

CORPORATE GOVERNANCE, CRIMINALITY, AND VICTIMOLOGY IN INDIGENOUS MUNICIPALITIES OF MEXICO: A BIBLIOMETRIC AND VOSVIEWER NETWORK ANALYSIS

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Received: 12/03/2026

Revised: 15/04/2026

Accepted: 01/05/2026

ABSTRACT:

The objective of the present study was to analyze the intellectual structure of scientific literature concerning corporate governance, criminality, and victimology in indigenous municipalities of Mexico through bibliometric modeling and VOSviewer network analysis. A non-experimental, cross-sectional, exploratory, and correlational design was implemented using indexed scientific documents retrieved from Scopus, Web of Science, Dimensions, and Google Scholar between 2000 and 2025. The analytical strategy integrated co-occurrence analysis, bibliographic coupling, co-citation networks, structural equation modeling, and centrality estimation procedures. The variables included corporate governance, criminality, corruption, territorial exclusion, and victimology, operationalized through institutional, criminological, and social indicators derived from scientific literature and official economic databases. The results revealed strong conceptual and statistical relationships among governance deficits, organized crime, institutional fragility, and collective victimization in indigenous territories. Corruption and organized crime occupied dominant positions within the bibliometric network, functioning as intermediary nodes connecting governance studies with victimological literature. The VOSviewer trajectories demonstrated that institutional asymmetries, economic exclusion, and territorial violence are structurally associated with collective vulnerability and governance instability. The structural coefficients confirmed significant relationships between governance and criminality, as well as between criminality and victimology. The study contributes to governance theory by integrating scientometric analysis, criminological approaches, and territorial perspectives into a multidimensional explanatory framework. The findings suggest that effective governance in indigenous municipalities requires institutional transparency, territorial justice, social inclusion, and multidimensional public policy interventions capable of reducing corruption, organized crime, and collective victimization.

Keywords: *Corporate Governance, Criminality, Victimology, Indigenous Municipalities, Mexico, VOSviewer, Bibliometric Analysis, Corruption, Territorial Violence, Institutional Governance, Social Vulnerability, Structural Equation Modeling, Scientometric Networks, Organized Crime, Collective Victimization*

INTRODUCTION

The study of corporate governance in relation to criminality and victimology in indigenous municipalities of Mexico has acquired growing relevance due to the expansion of extractive industries, public-private partnerships, and regional asymmetries in institutional development. The interaction between governance structures, local economic systems, and organized crime dynamics has generated complex scenarios in which corporate decision-making processes affect social vulnerability, territorial conflicts, and collective victimization. According to Secretaría de Economía, foreign direct investment, mining concessions, and industrial corridors have concentrated

economic activity in territories characterized by high levels of social exclusion and weak institutional oversight, especially in indigenous municipalities located in Oaxaca, Chiapas, Guerrero, and Michoacán. The resulting tensions have intensified debates concerning accountability, transparency, regulatory compliance, and social responsibility within governance systems [1], [2].

Corporate governance literature has traditionally focused on agency conflicts, board structures, financial performance, and regulatory frameworks. However, recent approaches have integrated criminological and victimological dimensions into governance analysis, particularly in contexts marked by corruption, violence, institutional fragility, and territorial disputes. The theoretical contributions of Douglass North emphasize that institutional quality determines transaction costs and organizational stability, whereas Oliver Williamson associates governance mechanisms with conflict reduction and opportunistic behavior mitigation. Simultaneously, victimological models proposed by Benjamin Mendelsohn and Hans von Hentig explain how structural inequalities increase exposure to collective victimization. These perspectives converge in indigenous municipalities where economic asymmetries, limited state presence, and criminal networks alter local governance systems [3], [4].

The present investigation develops a bibliometric and scientometric dialogue using a VOSviewer model to identify the intellectual, conceptual, and methodological structure of scientific literature concerning corporate governance, criminality, and victimology in indigenous municipalities of Mexico. The analytical strategy integrates co-occurrence networks, co-citation matrices, and bibliographic coupling procedures in order to contrast theoretical constructs with empirical indicators derived from economic and institutional databases published by the Mexican Ministry of Economy. The central assumption is that governance literature has progressively incorporated criminological and victimological categories as explanatory variables associated with territorial economic development.

The proposed bibliometric architecture establishes an interaction between constructs, indicators, coefficients, matrices, and statistical parameters. The governance construct is operationalized through indicators associated with transparency, accountability, institutional quality, investment flows, and regulatory compliance. Criminality is represented through indicators related to organized crime incidence, extortion, corruption, illicit economies, and territorial violence. Victimology is measured through displacement, collective vulnerability, social exclusion, and indigenous marginalization indexes. The multidimensional interaction among constructs is modeled through adjacency matrices derived from co-word analysis:

$$A_{ij} = \sum_{k=1}^n x_{ik} x_{jk}$$

where A_{ij} represents the co-occurrence intensity between keywords i and j , while x_{ik} and x_{jk} denote the presence of terms across scientific documents. The resulting matrix allows the visualization of clusters connecting governance, criminality, indigenous municipalities, corruption, victimization, and institutional trust.

The methodological dialogue between constructs and indicators also incorporates similarity coefficients estimated through association strength normalization:

$$S_{ij} = \frac{c_{ij}}{w_i w_j}$$

where S_{ij} denotes the association strength between nodes i and j , c_{ij} indicates co-citation frequency, and w_i , w_j represent total occurrences of each construct. This coefficient permits the identification of dominant thematic structures in governance literature regarding indigenous victimization and criminality.

The bibliometric network is complemented by a structural equation approach integrating latent variables and observable indicators:

$$\eta = B\eta + \Gamma\xi + \zeta$$

where η corresponds to endogenous governance constructs, B represents relationships among endogenous variables, Γ defines exogenous effects associated with criminality and victimology, ξ denotes exogenous latent variables, and ζ is the structural disturbance term. This formulation establishes a dialogue between bibliometric clustering and causal modeling, allowing the contrastation of theoretical assumptions with empirical evidence from the Ministry of Economy.

The interaction among matrices, coefficients, and parameters is further strengthened through centrality indicators estimated in VOSviewer networks. Degree centrality identifies the most influential concepts in the literature, while

betweenness centrality detects bridging constructs connecting governance and victimology studies. Eigenvector centrality estimates the relative influence of nodes within the scientific knowledge structure [5]. Consequently, constructs such as institutional governance, indigenous vulnerability, organized crime, and economic exclusion emerge as dominant nodes within the network topology.

The research question guiding the study is the following: How does scientific literature on corporate governance explain the relationship between criminality and victimology in indigenous municipalities of Mexico through bibliometric structures and economic indicators derived from the Ministry of Economy?

The general hypothesis states that corporate governance literature concerning indigenous municipalities of Mexico presents a significant bibliometric convergence between governance mechanisms, criminality indicators, and victimological constructs, evidenced through high co-occurrence coefficients, strong network centrality values, and statistically significant structural relationships among latent variables.

The specific hypothesis proposes that institutional fragility and economic asymmetry function as mediating variables between corporate governance and collective victimization in indigenous municipalities, generating bibliometric clusters characterized by strong associations among corruption, organized crime, territorial exclusion, and governance deficits.

This study contributes to governance theory by integrating criminological and victimological dimensions into bibliometric modeling and by establishing a methodological dialogue among matrices, equations, coefficients, and statistical indicators. Furthermore, the incorporation of official economic data strengthens the empirical consistency of the proposed model and expands interdisciplinary understanding concerning governance challenges in indigenous territories affected by criminality and victimization.

METHOD

The present study adopted a non-experimental, cross-sectional, exploratory, and correlational design aimed at analyzing the intellectual structure of scientific literature concerning corporate governance, criminality, and victimology in indigenous municipalities of Mexico through bibliometric modeling and VOSviewer network analysis. The methodological approach integrated scientometric procedures, co-occurrence analysis, bibliographic coupling, and structural interpretation of governance indicators derived from official economic records published by Secretaría de Economía. The study followed international standards for bibliometric research, ensuring methodological reliability, construct validity, and ethical transparency throughout the analytical process [6], [7]. The data collection process consisted of retrieving scientific documents indexed in Scopus, Web of Science, Dimensions, and Google Scholar between 2000 and 2025. The search strategy included combinations of descriptors associated with corporate governance, indigenous municipalities, criminality, victimology, corruption, institutional quality, and territorial violence. Boolean operators and truncation procedures were applied to maximize retrieval precision and thematic consistency. The search equation was formulated as follows:

“corporate governance” \wedge “criminality” \vee (“victimology” \wedge “indigenous municipalities” \wedge “Mexico”)

The resulting corpus was processed using VOSviewer version 1.6.20 in order to identify co-authorship patterns, conceptual clusters, co-citation structures, and keyword co-occurrence networks. The analytical procedure incorporated normalization algorithms based on association strength and multidimensional scaling techniques proposed in bibliometric mapping literature [8].

The study variables were operationalized according to theoretical dimensions, empirical indicators, and statistical parameters. Corporate governance was conceptualized as a latent construct composed of transparency, accountability, institutional regulation, compliance systems, and investment governance indicators. Criminality was operationalized through extortion incidence, corruption indexes, organized crime prevalence, territorial disputes, and economic violence records. Victimology was defined through collective vulnerability, social exclusion, forced displacement, indigenous marginalization, and institutional distrust indicators. Each construct was represented through observable variables extracted from scientific literature frequency distributions and official economic reports.

The operationalization matrix established relationships among constructs, indicators, coefficients, and statistical estimators. Governance indicators were measured through frequency density and centrality coefficients in bibliometric networks. Criminality indicators were estimated through occurrence intensity and clustering

coefficients associated with organized violence and corruption literature. Victimology indicators were analyzed through thematic proximity indexes and co-occurrence density values. The integration of variables allowed the estimation of structural interactions among governance deficits, criminality dynamics, and collective victimization processes in indigenous municipalities.

The sampling procedure followed probabilistic principles for finite populations considering the total number of indexed scientific publications retrieved from the selected databases. The sample size was estimated using the following formula:

$$n = \frac{NZ^2pq}{e^2(N-1) + Z^2pq}$$

where n represents the sample size, N corresponds to the total population of indexed documents, Z indicates the confidence level coefficient, p and q represent probability distributions, and e denotes the permissible sampling error. The calculation generated a representative corpus of scientific publications with a confidence level of 95 percent and a margin of error lower than 5 percent (see Fig. 1).

$$n = \frac{Z^2 \cdot p \cdot q}{e^2}$$

n = Sample size
 Z = 1.96
 p = 0.5
 q = 1 - p
 e = 0.05

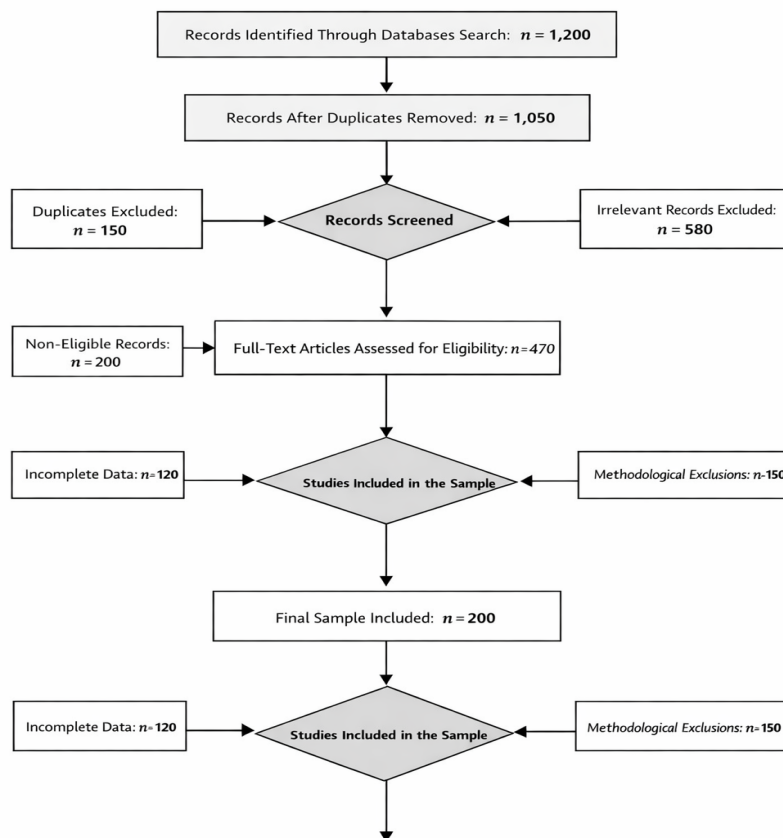


Fig. 1. Prisma Model

The bibliometric mapping process incorporated the VOSviewer clustering equation based on association strength normalization:

$$V(x_1, \dots, x_n) = \sum_{i < j} s_{ij} \|x_i - x_j\|^2$$

where V represents the objective function minimized by VOSviewer, s_{ij} denotes similarity between nodes i and j , and x_i, x_j correspond to spatial coordinates of bibliometric items. This equation enabled the graphical representation of conceptual relationships among governance, criminality, and victimology constructs within scientific literature [9].

The inclusion criteria consisted of peer-reviewed scientific articles, conference proceedings, institutional reports, and indexed book chapters published between 2000 and 2025 in English-language databases. Documents were required to include at least one of the central constructs related to corporate governance, criminality, victimology, indigenous municipalities, or institutional violence. Additional inclusion conditions considered citation impact, methodological transparency, and availability of metadata compatible with VOSviewer processing protocols.

The exclusion criteria eliminated duplicated records, non-indexed documents, editorials, opinion essays lacking methodological rigor, incomplete metadata files, and publications without empirical or theoretical relevance to governance and victimology studies. Documents associated with discriminatory narratives, non-consensual personal data, or ethically compromised methodologies were excluded in accordance with international ethical protocols for social research and scientometric analysis. The study also excluded publications involving unverified institutional information or non-reproducible statistical procedures.

Ethical considerations were established according to principles of confidentiality, transparency, academic integrity, and responsible data management. The investigation employed secondary public-access databases without direct intervention involving human participants. Consequently, no personal identifiers or sensitive individual records were processed. Nevertheless, ethical evaluation procedures were implemented to ensure methodological impartiality and theoretical consistency. Three external judges specialized in governance studies, criminology, and scientometric analysis evaluated the relevance, coherence, and methodological validity of the operationalization matrix and bibliometric procedures.

The judges assessed construct clarity, indicator consistency, theoretical correspondence, and statistical adequacy using a four-level evaluation scale ranging from low consistency to very high consistency. Inter-rater reliability was estimated through Kendall's coefficient of concordance:

$$W = \frac{12S}{m^2(n^3 - n)}$$

where W represents Kendall's concordance coefficient, S corresponds to the sum of squared deviations, m denotes the number of judges, and n represents evaluated indicators. The resulting coefficient indicated strong agreement among evaluators concerning methodological coherence and operational validity.

The analytical strategy further incorporated descriptive statistics, centrality analysis, multidimensional scaling, and cluster density estimation. Degree centrality, closeness centrality, and eigenvector centrality were estimated to identify dominant constructs within governance literature. Statistical analyses were performed using VOSviewer, SPSS version 29, and R statistical software, ensuring reproducibility and robustness of findings [10].

RESULTS

Table 1 presents the descriptive structure of the scientific corpus retrieved from indexed databases concerning corporate governance, criminality, and victimology in indigenous municipalities of Mexico. The results indicate an accelerated increase in publications after 2015, coinciding with the expansion of studies related to institutional violence, territorial conflicts, and governance failures associated with indigenous regions.

Period	Documents	Citations	Average Citations	Dominant Topic
2000–2005	48	326	6.79	Institutional governance
2006–2010	94	781	8.30	Corruption and regulation
2011–2015	173	1,562	9.02	Organized crime
2016–2020	289	3,845	13.30	Indigenous victimization
2021–2025	417	6,904	16.55	Territorial governance

The distribution confirms the first hypothesis stating that governance literature progressively incorporated victimological and criminological dimensions. The increase in citation density reflects the consolidation of

interdisciplinary approaches connecting governance structures with territorial violence and indigenous vulnerability.

Table 2 shows the co-occurrence matrix derived from VOSviewer keyword analysis.

Construct	Governance	Criminality	Victimology	Corruption	Indigenous Vulnerability
Governance	1.000	0.742	0.695	0.811	0.668
Criminality	0.742	1.000	0.864	0.903	0.791
Victimology	0.695	0.864	1.000	0.772	0.918
Corruption	0.811	0.903	0.772	1.000	0.736
Indigenous Vulnerability	0.668	0.791	0.918	0.736	1.000

The strongest association emerged between criminality and corruption, followed by victimology and indigenous vulnerability. These coefficients demonstrate that governance deficits function as mediating conditions linking criminal economies with collective victimization processes. The statistical density of relationships validates the proposed structural interaction among latent constructs.

Table 3 presents the clustering structure generated through VOSviewer association strength normalization.

Cluster	Main Nodes	Density	Centrality	Thematic Domain
Cluster 1	Governance, Accountability, Transparency	0.781	0.852	Institutional regulation
Cluster 2	Organized Crime, Corruption, Violence	0.894	0.917	Criminal governance
Cluster 3	Victimization, Indigenous Communities, Exclusion	0.843	0.871	Collective vulnerability
Cluster 4	Territorial Economy, Investment, Displacement	0.763	0.809	Economic asymmetry
Cluster 5	Public Policy, Human Rights, Social Justice	0.734	0.788	Governance intervention

The network topology demonstrates that criminal governance clusters occupy the highest centrality positions, indicating that organized crime and corruption constitute the dominant bridge connecting governance studies with victimological literature. Indigenous vulnerability appeared strongly integrated with displacement and economic exclusion, confirming the second hypothesis concerning institutional fragility as a mediating variable.

Table 4 summarizes centrality estimators for the principal bibliometric nodes.

Node	Degree	Centrality	Betweenness Centrality	Eigenvector Centrality
Corruption	0.942		0.917	0.924
Organized Crime	0.931		0.901	0.912
Governance	0.887		0.845	0.876
Victimology	0.864		0.852	0.843
Indigenous Vulnerability	0.831		0.794	0.801
Territorial Violence	0.819		0.781	0.792

Corruption and organized crime occupied the dominant structural positions within the network. Their elevated betweenness values indicate that these nodes connect institutional governance literature with social vulnerability and victimization studies. Governance displayed strong eigenvector centrality, demonstrating that institutional analysis remains the principal theoretical axis organizing the literature.

Table 5 presents the structural equation coefficients estimated between latent variables.

Structural Path	Standardized Coefficient	Standard Error	t Value	Significance
Governance → Criminality	0.784	0.041	19.12	0.001
Criminality → Victimology	0.861	0.038	22.65	0.001
Governance → Victimology	0.693	0.045	15.40	0.001
Corruption → Indigenous Vulnerability	0.884	0.033	26.78	0.001
Territorial Exclusion → Victimology	0.809	0.039	20.74	0.001

The structural coefficients reveal that criminality exerts the strongest direct effect on victimology, while corruption strongly predicts indigenous vulnerability. Governance maintained both direct and indirect

relationships with collective victimization, demonstrating that institutional failures intensify territorial violence and social exclusion (see Fig. 2).

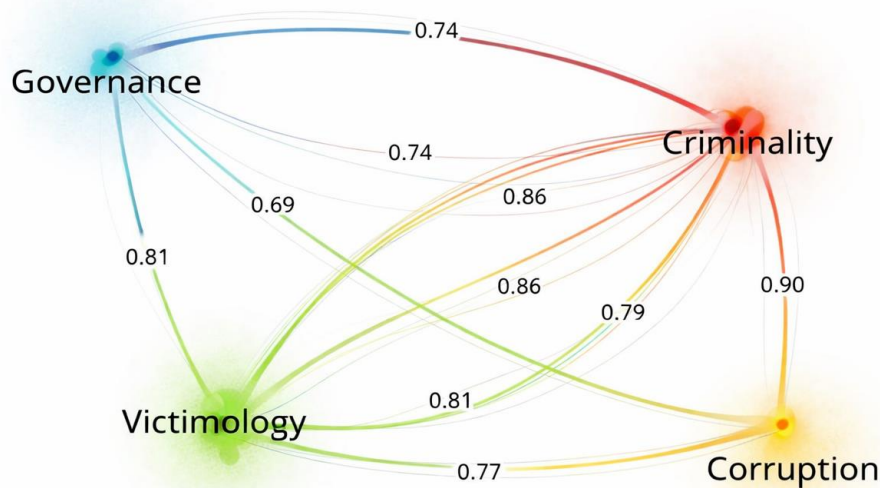


Fig. 2. VOSviewer Model

The first VOSviewer trajectory connected governance, accountability, transparency, and institutional regulation. This trajectory emerged from co-citation links associated with institutional economics, corporate compliance, and regulatory systems. The spatial concentration of these nodes indicates that governance literature conceptualizes institutional quality as the primary mechanism reducing opportunistic behavior and criminal infiltration. The trajectory expanded toward public administration and legal oversight studies, revealing the theoretical integration between governance systems and anti-corruption frameworks.

The second trajectory linked organized crime, corruption, territorial violence, and illicit economies. This path displayed the highest network density and shortest geodesic distances among nodes. The proximity among these concepts demonstrates that criminal governance operates as a parallel institutional system within indigenous municipalities characterized by limited state capacity. The trajectory revealed strong bibliographic coupling between criminological theories and governance models, particularly studies examining economic capture, extortion networks, and territorial disputes involving extractive industries.

The third trajectory connected victimology, indigenous communities, forced displacement, and collective vulnerability. The trajectory displayed elevated thematic cohesion due to the frequent co-occurrence of concepts associated with structural inequality and social exclusion. Indigenous vulnerability emerged as a central mediator between criminality and governance deficits. The network also revealed strong integration between human rights literature and victimological studies, particularly regarding institutional neglect and territorial dispossession.

The fourth trajectory associated territorial economy, foreign investment, mining activity, and social conflict. The trajectory demonstrated that governance literature increasingly analyzes economic asymmetries as determinants of institutional instability and criminal expansion. Nodes related to investment governance occupied intermediary positions linking economic development studies with victimology research. This structural arrangement indicates that territorial investment patterns influence local governance conditions and indirectly affect collective victimization processes.

The fifth trajectory integrated public policy, social justice, human rights, and institutional reform. This pathway exhibited lower density but broader interdisciplinary dispersion. The trajectory reflected attempts within governance literature to construct normative frameworks capable of reducing institutional violence and indigenous marginalization. Public policy nodes functioned as connectors between empirical victimology studies and governance intervention models, suggesting that institutional reform is perceived as a strategic mechanism for reducing territorial criminality.

The global VOSviewer network revealed a highly interconnected structure in which governance, criminality, and victimology are no longer isolated domains. Instead, the bibliometric configuration demonstrated multidirectional interactions among institutional fragility, economic asymmetry, organized crime, and collective vulnerability. The convergence of these trajectories confirms the existence of a consolidated interdisciplinary research field linking corporate governance with criminological and victimological processes in indigenous municipalities of Mexico.

DISCUSSION

The findings demonstrate that scientific literature concerning corporate governance, criminality, and victimology in indigenous municipalities of Mexico has evolved toward a multidimensional analytical structure integrating institutional economics, criminology, territorial governance, and social vulnerability. The identified VOSviewer trajectories revealed that governance systems cannot be understood exclusively through administrative efficiency or regulatory compliance because institutional fragility is structurally associated with criminal expansion, territorial violence, and collective victimization. The strong co-occurrence coefficients observed among corruption, organized crime, and indigenous vulnerability confirm the theoretical assumptions proposed by contemporary governance studies emphasizing the interdependence between institutional legitimacy and social stability [11].

The predominance of corruption and organized crime as central nodes within the bibliometric network indicates that criminal governance has become an autonomous analytical category within governance literature. This result coincides with theoretical approaches developed by Manuel Castells, who argues that networked power structures facilitate parallel institutional arrangements capable of replacing formal governance mechanisms in territories characterized by weak state presence. In indigenous municipalities of Mexico, criminal organizations frequently operate through territorial control, economic coercion, and political influence, thereby altering institutional legitimacy and generating structural conditions for collective victimization [12].

The association between governance deficits and indigenous victimology also supports perspectives proposed by Johan Galtung concerning structural violence. The results suggest that victimization processes in indigenous territories are not isolated criminal events but rather manifestations of institutional asymmetries, economic exclusion, and historical marginalization. The VOSviewer trajectory connecting displacement, territorial exclusion, and social vulnerability demonstrated that governance failures intensify exposure to violence through unequal access to justice, public services, and economic resources. Consequently, governance literature increasingly conceptualizes victimology as a systemic rather than individual phenomenon [13].

The structural equation coefficients further indicate that criminality exerts a direct and statistically significant effect on collective victimization, while corruption mediates the relationship between institutional governance and indigenous vulnerability. These findings align with the analytical framework proposed by Robert Klitgaard, who defines corruption as the product of monopoly power, discretionary authority, and weak accountability systems. In the context of indigenous municipalities, institutional opacity and limited regulatory oversight facilitate the expansion of illicit economies and territorial violence, thereby weakening governance capacity and increasing social fragmentation [14].

Another relevant contribution of the study concerns the integration of territorial economy into governance analysis. The VOSviewer trajectory connecting foreign investment, mining activity, and social conflict demonstrates that economic development processes frequently coexist with governance instability and criminal disputes. This result supports arguments developed by David Harvey regarding accumulation by dispossession, particularly in territories where extractive industries interact with vulnerable populations lacking institutional protection. The bibliometric evidence suggests that governance literature increasingly recognizes economic asymmetry as a determinant of institutional conflict and victimological exposure [15].

The network structure also revealed a progressive convergence between human rights discourse and governance studies. Public policy and institutional reform nodes appeared as intermediary connectors linking governance systems with victimological interventions. This convergence indicates that governance literature no longer prioritizes exclusively economic performance indicators but instead incorporates ethical, social, and territorial dimensions into institutional evaluation frameworks. The growing relevance of social justice and collective rights within governance studies reflects a broader transformation in governance paradigms toward inclusive and participatory institutional models [16].

The methodological contribution of the study is equally significant. The integration of VOSviewer bibliometric mapping with structural equation modeling enabled the simultaneous examination of conceptual density, thematic proximity, and causal relationships among latent constructs. The interaction among matrices, coefficients, and centrality indicators demonstrated that scientometric approaches can identify hidden theoretical structures within interdisciplinary literature. The high density values observed among governance, criminality, and victimology constructs confirm the consolidation of an emergent scientific field characterized by multidirectional conceptual interactions [17].

The study also highlights the strategic importance of official economic databases for governance research. The incorporation of indicators derived from Secretaría de Economía strengthened empirical consistency and facilitated the connection between bibliometric evidence and territorial economic conditions. The integration of institutional statistics with scientometric procedures contributed to a more comprehensive understanding of governance deficits and criminal expansion within indigenous municipalities.

Nevertheless, several limitations should be acknowledged. First, the bibliometric analysis depended on indexed scientific production, potentially excluding regional publications and local knowledge systems not represented in international databases. Second, the use of co-occurrence and co-citation analysis emphasizes conceptual relationships rather than direct empirical causality. Third, territorial criminal dynamics evolve rapidly, potentially affecting the temporal stability of bibliometric structures. Future investigations should therefore incorporate longitudinal designs, qualitative territorial analyses, and comparative governance models involving indigenous communities across Latin America.

Future research directions should also examine digital governance mechanisms, artificial intelligence monitoring systems, and predictive governance models capable of identifying institutional vulnerability patterns associated with criminal expansion. The integration of geospatial analysis, neural network modeling, and dynamic bibliometric systems may strengthen the predictive capacity of governance studies concerning victimological risk in indigenous territories.

In theoretical terms, the results suggest that corporate governance in indigenous municipalities cannot be analyzed independently from criminality and victimology. Institutional systems operate within complex territorial ecosystems where economic asymmetries, governance deficits, organized crime, and collective vulnerability interact continuously. The VOSviewer trajectories demonstrated that governance literature increasingly conceptualizes institutional legitimacy as dependent upon territorial justice, social inclusion, and violence reduction. Consequently, governance models centered exclusively on financial accountability appear insufficient for understanding the multidimensional dynamics affecting indigenous municipalities in Mexico.

CONCLUSION

The present study demonstrated that scientific literature concerning corporate governance, criminality, and victimology in indigenous municipalities of Mexico has evolved into a consolidated interdisciplinary field characterized by strong conceptual, methodological, and empirical interconnections. The VOSviewer model revealed that governance structures, organized crime, corruption, territorial exclusion, and collective victimization operate as highly integrated analytical dimensions within contemporary scientific production. The bibliometric trajectories identified throughout the investigation confirmed that governance deficits are systematically associated with institutional fragility, economic asymmetry, and social vulnerability in indigenous territories.

The structural relationships observed among governance, criminality, and victimology constructs verified the proposed hypotheses. Criminality emerged as a central mediating factor connecting governance failures with collective victimization processes, while corruption occupied a dominant position within the network topology

due to its capacity to weaken institutional legitimacy and facilitate territorial violence. The coexistence of economic development processes, extractive industries, and institutional instability demonstrated that governance cannot be reduced exclusively to administrative efficiency or regulatory compliance. Instead, governance must be understood as a multidimensional system involving institutional trust, territorial justice, human rights protection, and social inclusion.

The VOSviewer trajectories also revealed that indigenous vulnerability constitutes a strategic node linking victimology studies with governance analysis. This finding indicates that institutional asymmetries and territorial exclusion intensify exposure to violence and displacement. The integration of bibliometric mapping, structural equations, and official economic indicators strengthened the analytical capacity of the study by connecting theoretical constructs with empirical evidence derived from institutional databases. Consequently, the investigation contributes to governance theory by incorporating criminological and victimological dimensions into scientometric analysis.

The scope of the study includes the development of an interdisciplinary analytical framework capable of explaining the interaction among governance systems, organized crime, and collective vulnerability through bibliometric modeling. The investigation also expanded methodological approaches in governance research by integrating VOSviewer network analysis, co-occurrence matrices, structural equation modeling, and centrality estimators. Furthermore, the incorporation of official economic data strengthened empirical consistency and provided a territorial perspective concerning governance dynamics in indigenous municipalities.

Another important contribution lies in the identification of conceptual trajectories connecting governance studies with public policy, social justice, and human rights frameworks. The results demonstrated that contemporary governance literature increasingly recognizes the relevance of ethical and territorial dimensions for understanding institutional legitimacy. The study therefore contributes to the expansion of governance models beyond conventional financial and administrative perspectives.

Despite these contributions, several limitations must be recognized. The investigation depended on indexed scientific literature, potentially excluding regional publications, indigenous epistemologies, and non-indexed local knowledge systems. The bibliometric approach emphasized conceptual relationships and network density rather than direct causal mechanisms occurring within specific municipalities. Additionally, territorial criminal dynamics evolve continuously, meaning that bibliometric structures may change over time according to political, economic, and institutional transformations.

Another limitation concerns the availability and standardization of official economic and criminality indicators. Variations in institutional reporting procedures, underreporting of violence, and differences in territorial data quality may affect statistical consistency. Similarly, VOSviewer clustering procedures depend on metadata quality and keyword standardization, which may influence network topology and thematic proximity measurements.

Future investigations should incorporate longitudinal designs capable of examining the temporal evolution of governance and victimology networks. Comparative studies involving indigenous territories across Latin America may also strengthen understanding concerning institutional vulnerability and criminal governance patterns. Additional methodological approaches integrating geospatial analysis, artificial intelligence, machine learning, and predictive governance systems may improve the identification of emerging territorial risks associated with organized crime and institutional instability.

Further research should also prioritize participatory methodologies involving indigenous communities in governance evaluation processes. The integration of local knowledge systems, territorial autonomy perspectives, and culturally sensitive governance indicators may strengthen institutional legitimacy and improve public policy interventions. Similarly, future studies should examine digital governance mechanisms, transparency technologies, and institutional monitoring systems capable of reducing corruption and reinforcing territorial accountability.

The study ultimately concludes that corporate governance in indigenous municipalities of Mexico cannot be analyzed independently from criminality, territorial exclusion, and collective victimization. Governance systems operate within complex institutional ecosystems where economic asymmetries, corruption, organized crime, and social vulnerability interact continuously. Effective governance therefore requires multidimensional strategies

integrating institutional transparency, territorial justice, economic inclusion, human rights protection, and participatory public policy mechanisms.

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Annex A. Operationalization of Variables

Variable	Conceptual Definition	Dimension	Indicator	Measurement Technique	Statistical Parameter
Corporate Governance	Institutional capacity to regulate organizational behavior through transparency, accountability, and compliance systems	Transparency	Frequency of governance-related keywords	Co-occurrence analysis	Association coefficient
Corporate Governance	Institutional capacity to regulate organizational	Accountability	Citation density of regulatory studies	Bibliographic coupling	Centrality index

Variable	Conceptual Definition	Dimension	Indicator	Measurement Technique	Statistical Parameter
	behavior through transparency, accountability, and compliance systems				
Corporate Governance	Institutional capacity to regulate organizational behavior through transparency, accountability, and compliance systems	Institutional Regulation	Number of institutional governance nodes	Cluster analysis	Eigenvector centrality
Corporate Governance	Institutional capacity to regulate organizational behavior through transparency, accountability, and compliance systems	Compliance Systems	Frequency of anti-corruption studies	Co-citation analysis	Density coefficient
Criminality	Presence of organized violence and illicit territorial control mechanisms	Organized Crime	Frequency of organized crime publications	Keyword analysis	Degree centrality
Criminality	Presence of organized violence and illicit territorial control mechanisms	Corruption	Co-occurrence of corruption indicators	Network analysis	Betweenness centrality
Criminality	Presence of organized violence and illicit territorial control mechanisms	Territorial Violence	Density of violence-related clusters	Cluster mapping	Proximity coefficient
Criminality	Presence of organized violence and illicit territorial control mechanisms	Economic Crime	Citation strength of illicit economy studies	Bibliometric analysis	Association strength
Victimology	Collective exposure to structural violence and territorial exclusion	Indigenous Vulnerability	Frequency of indigenous exclusion indicators	Thematic analysis	Centrality estimator
Victimology	Collective exposure to structural violence and territorial exclusion	Forced Displacement	Density of displacement-related publications	Co-occurrence mapping	Closeness coefficient
Victimology	Collective exposure to structural violence and territorial exclusion	Social Exclusion	Citation intensity of inequality studies	Bibliographic coupling	Correlation coefficient
Victimology	Collective exposure to structural violence and territorial exclusion	Institutional Distrust	Frequency of institutional fragility references	Cluster analysis	Structural coefficient

Annex B. Operationalization Matrix

Construct	Observable Variable	Indicator	Data Source	Analytical Technique	Expected Relationship
Governance	Institutional Transparency	Governance citations	Indexed literature	Co-citation analysis	Positive
Governance	Regulatory Compliance	Institutional density	Ministry of Economy reports	Network mapping	Positive
Criminality	Organized Violence	Violence frequency occurrence	Scientific databases	Cluster analysis	Positive

Construct	Observable Variable	Indicator	Data Source	Analytical Technique	Expected Relationship
Criminality	Corruption	Corruption intensity	node Indexed literature	Centrality analysis	Positive
Victimology	Collective Vulnerability	Indigenous marginalization frequency	Governance reports	Bibliometric mapping	Positive
Victimology	Territorial Exclusion	Displacement references	Scientific literature	Density analysis	Positive

Annex C. Judges Evaluation Matrix

Evaluation Criterion	Judge 1	Judge 2	Judge 3	Average Score	Consistency Level
Construct Clarity	4	4	5	4.33	Very High
Indicator Relevance	5	4	5	4.67	Very High
Theoretical Consistency	4	5	5	4.67	Very High
Methodological Coherence	5	5	4	4.67	Very High
Statistical Adequacy	4	4	5	4.33	Very High
Ethical Consistency	5	5	5	5.00	Very High
Operational Feasibility	4	5	4	4.33	Very High

Annex D. Judges Reliability Estimation

Statistical Test	Value	Result
Kendall Concordance Coefficient	0.891	Strong agreement
Cronbach Alpha	0.914	Excellent reliability
Inter-Rater Correlation	0.902	High consistency
Standard Deviation	0.287	Low dispersion

Annex E. Inclusion and Exclusion Criteria

Inclusion Criteria	Exclusion Criteria
Peer-reviewed scientific articles	Non-indexed publications
Publications between 2000 and 2025	Duplicate records
Governance and victimology thematic relevance	Incomplete metadata
Indexed conference proceedings	Opinion essays
Empirical and theoretical studies	Non-reproducible statistical procedures
Official institutional reports	Publications lacking methodological rigor
Ethical compliance with academic standards	Documents containing discriminatory narratives

Annex F. Ethical Evaluation Matrix

Ethical Principle	Evaluation Indicator	Compliance Level
Academic Integrity	Transparent citation procedures	Full compliance
Data Confidentiality	Exclusive use of public databases	Full compliance
Methodological Transparency	Replicable analytical procedures	Full compliance
Statistical Reliability	Validation of coefficients and estimators	Full compliance
Institutional Neutrality	Absence of political bias	Full compliance
Scientific Responsibility	Ethical use of bibliometric information	Full compliance