

Policy Implementation, Monitoring Mechanisms, and Risk Management Compliance: A Mediation Analysis in Higher Education

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Abstract: Effective policy implementation and strong monitoring mechanisms are essential in strengthening risk management compliance in higher education institutions. This study examined the mediating effect of monitoring mechanisms on the relationship between policy implementation and risk management compliance in higher education institutions. The study employed a quantitative research approach using an explanatory correlational design with mediation analysis. It was conducted in a private higher education institution in Northern Mindanao, Philippines, during the academic year 2025–2026. The respondents consisted of 180 personnel, including deans, department heads, program heads, coordinators, secretaries, and non-teaching staff, selected through purposive sampling. Three researcher-developed instruments were used: the Policy Implementation Questionnaire (PIQ), the Monitoring Mechanisms Questionnaire (MMQ), and the Risk Management Compliance Questionnaire (RMCQ). Data were analyzed using means and standard deviations, Spearman's rho correlation, multiple regression, and mediation analysis. The findings revealed that policy implementation was practiced to a very great extent, while monitoring mechanisms and risk management compliance were rated very high. Policy implementation had significant positive relationships with monitoring mechanisms and risk management compliance. Monitoring mechanisms also had a significant positive relationship with risk management compliance. Multiple regression analysis identified leadership and commitment, documentation and standardization, and reporting and transparency as significant predictors of risk management compliance, with leadership and commitment emerging as the strongest predictor. Mediation analysis revealed that monitoring mechanisms partially mediated the relationship between policy implementation and risk management compliance. Leadership commitment, structured documentation systems, and transparent reporting practices play critical roles in sustaining institutional accountability, resilience, and continuous improvement. Deans, department heads, quality assurance officers, and academic supervisors strengthen policy implementation, enhance monitoring systems, improve documentation practices, and sustain transparent reporting mechanisms to support accreditation readiness, ISO compliance, and long-term institutional effectiveness.

Keywords: *Accountability, Higher Education Institutions, Monitoring Mechanisms, Policy Implementation, Risk Management Compliance.*

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I. INTRODUCTION

Risk management has become a fundamental component of governance in organizations operating within complex, resource-intensive, and highly accountable environments (Alenezi, 2023). In higher education, institutions increasingly face multifaceted risks arising from financial instability, technological transformation, regulatory demands, and concerns for the safety and well-being of students and staff (Bhandari et al., 2025). As institutional operations expand in scope and scale, unmanaged risks may

compromise academic quality, organizational integrity, and stakeholder trust, underscoring the need for structured policy implementation and systematic monitoring as integral elements of institutional resilience and compliance (De Villiers et al., 2025).

In response to these challenges, higher education institutions are increasingly compelled to adopt internationally recognized management frameworks that promote quality, transparency, and sustainability in governance and operations (Dietrich, 2025). The

International Organization for Standardization (ISO), particularly through ISO 21001:2018, provides a comprehensive Educational Organizations Management System (EOMS) that integrates policy implementation, monitoring mechanisms, and risk-based thinking into a unified governance framework (Trein et al., 2021). As universities extend their mandates beyond instruction to encompass research, community engagement, and global collaboration, ISO 21001 offers a systematic approach for aligning institutional processes with strategic objectives while ensuring continual improvement and accountability (Lingegård et al., 2021).

The significance of ISO 21001 in academic institutions lies in its capacity to translate institutional policies into measurable, process-oriented actions supported by monitoring and evaluation (Ogunsola et al., 2021). The standard emphasizes leadership responsibility, stakeholder focus, evidence-based decision-making, and proactive risk management, which are principles that directly reinforce effective policy implementation and performance monitoring (Hill & Varone, 2021). By institutionalizing standardized procedures, internal audits, and performance indicators, ISO 21001 enables higher education institutions to mitigate operational, regulatory, and reputational risks, thereby fostering a culture of compliance, resilience, and sustained academic excellence.

In this context, ensuring that risk management policies are implemented, monitored, and complied with is at the core of higher education institutions' survival and ability to achieve their educational mission (De Wit & Altbach, 2021). Therefore, the exploration of a mediation between policy implementation, monitoring mechanisms, and risk management compliance is of both academic and practical significance, and this paper contributes to policy implementation in risk management (Erhardt et al., 2025).

Although there are high-quality policies in the African context, most higher education institutions are unable to implement them to ensure adherence to risk management standards (Eboibi, 2020). In Nigeria, official policies may be adopted, but enforcement is weak, monitoring is inconsistent, or institutional members may not fully understand the organization's risk management policies (Jacob & Samuel, 2020). As a result, the institution is not prepared to address crises, regulatory audits, or institutional risks such as data breaches, infrastructure failures, or misappropriation of funds (Alves et al., 2020).

In addition, compliance with risk management policies often depends not only on the existence of rules but also on the establishment of effective monitoring methods that track implementation, identify lapses, and ensure corrective action is taken (Aithal & Aithal, 2020). However, evidence suggests that, in many cases, monitoring methods in academic institutions are either disorganized, underutilized, or implemented in ways that do not close the loop between policy and compliance (Borowiecki & Paunov, 2018). There is an ongoing gap between the policy's intentions and the outcomes of compliance (Feng et al., 2025).

Several initiatives have been created to enhance governance and compliance in higher education (Cembranel et al., 2024). In addition to various accrediting bodies setting accreditation principles that require institutions to show risk management and compliance capability, we have seen the emergence of international frameworks, such as ISO 21001 on risk management, that have been implemented in universities to formulate policy and institutional practices in relation to risk (Esteve-Mon et al., 2023). On the other hand, in the Philippines, the Commission on Higher Education (CHED) and other governing bodies have enforced universities to implement mechanisms to govern education delivery, which are compliance mechanisms, particularly in relation to safety compliance, financial accountability, and compliance with and adherence to academic standards (Freeman et al., 2021).

Scholarly literature has also emphasized the significance of institutional governance structures, leadership commitment, and organizational culture to policy compliance (Dempere et al., 2023). Organizational theory emphasizes that policy implementation depends not only on policy design but also on establishing a systematic monitoring process (Himanen & Puuska, 2022). Moreover, empirical studies in both public administration and higher education have highlighted that compliance does not happen naturally; it requires continual monitoring, evaluation, and enforcement (Leal Filho et al., 2021).

Notwithstanding these efforts, unique and distinct challenges remain in higher education. Campuses do not operate like a corporate organization, where all employees report to a single employer and are governed by a single governance framework (Khalilov, 2025). Instead, campuses are characterized by academic and faculty autonomy, shared governance, and decentralized units, all of which contribute to a governance framework that might hinder larger organizations from applying or overseeing university policy across different personnel, colleges, or offices (Do et al., 2020). The implications of risk management compliance for laboratory safety, financial reporting, or student data protection can look substantially different across units, depending on how policies are cascaded and monitored (Leišytė, 2022).

Additionally, in numerous higher education organizations, monitoring is often conducted in response to compliance breaches rather than proactively addressing risks (Maznifah, 2025). Instead of proactively addressing compliance breaches before they occur, educational institutions are sometimes reactive only to them (Nnadozie, 2024). This approach can prevent risk management frameworks from operating as protective layers. Therefore, the problem is not the absence of policies to identify risks but the lack of connection between policy implementation and compliance outcomes (Eshetu et al., 2021).

Within this context, investigating the role of monitoring mechanisms as mediators becomes significant (Kennedy, 2025). Understanding how monitoring serves as the bridge between policy implementation and compliance with risk

management can provide universities with actions to strengthen their governance practices (Nkonki-Mandleni, 2023).

Academics in governance and higher education have long emphasized the interrelationship among policy, monitoring, and compliance (Morgane et al., 2025). Good policy implementation calls for more than simply telling others to change. It involves institutional systems that enforce compliance at multiple levels of the organization (Roos et al., 2020). Monitoring mechanisms are described as the control nerves of organizations. They monitor rules or policies to ensure they are not only written but also experienced through actual institutional life (Sareen & Mandal, 2024).

Researchers in the field of risk management assert that compliance culture should be developed through structural and procedural mechanisms, alongside monitoring, which serves as the channel through which organizational intention is translated into behavior (Sattiraju et al., 2023). In the higher education context, researchers report that universities are complex institutions that are unique in terms of risk because they operate as both public and competitive institutions (Bognár & Benedek, 2021). Therefore, compliance in higher education will require monitoring systems that control risk while carefully balancing academic freedom and accountability (Hurtibise, 2025).

Recent empirical research indicates that monitoring mechanisms, such as internal audits, compliance committees, and performance dashboards, play an important role in policy implementation efforts (Ibrahim, 2022). While the role of monitoring mechanisms remains underexplored, we understand less about their potential mediating role, particularly in higher education's risk management frameworks (Mwelu et al., 2020).

Although policy implementation, monitoring, and compliance have an extensive literature in public administration and corporate governance, the field pays little attention to these variables in higher education (Sofyani et al., 2023). Even less work has considered the role of monitoring mechanisms as mediators, which typically explains why some institutions demonstrate successful compliance and others do not (Winhoffer, 2025). Most work in the field of higher education terms monitoring as part of implementation or as an independently identifiable construct, for example, the concept of oversight, rather than as a mediating process (Schaap et al., 2025).

Moreover, recent studies often adopt a more general approach to risk management, failing to consider compliance, especially in higher education, where a distinctive institutional dynamic exists (Shahawati et al., 2025). Thus, there remains a gap in the literature regarding how monitoring mechanisms mediate the relationship between policy implementation and compliance with risk management practices in higher education. Addressing this gap will, in theory, contribute to the policy and compliance literature and, in practice, to university governance (Rusdi et al., 2023).

This research aims to explore monitoring mechanisms as a mediating variable in the relationship between policy implementation and risk management compliance in higher education institutions. Specifically, the research will assess the extent of policy implementation in selected higher education institutions, determine whether monitoring mechanisms are present and effective, examine levels of compliance with risk management processes, and test whether monitoring mechanisms mediate the relationship between policy implementation and risk management compliance.

Thus, this study aims to enhance our understanding of governance processes in higher education and also provide recommendations for enhancing institutional risk management systems (Silaji et al., 2025). The ultimate goal is to ensure that policymakers, administrators, and higher education stakeholders use the study's findings to foster an organizational culture of compliance through improved implementation or monitoring mechanisms (Wolfe, 2025).

II. RESEARCH METHODOLOGY

➤ *Design*

This quantitative study employed an explanatory correlational research design using mediation analysis to examine the mediating effect of monitoring mechanisms on the relationship between policy implementation and risk management compliance in higher education institutions. Explanatory correlational research is a non-experimental design that focuses on identifying the strength, direction, and significance of relationships among variables through the analysis of numerical data, without manipulating the study environment (Schneider, 2020). This design is appropriate for the present study as it allows for the empirical assessment of the direct effect of policy implementation on risk management compliance, as well as the indirect effect of monitoring mechanisms as a mediating variable, thereby providing a systematic understanding of how governance processes influence compliance outcomes in higher education settings (Ulven & Wangen, 2021).

➤ *Setting*

The research took place at a private higher educational institution in Northern Mindanao, Philippines, known for its governance strategies, quality assurance, and international linkages. The institution holds Autonomous Status from the Commission on Higher Education (CHED), is certified ISO 21001:2018 Educational Organizations Management System, and was first documented as ISO 9001:2000 in 2005. ISO 9001:2008 in 2010, and subsequently upgraded its quality management system to ISO 9001:2015, demonstrating a long history of formalized quality assurance and process control. The institution maintains the highest number of accredited programs in its region, demonstrating its adherence to local and global educational standards. Its reputation in leadership, student services, and institutional performance continues to demonstrate its ability to implement and maintain policies effectively.

These recognitions make the institution an appropriate setting for examining policy implementation, monitoring mechanisms, and compliance with risk management in higher education. As a leading research university in its region, with proven systems of accountability and collaboration, it provides a valuable context for analyzing how institutional policies translate into compliance outcomes, thereby aligning directly with the objectives of this mediation analysis.

➤ *Respondents*

The respondents in this research study were 180 personnel, including the college deans, department heads, principal, program heads, coordinators, secretaries, and non-teaching personnel from a private higher education institution in Northern Mindanao during the academic year 2025–2026. The sample size was considered appropriate for a mediation analysis, as it provides an adequate representation of personnel directly involved in evaluating policy implementation, monitoring mechanisms, and compliance with risk management mechanisms.

Respondents were selected through purposive sampling, as this study seeks participants in administrative positions with direct responsibility for policy and compliance processes. Personnel must be full-time employees of the institution, hold a formal administrative title such as dean, director, program chair, head of office, or similar leadership position, have been in their position for at least 1 year, and be directly involved in policy implementation, monitoring, or risk management functions. Participation will be voluntary, and informed consent will be secured before participation.

➤ *Instruments*

This study used three researcher-developed questionnaires to measure the levels of Policy Implementation (PIQ), Monitoring Mechanisms (MMQ), and Risk Management Compliance (RMCQ) in higher education institutions. Each questionnaire is organized according to key constructs that reflect the processes and operations of higher education institutions. Before the main study, a pilot test was conducted to assess the validity and reliability of each instrument. Construct validity was evaluated through expert review, ensuring alignment with ISO 21001 and scholarly literature. At the same time, internal consistency reliability was measured using Cronbach’s Alpha, with a minimum acceptable threshold of 0.70 for each construct (Gliem & Gliem, 2003). A five-point Likert scale was used across all instruments to allow respondents to indicate the intensity of their perceptions in a clear and interpretable manner.

• *Policy Implementation Questionnaire (PIQ)*

The Policy Implementation Questionnaire (PIQ) measured the degree to which institutional policies were effectively translated into actions and embedded into organizational practices. The instrument is researcher-made, informed by ISO 21001 principles on leadership, planning, and support for implementation (Clauses 5–8), as well as foundational policy implementation literature such as Van Meter and Van Horn (1975).

The PIQ comprised five constructs: (1) Leadership and Commitment, (2) Communication and Awareness, (3) Resource Allocation, (4) Documentation and Standardization, and (5) Stakeholder Participation, with a total of 25 indicators. The five constructs focused on how the institutional policies were articulated, supported, allocated resources, and accepted within the institution. Responses to each indicator were rated on a five-point Likert scale: 5 – Strongly Agree, 4 – Agree, 3 – Neutral, 2 – Disagree, and 1 – Strongly Disagree.

In measuring the extent of policy implementation in a private higher education institution, the following scale was utilized:

Responses	Continuum	Interpretation
5 – Strongly Agree (SA)	4.20-5.0	To a Very Great Extent (TVGE)
4 – Agree (A)	3.40-4.19	Great Extent (GE)
3 – Neutral (N)	2.60-3.39	Moderate (M)
2 – Disagree (D)	1.80-2.59	Less Extent (LE)
1 – Strongly Disagree (SD)	1.0-1.79	Least Extent (LE)

• *Monitoring Mechanisms Questionnaire (MMQ)*

The Monitoring Mechanisms Questionnaire (MMQ) measured the presence, adequacy, and effectiveness of institutional mechanisms for monitoring, evaluating, and improving policy implementation. The MMQ was a researcher-developed instrument, guided by ISO 21001 clauses on performance evaluation, management review, and continual improvement (Clauses 9–10), as well as by accountability and control theories.

It consisted of five constructs: (1) Evaluation Systems, (2) Feedback Loops, (3) Performance Indicators, (4) Reporting and Transparency, and (5) Continuous Improvement Actions, also with 25 indicators. The instrument assessed the degree to which monitoring was planned, implemented, and supported through all levels of the organization. Responses were rated on a five-point Likert scale: 5 – Strongly Agree, 4 – Agree, 3 – Neutral, 2 – Disagree, and 1 – Strongly Disagree.

In assessing the effectiveness of monitoring mechanisms in a private higher education institution, the following scale will be utilized:

Responses	Continuum	Interpretation
5 – Strongly Agree (SA)	4.20-5.0	Very High (VH)
4 – Agree (A)	3.40-4.19	High (H)
3 – Neutral (N)	2.60-3.39	Moderate (M)
2 – Disagree (D)	1.80-2.59	Low (L)
1 – Strongly Disagree (SD)	1.0-1.79	Very Low (VL)

• *Risk Management Compliance Questionnaire (RMCQ)*

The Risk Management Compliance Questionnaire (RMCQ) assessed the level to which institutional units adhere to established risk management policies and

standards. It provides a quantitative measure of institutional compliance maturity, demonstrating the institution’s capability to anticipate, monitor, and respond to risks in alignment with its governance and quality assurance commitments.

The instrument was researcher-made and contained five constructs: (1) Risk Identification, (2) Risk Assessment Analysis, (3) Risk Treatment and Control, (4) Compliance Assurance, and (5) Institutional Resilience and Improvement, with a total of 25 indicators. Items on the questionnaire were rated using a five-point Likert scale: 5 – Strongly Agree, 4 – Agree, 3 – Neutral, 2 – Disagree, and 1 – Strongly Disagree.

Responses	Continuum	Interpretation
5 – Strongly Agree (SA)	4.20-5.0	Very High (VH)
4 – Agree (A)	3.40-4.19	High (H)
3 – Neutral (N)	2.60-3.39	Moderate (M)
2 – Disagree (D)	1.80-2.59	Low (L)
1 – Strongly Disagree (SD)	1.0-1.79	Very Low (VL)

➤ *Data Gathering Procedure*

In collecting the data, the researcher first secured approval from the Graduate School of the university and obtained the necessary authorization from the offices concerned of the higher education institution where the study was conducted. Upon approval, the researcher coordinated with the administrators and identified the respondents. Each respondent was provided with an informed consent letter and briefed on the study's purpose, objectives, voluntary nature, and confidentiality to ensure informed participation.

The researcher personally distributed the survey questionnaires, comprising the Policy Implementation Questionnaire (PIQ), Monitoring Mechanisms Questionnaire (MMQ), and Risk Management Compliance Questionnaire (RMCQ), within the school setting. The on-site distribution and completion of the questionnaires allowed the researcher to give clear instructions, address queries, and facilitate cooperation. This approach also helped ensure that the questionnaires were completed and retrieved on the same day. After collection, all completed questionnaires were compiled, checked for completeness, and analyzed, while maintaining the confidentiality and anonymity of the respondents.

➤ *Ethical Considerations*

Before data collection, the study was reviewed and approved by the Research Ethics Committee. Participation in the study was entirely voluntary, in accordance with the principle of informed consent (Kayyali, 2025). The purpose, objectives, and scope of the research were clearly explained to the respondents before the survey was administered. They were also informed of their rights, including the right to refuse participation or withdraw from the study at any time without penalty. To confirm their willingness to participate, respondents signed an informed consent form, thereby upholding their autonomy and ensuring voluntary participation.

The study adhered to the ethical principles of respect for persons, beneficence, and confidentiality as outlined in the Belmont Report. All data collected were treated with strict confidentiality, and no personal identifiers were included in any report or publication. The data were securely stored and used solely for academic purposes, with safeguards in place to prevent unauthorized access or disclosure (Kovalenko et al., 2021). The researcher maintained honesty and transparency throughout the research process and did not engage in fabrication, falsification, or misrepresentation of data. These measures ensured the protection of the rights, dignity, and welfare of all respondents.

➤ *Data Analysis*

To analyze the gathered data, the study utilized the following statistical tools:

- *Mean and Standard Deviation.* These tools were used to determine the extent of policy implementation, the monitoring mechanisms, and compliance with risk management requirements in the higher education institution. These descriptive statistics summarized administrators’ perceptions and highlighted the overall practice level for each construct.
- *Spearman Correlation (rs).* This tool was employed to examine the significant relationships among the key variables, specifically between policy implementation and monitoring mechanisms, policy implementation and risk management compliance, and monitoring mechanisms and risk management compliance. This identified the variables' strengths and directions.
- *Stepwise Multiple Regression Analysis.* This tool was utilized to identify which aspects of policy implementation best predict risk management compliance in higher education. This enabled the identification of the most significant predictors in the study.
- *General Linear Mediation Analysis.* This tool was used to test the mediating effect of monitoring mechanisms on the relationship between policy implementation and risk management compliance. This analysis determined whether monitoring mechanisms significantly explained the indirect effect of policy implementation on risk management compliance, providing deeper insights into the dynamics of governance and compliance in higher education institutions.

III. RESULTS AND DISCUSSION

➤ *Extent of Policy Implementation*

Table 1 presents the extent of policy implementation as perceived by the respondents. The results reveal that the overall extent of policy implementation was very great (M = 4.80, SD = 0.26). This finding indicates that policies are highly implemented and consistently practiced across the organization. Institutional guidelines, procedures, and standards are effectively translated into operational practices. In higher education institutions, strong policy implementation supports governance efficiency, accountability, and

compliance with regulatory standards, particularly in complex and decentralized environments.

Policy implementation refers to the systematic process of translating formally adopted policies into concrete actions, procedures, and institutional practices. It involves aligning institutional objectives, stakeholder expectations, and operational processes to ensure consistent enactment across organizational units. The overall result suggests that the institution demonstrates a high level of capability in operationalizing policies through leadership commitment, communication systems, resource allocation, documentation, and stakeholder participation. This reflects the organization’s capacity to maintain structured governance processes and sustain institutional performance. The literature emphasizes that effective policy implementation depends on consistent execution rather than on policy design alone (Nilsen, 2020).

Leadership and commitment obtained the highest mean and were interpreted as to a great extent (M = 4.82, SD = 0.23). This indicates that leaders actively support, enforce, and sustain policy implementation within the organization. Leadership establishes direction, reinforces accountability, and embeds policies into institutional culture. The result suggests that leadership commitment strengthens compliance behavior and promotes consistency in implementation. Studies highlight that leadership involvement determines whether policies are translated into actual practices and measurable outcomes (Hubbard, 2020; Trein et al., 2021).

Communication and awareness, resource allocation, documentation and standardization, and stakeholder participation were implemented to a very great extent (M=4.80), (SD = 0.26, 0.28, 0.24, and 0.27, respectively). Policies are clearly communicated, adequately supported by resources, systematically documented, and implemented with stakeholder engagement. Clear communication ensures that stakeholders understand expectations and responsibilities, thereby reducing implementation inconsistencies (Emmons & Chambers, 2021). Adequate resource allocation enables efficient execution of policy-related activities and supports institutional operations (Van Greuning & Bratanovic, 2020). Documentation and standardization promote uniformity,

accountability, and clarity in procedures (Wolfenden et al., 2020). Stakeholder participation strengthens ownership, legitimacy, and responsiveness to institutional needs (Bhandari et al., 2025).

All indicators fall within the very great extent category, showing a balanced and comprehensive approach to policy implementation. Multiple governance dimensions are integrated to ensure the effective execution of institutional policies. Evidence shows that institutions with strong implementation practices are more likely to establish systematic monitoring mechanisms and achieve higher levels of compliance and organizational resilience (Gasmi et al., 2020; Settembre-Blundo et al., 2021).

Policy implementation is consistently practiced to a very great extent across all key areas. The institution demonstrates strong capacity to translate policies into actionable practices and maintain alignment with organizational standards. High implementation levels reflect readiness, coordination, and commitment to governance processes. Sustaining this level requires continuous monitoring and evaluation to ensure responsiveness to evolving institutional and regulatory demands.

Enhancing policy implementation requires continuous institutional support through leadership development, strengthened communication systems, and adequate resource provision. Improved documentation practices and sustained stakeholder engagement can further support implementation processes. These efforts align with governance principles that emphasize structured systems, accountability, and continuous improvement in higher education institutions.

Maintaining strong policy implementation requires sustained collaboration among administrators, staff, and stakeholders. Strengthening internal monitoring systems, promoting professional development, and reinforcing participatory governance practices can help ensure consistent implementation. Structured feedback mechanisms and effective communication channels can further enhance institutional effectiveness and sustainability.

Table 1 Extent of Policy Implementation (n=180)

Constructs	M	SD	Interpretation
Leadership and Commitment	4.82	0.23	Very Great Extent
Communication and Awareness	4.80	0.26	Very Great Extent
Resource Allocation	4.80	0.28	Very Great Extent
Documentation and Standardization	4.80	0.24	Very Great Extent
Stakeholder Participation	4.80	0.27	Very Great Extent
Overall Policy Implementation	4.80	0.26	Very Great Extent

Scale: 4.20-5.00(Very Great Extent); 3.40-4.19 (Great Extent); 2.60-3.39 (Moderate); 1.80-2.59 (Less Extent); 1.0-1.79 (Least Extent)

➤ *Level of Monitoring Mechanisms*

Table 2 presents the level of monitoring mechanisms as perceived by the respondents. The results reveal that the overall level of monitoring mechanisms was very high (M = 4.84, SD = 0.23). This finding indicates that systems for

tracking, evaluating, and improving organizational processes are well established and consistently implemented. Monitoring plays a central role in ensuring that policies and programs are effectively implemented, supporting

accountability, quality of performance, and continuous development in higher education institutions.

Monitoring mechanisms refer to structured processes and tools used to assess performance, track progress, and ensure alignment with institutional goals and standards (Schlenker et al., 1994). These mechanisms include evaluation systems, feedback loops, performance indicators, reporting and transparency, and continuous improvement actions. The overall result suggests that these components are actively practiced, reflecting a systematic and responsive governance approach. Monitoring enables institutions to generate evidence-based insights, identify gaps, and implement corrective actions, strengthening the link between policy implementation and compliance outcomes (Hill & Varone, 2021; Overman & Schillemans, 2022).

Evaluation systems obtained the lowest mean but remained within the very high category (M = 4.78, SD = 0.28). Structured evaluation processes are in place to assess the effectiveness of programs, policies, and institutional activities. Regular assessments and reviews allow the organization to measure outcomes and determine whether objectives are achieved. Evaluation systems provide a foundation for accountability and continuous improvement. Evidence shows that systematic evaluation strengthens governance by identifying performance gaps and guiding institutional decision-making (Wieringa, 2020; Hill & Varone, 2021).

Feedback loops showed very high compliance (M = 4.85, SD = 0.22). Feedback is actively gathered, communicated, and utilized within the organization to refine processes and improve performance. Stakeholder input supports timely adjustments and promotes responsiveness to institutional needs. Effective feedback systems strengthen adaptive governance by linking operational outcomes with strategic goals. Research indicates that feedback mechanisms enhance institutional learning and improve responsiveness to risks and challenges (Jepperson & Meyer, 2021; Ilori et al., 2024).

Performance indicators and continuous improvement actions were both very highly monitored (M=4.86, SD = 0.20). Clear and measurable indicators are used to track performance and evaluate progress toward institutional goals. These indicators provide benchmarks that support data-driven decision-making and operational efficiency. Continuous improvement actions reflect the institution’s ability to respond to monitoring results through corrective and preventive measures. Evidence shows that institutions that integrate performance indicators with continuous improvement processes demonstrate stronger compliance and

organizational resilience (Roumieh et al., 2022; Dietrich, 2025).

Reporting and transparency yielded a mean of 4.83 (SD = 0.24), also interpreted as very high. Performance and outcome information is systematically documented and communicated to stakeholders. Transparent reporting promotes accountability, strengthens trust, and supports informed decision-making. It ensures that monitoring results are visible and actionable at the institutional level. Studies emphasize that transparency enhances governance effectiveness and reinforces compliance with institutional standards (Weible, 2023; Ogunisola et al., 2021).

All indicators fall within the very high category, showing a comprehensive and integrated monitoring system. Multiple components work together to ensure that institutional processes are consistently evaluated and improved. Research confirms that effective monitoring mechanisms serve as the bridge between policy implementation and compliance, enabling institutions to translate governance intentions into measurable outcomes (Hill & Varone, 2021; Jepperson & Meyer, 2021; Overman & Schillemans, 2022).

Monitoring mechanisms are practiced at a very high level across all key areas. The institution demonstrates strong capacity to track performance, evaluate outcomes, and implement improvements. High levels of monitoring reflect institutional readiness, structured governance, and commitment to continuous improvement. Sustaining this level requires continuous enhancement of monitoring systems to remain responsive to emerging institutional challenges.

Strengthening monitoring mechanisms requires sustained institutional support through capacity-building, technological integration, and stakeholder engagement. Improving evaluation systems, refining feedback processes, and enhancing data management practices can further support effective monitoring. These efforts align with governance frameworks that emphasize evidence-based decision-making and continuous improvement.

Maintaining strong monitoring mechanisms requires collaboration among administrators, staff, and stakeholders. Strengthening internal evaluation systems, reinforcing feedback utilization, and promoting transparency in reporting can enhance monitoring effectiveness. Continuous improvement practices supported by data-driven insights may further contribute to institutional accountability, resilience, and sustainability.

Table 2 Level of Monitoring Mechanisms (n=180)

Constructs	M	SD	Interpretation
Evaluation Systems	4.78	0.28	Very High
Feedback Loops	4.85	0.22	Very High
Performance Indicators	4.86	0.20	Very High
Reporting and Transparency	4.83	0.24	Very High

Continuous Improvement Actions	4.86	0.20	Very High
Overall Monitoring Mechanisms	4.84	0.23	Very High

Scale: 4.20-5.00(Very High); 3.40-4.19 (High); 2.60-3.39 (Moderate); 1.80-2.59 (Low); 1.0-1.79 (Very Low)

➤ Level of Risk Management Compliance

Table 3 presents respondents' perceptions of compliance with risk management. The results reveal that overall risk management compliance was very high ($M = 4.85$, $SD = 0.22$). This indicates that the organization consistently adheres to established risk management processes and standards. Risk management practices are systematically integrated into institutional operations, ensuring that potential risks are identified, assessed, and addressed to maintain stability, safety, and continuity. In higher education institutions, compliance with risk management standards is essential to safeguard institutional integrity and sustain operational performance.

Risk management compliance refers to the extent to which institutions adhere to structured processes for identifying, analyzing, and addressing risks while ensuring alignment with policies and regulatory requirements. It involves key components such as risk identification, risk assessment analysis, risk treatment and control, compliance assurance, and institutional resilience and improvement. The overall result indicates that these processes are consistently practiced, reflecting a structured and proactive approach to managing institutional risks. Literature emphasizes that compliance is strengthened when risk management practices are supported by systematic monitoring and governance structures (Overman & Schillemans, 2022; Wolfenden et al., 2020).

Risk treatment and control, and institutional resilience and improvement obtained the highest mean of 4.87 ($SD = 0.20$), indicating very high levels. Appropriate strategies and control measures are implemented to mitigate identified risks, including preventive actions, corrective measures, and contingency planning. Institutional resilience reflects the organization's capacity to adapt, recover, and improve in response to challenges. The result indicates that the institution not only manages risks effectively but also strengthens its ability to respond to disruptions. Evidence shows that institutions that integrate continuous improvement with risk control processes demonstrate stronger resilience and sustained compliance (Dietrich, 2025; Eitrem et al., 2024).

Risk assessment analysis recorded a mean of 4.86 ($SD = 0.22$), interpreted as very high. Identified risks are systematically evaluated based on likelihood and impact to support informed decision-making. Structured assessment processes allow institutions to prioritize risks and allocate resources effectively. The result suggests that analytical approaches are consistently applied in evaluating institutional risks. Research indicates that effective risk assessment enhances decision-making and strengthens institutional preparedness (Lingegård et al., 2021; McLoughlin et al., 2024).

Risk identification and compliance assurance both had means of 4.83 (SDs of 0.24 and 0.23), indicating very high levels. Risks are consistently recognized, documented, and monitored across institutional operations. Compliance assurance ensures that practices align with policies, standards, and regulatory requirements through audits, reviews, and monitoring activities. These processes reinforce accountability and transparency in governance. Studies indicate that early risk identification and strong assurance systems contribute to effective compliance and organizational reliability (Angelstam et al., 2023; Jepperson & Meyer, 2021).

All indicators fall within the very high category, reflecting a comprehensive and integrated risk management system. Multiple components operate collectively to ensure that risks are systematically managed and compliance is sustained. Evidence suggests that institutions with well-established risk management systems supported by monitoring mechanisms demonstrate higher levels of governance effectiveness and institutional stability (Overman & Schillemans, 2022; Dietrich, 2025).

Risk management compliance is practiced at a very high level across all key areas. The institution demonstrates strong capability in managing risks, maintaining compliance, and sustaining operational integrity. High compliance levels reflect structured governance processes, effective coordination, and commitment to institutional accountability. Sustaining this level requires continuous strengthening of risk management systems to address emerging risks and evolving regulatory demands.

Strengthening risk management compliance requires continuous institutional support through training, system enhancement, and integration of innovative risk management practices. Improving risk assessment processes, reinforcing control mechanisms, and enhancing monitoring systems can further sustain compliance. These efforts align with governance frameworks that emphasize proactive risk management and continuous improvement.

Maintaining strong risk management compliance requires collaboration among administrators, staff, and stakeholders. Strengthening monitoring systems, reinforcing compliance assurance processes, and promoting a culture of risk awareness can enhance institutional resilience. Continuous improvement, supported by data-driven insights, may further enhance accountability, sustainability, and long-term organizational effectiveness.

Table 3 Level of Risk Management Compliance (n=180)

Constructs	M	SD	Interpretation
Risk Identification	4.83	0.24	Very High
Risk Assessment Analysis	4.86	0.22	Very High
Risk Treatment and Control	4.87	0.20	Very High
Compliance Assurance	4.83	0.23	Very High
Institutional Resilience and Improvement	4.87	0.20	Very High
Overall Risk Management Compliance	4.85	0.22	Very High

Scale: 4.20-5.00(Very High); 3.40-4.19 (High); 2.60-3.39 (Moderate); 1.80-2.59 (Low); 1.0-1.79 (Very Low)

➤ *Significant Relationship Between Policy Implementation and Monitoring Mechanisms*

Table 4 presents the results of the Spearman’s rho correlation analysis examining the relationship between policy implementation and monitoring mechanisms. Policy implementation was operationalized across five dimensions: leadership and commitment; communication and awareness; resource allocation; documentation and standardization; and stakeholder participation. Monitoring mechanisms were examined through evaluation systems, feedback loops, performance indicators, reporting and transparency, and continuous improvement actions. The results reveal that all correlations were highly significant ($p < .001$), indicating that as the level of policy implementation increases, the effectiveness of monitoring mechanisms also increases. This suggests that policy implementation provides the operational foundation for developing structured, transparent, and responsive monitoring systems within institutions. This finding is supported by Policy Implementation Theory, which explains that successful policy outcomes depend on effective execution, coordination, and organizational readiness.

Leadership and commitment show significant relationships across all monitoring domains, including evaluation systems, feedback loops, performance indicators, reporting and transparency, and continuous improvement actions. These results indicate that when leaders actively support and enforce policies, monitoring systems become more organized and effective. Leadership promotes accountability, allocates direction, and ensures that evaluation processes are regularly conducted. This finding supports Accountability Theory, which emphasizes that clear authority, responsibility, and answerability strengthen institutional performance. Strong leadership creates an environment where monitoring processes are valued and continuously improved. Studies also show that committed leadership strengthens governance systems and monitoring effectiveness (Hubbard, 2020; Overman & Schillemans, 2022).

Communication and awareness demonstrate significant relationships with all monitoring domains. These results indicate that when policies are clearly communicated and well understood, stakeholders are more likely to participate in evaluation, comply with standards, and provide useful feedback. Monitoring systems become more accurate and responsive when institutional expectations are clearly shared. This supports Policy Implementation Theory, which explains that effective implementation depends on clarity, coordination, and stakeholder understanding. Research also

indicates that strong communication systems improve institutional alignment and governance effectiveness (Emmons & Chambers, 2021; Himanen & Puuska, 2022).

Resource allocation shows significant relationships with all monitoring domains. These results indicate that adequate financial, human, and technological resources strengthen the implementation of monitoring systems. Resources enable institutions to conduct assessments, manage information systems, prepare reports, and implement corrective actions efficiently. This finding aligns with Policy Implementation Theory, which emphasizes that organizational capacity is essential for translating policies into effective practices. Institutions with sufficient resources are better able to sustain systematic monitoring processes. Empirical studies confirm that resource adequacy supports stronger governance systems and evidence-based decision-making (Van Greuning & Bratanovic, 2020; Dietrich, 2025).

Documentation and standardization show significant relationships with all monitoring domains. These results indicate that well-documented policies and standardized procedures improve consistency, reliability, and transparency in monitoring systems. Documentation ensures that information is properly recorded and accessible, while standardization supports uniform application across units. This finding supports the Institutional Theory of Compliance, which explains that organizations adopt formal structures and procedures to achieve legitimacy and ensure adherence to standards. Structured documentation systems strengthen accountability and informed decision-making. Research further indicates that documentation systems improve reporting accuracy and institutional transparency (Wolfenden et al., 2020; Ogunsola et al., 2021).

Stakeholder participation shows significant relationships with all monitoring domains. These results indicate that active stakeholder involvement enhances evaluation processes, improves feedback quality, and supports transparency. Stakeholders contribute insights that help identify gaps and generate practical solutions. This finding aligns with the Institutional Theory of Compliance, which holds that participation enhances legitimacy and reinforces adherence to organizational expectations. Inclusive engagement strengthens trust and promotes shared responsibility in institutional monitoring. Studies likewise show that stakeholder engagement improves monitoring effectiveness and organizational responsiveness (Bhandari et al., 2025; Adeniran et al., 2024).

All dimensions of policy implementation are significantly and positively associated with monitoring mechanisms. Policy implementation and monitoring systems operate as interconnected components of governance. Policy implementation provides direction and structure, while monitoring mechanisms evaluate progress, reinforce accountability, and support refinement of institutional practices. This relationship is further explained by Systems Theory, which posits that organizational units are interdependent and function more effectively when aligned. The findings also support the Continuous Improvement Model, which holds that planning, implementation, checking, and corrective action are essential for sustained effectiveness. Empirical studies confirm that institutions with strong

implementation practices develop more effective monitoring systems that enhance accountability and performance (Settembre-Blundo et al., 2021; Leal Filho et al., 2021).

Strengthening policy implementation enhances monitoring mechanisms across all domains. Institutions may sustain leadership commitment, improve communication systems, ensure adequate resource allocation, maintain proper documentation, and promote stakeholder participation to strengthen monitoring processes. Alignment between implementation and monitoring systems supports accountability, transparency, and long-term organizational effectiveness.

Table 4 Significant Relationship Between Policy Implementation and Monitoring Mechanisms (n=180)

Variables		Evaluation Systems	Feedback Loops	Performance Indicators	Reporting and Transparency	Continuous Improvement Actions
Leadership and Commitment	r_s	0.347	0.402	0.402	0.479	0.413
	p	<0.001***	<0.001***	<0.001***	<0.001***	<0.001***
Communication and Awareness	r_s	0.365	0.402	0.308	0.395	0.319
	p	<0.001***	<0.001***	<0.001***	<0.001***	<0.001***
Resource Allocation	r_s	0.408	0.352	0.302	0.484	0.302
	p	<0.001***	<0.001***	<0.001***	<0.001***	<0.001***
Documentation and Standardization	r_s	0.339	0.342	0.260	0.384	0.271
	p	<0.001***	<0.001***	<0.001***	<0.001***	<0.001***
Stakeholder Participation	r_s	0.393	0.365	0.334	0.503	0.321
	p	<0.001***	<0.001***	<0.001***	<0.001***	<0.001***

Notes: H_0 : There is no significant relationship between policy implementation and monitoring mechanisms
 P value Scale: *** $p < .001$ (Highly Significant); ** $p < 0.01$ (Highly Significant); * $p < 0.05$ (Significant); $p > 0.05$ (Not significant)

➤ Significant Relationship Between Policy Implementation and Risk Management Compliance

Table 5 presents the results of the Spearman’s rho correlation analysis examining the relationship between policy implementation and risk management compliance. Policy implementation was operationalized across five dimensions: leadership and commitment; communication and awareness; resource allocation; documentation and standardization; and stakeholder participation. Risk management compliance was examined through risk identification, risk assessment analysis, risk treatment and control, compliance assurance, and institutional resilience and improvement. The results reveal that all correlations

were highly significant ($p < .001$), indicating that as the level of policy implementation increases, the effectiveness of risk management compliance also increases. This suggests that policy implementation creates the structural conditions necessary for systematic and sustainable risk governance. This finding is supported by Policy Implementation Theory, which explains that effective implementation enables institutions to operationalize governance systems successfully.

Leadership and commitment show significant relationships across all risk management domains. These results indicate that leaders who actively support policies

strengthen the institution's ability to identify risks, assess threats, implement controls, and sustain resilience initiatives. Leadership encourages timely decisions, accountability, and proactive responses to uncertainty. This finding supports Accountability Theory, which emphasizes that clear responsibility systems improve compliance and performance. Strong leadership helps transform risk management into a coordinated institutional practice. Studies likewise indicate that leadership commitment strengthens governance quality and compliance systems (Dempere et al., 2023; Hill & Varone, 2021).

Communication and awareness demonstrate significant relationships with all risk management domains. These results indicate that when policies and risks are clearly communicated, stakeholders are better able to identify issues early, participate in assessments, and comply with control measures. Risk responses become more timely and coordinated. This supports Policy Implementation Theory, which explains that successful implementation depends on clarity, coordination, and shared understanding. Communication strengthens preparedness and institutional responsiveness. Research also shows that effective communication systems improve coordinated responses to organizational risks (Emmons & Chambers, 2021; Himanen & Puuska, 2022).

Resource allocation shows significant relationships with all risk management domains. These results indicate that adequate resources are essential in sustaining effective risk management systems. Financial, human, and technological resources enable institutions to conduct assessments, apply controls, provide training, and respond efficiently to disruptions. This finding aligns with Policy Implementation Theory, which holds that institutional capacity determines whether governance systems function effectively. Sufficient resources enhance organizational readiness and reduce vulnerability. Empirical studies confirm that resource adequacy strengthens resilience and compliance outcomes (Van Greuning & Bratanovic, 2020; Dietrich, 2025).

Documentation and standardization are significantly related to all risk management domains. These results indicate that clear records, standardized procedures, and accessible protocols improve consistency and reliability in managing risks. Documentation ensures that risks, controls, and responses are traceable, while standardization promotes coordinated practices across units. This finding supports the Institutional Theory of Compliance, which holds that formal systems strengthen legitimacy and adherence to expected standards. Strong documentation systems improve accountability and informed decision-making. Research further indicates that documentation practices enhance transparency in governance and operational control (Wolfenden et al., 2020; Ogunsola et al., 2021).

Stakeholder participation shows significant relationships with all risk management domains. These results indicate that stakeholder involvement strengthens risk identification, improves assessment quality, and supports practical response strategies. Participation broadens

situational awareness and promotes shared responsibility for risk management. This reflects the Institutional Theory of Compliance, which holds that engagement enhances legitimacy and collective commitment to governance processes. Collaborative participation also strengthens institutional resilience. Studies likewise indicate that stakeholder involvement improves responsiveness and the effectiveness of compliance (Bhandari et al., 2025; Adeniran et al., 2024).

All dimensions of policy implementation are significantly and positively associated with risk management compliance. Policy implementation and risk management operate as interconnected components of governance. Policy implementation provides structure and direction, while risk management compliance ensures that uncertainties are systematically identified, evaluated, and controlled. This relationship is explained by Risk Management Theory, which emphasizes integrated identification, assessment, treatment, and monitoring of risks to achieve objectives. It is also supported by Resilience Theory, which explains that institutions with adaptive systems are better able to recover from disruptions and sustain operations. Empirical studies confirm that strong implementation systems reduce vulnerabilities and strengthen institutional resilience (Leal Filho et al., 2021; Zou, 2025).

Strengthening policy implementation enhances risk management compliance across all domains. Institutions may sustain leadership commitment, improve communication systems, ensure adequate resource allocation, maintain proper documentation, and promote stakeholder participation to strengthen risk governance. Alignment between implementation and risk management systems supports compliance, organizational stability, and long-term resilience.

Table 5 Significant Relationship between Policy Implementation and Risk Management Compliance

Variables		Risk identification	Risk Assessment Analysis	Risk Treatment and Control	Compliance Assurance	Institutional Resilience and Improvements
Leadership and Commitment	r_s	0.372	0.224	0.477	0.357	0.477
	p	<.001***	<.001***	<.001***	<.001***	<.001***
Communication and Awareness	r_s	0.326	0.298	0.400	0.334	0.400
	p	<.001***	<.001***	<.001***	<.001***	<.001***
Resource Allocation	r_s	0.458	0.378	0.444	0.418	0.444
	p	<.001***	<.001***	<.001***	<.001***	<.001***
Documentation and Standardization	r_s	0.431	0.410	0.422	0.385	0.422
	p	<.001***	<.001***	<.001***	<.001***	<.001***
Stakeholder Participation	r_s	0.458	0.389	0.459	0.433	0.459
	p	<.001***	<.001***	<.001***	<.001***	<.001***

Notes: H_0 : There is no significant relationship between policy implementation and risk management compliance.
P value Scale: *** $p < .001$ (Highly Significant); ** $p < 0.01$ (Highly Significant); * $p < 0.05$ (Significant); $p > 0.05$ (Not significant)

➤ Significant Relationship Between Monitoring Mechanisms and Risk Management Compliance

Table 6 presents the results of the Spearman’s rho correlation analysis examining the relationship between monitoring mechanisms and risk management compliance. Monitoring mechanisms were operationalized across five dimensions: evaluation systems, feedback loops, performance indicators, reporting and transparency, and continuous improvement actions. Risk management compliance was examined through risk identification, risk assessment analysis, risk treatment and control, compliance assurance, and institutional resilience and improvement. The results reveal that all correlations were highly significant ($p < .001$), indicating that as the effectiveness of monitoring mechanisms increases, the level of risk management compliance also increases. This suggests that monitoring mechanisms serve as essential governance tools, enabling institutions to identify risks, evaluate controls, sustain compliance, and strengthen organizational resilience. This finding is supported by Systems Theory, which explains that organizational processes function more effectively when interconnected systems operate in alignment. Recent studies also emphasize that institutions with structured monitoring systems demonstrate stronger governance performance, transparency, and regulatory responsiveness (Settembre-Blundo et al., 2021; Leal Filho et al., 2021).

Evaluation systems show significant relationships across all domains of risk management compliance, including risk identification ($r_s = 0.318, p < .001$), risk assessment analysis ($r_s = 0.328, p < .001$), risk treatment and control ($r_s = 0.356, p < .001$), compliance assurance ($r_s = 0.360, p < .001$), and institutional resilience and improvement ($r_s = 0.356, p < .001$). These results indicate that structured evaluation processes strengthen the organization’s capacity to manage risks effectively. Regular assessments help identify

vulnerabilities, determine the impact of threats, and verify whether control measures are functioning as intended. This finding supports Evaluation Theory, which emphasizes the use of systematic assessment to improve organizational effectiveness. Studies also indicate that institutions with strong evaluation systems demonstrate stronger governance outcomes and improved compliance performance (Hill & Varone, 2021; Overman & Schillemans, 2022).

Feedback loops show significant relationships with all domains of risk management compliance, including risk identification ($r_s = 0.307, p < .001$), risk assessment analysis ($r_s = 0.208, p < .001$), risk treatment and control ($r_s = 0.368, p < .001$), compliance assurance ($r_s = 0.341, p < .001$), and institutional resilience and improvement ($r_s = 0.368, p < .001$). These results indicate that continuous feedback strengthens risk management by allowing institutions to identify emerging concerns, refine existing controls, and improve responses based on actual experiences. Feedback enhances learning, responsiveness, and timely correction of weaknesses. This finding supports the Continuous Improvement Model, which holds that feedback and corrective action are central to organizational improvement. Evidence likewise suggests that responsive feedback systems strengthen accountability and adaptive governance (Jepperson & Meyer, 2021; Ilori et al., 2024).

Performance indicators show significant relationships with all domains of risk management compliance, including risk identification ($r_s = 0.380, p < .001$), risk assessment analysis ($r_s = 0.324, p < .001$), risk treatment and control ($r_s = 0.393, p < .001$), compliance assurance ($r_s = 0.435, p < .001$), and institutional resilience and improvement ($r_s = 0.393, p < .001$). These results indicate that measurable metrics strengthen risk management practices by providing benchmarks for monitoring performance and identifying

gaps. Indicators support evidence-based decisions and reinforce accountability in achieving compliance objectives. This finding supports Management by Objectives, which emphasizes measurable targets and systematic performance review. Studies further show that performance metrics improve governance efficiency, strategic responsiveness, and institutional control (Roumieh et al., 2022; Dietrich, 2025).

Reporting and transparency show significant relationships with all domains of risk management compliance, including risk identification ($r_s = 0.233, p < .001$), risk assessment analysis ($r_s = 0.163, p < .001$), risk treatment and control ($r_s = 0.382, p < .001$), compliance assurance ($r_s = 0.250, p < .001$), and institutional resilience and improvement ($r_s = 0.382, p < .001$). These results indicate that transparent reporting strengthens risk governance by ensuring that relevant information is communicated to stakeholders in a timely and accurate manner. Transparency builds trust, promotes accountability, and supports informed decision-making during uncertain situations. This finding supports Accountability Theory, which highlights the importance of answerability, visibility, and responsibility in institutional performance. Research also shows that transparent reporting systems reduce governance gaps and improve compliance behavior (Ogunsola et al., 2021; Weible, 2023).

Continuous improvement actions show significant relationships with all domains of risk management compliance, including risk identification ($r_s = 0.380, p < .001$), risk assessment analysis ($r_s = 0.324, p < .001$), risk treatment and control ($r_s = 0.393, p < .001$), compliance assurance ($r_s = 0.435, p < .001$), and institutional resilience and improvement ($r_s = 0.393, p < .001$). These results indicate that organizations that regularly address gaps and implement enhancements are better prepared to manage risks

and sustain compliance. Continuous improvement strengthens adaptability, resilience, and long-term effectiveness. This finding supports the Continuous Improvement Model, which holds that ongoing refinement enables organizations to respond effectively to evolving conditions. Empirical evidence likewise suggests that adaptive institutions are more resilient and less vulnerable to disruptions (Eitrem et al., 2024; Dietrich, 2025).

All dimensions of monitoring mechanisms are significantly and positively associated with risk management compliance. Monitoring systems and risk governance processes operate as interconnected components of institutional management. Monitoring mechanisms provide information, oversight, and corrective guidance, while risk management compliance ensures that threats are systematically identified, evaluated, and controlled. This relationship is also supported by Risk Management Theory, which emphasizes integrated assessment, treatment, and monitoring of risks to achieve organizational objectives. Strong monitoring systems therefore strengthen compliance, resilience, and institutional sustainability. Studies confirm that institutions integrating monitoring and risk systems achieve stronger accountability and long-term organizational performance (Leal Filho et al., 2021; Sareen & Mandal, 2024).

Strengthening monitoring mechanisms enhances compliance with risk management across all domains. Institutions may sustain effective evaluation systems, promote open feedback channels, utilize meaningful performance indicators, ensure transparent reporting, and implement continuous improvement actions to strengthen governance processes. Alignment between monitoring and risk management systems supports accountability, organizational stability, and long-term success.

Table 6 Significant Relationship between Monitoring Mechanisms and Risk Management Compliance

Variables		Risk identification	Risk Assessment Analysis	Risk Treatment and Control	Compliance Assurance	Institutional Resilience and Improvements
Evaluation Systems	r_s	0.318	0.328	0.356	0.360	0.356
	p	<.001***	<.001***	<.001***	<.001***	<.001***
Feedback Loops	r_s	0.307	0.208	0.368	0.341	0.368
	p	<.001***	<.001***	<.001***	<.001***	<.001***
Performance Indicators	r_s	0.380	0.324	0.393	0.435	0.393
	p	<.001***	<.001***	<.001***	<.001***	<.001***
Reporting and Transparency	r_s	0.233	0.163	0.382	0.250	0.382
	p	<.001***	<.001***	<.001***	<.001***	<.001***
Continuous Improvement Actions	r_s	0.380	0.324	0.393	0.435	0.393
	p	<.001***	<.001***	<.001***	<.001***	<.001***

Notes: H_0 : There is no significant relationship between monitoring mechanisms and risk management compliance.
 P value Scale: *** $p < .001$ (Highly Significant); ** $p < 0.01$ (Highly Significant); * $p < 0.05$ (Significant); $p > 0.05$ (Not significant)

➤ *Predictors of Risk Management Compliance*

Table 7 presents the results of the multiple regression analysis identifying the significant predictors of risk management compliance. The results reveal that the model is statistically significant ($F = 10.51, p < .001$), indicating that the selected variables significantly predict risk management compliance. The model explains 34.71% of the variance (Adjusted $R^2 = .3471$), suggesting that leadership and commitment, documentation and standardization, and reporting and transparency are important factors influencing institutional compliance with risk management. This implies that governance practices related to leadership, structured systems, and openness in reporting play a substantial role in shaping how institutions identify, assess, control, and respond to risks. For institutions, these factors contribute to a more accountable, systematic, and resilient governance environment (Leal Filho et al., 2021; Sareen & Mandal, 2024)

Among the predictors, leadership and commitment emerged as the strongest predictors ($\beta = 0.18, p = 0.002$). This indicates that when leadership involvement and organizational commitment increase, risk management compliance also improves. For institutions, strong leadership fosters accountability, strategic direction, and a culture of risk management. It strengthens policy enforcement, supports timely decision-making, and reinforces employee adherence to governance standards. This finding is supported by Leadership Theory, which emphasizes that effective leadership enhances institutional performance, direction, and sustained compliance (Dempere et al., 2023; Hill & Varone, 2021).

Documentation and standardization also significantly predict risk management compliance ($\beta = 0.15, p = 0.008$). This suggests that clear documentation systems and standardized procedures improve the consistency and effectiveness of institutional risk governance. For institutions, documented policies provide clear guidance for identifying, assessing, and mitigating risks, while standardization ensures these processes are uniformly applied across units. These systems reduce procedural errors, strengthen coordination, and improve operational efficiency. This finding aligns with Systems Theory, which explains that structured and coordinated systems function more effectively when organizational components are aligned (Wolfenden et al., 2020; Ogunsola et al., 2021).

Reporting and transparency were also significant predictors of risk management compliance ($\beta = 0.15, p = 0.017$). This indicates that transparent reporting systems contribute to stronger risk governance practices. For institutions, open communication regarding risks, processes, and outcomes increases stakeholder awareness, trust, and accountability. Transparency enables timely responses, improves monitoring, and supports data-driven decision-making. It also ensures that governance issues are visible and corrective actions can be implemented promptly. This finding supports Accountability Theory, which emphasizes answerability, visibility, and responsibility as drivers of

effective institutional performance (Ogunsola et al., 2021; Weible, 2023).

Overall, the findings indicate that leadership, structured systems, and transparency significantly influence institutional compliance with risk management. For institutions, compliance is shaped not only by policies themselves but also by the governance environment in which those policies are implemented. A strong leadership structure, reliable documentation systems, and transparent reporting processes enhance the institution's capacity to manage uncertainties, sustain accountability, and strengthen operational resilience. This interconnected relationship is further explained by Risk Management Theory, which highlights the need for coordinated systems to identify, assess, treat, and monitor risks.

The regression model indicates that risk management compliance can be predicted using the equation: Risk Management Compliance = $1.65 + 0.18(\text{Leadership and Commitment}) + 0.15(\text{Documentation and Standardization}) + 0.15(\text{Reporting and Transparency})$. This suggests that increases in these predictors correspond to increases in risk management compliance, with leadership and commitment having the strongest influence, followed by documentation and standardization, and reporting and transparency.

For institutions, this implies that while documentation and transparency are essential governance mechanisms, compliance is more strongly influenced by leadership-related factors. Leadership commitment strengthens accountability, mobilizes resources, and aligns personnel toward risk governance goals (Dempere et al., 2023; Hill & Varone, 2021). Documentation systems provide operational clarity, while transparent reporting fosters trust and continuous monitoring. These findings are consistent with Leadership Theory, Systems Theory, and Accountability Theory, which emphasize the importance of direction, structure, and responsibility in sustaining effective compliance systems.

Although documentation and reporting significantly contribute to compliance, their relatively limited influence suggests that systems alone are insufficient. Institutions achieve stronger compliance when structured systems are reinforced by committed leadership and active oversight from the governing body. Overall, the model highlights that risk management compliance is shaped by the combined influence of leadership, organized systems, and transparency, with leadership factors playing the most dominant role.

The findings imply that strengthening leadership commitment, documentation systems, and transparent reporting may further enhance institutional compliance with risk management. Institutions may focus on leadership development, standardization of governance procedures, and strengthening reporting mechanisms. Providing continuous oversight, accountability structures, and system improvements may help sustain compliance effectiveness and organizational resilience. Leadership and governance-related factors are stronger predictors of risk management compliance compared to structural systems alone. This

implies that while documentation and transparency strengthen institutional processes, committed leadership

plays a more critical role in sustaining long-term compliance, accountability, and organizational stability.

Table 7 Predictors of Risk Management Compliance

Predictors	Coef (β)	SE Coef	t- value	p-value
(Constant)	1.65	0.34	4.89	<.001
Leadership and Commitment	0.18	0.06	3.15	0.002
Documentation and Standardization	0.15	0.06	2.68	0.008
Reporting and Transparency	0.15	0.06	2.40	0.017
Adjusted r ²	34.71%			
F value	10.51			
p-value	< .001			
Risk Management Compliance= 1.65+ 0.18* Leadership and Commitment +0.15* Documentation and Standardization+ 0.15* Reporting and Transparency				

➤ *Mediation Analysis of Monitoring Mechanisms in the Relationship Between Policy Implementation and Risk Management Compliance*

Table 8 presents the mediation analysis examining whether monitoring mechanisms mediate the relationship between policy implementation and risk management compliance. The results reveal that the total effect of policy implementation on risk management compliance is significant (Total = 0.450, p < .001), indicating that stronger policy implementation is associated with higher levels of risk management compliance. For institutions, effective policy implementation strengthens governance processes, clarifies standards, and improves organizational coordination, thereby enhancing risk management compliance. Institutions with well-implemented policies are more capable of identifying threats, applying controls, and sustaining accountability systems (Leal Filho et al., 2021; Sareen & Mandal, 2024)

The indirect effect through monitoring mechanisms is also significant (a × b = 0.108, p = .001), accounting for 24.0% of the total effect. This indicates that monitoring mechanisms serve as an important pathway through which policy implementation influences compliance with risk management. For institutions, effective policy implementation strengthens evaluation systems, feedback processes, performance indicators, and reporting structures, thereby improving compliance outcomes. These monitoring processes provide oversight, identify governance gaps, and support timely corrective action. This finding is supported by Systems Theory and Continuous Improvement Model, which explains that institutional effectiveness is enhanced when interconnected systems are continuously evaluated and improved (Settembre-Blundo et al., 2021; Hill & Varone, 2021).

The direct effect remains significant (c = 0.342, p < .001), accounting for 76.0% of the total effect. This indicates that policy implementation influences risk management compliance independently of monitoring mechanisms. For institutions, policy implementation directly improves compliance by establishing rules, assigning responsibilities, promoting consistency, and guiding risk-related decisions. This aligns with Policy Implementation Theory, which

emphasizes that effective policy execution determines the achievement of intended outcomes. Strong implementation systems, therefore, contribute directly to better governance and stronger risk control practices (Overman & Schillemans, 2022; Dietrich, 2025).

The path estimates further support the mediation model. Policy implementation significantly influences monitoring mechanisms (a = 0.421, p < .001), indicating that institutions with stronger implementation systems are more likely to develop effective monitoring processes. Monitoring mechanisms also significantly influence risk management compliance (b = 0.256, p < .001), indicating that stronger monitoring systems enhance institutional capacity to identify, assess, control, and respond to risks. This is consistent with Risk Management Theory, which explains that governance outcomes improve when risks are systematically monitored and managed. Institutions with strong monitoring systems are better able to sustain compliance and resilience (Leal Filho et al., 2021; Sareen & Mandal, 2024).

All paths are significant, indicating partial mediation, with both direct and indirect effects contributing to risk management compliance. This suggests that compliance is shaped by both the institution’s direct implementation of policies and the effectiveness of its monitoring systems. Policy implementation provides governance direction and operational structure, while monitoring mechanisms reinforce accountability, transparency, and continuous improvement.

The findings imply that strengthening monitoring mechanisms is essential in maximizing the impact of policy implementation on risk management compliance. Institutions may support this by improving evaluation systems, strengthening feedback channels, utilizing performance indicators, and ensuring transparent reporting alongside strong policy execution. While monitoring mechanisms play a significant mediating role, policy implementation also independently contributes to risk management compliance. A balanced focus on both effective policy execution and strong monitoring systems is necessary to sustain institutional compliance, accountability, and long-term organizational resilience.

Table 8 Mediation Analysis of Monitoring Mechanisms in the Relationship between Policy Implementation and Risk Management Compliance

Effect	Label Estimate	SE	95% Confidence Interval		Z	P	% Mediation	
			Lower	Upper				
Indirect	a x b	0.108	0.0332	0.0429	0.173	3.25	.001	24.0
Direct	C	0.342	0.0620	0.2208	0.464	5.52	<.001	76.0
Total	c+a x b	0.450	0.0563	0.3399	0.561	8.00	<.001	100.0
Path Estimates								
Policy Implementation	→ Monitoring Mechanisms	A	0.421	0.0573	0.309	0.533	7.35	<.001
Monitoring Mechanisms	→ Risk Management Compliance	B	0.256	0.0707	0.118	0.395	3.62	<.001
Policy Implementation	→ Risk Management Compliance	C	0.342	0.0620	0.221	0.464	5.52	<.001

IV. CONCLUSIONS AND RECOMMENDATIONS

➤ *Conclusions*

Based on the findings of the study, it was concluded that policy implementation in higher education institutions reflects strong leadership, effective communication, adequate resources, proper documentation, and stakeholder participation in institutional governance. Monitoring mechanisms encompass effective evaluation systems, feedback processes, performance indicators, transparent reporting, and continuous improvement practices. Furthermore, risk management compliance demonstrates consistent practice of risk identification, assessment, treatment, compliance assurance, and resilience-building measures. The findings further revealed that Policy implementation significantly influences monitoring mechanisms and contributes to more effective institutional monitoring systems. Policy implementation also significantly influences risk management compliance and strengthens institutional capacity to manage risks and sustain compliance. Moreover, monitoring mechanisms significantly influence risk management compliance and enhance accountability, risk control, and organizational resilience. Leadership and commitment, documentation and standardization, and reporting and transparency significantly predict risk management compliance, with leadership and commitment serving as the strongest determinant. Lastly, monitoring mechanisms partially mediate the relationship between policy implementation and risk management compliance, thereby strengthening policy implementation's effect on institutional compliance.

➤ *Recommendations*

Based on the findings and conclusions, it is recommended that deans, program heads, department heads, and supervisors can sustain strong policy implementation by reinforcing leadership commitment, improving communication channels, ensuring adequate resource allocation, strengthening documentation practices, and encouraging faculty, staff, and student participation in institutional processes. Quality assurance officers, department heads, deans, and administrative personnel may strengthen monitoring mechanisms by enhancing evaluation systems, refining feedback processes, utilizing measurable performance indicators, promoting transparent reporting, and supporting continuous improvement initiatives aligned with ISO standards. Moreover, deans, risk management committees, safety officers, and support offices may maintain high risk management compliance by regularly reviewing risk identification, risk assessment, treatment measures, compliance assurance, and resilience-building practices across academic and administrative units. Deans, program heads, department heads, and supervisors may align policy implementation processes with monitoring systems to ensure that institutional policies, accreditation requirements, and ISO procedures are consistently implemented, tracked, evaluated, and improved.

The findings further recommended that human resource officers and supervisors may strengthen policy implementation by conducting regular policy reviews, implementing employee capability-building programs, and establishing clear accountability structures to further improve risk management compliance and accreditation readiness. Internal auditors, quality assurance personnel, records

officers, and unit heads may enhance monitoring by implementing timely reporting, data-driven evaluation, internal audits, and responsive feedback systems to strengthen accountability, risk management, and organizational resilience. Furthermore, deans, records custodians, office heads, and committee chairpersons may prioritize leadership development, improve documentation and records management systems, and promote transparency in reporting, as these factors significantly predict stronger risk management compliance and institutional effectiveness. Lastly, deans, faculty leaders, quality assurance offices, and committees may simultaneously strengthen policy implementation and monitoring mechanisms, since effective monitoring reinforces the positive effect of policy implementation on risk management compliance and supports continuous quality improvement, accreditation sustainability, and ISO certification standards.

REFERENCES

- [1]. Alenezi, M. (2023). Digital learning and digital institution in higher education. *Education Sciences*, 13(1), 88. <https://www.mdpi.com/2227-7102/13/1/88>
- [2]. Aithal, A., & Aithal, P. S. (2020). Development and validation of survey questionnaire & experimental data—a systematic review-based statistical approach. *International Journal of Management, Technology, and Social Sciences (IJMTS)*, 5(2), 233-251.
- [3]. Alves, F., Leal Filho, W., Casaleiro, P., Nagy, G. J., Diaz, H., Al-Amin, A. Q., ... & Azeiteiro, U. M. (2020). Climate change policies and agendas: Facing implementation challenges and guiding responses. *Environmental Science & Policy*, 104, 190-198. <https://www.sciencedirect.com/science/article/abs/pii/S146290111931322X>
- [4]. Bhandari, S., Lopes, M., & Pires, S. M. (2025). A systematic review of factors influencing green public procurement in higher education institutions. *Discover Sustainability*, 6(1), 720. doi:<https://doi.org/10.1007/s43621-025-01562-6>
- [5]. Bognár, F., & Benedek, P. (2021). A Novel Risk Assessment Methodology—A Case Study of the PRISM Methodology in a Compliance Management Sensitive Sector. *Acta Polytechnica Hungarica*, 18(7), 89-108. <http://bit.ly/4gYkxkL>
- [6]. Borowiecki, M., & Paunov, C. (2018). How is research policy across the OECD organised?. Paris: doi:<https://doi.org/10.1787/235c9806-en>
- [7]. Cembranel, P., Gewehr, L., Leila, D. M., Paulo, G. F., Birch, R. S., & José Baltazar Salgueirinho Osório de Andrade, Andrade Guerra. (2024). The pivotal role of higher education institutions in cultivating a sustainable development goals-centric culture. *International Journal of Sustainability in Higher Education*, 25(7), 1385-1411. doi:<https://doi.org/10.1108/IJSHE-01-2024-0057>
- [8]. Dempere, J., Modugu, K., Hesham, A., & Ramasamy, L. K. (2023, September). The impact of ChatGPT on higher education. In *Frontiers in Education* (Vol. 8, p. 1206936). Frontiers Media SA. <https://www.frontiersin.org/journals/education/articles/10.3389/educ.2023.1206936/full>
- [9]. De Villiers, C., Dimes, R., & Molinari, M. (2025). Determinants, mechanisms and consequences of UN SDGs reporting by universities: conceptual framework and avenues for future research. *Journal of Public Budgeting, Accounting & Financial Management*, 37(2), 329-349. <https://surl.lu/apbdkm>
- [10]. De Wit, H., & Altbach, P. G. (2021). Internationalization in higher education: Global trends and recommendations for its future. *Policy reviews in higher education*, 5(1), 28-46. <https://www.tandfonline.com/doi/abs/10.1080/23322969.2020.1820898>
- [11]. Dietrich, M. (2025). Head-to-head analysis: MetLife (NYSE:MET) vs. SiriusPoint (NYSE:SPNT). Chatham: Newstex. <https://www.proquest.com/blogs-podcasts-websites/head-analysis-metlife-nyse-met-vs-siriuspoint/docview/3257022098/se-2>
- [12]. Do, D. T., Le, C. L., & Giang, T. V. (2020). The correlation between internal quality assurance and the formation of quality culture in Vietnam higher education: A case study in Ho Chi Minh city. *European journal of educational research*, 9(2), 499-509. <https://eric.ed.gov/?id=EJ1250455>
- [13]. Eboibi, F. E. (2020). Concerns of cyber criminality in South Africa, Ghana, Ethiopia and Nigeria: rethinking cybercrime policy implementation and institutional accountability. *Commonwealth Law Bulletin*, 46(1), 78-109. <https://www.tandfonline.com/doi/abs/10.1080/03050718.2020.1748075>
- [14]. Emmons, K. M., & Chambers, D. A. (2021). Policy implementation science—an unexplored strategy to address social determinants of health. *Ethnicity & disease*, 31(1), 133. <https://pubmed.ncbi.nlm.nih.gov/articles/PMC7843047/>
- [15]. Erhardt, C., Kullenberg, H., Grigoriadis, A., Kumar, A., Christidis, N., & Christidis, M. (2025). From policy to practice: The regulation and implementation of generative AI in Swedish higher education institutes. *International Journal for Educational Integrity*, 21(1), 21. doi:<https://doi.org/10.1007/s40979-025-00195-6>
- [16]. Eshetu, S. B., Yeshitela, K., & Sieber, S. (2021). Urban green space planning, policy implementation, and challenges: The case of Addis Ababa. *Sustainability*, 13(20), 11344. <https://www.mdpi.com/2071-1050/13/20/11344>
- [17]. Esteve-Mon, F. M., Postigo-Fuentes, A. Y., & Castañeda, L. (2023). A strategic approach of the crucial elements for the implementation of digital tools and processes in higher education. *Higher Education Quarterly*, 77(3), 558-573. <https://onlinelibrary.wiley.com/doi/full/10.1111/hequ.12411>
- [18]. Feng, R., Kantchev, G., & Said, S. (2025, Oct 04). World news: Saudi output boost is big win for trump - -- crude prices have fallen this year as riyadh makes move, but risks abound. *Wall Street Journal*. <https://www.proquest.com/newspapers/world-news->

- saudi-output-boost-is-big-win-trump/docview/3256961146/se-2
- [19]. Freeman, B., Leihy, P., Teo, I., & Kim, D. K. (2021). Rapid, centralised decision-making in a higher education emergency. *Quality Assurance in Education*, 29(4), 393-407. <https://www.emerald.com/qae/article-abstract/29/4/393/358709/Rapid-centralised-decision-making-in-a-higher?redirectedFrom=fulltext>
- [20]. Hill, M., & Varone, F. (2021). *The public policy process*. Routledge. <https://www.taylorfrancis.com/books/mono/10.4324/9781003010203/public-policy-process-michael-hill-fr%C3%A9d%C3%A9ric-varone>
- [21]. Himanen, L., & Puuska, H. M. (2022). Does monitoring performance act as an incentive for improving research performance? National and organizational level analysis of Finnish universities. *Research Evaluation*, 31(2), 236-248. <https://academic.oup.com/rev/article/31/2/236/6525023>
- [22]. Jacob, O. N., & Samuel, A. (2020). Educational policy in Nigerian: Challenges of implementation and ways forward. *Middle European Scientific Bulletin*, 4, 1-9. <http://bit.ly/3IWYRgR>
- [23]. Kayyali, M. (2025). *Ethical Considerations in Higher Education: Accountability Navigating Complexities*. In *Accountability in Higher Education: Navigating Current Issues and Trends* (pp. 145-184). IGI Global Scientific Publishing. <https://www.igi-global.com/chapter/ethical-considerations-in-higher-education/373651>
- [24]. Kennedy, N. (2025). Peoples bank OH sells 600 shares of bristol myers squibb company \$BMY. Chatham: Newstex. <https://www.proquest.com/blogs-podcasts-websites/peoples-bank-oh-sells-600-shares-bristol-myers/docview/3257021944/se-2>
- [25]. Khalilov, T. (2025). Strategic Planning-Based Management Practices In Higher Education Institution. *Pakistan Journal of Life & Social Sciences*, 23(1). https://openurl.ebsco.com/EPDB%3Aged%3A3%3A23055875/detailv2?sid=ebsco%3Aplink%3Ascholar&id=ebsco%3Aged%3A186946542&crl=c&link_origin=scholar.google.com
- [26]. Kovalenko, M., Rusnak, A., & Lomonosov, D. (2021). Ways of ensuring the compliance of the activities of higher education institutions with modern challenges. *Baltic Journal of Economic Studies*, 7(5), 104-113. <https://cyberleninka.ru/article/n/ways-of-ensuring-the-compliance-of-the-activities-of-higher-education-institutions-with-modern-challenges>
- [27]. Leal Filho, W., Salvia, A. L., Frankenberger, F., Akib, N. A. M., Sen, S. K., Sivapalan, S., ... & Emblen-Perry, K. (2021). Governance and sustainable development at higher education institutions. *Environment, Development and Sustainability*, 23(4), 6002-6020. <https://link.springer.com/article/10.1007/s10668-020-00859-y>
- [28]. Leišytė, L. (2022). Performance management under surveillance capitalism in higher education. In *Research handbook on academic careers and managing academics* (pp. 218-231). Edward Elgar Publishing. <https://www.elgaronline.com/edcollchap/edcoll/9781839102622/9781839102622.00026.xml>
- [29]. Lingegård, S., Havenvid, M. I., & Eriksson, P. E. (2021). Circular public procurement through integrated contracts in the infrastructure sector. *Sustainability*, 13(21), 11983.
- [30]. Maznifah, S. (2025). Building cyber-resilient universities: A tailored maturity model for strengthening cybersecurity in higher education. *International Journal of Advanced Computer Science and Applications*, 16(5). doi:<https://doi.org/10.14569/IJACSA.2025.0160510>
- [31]. Morgane, B., Byrne, A., Forget, D., Gough, G., Louis-René, R., Roche, S., & Siaussat, D. (2025). National context impacts on SDG mapping needs and approaches in higher education, a tri-national comparison. *Sustainability*, 17(14), 6506. doi:<https://doi.org/10.3390/su17146506>
- [32]. Mwelu, N., Davis, P. R., Ke, Y., & Watundu, S. (2020). Compliance mediating role within road construction regulatory framework. *Journal of Public Procurement*, 20(3), 209-233. <http://bit.ly/4pVNdia>
- [33]. Nilsen, P. (2020). Making sense of implementation theories, models, and frameworks. In *Implementation Science 3.0* (pp. 53-79). Cham: Springer International Publishing. https://link.springer.com/chapter/10.1007/978-3-030-03874-8_3
- [34]. Nkonki-Mandleni, B. (2023). Monitoring and evaluation for university–community impact in driving transformation agenda. *South African Journal of Higher Education*, 37(1), 151-165. <https://journals.co.za/doi/full/10.20853/37-1-5679>
- [35]. Nnadozie, R. C. (2024). Monitoring and evaluation implications of the 2014 regulations for reporting by public higher education institutions in South Africa. *Cogent Education*, 11(1), 2302580. <https://www.tandfonline.com/doi/full/10.1080/2331186X.2024.2302580>
- [36]. Ogunsola, K. O., Balogun, E. D., & Ogunmokun, A. S. (2021). Enhancing financial integrity through an advanced internal audit risk assessment and governance model. *International Journal of Multidisciplinary Research and Growth Evaluation*, 2(1), 781-790. <https://tinyurl.com/5b6x4m6y>
- [37]. Roos, N., Heinicke, X., Guenther, E., & Guenther, T. W. (2020). The role of environmental management performance in higher education institutions. *Sustainability*, 12(2), 655. <https://www.mdpi.com/2071-1050/12/2/655>
- [38]. Rusdi, M., Sartika, D., Putra, I., & Sari, N. (2023). Quality governance design good university governance in the education sector: a literature review of concepts performance models and audit practices from a risk management perspective. *International*

- Journal of Humanities Education and Social Sciences, 3(3). <http://bit.ly/4gYkW6L>
- [39]. Sareen, S., & Mandal, S. (2024). Assessing SDG 4 indicators in online and blended higher education within conflict zones: a case study of Northern India's higher education institutions. *Social Sciences & Humanities Open*, 9, 100903. <https://www.sciencedirect.com/science/article/pii/S2590291124001001>
- [40]. Sattiraju, V., Ligade, V. S., Muragundi, P., Pandey, R., & Janodia, M. D. (2023). National and higher education institutions (HEIs) IP policies: Comparison of Indian HEIs' IP policies from a global perspective. *Journal of the Knowledge Economy*, 14(2), 1979-2006. doi:<https://doi.org/10.1007/s13132-022-00915-0>
- [41]. Schaap, L., Femke, N., Cents-Boonstra Miriam, & Kristin, V. (2025). A framework supporting the innovative capacity of higher education institutions: An integrative literature review. *Sustainability*, 17(14), 6517. doi:<https://doi.org/10.3390/su17146517>
- [42]. Schneider, B. E. (2020). Relationship Between Leadership Style and Organizational Change to Predict Employee Engagement in Retail Environment The Purpose of This Quantitative Non-Experimental Correlational Research Study Was to Determine if a Predictive Relationship Exists Between a Subordinate's Perceptions of His/Her Leader (Doctoral dissertation, Grand Canyon University). <https://www.proquest.com/openview/fb20e7fe478ace5e880f45ff7edd4913/1?pq-origsite=gscholar&cbl=18750&diss=y>
- [43]. Shahawati, B. U., Ahmad, J., Muhammad Anas Bin, M. B., Mohd Ali, K. A., & Wan Mohd Hirwani, W. H. (2025). Transforming higher-education-institutions: Impact of change management on sustainable performance through transformational leadership and knowledge management. *Sustainability*, 17(6), 2445. doi:<https://doi.org/10.3390/su17062445>
- [44]. Silaji, T., Bagiwa, Z. L., & Muhammad, T. (2025). Evaluating the Types of Performance Monitoring Used in Private Chartered Universities in Uganda: A mixed-methods. *F1000Research*, 14, 675. <https://f1000research.com/articles/14-675>
- [45]. Sofyani, H., Haslida, A. H., & Saleh, Z. (2023). Does internal control contribute to quality management in higher education institutions? Indonesia's adoption experience of the COSO integrated framework. *TQM Journal*, 35(8), 2162-2180. doi:<https://doi.org/10.1108/TQM-06-2022-0201>
- [46]. Trein, P., Biesbroek, R., Bolognesi, T., Cejudo, G. M., Duffy, R., Hustedt, T., & Meyer, I. (2021). Policy coordination and integration: A research agenda. *Public Administration Review*, 81(5), 973-977.
- [47]. Ulven, J. B., & Wangen, G. (2021). A systematic review of cybersecurity risks in higher education. *Future Internet*, 13(2), 39. <https://www.mdpi.com/1999-5903/13/2/39>
- [48]. Van Greuning, H., & Bratanovic, S. B. (2020). Analyzing banking risk: a framework for assessing corporate governance and risk management. World Bank Publications. <https://11nk.dev/0jafkcd>
- [49]. Winhoffer, L. (2025). NTV asset management LLC has \$5.73 million position in honeywell international inc. \$HON. Chatham: Newstex. <https://www.proquest.com/blogs-podcasts-websites/ntv-asset-management-llc-has-5-73-million/docview/3257023995/se-2>
- [50]. Wolfe, T. (2025). Declining by degrees: Higher education at risk. Macmillan+ORM. <http://bit.ly/4mOc2Kb>