the individual verification of the answers and the documentation of their modifications over the period.

$$\text{INDEX_GC}(i,t) = [\sum(j=1 \text{ a } 143) X(i,j,t)] / 143$$

In this expression, *i* identifies the firm; *t*, the year; *j*, each of the 143 items; and *X*(*i,j,t*), a valid dichotomous response. The result varies between 0 and 1.

Periodization and descriptive analysis

The periodization comprises three stages: pre-pandemic, from 2015 to 2019 (155 company-year observations); pandemic, from 2020 to 2021 (62 observations); and post-pandemic, from 2022 to 2024 (93 observations). A total of 310 records from the same 31 companies were analyzed. The temporal division is used exclusively to organize descriptive statistics and compare the evolution of declared compliance. It does not constitute a strategy for causal identification of the effect of COVID-19, nor does it make repeated observations of the same company independent.

The analysis included arithmetic means, standard deviations, minimums, maximums, and number of observations, both by year and by stage and characteristics of the firms. No inferential models were estimated and no statistical hypotheses were tested. The influence of an observation with zero INDEX_GC in 2023 was also examined by conditionally excluding it from the aggregate means. This test does not determine whether the data is correct; it only quantifies its effect on the description. The original statistics remain differentiated from the alternative ones. The same cautionary approach was applied to the minimum of 0.08 in the materials sector, the individual basis for which cannot be established from the available tables either.

RESULTS

Annual Compliance Index Trajectory

Table 1 shows the annual trajectory of INDEX_GC during 2015–2024. In most of the years, the average reported compliance remained at relatively high values, without a constant upward or downward progression. In particular, the 2020 and 2021 financial years did not register an immediate drop compared to the previous year. This continuity refers to the scores of the companies that remained on the panel and does not allow us to infer that all practices worked equivalently. The annual evolution provides a descriptive basis for distinguishing global stability from changes concentrated in specific years.

The year 2023 presents a significant dispersion and a minimum record of INDEX_GC = 0.00. As the broadcaster's questionnaire and its coding are not identified, it is not possible to establish whether the value expresses the real absence of compliance in the 143 items or an incomplete record. It is retained in the main series because it is part of the available statistics and its influence is evaluated separately. The presence of the minimum also in certain business categories requires caution: the coincidence of published minimums does not in itself allow a common observation to be identified or the validity of its answers to be demonstrated.

In 2024, the average returned to levels close to the usual levels of the decade, suggesting that the one-off decline in 2023 does not necessarily describe a sustained trajectory. The magnitude of this recovery depends on the treatment of the extreme minimum. Therefore, the comparison of years is

not interpreted as evidence of deterioration or causal repair of governance mechanisms. Table 1 preserves all the original figures, while the alternative scenario serves to assess the sensitivity of their reading. This distinction allows the results to be communicated without retrospectively altering an observation whose documentary nature has not yet been clarified.

Table 1

Annual performance of the corporate governance index, 2015–2024

Year	Media	Desv. typ.	Minimum	Maximum	N
2015	0,8734	0,11392	0,53	0,99	31
2016	0,8982	0,09111	0,64	0,99	31
2017	0,8940	0,10260	0,58	0,99	31
2018	0,9051	0,08528	0,57	0,98	31
2019	0,8794	0,11254	0,53	0,99	31
2020	0,8950	0,09616	0,55	0,99	31
2021	0,9016	0,09883	0,55	0,99	31
2022	0,9041	0,08376	0,55	0,98	31
2023	0,8493	0,22159	0,00	0,98	31
2024	0,8894	0,08507	0,56	0,98	31

Note. Prepared by the author based on the descriptive statistics reported for the 31 companies.

Sensitivity of extreme registers

The hypothetical exclusion of the single zero record raises the 2023 mean from 0.8493 to approximately 0.8776 ($n = 30$), the post-pandemic average from 0.8809 to 0.8905 ($n = 92$), and the global average from 0.8889 to 0.8918 ($n = 309$). The calculations are derived from rounded averages and do not replace the original questionnaire check. Separately, if the materials sector's minimum of 0.08 corresponded to a single observation and only that record was withdrawn, the sectoral average would be approximately 0.9324 ($n = 99$), compared to 0.9239. These sensitivities are conditional descriptive scenarios, not definitive exclusion decisions or evidence of error.

Comparison between pre-pandemic, pandemic and post-pandemic

The comparison of stages is presented in Table 2. The average level of reported compliance was similar before and during the pandemic, with no immediate descriptive decrease in FY2020–2021. The subsequent stage exhibits a slightly lower mean and greater dispersion, but does not constitute a homogeneous period of deterioration. The aggregate difference is influenced by the minimum recorded in 2023. The three stages have different observation sizes because they include five, two, and three exercises, respectively. The results indicate proximity between means and not a causal relationship or an inferentially demonstrated difference.

The sensitivity analysis shows that the comparison between pre-pandemic and post-pandemic practically disappears when observation zero is provisionally withdrawn. Thus, the result that deserves to be highlighted is not a generalized post-crisis decline, but the dependence of the aggregate average on an extreme record. This observation should not be eliminated from the main analysis without documentary verification. The values in Table 2 correspond to the figures originally

reported, while the alternative is described as a conditional test. The stability of the indicator is limited to the 31 issuers analysed and does not imply stability of their financial performance or the actual effectiveness of their boards.

Table 2

INDEX_GC by analysis period

Period	Age	Media	Desv. typ.	Minimum	Maximum	N
Prepandemia	2015-2019	0,8900	0,10109	0,53	0,99	155
Pandemic	2020-2021	0,8983	0,09675	0,55	0,99	62
Post-pandemic	2022-2024	0,8809	0,14560	0,00	0,98	93

Note. Original descriptive statistics from the panel of 31 firms; differences between periods do not constitute inferential contrasts.

Differences according to business characteristics

Economic sector

The differences by economic sector are summarized, along with region and size, in Table 3. The averages recorded vary between categories, but these contrasts depend on the composition of each group and the quality of the individual responses. The industrial sector has zero registration, the conditional exclusion of which modifies its mean; materials contain another unusual minimum of 0.08. None of these extremes is interpreted here as verified non-compliance. Moreover, a high aggregate score in a sector does not demonstrate that its boards exercise more effective supervision, because it INDEX_GC measure declared adherence to practices rather than direct results of control.

The record of 0.08 in materials deserves independent verification of the 2023 zero observation. Its magnitude contrasts with the rest of the sectoral scores, but the published summaries do not reveal the company, the exercise or the questions that explain this data. The sensitivity scenario described in section 4.1.1 quantifies its hypothetical influence if it were a single record. Without this documentary contrast, the sectoral difference must be described and not attributed to a lower quality of the governance mechanisms. It should also be avoided to say that both minimum extremes are due to the same coding problem.

Geographic region

By geographic region, the averages for the north and center differ moderately in the panel information. The minimum of 0.00 appears in the northern category, but the aggregate table does not allow us to recognize which station produced it or automatically relate it to another category. The different composition and number of records in each region limits comparative interpretation. No significance tests or adjustments were performed by sector, size, or year; therefore, regional differences are descriptive and cannot be transferred to all Mexican companies or attributed to institutional advantages in one area.

The company and territory classifications can also share observations throughout the panel. For example, the same company participates in several comparisons and can change size categories between years. This structure makes it impossible to treat the grouped figures as independent results. Table 3 preserves the minimums and maximums of each classification, precisely to show the dispersion that accompanies the averages. The documentary nature of the extreme records is examined as a constraint of data quality and not as a finding about the organizational performance of a sector or region.

Enterprise Size

In the size comparison, the averages are close and describe smaller variations than some sectoral differences. The small, medium, and large categories contain similar numbers of company-year observations, although not necessarily the same issuers in all years. The smaller category includes a zero record, so its average may vary when that value is conditionally withdrawn. This sensitivity does not allow us to conclude that size determines compliance or that large firms have more effective practices. The proper interpretation is a characterization of the scores declared within the panel, without causality or generalization to the stock market universe.

Grouping in a single table allows for the comparison of sectors, regions, and sizes without repeating the same data in separate tables. The mean, minimum, maximum, and number of observations for each group are maintained, in addition to the overall average as a common reference. When reviewing differences, it is important to pay attention to the extremes and not only to the order of the means. The classifications represent different sections of the same observations, so they should not be added between blocks. This approach preserves the available results and facilitates an integrated reading, proportional to the descriptive scope of the study.

Table 3

Comparison of INDEX_GC by sector, region and business size

Block	Category	Media	Minimum	Maximum	N
Sector	Frequently Used Products	0,9455	0,89	0,99	40
Sector	Health	0,9352	0,84	0,98	20
Sector	Materials	0,9239	0,08	0,99	100
Sector	Telecommunications	0,882	0,79	0,99	20
Sector	Non-basic consumer goods and services	0,8761	0,71	0,98	70
Sector	Industrial	0,7948	0,00	0,98	60
Region	North	0,9013	0,00	0,99	100
Region	Center	0,8831	0,08	0,99	210
Size	Small	0,8744	0,00	0,99	103
Size	Medium	0,8919	0,71	0,99	103
Size	Large	0,9004	0,08	0,99	104

Block	Category	Media	Minimum	Maximum	N
Panel total	Total	0,8889	0,00	0,99	310

Note. The classifications are separate analyses of the same 310 company-year records and their categories are not additive between blocks. The original statistics, including the minimums of 0.00 and 0.08, are retained.

DISCUSSION

The most relevant result is the continuity of formal compliance declared in the 31 companies during most of the period. This trajectory is compatible with the argument that institutionalized practices and disclosure obligations can be maintained even in disruptive environments, although the descriptive design does not test this mechanism. Unlike studies that examine stock market returns, financial performance, or operational resilience, INDEX_GC reflects responses to a questionnaire. Therefore, score stability does not in itself mean stability of supervisory quality. The distinction between reported adherence and actual effectiveness is essential to interpret the contribution of this Mexican series.

The absence of an immediate drop during the pandemic finds a limited parallel in the Slovak study by Musová et al. (20), where some components evolved without substantially altering the overall index. However, the comparison must recognize different instruments, companies, and periods. In the United Kingdom, Hsu and Yang (4) observed unfavorable changes in the quality of financial reporting, a variable that does not equate to compliance with practices. Both findings can coexist: a company can continue to declare that it has committees and procedures while the quality of the information produced changes. The present research does not allow us to verify these relationships at the mechanism level.

The sensitivity of 2023 is decisive for the interpretation of the subsequent stage. A single extreme observation affects the means and dispersion, so the reading of a post-pandemic decline is fragile in the face of its hypothetical exclusion. The alternative calculation does not authorize classifying this data as incorrect or removing it from the main result. A substantive check requires locating the issuer, retrieving the 2023 questionnaire, and reviewing the application of the rules to the 143 items. This methodological uncertainty shows why longitudinal indices require checks on missing data, instrument modifications, and traceability of each record before formulating general interpretations.

Sectoral, regional and size differences should be read as panel descriptions and not as hierarchies of corporate quality. Groups bring together companies with different contexts, obligations and practices, and the same observation can be included simultaneously in all three disaggregations. The minimum of 0.08 in materials reinforces the need to review other extremes as well, not just the zero of 2023. Studies on indices and sub-indices (12)(13)(26) show the usefulness of a transparent measurement to distinguish dimensions, while the current results correspond to an aggregate indicator. Without the individual detail, the differences between categories cannot be attributed to a particular dimension.

Possible explanations for formal continuity during a crisis include the permanence of control structures, reporting obligations, and adaptations of internal functioning. Alshhadat and Al-Hajaya (8) highlighted flexibility, technology, and risk management, while Bonacchi et al. (9) proposed examining the regulatory response and disclosure after COVID-19. This background provides hypotheses for subsequent research, not proven determinants of the Mexican index. To contrast them, it would be necessary to know the individual evolution of each dimension, study changes in the practices executed, and relate them to indicators of supervision or information quality. INDEX_GC, by itself, does not distinguish the nominal presence from the effective functioning of a mechanism.

A second methodological difference arises from the selection of the panel. Requiring continuous information for ten years favors the monitoring of the same firms, but excludes issuers with incomplete documentation and restricts the representation of the Mexican Stock Exchange as a whole. In addition, the absence of an individual registry of discarded companies limits the evaluation of selection bias. The required transparency is concrete: list of issuers, file and year of each questionnaire, original date of access and cause of exclusion. The aggregated filtering figures do not replace this relationship. Consequently, the stability observed describes the available companies and not necessarily the dynamics of market additions or exits.

The measurement poses another condition: the 143 items must maintain a verifiable correspondence during the decade. The declared harmonization provides a criterion for calculating comparable proportions, but the complete inventory of items, the equivalences between versions, and the treatment applied to inappropriate or absent responses are lacking. A valid negative response has a different meaning than an empty cell, and treating them the same can distort the scores. This problem becomes more important when exceptionally low minimums are observed. Therefore, the evidence in the article is presented as an evolution of the reported compliance reported by the database, and not as a definitive validation of all the original questionnaires.

The contribution of the study is to present a time trajectory of declared compliance for the same set of companies and to identify the influence of extreme values on their interpretation. The comparison with results from European, Asian and American markets allows us to specify the scope of this contribution, not to demonstrate that all contexts react the same to a crisis. No inferential contrasts were made, nor were board effectiveness, corporate performance or the effects of the pandemic directly measured. Subsequent research could contrast the index with specific practices, supervisory results and regulatory changes, provided that they have the complete coding matrix and individualized corporate sources.

CONCLUSIONS

The research met the objective of describing the evolution of INDEX_GC during 2015–2024 in the group of 31 non-financial issuers with continuous records. Reported compliance remained relatively high and did not show an immediate descriptive break during 2020–2021. This finding refers to the trajectory of the indicator and does not demonstrate that the governing bodies have functioned equally effectively in all years. The formal continuity of practices may coexist with differences in the

quality of supervision or disclosure. Therefore, the main conclusion corresponds to the panel studied, without extrapolations to all the companies of the Mexican Stock Exchange.

The post-pandemic reading depends significantly on the extreme record of 2023. Its provisional exclusion modifies the average of that stage and reduces the appearance of a generalized drop, but does not prove that it is an error. The stability conclusion should remain conditional on the review of the questionnaire of the affected issuer and the original matrix. This sensitivity analysis is useful because it reveals the influence of individual observations on the aggregated summaries. However, it does not replace a documentary audit of the responses to the 143 items nor does it allow a definitive correction of the reported value to be established.

Comparisons by sector, region and size show differences in the reported scores, although they do not allow the determination of explanatory factors. The sectoral interpretation requires special caution in the face of the minimum of 0.08 in materials and the zero registration present in another category. Both extremes require individual documentary review before sustaining structural differences between groups. The aggregate index also does not distinguish whether a high score comes from formal compliance mechanisms or from their effective application. Thus, the main utility of these disaggregations is to point out descriptive patterns and guide questions for subsequent analysis, without classifying sectors or sizes as superior in the quality of government.

Longitudinal monitoring provides information on the same companies, but its selection through full availability of questionnaires restricts the scope of the conclusions. Without the identification of excluded issuers, their original documents, and the dates of consultation, it is not possible to fully assess the coverage of the sampling frame. The temporal homogeneity of the index also requires verifying the equivalences of items and the rules for missing or non-applicable responses. These limitations do not invalidate the description of the available figures, but they prevent interpreting the series as a conclusive evaluation of all practices in the Mexican market. Causal inference about COVID-19 remains outside the design.

Taken together, the results indicate descriptive continuity of reported compliance and sensitivity of certain comparisons to outliers. Its scientific value lies in separating the observation of scores from assumptions about business performance, and in recognizing that an aggregate measurement does not equate to a substantive governance audit. The identification of the 143 items, the traceability of the 31 companies and those excluded, and the verification of the minimums would allow the interpretation to be refined. With such support, future research could analyze what components actually change in crisis situations and whether such changes are related to the quality of oversight.

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ETHICAL CONSIDERATIONS

The study was developed through a literature review based exclusively on previously published documentary sources. It did not involve the direct participation of human or animal beings, the performance of interventions, the use of biological samples, or access to personally identifiable data. Consequently, it did not require approval from an ethics committee or the obtaining of informed consent. During the research process, the principles of scientific integrity, adequate attribution of authorship, rigorous citation, and responsible use of the sources consulted were observed.

ARTIFICIAL INTELLIGENCE (AI) USAGE STATEMENT

The authors state that the AI tool was used exclusively to support the organization of the article and the translation of the text. Its use did not determine the scientific content, study design, selection of sources, data analysis, interpretation of results, or conclusions. Full responsibility for the content remains with the authors.

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CONFLICT OF INTEREST

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The authors declare that they have no conflicts of interest related to this study and that all the procedures followed comply with the ethical standards established by the journal. They also confirm that this work is unpublished and has not been published, either partially or totally, in any other publication.

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