

Governance-Based Risk Management to Improve the Performance of Educational Institutions

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Abstract

Educational institutions today operate in an increasingly complex environment and face various risks, including academic, financial, operational, reputational, and regulatory-compliance risks. The absence of a risk management framework integrated with the governance system often causes risk handling to be reactive, partial, and unsustainable, negatively affecting institutional performance. This article aims to conceptually examine how risk management built upon a foundation of good governance can improve the performance of educational institutions. The study employs a qualitative approach through a descriptive-analytical library research method, reviewing academic literature, laws and regulations, and relevant prior studies. The findings indicate that integrating risk management into governance structures—through strengthened transparency, accountability, stakeholder participation, and leadership commitment—can encourage more rational, data-driven decision-making, strengthen financial stability, maintain the quality of educational services, and enhance public trust. This study recommends that educational institutions establish a risk management unit or function embedded within their governance structure, periodically develop a risk register, and integrate risk management into internal quality assurance systems and institutional strategic plans.

INTRODUCTION

Educational institutions, including primary, secondary, and higher education institutions, are currently operating in an increasingly dynamic and uncertain environment. Rapid technological advancement, educational reforms, globalization, accreditation demands, financial constraints, and growing public expectations for accountability have significantly transformed the management of educational organizations. Today, educational institutions are expected not only to provide high-quality learning outcomes but also to demonstrate effective governance, financial sustainability, organizational resilience, and continuous improvement. These challenges have made educational institutions more vulnerable to various forms of risk that, if not managed properly, may hinder the achievement of institutional goals. Consequently, risk management has emerged as a strategic necessity rather than merely an administrative function (OECD, 2016).

Risks faced by educational institutions originate from both internal and external sources. Internal risks include weak administrative systems, insufficient human resource capacity, ineffective internal controls, inadequate financial management, low organizational commitment, and poor decision-making processes. External risks, on the other hand, involve changes in government regulations, economic instability, technological disruption, cyber threats, natural disasters, demographic shifts, increasing competition among educational institutions, and changing stakeholder expectations. Since these risks are interconnected and continuously evolving, educational institutions require a comprehensive and integrated risk management framework capable of identifying, assessing,

mitigating, and monitoring potential threats while simultaneously recognizing opportunities for organizational development (ISO, 2018).

Despite the increasing importance of risk management, many educational institutions still adopt a reactive approach in addressing organizational risks. Problems are frequently managed only after they have occurred rather than being anticipated through systematic planning and preventive strategies. This reactive culture often results in operational inefficiencies, financial losses, declining educational quality, and reputational damage. Furthermore, decision-making processes are frequently disconnected from risk assessment, causing institutional policies to be less responsive to environmental changes and emerging challenges. Such conditions indicate that risk management has not yet been fully integrated into the strategic planning and governance systems of many educational organizations (OECD, 2014).

According to ISO 31000:2018, risk management is a coordinated set of activities designed to direct and control an organization concerning risk. It involves identifying, analyzing, evaluating, treating, monitoring, and communicating risks to support informed decision-making and improve organizational performance. ISO emphasizes that risk management should not function independently but must be embedded within organizational governance, leadership, strategic planning, organizational culture, and operational processes. Therefore, risk management is not solely a mechanism for minimizing threats but also a strategic tool for enhancing organizational value creation, resilience, and sustainability (ISO, 2018).

The effectiveness of risk management largely depends on the quality of organizational governance. Governance refers to the structures, policies, processes, and relationships through which organizations are directed and controlled. In educational institutions, governance encompasses leadership effectiveness, transparency in decision-making, accountability, stakeholder participation, regulatory compliance, financial oversight, and continuous quality assurance. Good governance provides the institutional framework necessary for ensuring that risks are systematically identified, assessed, and managed as part of strategic organizational decision-making. The Organisation for Economic Co-operation and Development (OECD) emphasizes that effective educational governance should be adaptive, collaborative, evidence-based, and capable of responding to complex and rapidly changing environments (Burns & Köster, 2016).

The relationship between governance and risk management is mutually reinforcing. Governance establishes policies, organizational structures, responsibilities, oversight mechanisms, and accountability systems that enable effective implementation of risk management. Conversely, risk management supplies critical information regarding potential threats and opportunities, enabling institutional leaders to formulate strategic decisions based on comprehensive risk analysis. Effective governance ensures that risk considerations are incorporated into policy formulation, resource allocation, institutional planning, and performance evaluation, thereby improving organizational resilience and long-term sustainability (OECD, 2014).

The importance of governance-based risk management has become even more evident with the rapid digital transformation occurring across educational institutions worldwide. The adoption of digital learning platforms, cloud-based information systems, artificial intelligence, electronic academic administration, and online assessment systems has significantly improved educational efficiency and accessibility. However, digitalization has simultaneously introduced new categories of risk, including cybersecurity threats, data privacy breaches, system failures, digital inequality, dependence on third-party technology providers, and ethical concerns related to artificial intelligence. These emerging risks require educational institutions to strengthen governance mechanisms capable of integrating digital risk management into organizational strategies while ensuring compliance with legal and ethical standards (UNESCO, 2023).

The COVID-19 pandemic further demonstrated the critical importance of integrating risk management into educational governance. Educational institutions around the world experienced unprecedented disruptions due to school closures, remote learning implementation, financial instability, and operational uncertainty. Institutions lacking comprehensive risk management frameworks often struggled to maintain educational continuity and organizational performance. Conversely, institutions that had incorporated risk management into governance structures were generally more capable of adapting to sudden changes through proactive planning, effective leadership, technological readiness, and coordinated crisis response. This experience illustrates that

organizational resilience largely depends on the extent to which risk management is embedded within institutional governance systems (OECD, 2024).

Within higher education, governance-based risk management has become increasingly important due to growing demands for institutional accountability, international accreditation, financial sustainability, research competitiveness, and global university rankings. Universities are expected to manage strategic, operational, financial, compliance, technological, and reputational risks while simultaneously improving academic quality and stakeholder satisfaction. Recent studies integrating the Committee of Sponsoring Organizations of the Treadway Commission (COSO) Enterprise Risk Management Framework with ISO 31000 demonstrate that integrated risk management supports better strategic planning, resource optimization, organizational resilience, and institutional performance in higher education settings (Syahrullah et al., 2025).

In developing countries, including Indonesia, the implementation of governance-based risk management remains relatively limited. Common challenges include insufficient institutional awareness of risk management, inadequate human resource competencies, limited organizational commitment, fragmented governance structures, and the absence of comprehensive risk management policies. As a result, risk management is often perceived as the responsibility of specific administrative units rather than a shared organizational responsibility involving institutional leaders, academic staff, administrative personnel, governing boards, and external stakeholders. Strengthening governance structures that embed risk management into institutional culture therefore represents an essential step toward improving organizational effectiveness and sustainability.

Considering these circumstances, governance-based risk management offers a comprehensive framework for enhancing educational institution performance. The integration of governance principles and systematic risk management enables educational organizations to improve strategic decision-making, strengthen accountability, enhance operational efficiency, optimize resource utilization, protect institutional reputation, improve financial sustainability, and maintain educational quality amid increasing uncertainty. Moreover, governance-based risk management contributes to organizational resilience by enabling institutions to anticipate potential challenges while capitalizing on emerging opportunities in a rapidly changing educational landscape.

Based on the foregoing discussion, this article aims to examine the conceptual relationship between governance and risk management within educational institutions. Specifically, the study seeks to answer three research questions: (1) How are governance and risk management conceptually interconnected in educational institutions? (2) Which governance factors support the effective implementation of risk management? (3) How does the integration of governance and risk management contribute to improving institutional performance? Addressing these questions is expected to enrich the theoretical understanding of governance-based risk management while providing a conceptual foundation for future empirical studies on risk management practices in educational institutions.

METHODOLOGY

This study employed a qualitative approach using a library research method with a descriptive-analytical design. The purpose of this approach was to explore and synthesize existing knowledge regarding governance-based risk management and its contribution to improving the performance of educational institutions. Data were collected exclusively from secondary sources, including scholarly books, peer-reviewed national and international journal articles, government regulations, and reports published by reputable international organizations such as the International Organization for Standardization (ISO) and the Organisation for Economic Co-operation and Development (OECD). To ensure the relevance and timeliness of the analysis, the selected literature was primarily published within the last ten years.

The literature selection process followed a purposive sampling strategy based on three main criteria: relevance to the research topic, credibility of the publisher or institution, and citation impact. Systematic literature searches were conducted through academic databases and digital libraries to identify publications related to risk management, governance, organizational performance, and educational management.

Data were analyzed using content analysis, which involved identifying key concepts, classifying recurring themes, comparing findings across different studies, and synthesizing them into a coherent

conceptual framework. The analysis was conducted in several stages, beginning with organizing the literature into three major themes: risk management, governance, and institutional performance. Next, relationships among these themes were examined to identify patterns, similarities, and differences across previous studies. Finally, the findings were integrated to develop conceptual propositions that form the basis for the discussion.

To enhance the trustworthiness of the study, source triangulation was employed by comparing information obtained from academic literature, policy documents, international reports, and previous empirical studies. This process strengthened the validity of the findings and ensured a comprehensive understanding of governance-based risk management within the context of educational institutions.

DISCUSSION

Risk Management Practices in Educational Institutions

Risk management has become an increasingly important component of educational management due to the growing complexity of educational environments. Educational institutions are expected not only to deliver high-quality learning outcomes but also to maintain organizational sustainability amid rapid technological change, regulatory reforms, demographic shifts, financial uncertainty, and increasing stakeholder expectations. Consequently, educational institutions are exposed to strategic, operational, financial, legal, technological, and reputational risks that may significantly affect institutional performance if they are not properly managed. According to ISO 31000:2018, risk management should be embedded within organizational governance, leadership, planning, and decision-making processes rather than functioning as a separate administrative activity (ISO, 2018).

Despite the growing recognition of its importance, evidence from previous studies indicates that risk management practices in many educational institutions remain underdeveloped. Particularly in primary and secondary schools, risk management is often implemented in a fragmented and reactive manner. School leaders typically respond to emerging problems on an ad hoc basis without relying on formal risk assessment procedures, documented risk registers, or standardized operating procedures. Such practices limit the institution's ability to anticipate recurring risks and reduce organizational resilience when facing unexpected disruptions (OECD, 2014).

One of the major weaknesses identified in educational institutions is the absence of systematic risk identification. Many schools focus primarily on academic administration and compliance with government regulations while overlooking broader organizational risks. Financial risks, including delayed government funding, inefficient budget utilization, and dependency on limited funding sources, remain common challenges in many public educational institutions. Similarly, operational risks related to infrastructure maintenance, laboratory safety, information technology failures, and inadequate emergency preparedness often receive insufficient attention until significant incidents occur (OECD, 2004).

Another critical issue concerns strategic risks associated with changing demographic patterns and public perception. Declining birth rates in several regions, increasing competition among educational institutions, and shifting parental preferences have significantly affected student enrollment. Institutions that fail to anticipate these trends frequently experience declining student numbers, reduced financial sustainability, and weakened institutional competitiveness. Effective risk management enables educational leaders to identify these external threats early and develop appropriate strategic responses, including program diversification, stakeholder engagement, and innovation in educational services (OECD, 2016).

Digital transformation has further expanded the spectrum of risks confronting educational institutions. The widespread implementation of online learning platforms, cloud-based academic information systems, artificial intelligence applications, and electronic administrative services has significantly improved educational efficiency. However, these technological advancements have simultaneously introduced new vulnerabilities, including cybersecurity threats, data privacy breaches, system failures, unauthorized access to student information, and dependence on third-party technology providers. A recent study applying the ISO 31000 framework in Indonesian educational institutions demonstrated that many schools have not yet established comprehensive information technology risk management systems despite increasing digitalization, exposing them to substantial operational and reputational risks.

The COVID-19 pandemic further highlighted the importance of proactive risk management within educational organizations. During the pandemic, educational institutions worldwide experienced unprecedented disruptions in teaching, learning, financial management, and institutional operations. Schools and universities lacking structured risk management frameworks encountered greater difficulties maintaining educational continuity, while institutions with established crisis management mechanisms adapted more effectively through flexible decision-making, digital learning infrastructure, and coordinated stakeholder communication. UNESCO emphasizes that educational institutions should integrate disaster preparedness, emergency planning, and continuity management into their organizational governance to strengthen institutional resilience against future crises.

ISO 31000 proposes that effective risk management follows a systematic process consisting of establishing organizational context, identifying risks, analyzing potential impacts, evaluating risk priorities, implementing appropriate treatments, monitoring outcomes, and continuously improving organizational responses. This framework enables educational institutions to move beyond reactive problem-solving toward proactive organizational learning. Instead of responding only after risks materialize, educational leaders can identify vulnerabilities early, allocate resources strategically, and develop preventive measures that support institutional sustainability (ISO, 2018).

Furthermore, empirical evidence suggests that many educational institutions have implemented only partial elements of the ISO 31000 framework. For example, a case study of a public educational institution in Indonesia found that while risk identification and analysis had been conducted, the institution lacked systematic risk evaluation, prioritization, risk appetite determination, and documented mitigation planning. Consequently, institutional responses remained inconsistent and highly dependent on individual managerial judgment rather than standardized organizational procedures. These findings demonstrate that educational institutions require stronger governance mechanisms to ensure that risk management processes become integrated into organizational decision-making rather than remaining isolated administrative activities.

Overall, the literature demonstrates that current risk management practices in educational institutions remain at varying levels of maturity. Higher education institutions generally exhibit more structured approaches because they are subject to stronger accountability requirements, accreditation standards, and financial oversight. Conversely, many primary and secondary schools continue to rely heavily on the leadership capacity of individual principals, with limited institutional support for systematic risk management. This disparity indicates the necessity of developing governance-based risk management models that are adaptable to the characteristics, capacities, and operational contexts of different educational levels (OECD, 2016).

Governance as the Framework for Integrating Risk Management

Effective governance constitutes the foundation upon which comprehensive risk management systems are developed. Governance provides the structures, responsibilities, accountability mechanisms, and decision-making processes necessary to ensure that organizational risks are managed consistently across all institutional functions. ISO 31000 explicitly states that risk management should be integrated into governance, organizational culture, strategic planning, and operational processes rather than functioning independently (ISO, 2018).

The OECD likewise argues that governance should facilitate evidence-based decision-making, stakeholder collaboration, accountability, and institutional adaptability. Rather than emphasizing rigid organizational structures, modern educational governance focuses on effective governance processes that enable institutions to respond proactively to uncertainty and environmental change. Integrating risk management into governance ensures that institutional decisions consider both opportunities and potential threats before policies are implemented.

Educational institutions with formal governance mechanisms generally establish dedicated committees, internal audit units, or risk management teams responsible for monitoring organizational risks and reporting directly to institutional leadership. These governance structures enable systematic risk identification, regular monitoring, transparent reporting, and continuous evaluation of mitigation strategies. Risk assessments are frequently incorporated into strategic planning documents, annual operational plans, and budgeting processes, allowing institutional resources to be allocated according to identified risk priorities. This integration enhances organizational efficiency while strengthening accountability and transparency.

Governance also strengthens organizational learning by encouraging continuous monitoring and evaluation. Information generated through risk assessments provides valuable evidence for institutional leaders to revise policies, improve operational procedures, and enhance educational quality. Consequently, governance transforms risk management from a compliance-oriented activity into a strategic management instrument supporting sustainable institutional development (OECD, 2014).

Governance Dimensions Supporting Effective Risk Management

The literature consistently identifies several governance dimensions that significantly influence the effectiveness of risk management implementation within educational institutions. The first and perhaps most influential dimension is leadership commitment. Senior leaders establish organizational priorities, allocate financial and human resources, formulate institutional policies, and create an organizational culture that values proactive risk management. Without strong leadership commitment, risk management initiatives frequently become fragmented administrative exercises with limited organizational impact (ISO, 2018).

The second dimension is transparency, which promotes open communication regarding institutional finances, operational performance, strategic objectives, and organizational risks. Transparent governance enables stakeholders—including teachers, students, parents, governing boards, and government agencies—to understand institutional challenges and participate in informed decision-making. UNESCO identifies transparency as a fundamental principle of educational governance because it strengthens public trust and reduces opportunities for organizational misconduct.

A third governance dimension is accountability. Effective accountability mechanisms include regular performance evaluations, internal audits, financial reporting, compliance monitoring, and systematic assessment of risk mitigation outcomes. Institutions that establish clear accountability systems are generally better equipped to identify implementation weaknesses and continuously improve organizational performance (OECD, 2014).

Finally, stakeholder participation plays a critical role in strengthening governance-based risk management. School committees, parents, local communities, governing boards, and government authorities provide valuable perspectives regarding institutional risks, resource allocation, and policy implementation. Inclusive participation improves the quality of decision-making while increasing organizational legitimacy and stakeholder confidence. OECD emphasizes that effective educational governance increasingly depends upon collaboration among multiple stakeholders rather than centralized decision-making alone.

The Impact of Governance-Based Risk Management on Educational Institution Performance

The integration of risk management into governance has substantial implications for the overall performance of educational institutions. Rather than functioning solely as a mechanism for preventing organizational failures, governance-based risk management serves as a strategic approach that supports institutional sustainability, improves decision-making quality, enhances accountability, and strengthens organizational resilience. According to the Committee of Sponsoring Organizations of the Treadway Commission (COSO), effective enterprise risk management contributes directly to value creation by aligning risk considerations with organizational strategy and performance objectives (COSO, 2017). This perspective is equally applicable to educational institutions, where performance encompasses not only academic outcomes but also financial sustainability, operational efficiency, stakeholder satisfaction, and institutional reputation.

One of the most significant impacts of governance-based risk management is improved financial performance. Educational institutions often rely on multiple funding sources, including government subsidies, tuition fees, research grants, donations, and community partnerships. Financial uncertainty resulting from delayed government funding, declining student enrollment, inflation, or unexpected emergencies can significantly affect institutional operations. Through systematic risk identification and financial planning, educational institutions are better equipped to diversify revenue streams, establish emergency reserve funds, and improve budget allocation based on organizational priorities. Risk-informed financial planning also enables institutions to anticipate potential budget deficits and implement corrective measures before financial problems become critical (ISO, 2018).

Furthermore, governance-based risk management strengthens operational effectiveness by reducing disruptions in teaching and administrative services. Educational institutions operate through

interconnected systems involving academic programs, human resources, facilities management, information technology, and student services. Weak coordination among these functions increases operational risk and reduces organizational efficiency. By integrating risk assessment into routine management processes, institutions can identify operational vulnerabilities, develop contingency plans, and establish standard operating procedures that ensure continuity of educational services. Such proactive management enhances organizational stability and minimizes interruptions to learning activities (OECD, 2014).

Another important contribution concerns educational quality assurance. Quality assurance systems aim to ensure continuous improvement in teaching, learning, curriculum development, and institutional management. When risk management is integrated into internal quality assurance mechanisms, educational institutions become more capable of identifying factors that may negatively influence academic quality, including shortages of qualified teachers, curriculum implementation problems, declining student achievement, inadequate learning facilities, and ineffective assessment systems. Risk-informed quality assurance enables institutional leaders to implement preventive actions before these issues significantly affect educational outcomes (UNESCO, 2023).

Institutional reputation also benefits considerably from effective governance-based risk management. Reputation represents one of the most valuable intangible assets of educational institutions because it influences student recruitment, public trust, funding opportunities, academic partnerships, and stakeholder confidence. Poor governance, financial irregularities, academic misconduct, cybersecurity breaches, or ineffective crisis management can rapidly damage institutional credibility. Conversely, transparent governance, accountable leadership, and proactive risk communication enhance public confidence and strengthen institutional legitimacy. OECD emphasizes that transparency and accountability are fundamental governance principles that contribute directly to maintaining stakeholder trust during periods of uncertainty (OECD, 2016).

Governance-based risk management further improves regulatory compliance. Educational institutions operate within complex regulatory environments involving accreditation standards, financial regulations, labor laws, educational policies, and data protection requirements. Failure to comply with these regulations may result in administrative sanctions, financial penalties, legal disputes, or accreditation problems. Through systematic compliance risk assessment, institutions can continuously monitor regulatory changes, update internal policies, and ensure that organizational practices remain aligned with applicable legal frameworks. Compliance management therefore becomes an integral component of institutional governance rather than merely an administrative obligation (ISO, 2018).

Finally, governance-based risk management significantly contributes to organizational resilience. Resilience refers to an institution's ability to anticipate, prepare for, respond to, and recover from disruptive events while maintaining its essential functions. Experiences during the COVID-19 pandemic demonstrated that institutions with integrated governance and risk management systems adapted more effectively to remote learning, financial uncertainty, technological challenges, and organizational restructuring than institutions lacking formal risk management frameworks. This evidence highlights that governance-based risk management not only protects organizational assets but also enhances institutional adaptability and long-term sustainability (OECD, 2024).

Challenges in Implementing Governance-Based Risk Management

Despite its numerous benefits, implementing governance-based risk management within educational institutions remains challenging. Existing literature consistently identifies several barriers that hinder the successful adoption of comprehensive risk management systems, particularly in developing countries where institutional capacity and financial resources remain limited.

The first challenge concerns limited human resource competencies. Effective risk management requires knowledge of risk identification techniques, assessment methodologies, strategic planning, internal control systems, and organizational governance. However, many educational leaders, teachers, and administrative personnel have not received formal training in these areas. Consequently, risk management is frequently misunderstood as merely identifying problems rather than implementing a continuous organizational process involving planning, monitoring, evaluation, and continuous improvement. ISO 31000 emphasizes that competent personnel constitute one of the essential prerequisites for successful risk management implementation (ISO, 2018).

A second challenge involves the low level of risk awareness within institutional culture. In many educational organizations, risk management remains the responsibility of a limited number of administrators instead of becoming a shared organizational commitment. Employees often prioritize routine administrative tasks while overlooking potential risks associated with operational activities, financial management, information security, and educational quality. Without a culture that encourages proactive risk identification and reporting, organizations struggle to detect emerging threats before they develop into significant institutional problems (COSO, 2017).

Financial limitations also represent a significant obstacle. Establishing effective governance-based risk management requires investment in information systems, staff training, monitoring mechanisms, cybersecurity infrastructure, internal audit functions, and organizational development programs. Many public educational institutions, particularly schools located in rural or economically disadvantaged regions, experience budget constraints that limit their ability to implement comprehensive risk management systems. Consequently, institutional leaders often prioritize immediate operational needs over long-term investments in governance capacity (UNESCO, 2023).

Resistance to organizational change constitutes another important implementation challenge. Introducing governance-based risk management frequently requires modifications to organizational structures, reporting systems, decision-making procedures, and accountability mechanisms. Some employees perceive these changes as increasing administrative workload without providing immediate benefits. Organizational resistance may therefore delay or even prevent successful implementation unless institutional leaders actively communicate the strategic value of governance-based risk management and encourage stakeholder participation throughout the implementation process (OECD, 2014).

Technological development presents both opportunities and challenges. Although digital technologies facilitate risk monitoring, reporting, and information sharing, they simultaneously create new cybersecurity, privacy, and information governance risks. Many educational institutions continue to operate outdated information systems that lack adequate security controls and integrated risk monitoring capabilities. As educational organizations become increasingly dependent on digital technologies, strengthening information governance becomes essential for ensuring organizational resilience (UNESCO, 2023).

Strategies for Strengthening Governance-Based Risk Management

Addressing these implementation challenges requires comprehensive institutional strategies that integrate governance principles with systematic risk management. Based on the literature, several strategic initiatives are recommended.

The first strategy involves strengthening institutional capacity through continuous professional development. School principals, university leaders, teachers, administrative personnel, and governing boards should receive regular training in risk management principles, governance practices, internal control systems, crisis management, and strategic decision-making. Capacity-building programs should move beyond theoretical concepts by incorporating practical case studies, simulations, and institutional risk assessment exercises. Developing competent human resources enhances organizational readiness to implement governance-based risk management effectively (ISO, 2018).

Second, educational institutions should establish formal organizational structures dedicated to risk management. Depending on institutional size and complexity, this may involve creating a risk management committee, appointing risk coordinators, or integrating risk management responsibilities into existing internal audit units. Clear organizational responsibilities improve accountability while ensuring that risk management becomes embedded within institutional governance rather than functioning as an isolated administrative activity (COSO, 2017).

A third strategy involves integrating risk registers into strategic planning and quality assurance systems. Risk identification should become an integral component of institutional strategic plans, annual operational plans, budgeting processes, and internal quality assurance mechanisms. This integration enables educational institutions to allocate financial and human resources according to prioritized organizational risks while ensuring consistency between institutional objectives and risk mitigation strategies (OECD, 2016).

The fourth strategy emphasizes the utilization of digital technologies. Modern information systems facilitate real-time risk monitoring, electronic reporting, performance dashboards, incident documentation, cybersecurity management, and organizational learning. Digital governance platforms

also improve transparency by providing stakeholders with timely access to institutional information while supporting evidence-based decision-making. Investment in digital risk management infrastructure therefore contributes significantly to organizational efficiency and accountability (UNESCO, 2023).

Finally, strengthening stakeholder collaboration represents an essential strategy for sustainable governance-based risk management. Educational institutions should actively engage school committees, governing boards, parents, alumni, local communities, government agencies, and private-sector partners in identifying institutional risks and developing mitigation strategies. Collaborative governance broadens organizational perspectives, improves decision-making quality, increases public trust, and strengthens institutional legitimacy. OECD argues that contemporary educational governance increasingly depends on multi-stakeholder collaboration rather than centralized administrative control alone (OECD, 2016).

Overall, these strengthening strategies demonstrate that governance-based risk management is not merely a technical management tool but a comprehensive organizational approach that integrates leadership, accountability, transparency, participation, and continuous improvement. Institutions capable of implementing these strategies are more likely to achieve sustainable organizational performance while maintaining resilience in an increasingly uncertain educational environment.

Comparison of Risk Management Practices Between Primary–Secondary Education and Higher Education

The literature demonstrates that the maturity of governance-based risk management differs considerably across educational levels. Higher education institutions generally exhibit more advanced risk management systems than primary and secondary schools because they operate within more complex governance structures, manage larger financial resources, and are subject to stricter accountability requirements. Universities are responsible for teaching, research, community engagement, financial sustainability, international collaboration, and compliance with national and international accreditation standards. Consequently, they are more likely to adopt formal governance mechanisms and enterprise risk management (ERM) frameworks to support institutional decision-making (COSO, 2017).

Many universities have established Internal Audit Units (IAUs), risk management committees, compliance offices, and quality assurance agencies that monitor strategic, operational, financial, legal, research, and reputational risks. These governance structures facilitate continuous risk identification, periodic evaluation, and systematic reporting directly to senior management or governing boards. Furthermore, universities frequently integrate risk management into strategic planning, institutional performance indicators, research governance, and budgeting processes. Such integration enables institutional leaders to make informed decisions while maintaining accountability and transparency in managing public or private resources (OECD, 2014).

In contrast, risk management practices in primary and secondary education remain relatively less developed. Schools generally operate under centralized administrative systems where principals serve as the primary decision-makers responsible for addressing organizational risks. Formal governance structures dedicated to risk management are uncommon, particularly in developing countries and resource-constrained regions. Instead, school leaders often rely on personal experience and informal communication to address emerging issues such as infrastructure maintenance, student safety, teacher shortages, financial management, and community relations. Although this approach may be effective for managing routine operational issues, it rarely provides comprehensive strategies for addressing long-term strategic risks (UNESCO, 2023).

Resource availability also contributes significantly to differences in risk management maturity. Universities typically possess greater financial capacity, more qualified administrative personnel, advanced information systems, and specialized governance units capable of implementing comprehensive risk management frameworks. By contrast, many primary and secondary schools face budget constraints, limited access to professional development, insufficient technological infrastructure, and shortages of personnel with expertise in governance and risk management. These limitations reduce institutional capacity to develop systematic risk registers, implement digital monitoring systems, or conduct comprehensive organizational risk assessments (ISO, 2018).

Another important distinction concerns regulatory expectations. Higher education institutions are often evaluated through national and international accreditation systems that emphasize governance

quality, financial accountability, strategic planning, internal quality assurance, and institutional performance. Compliance with these standards encourages universities to integrate governance and risk management into organizational policies. Primary and secondary schools, however, generally focus more on curriculum implementation, student achievement, and administrative compliance than on enterprise-wide governance systems. Consequently, governance-based risk management remains less institutionalized within school management practices (OECD, 2016).

Despite these differences, both educational sectors share common governance challenges. Rapid digital transformation, cybersecurity threats, demographic changes, financial uncertainty, climate-related disasters, and evolving stakeholder expectations affect all educational institutions regardless of educational level. Therefore, governance-based risk management should not be viewed as an exclusive practice for universities but rather as a strategic necessity across the entire education system. However, implementation strategies should be adapted to institutional size, governance capacity, available resources, and organizational complexity. Flexible governance frameworks based on proportionality are more likely to succeed than uniform approaches applied across all educational contexts (ISO, 2018).

The comparative analysis also suggests that higher education institutions can serve as valuable models for strengthening governance-based risk management in schools. Good practices—including risk registers, internal audit mechanisms, strategic risk assessment, digital governance platforms, and integrated quality assurance systems—can be modified and scaled according to the needs and capacities of primary and secondary schools. Such adaptation would contribute to greater organizational resilience while promoting consistency in governance practices throughout the education sector (OECD, 2014).

Implications for Policymakers and Educational Leaders

The findings of this review provide several important implications for policymakers, educational leaders, and professional organizations responsible for educational governance. First, at the policy level, governments should recognize governance-based risk management as an essential component of educational quality and institutional sustainability. Existing educational regulations frequently emphasize curriculum implementation, accreditation, and financial accountability while providing limited guidance regarding systematic risk management. Consequently, ministries of education and accreditation agencies should incorporate risk management requirements into institutional evaluation frameworks, strategic planning guidelines, and quality assurance standards (OECD, 2016).

One practical policy recommendation is the inclusion of institutional risk registers as mandatory components of school development plans, university strategic plans, accreditation documentation, and annual performance evaluations. Requiring educational institutions to identify strategic, operational, financial, technological, legal, and reputational risks would encourage proactive planning rather than reactive problem-solving. Furthermore, standardized risk assessment guidelines developed at the national level could improve consistency while allowing flexibility according to institutional characteristics and capacities (ISO, 2018).

For educational leaders, the review highlights the importance of positioning risk management as an integral element of institutional governance rather than assigning responsibility solely to administrative units. School principals, university rectors, governing boards, and senior administrators should embed risk considerations into strategic decision-making, budgeting processes, quality assurance systems, and organizational performance evaluation. Leadership commitment remains the single most influential factor determining whether governance-based risk management becomes part of institutional culture or remains a formal administrative requirement (COSO, 2017).

Educational institutions should also strengthen organizational learning by investing in professional development programs focused on governance, enterprise risk management, internal control systems, strategic leadership, and digital governance. Capacity-building initiatives should target not only senior administrators but also teachers, administrative personnel, governing boards, and quality assurance staff. Establishing organizational awareness of risk management encourages collaborative responsibility and strengthens institutional resilience against future uncertainties (UNESCO, 2023).

Professional associations, teacher training institutions, and higher education networks likewise play an important role in promoting governance-based risk management. Existing training programs often emphasize instructional leadership, curriculum management, or educational administration while

paying relatively limited attention to governance and organizational risk. Developing specialized training modules tailored to educational contexts would significantly improve institutional capacity because risk management approaches developed for private-sector organizations cannot always be directly transferred to nonprofit educational institutions. Educational organizations operate within distinctive governance environments characterized by public accountability, multiple stakeholders, educational values, and service-oriented missions (OECD, 2014).

Technological innovation should also become a strategic priority for policymakers and institutional leaders. Digital governance systems capable of supporting electronic risk reporting, real-time monitoring, cybersecurity management, and performance dashboards can substantially improve transparency, accountability, and evidence-based decision-making. However, technological investment should be accompanied by appropriate governance policies concerning data privacy, ethical artificial intelligence, information security, and digital literacy to ensure that technological advancement contributes positively to educational sustainability (UNESCO, 2023).

Finally, this review highlights important directions for future research. Most existing studies examine governance or risk management separately, while relatively few investigate their integrated influence on institutional performance within educational settings. Future empirical studies should examine how governance dimensions—including leadership commitment, transparency, accountability, stakeholder participation, and organizational culture—interact with risk management practices to influence financial sustainability, educational quality, organizational resilience, innovation, and stakeholder trust. Comparative studies across different educational levels and national contexts would also provide valuable insights into contextual factors affecting governance-based risk management implementation.

CONCLUSION

Governance-based risk management has emerged as a strategic approach for improving the sustainability, accountability, and overall performance of educational institutions. This literature review demonstrates that effective risk management extends beyond identifying and mitigating organizational threats; it represents a governance process that supports strategic planning, organizational learning, evidence-based decision-making, and continuous institutional improvement. Educational institutions operating in increasingly complex and uncertain environments require governance systems capable of integrating risk considerations into leadership, financial management, quality assurance, digital transformation, and stakeholder engagement.

The review identifies three major findings. First, although awareness of risk management has increased, many educational institutions—particularly primary and secondary schools—continue to implement risk management in reactive and fragmented ways without formal governance structures or systematic risk assessment procedures. Second, governance plays a critical role in determining the effectiveness of risk management implementation through leadership commitment, transparency, accountability, stakeholder participation, and organizational culture. Third, integrating governance with risk management contributes significantly to improving institutional performance by enhancing financial sustainability, operational efficiency, educational quality, regulatory compliance, institutional reputation, and organizational resilience.

Nevertheless, several implementation challenges remain, including limited human resource competencies, inadequate financial resources, weak risk awareness, technological constraints, and resistance to organizational change. Addressing these challenges requires comprehensive capacity-building initiatives, stronger governance structures, integrated strategic planning, digital governance systems, and collaborative stakeholder engagement. Moreover, implementation strategies should recognize differences in institutional capacity between primary and secondary schools and higher education institutions rather than adopting uniform governance models.

Overall, governance-based risk management should be regarded not merely as an administrative requirement but as a strategic governance philosophy that enables educational institutions to anticipate uncertainty, respond effectively to emerging challenges, and achieve sustainable organizational excellence. As educational environments continue to evolve through technological innovation, demographic transformation, and increasing public accountability, strengthening governance-based risk management will become increasingly essential for ensuring the long-term success and resilience of educational institutions.

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