

The Triadic Edge: Balancing Innovation, Risk, and Organizational Ambidexterity

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Abstract:

Purpose - This paper examines the critical balance between risk management and innovation through the lens of organisational ambidexterity. Ambidexterity, the ability of an organisation to simultaneously explore new opportunities and exploit existing capabilities, is vital in navigating volatility of business environment. Organisations must balance these two approaches to foster growth while mitigating risks. However, achieving this balance poses significant challenges, including resource conflicts, cultural misalignment, and leadership dilemmas.

Design/methodology/approach - The study adopts a conceptual approach, reviewing key literature to identify frameworks and practices that enable ambidexterity. It focuses on the roles of leadership, strategic resource allocation, and adaptive risk management frameworks to build a cohesive theoretical foundation for fostering ambidextrous strategies.

Gaps addressed and contribution - Existing research on organisational ambidexterity predominantly focuses on its application to innovation and market adaptability. However, limited studies address its effectiveness in managing internal organisational issues such as unethical practices, risk control, and leadership challenges. This paper contributes to filling this gap by exploring how ambidextrous principles can be applied to improve internal organisational dynamics.

Findings - Findings suggest that organisations leveraging hybrid leadership models and integrating risk management with innovation processes are better positioned to achieve sustainable growth. The paper highlights the importance of cultural adaptability, dynamic resource allocation, and technological integration as pivotal components of ambidextrous strategies. Case studies and industry examples from sectors such as technology and healthcare provide empirical support for these findings.

Practical implications - The study offers actionable recommendations for practitioners, including adopting governance mechanisms to address resource conflicts, cultivating leadership adaptability, and embedding innovation within risk management frameworks. These insights aim to enhance organisational resilience and competitiveness in rapidly evolving markets.

Originality/value - This paper contributes to the growing discourse on organisational sustainability by exploring ambidexterity. It highlights the intersection of innovation and risk management as a pathway for organisations to thrive amid uncertainty and disruption.

Keywords: Organisational Ambidexterity; Risk Management; Innovation; Leadership; Organisational Sustainability

1. Introduction

A plethora of literature has discussed innovation and internal capabilities within the sphere of organisational ambidexterity (Hossain, Kumar, Islam & Valeri, 2024; van Lieshout, Van Der Velden, Blomme, & Peters, 2021; Abbas, Bresciani, Subhani, & De Bernardi, 2025). Nonetheless, not many strive to understand the interplay of risks in achieving a balance between organisational innovation and ambidexterity. The lack of empirical studies across different contexts and nuances merits theoretical as well as practical scrutiny, as disruption in global markets will continue in future. It is a necessity for businesses to adopt organisational ambidexterity, a strategic balance between the exploration of new opportunities and the exploitation of existing strengths. This dual capability has become imperative for fostering innovation while traversing risks and volatility, as well as heightened competition from agile startups and accelerated technological advancements (Anzenbacher & Wagner, 2020). Failure to adapt to these dynamics has rendered many organisations obsolete, as exemplified by disrupting traditional retail sectors through e-commerce platforms prioritising innovation and operational efficiency.

Organisational ambidexterity is distinguished by its focus on radical innovation and efficient utilisation of current resources. While this approach holds immense potential, its implementation is often hindered by resistance to new ideas and misaligned leadership strategies (Zhou et al., 2024). Achieving a balance between innovation and efficiency necessitates substantial structural and cultural shifts, particularly within hierarchical organisations. Without such transformations, even the most ambitious ambidextrous initiatives are unlikely to deliver their intended outcomes. Empirical studies have shown that organisations with strong cultural flexibility and dynamic governance structures are better equipped to embed ambidexterity successfully (Hardjomidjojo et al., 2022; Katou et al., 2023; Binci, Cerrutti & Massili, 2023). Cultivating an organisational culture that values exploration and exploitation enables leaders to create an environment conducive to sustainable growth. However, realising this balance is a complex effort that demands tailored strategies to reconcile competing demands and resource constraints. Sector-specific approaches are essential to navigate these challenges effectively.

While existing literature has extensively examined the role of ambidexterity in fostering market innovation and adaptability, it has primarily overlooked its application in resolving internal organisational challenges. Issues such as unethical practices, inefficient risk management, and leadership misalignment remain underexplored in this context. Abraham (2023) aptly noted, "Ambidexterity is not just a tool for navigating external challenges but a lens for refining internal coherence and ethical governance." This paper seeks to bridge this gap by understanding how ambidextrous strategies can be harnessed to enhance organisational performance, optimise risk frameworks, and align leadership with broader organisational objectives. Moreover, the role of leadership in managing the inherent paradoxes of exploration and exploitation has emerged as a critical determinant of organisational success. Leaders who can balance these competing priorities effectively are better positioned to steer their organisations towards resilience and growth (Chen & Liu, 2020). Building on existing scholarship, this paper provides an in-depth analysis of ambidexterity across diverse organisational contexts. It highlights the necessity of customised strategies to address sector-specific challenges, particularly for organisations operating in highly regulated environments. These entities face unique constraints that limit experimental initiatives, necessitating innovative approaches

to seamlessly integrate risk management and innovation. This paper explores current perspectives for evaluating leadership effectiveness in fostering ambidexterity, ensuring alignment with long-term strategic goals. In addition, it is timely to deliberate on adaptive risk frameworks that would enable organisations to mitigate uncertainties associated with innovation, thereby enhancing stability in volatile environments. By embedding these frameworks, organisations can address emerging challenges proactively while capitalising on new opportunities.

The remainder of this paper is structured into six sections. The first section explores the benefits of organisational ambidexterity for innovation. The second examines the key impacts of leadership on organisational ambidexterity. The third provides an overview of risk management processes and their linkage to innovation. The fourth section outlines strategies for balancing risk management and innovation. The fifth section introduces the conceptual framework, illustrating the integration of exploration, exploitation, leadership, risk management, and cultural adaptability. Finally, the discussion and findings section synthesises insights from the analysis and empirical evidence, leading to a conclusion summarising the implications for organisational practice and future research.

2. Key Benefits of Organisational Ambidexterity for Innovation

Organisational ambidexterity offers unparalleled benefits in driving innovation and competitive advantage. By balancing exploratory and exploitative activities, organisations can adapt to rapidly changing market conditions while maintaining core operational efficiencies (Tian et al., 2020). This dual focus allows firms to simultaneously pursue breakthrough innovations and incremental improvements, a critical capability in volatile industries like technology and pharmaceuticals. Organisations that master this balance are better positioned to respond to emerging trends and shifting consumer demands, ensuring long-term viability.

Recent studies underscore the role of ambidexterity in enhancing organisational agility. For instance, Roth et al. (2024) found that firms with integrated ambidextrous practices achieved higher innovation output and faster time-to-market, particularly in high-tech sectors. These advantages are especially pronounced in industries characterised by rapid technological advancements, where speed and adaptability are critical for success. However, these benefits are not guaranteed; they depend on the organisation's ability to align its resource allocation with strategic priorities and market demands.

Despite its potential, ambidexterity presents challenges related to resource allocation conflicts and strategic overextension. Organisations often struggle to find the optimal balance, leading to inefficiencies that undermine performance and even employees' well-being (Jia, Liu, Zhang & Luo, 2024; Page et al. (2021)). These conflicts are particularly acute in resource-constrained environments, where leaders must make difficult decisions about allocating limited resources. Addressing these conflicts requires robust governance mechanisms that ensure resources are directed toward activities with the highest strategic impact. By implementing transparent decision-making processes, organisations can mitigate these challenges and maximise the benefits of ambidexterity.

Integrating ambidextrous strategies with open innovation further enhances organisational resilience. By leveraging external knowledge networks, firms can augment their internal capabilities, fostering dynamic innovation ecosystems (Lieshout et al., 2021; Xie & Wang, 2021). This approach accelerates the innovation process and mitigates risks associated with internal resource constraints. For example,

partnerships with academic institutions and industry conglomerates can provide access to cutting-edge research and development, enabling organisations to stay ahead of competitors.

Moreover, empirical studies highlight that ambidexterity, which involves balancing exploration and exploitation, significantly enhances innovation performance in SMEs by leveraging both internal capabilities and external environmental factors (Tian et al. (2020); Guinea et al. (2020) & Soto-Acosta et al. (2018). This dual approach allows firms to adapt to dynamic environments and achieve superior innovation outcomes, with openness and IT capabilities further amplifying these benefits.

3. Key Impacts of Leadership on Organisational Ambidexterity

Leadership serves as the cornerstone of organisational ambidexterity, shaping the cultural and strategic environment necessary for balancing exploration and exploitation. Transformational leaders, emphasising vision and adaptability, are particularly effective in fostering ambidextrous capabilities (Katou et al., 2023). These leaders drive innovation and operational stability by inspiring teams and aligning organisational goals. Their ability to articulate a clear vision ensures that employees are aligned with the organisation's strategic objectives, creating a cohesive and motivated workforce. Table 1 tabulates the type of leadership characteristics that can influence organisational ambidexterity:

Table 1: Type of leadership characteristics from academic journals and other sources

Term	Definition and its influence on organisational ambidexterity
Social Intelligence and Employee Engagement	Leaders with high social intelligence influence organisational ambidexterity, encouraging creativity through exploration activities. They create a workplace that engages employees and adapts to changing conditions, helping employees respond effectively to challenges. This leadership approach not only fosters innovation but also improves productivity through exploitation activities, supporting both aspects of organisational performance (Katou et al., 2023)
Innovation Leadership	Innovation leadership plays a crucial role in driving organisational ambidexterity and enhancing performance by supporting both exploratory and exploitative activities. In this context, the mediating role of organisational ambidexterity is essential, as it facilitates the integration of innovative practices into the organisational framework, ultimately optimising performance outcomes (Nazim et al., 2020).
Emergent Leadership	Emergent leadership, known for fully engaging employees, positively impacts organisational ambidexterity. This leadership style improves employee engagement, which helps organisations develop the capabilities to balance exploration and exploitation. The partial mediating effect of emergent leadership suggests that it can be a valuable strategy for strengthening organisational ambidexterity, particularly in uncertain business environments (Ju et al., 2024).
Empowering Leadership	Empowering leadership is closely linked to contextual ambidexterity, which entails balancing exploration and exploitation at both organisational and individual levels. Leaders who empower their employees and

		emphasise continuous improvement help create an environment that supports ambidexterity. This leadership style enables employees to manage their time effectively and make strategic decisions independently, promoting both alignment and adaptability (Assen, 2020)
Transformational Leadership and Resilience	and	Transformational leadership has been found to moderate the relationship between organisational ambidexterity and resilience. This leadership style strengthens ambidextrous capabilities and directly enhances organisational resilience, allowing firms to navigate and succeed in uncertain environments. Therefore, investing in ambidextrous capabilities under transformational leadership is a strategic approach to achieving long-term organisational success (Zhaxylyk, 2023).
Entrepreneurial Leadership		Entrepreneurial leadership, defined by its focus on innovation, proactivity, and risk-taking, plays a crucial role in shaping organisational ambidexterity. This leadership style enhances an organisation's capacity to adapt and innovate by supporting both exploratory and exploitative activities. The positive impact of entrepreneurial leadership on achieving organisational ambidexterity highlights the value of fostering these leadership qualities (Abdulrahman et al., 2024).

Entrepreneurial leadership complements this dynamic by encouraging risk-taking and fostering a proactive mindset. The role of entrepreneurial leaders in navigating uncertainties is critical in enabling organisations to seize emerging opportunities while mitigating associated risks Abdulrahman et al. (2024). This leadership style is particularly valuable in dynamic markets, where agility and responsiveness are critical for success. However, the effectiveness of entrepreneurial leadership is often contingent on its alignment with broader strategic objectives, underscoring the need for a balanced approach.

Integrating various leadership styles offers a promising pathway for achieving ambidexterity. For example, integrating the visionary aspects of transformational leadership with the agility of entrepreneurial leadership can address the diverse demands of exploration and exploitation. This hybrid approach ensures that leaders are equipped to manage competing priorities effectively. By fostering a culture of innovation and accountability, hybrid leadership models can drive sustainable growth while mitigating potential risks. The growing interest in studying such an integrative approach would shed more light across contexts and situations (Elkhwesky et.al, 2022).

Contextual adaptability is another critical factor in leadership effectiveness (Chen & Liu, 2020). Leadership strategies must be tailored to the cultural and institutional environments in which they operate. This adaptability enhances leadership effectiveness and ensures that ambidextrous strategies are grounded in organisational realities. For example, leaders in multinational organisations must navigate diverse cultural contexts, requiring a nuanced approach to leadership that considers local and global dynamics.

Moreover, empirical studies have shown that leadership development programs support ambidexterity by enhancing leaders' ability to balance exploration and exploitation activities, which are crucial for

innovation and organisational performance. For instance, programs like the LearnOvation leadership development initiative in Sweden and ambidextrous leadership models in Africa and safety-critical software development projects have demonstrated that such training can foster the necessary skills and behaviours for leaders to effectively manage and implement creative ideas, thereby promoting organisational ambidexterity (Turner et al. (2024); Alo (2023); Næss et al., 2022; Kjellström et al. (2022);).

While leadership is widely recognised as a positive force in fostering organisational ambidexterity, certain leadership styles can present challenges in achieving a balanced approach. Chen et al. (2020) noted that leadership styles emphasising innovation and exploration may create imbalances by neglecting exploitation activities essential for short-term performance and stability. Furthermore, the effectiveness of leadership in fostering ambidexterity varies across cultural and organisational settings. Zhaxylyk (2023) highlights that leadership plays a critical role in supporting organisational resilience, particularly in dynamic and uncertain conditions. As leadership significantly shapes how organisations balance exploration and exploitation, leaders must consider potential imbalances and contextual limitations that could hinder the successful implementation of ambidextrous strategies.

4. Risk Management and its Linkage to Innovation

Risk management fosters innovation within ambidextrous organisations, providing a structured approach to navigating uncertainties. ISO 31000:2018 Risk Management Framework emphasise the dual nature of uncertainty, framing it as both a risk and an opportunity (Hardjomidjojo et al., 2022). This dual perspective underscores the strategic importance of embedding risk management within innovation processes, allowing firms to mitigate threats while exploiting emerging opportunities.

Traditional risk management frameworks, however, often fall short in dynamic environments. Static methodologies lack the flexibility to adapt to rapidly changing markets, leading to inefficiencies. Recent studies (Orri et.al, 2023; Lebedev et al., 2022), advocate for adaptive risk management strategies incorporating real-time analytics and scenario-based planning. These approaches enable organisations to respond proactively to disruptions, ensuring resilience in volatile sectors like technology and finance.

Integrating risk management with innovation processes creates synergies that enhance organisational performance. For example, aligning risk mitigation strategies with innovation objectives proactively addresses potential disruptions. This integration enables firms to pursue ambitious growth agendas without compromising stability. Adaptive frameworks in healthcare and renewable energy sectors are pivotal for driving sustainable innovation and managing operational risks, with healthcare benefiting from models like Governance, Risk, and Compliance (GRC) and the integration of AI technologies to enhance efficiency and safety (Hussain, 2024 & Bardach et al., 2022). In renewable energy, frameworks such as the Healthcare Sustainability Mode and Effect Analysis (HSMEA) facilitate the identification of carbon hotspots, while eco-innovations and supportive policies are essential for fostering technological advancements and achieving sustainability goals (Ridder et al., 2022; Kaboré et al., 2022; Jackson, 2024).

The role of technology in risk management cannot be overstated as it plays a crucial role in enhancing risk management processes across various sectors, enabling organisations to identify, analyse, and

respond to risks in real-time, ultimately leading to improved project success and operational efficiency (Odimarha, 2024 & Ali et al., 2021). The integration of advanced technologies such as artificial intelligence, big data analytics, and blockchain not only increases the accuracy of risk assessments but also fosters a proactive approach to managing financial and operational risks (Utami et al., 2023; Khatib et al., 2023; Wang et al., 2023).

Finally, the cultural dimension of risk management plays a crucial role in its effectiveness. Organisations that cultivate a culture of risk awareness are better positioned to navigate uncertainties, fostering an environment that supports innovation and operational excellence. Various studies have shown that a strong risk culture, characterised by transparency, employee engagement, and alignment with organisational values, enhances risk identification and mitigation processes, ultimately leading to improved performance and resilience in the face of uncertainties (Olaniyi, 2023; Wong, 2020; Kanu, 2020).

Several studies (Hardjomidjojo et al., 2022; Al-Naeem et al., 2024) underscore that ISO 31000:2018, a globally recognised standard, provides guidelines and principles for effective risk management. It is designed to help organisations identify, assess, and manage risks systematically, enhancing operational performance and competitive value. The standard outlines a structured risk management approach, including risk identification, risk analysis, risk treatment, and monitoring and review. ISO 31000 highlights in its document that uncertainty can have a positive and negative effect, known as opportunity (for positive impact) and risk (for negative effect). This definition suggests that any uncertain events that can impede the achievement of the organisation's objectives are a risk or an opportunity to the organisation.

4.1 Risk Management Process

The risk management process is part of the “implementing risk management” as detailed in the risk management framework (ISO 31000:2018). The risk management process is crucial in ensuring that integrated risk management is successfully implemented and embedded in the organisational business process as it presents the method to systematically identify, manage, and monitor those risks. The risk management process flowchart, as defined by ISO 31000, is depicted below:

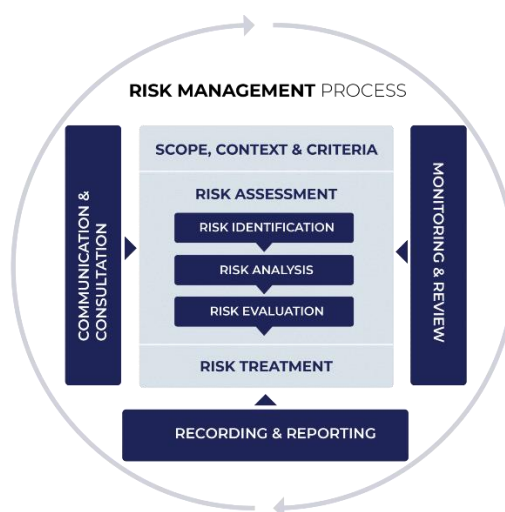


Figure 1: ISO 31000:2018 Risk Management Process

i) Establishing the Scope, Context and Criteria

Based on the recent study by Raihanah et al. (2024), context establishment is a crucial initial stage in risk management, as outlined by ISO 31000:2018. It involves defining both internal and external contexts. The internal context includes governance, organisational structure, vision, mission, policies, and resources. The external context encompasses social, cultural, political, legal, economic, and stakeholder perspectives. This comprehensive understanding helps define the boundaries of the risk management process, including objectives, types of risks, stakeholders, and evaluation criteria. Considering the balance needed for risk management and innovation, it is crucial to establish the context where the organisation develops and articulates its objectives, define the parameters for external and internal context for managing risks, and establish the scope and criteria of the remaining processes.

ii) Risk Identification

The risk assessment process comprises three (3) sub-processes: risk identification, risk analysis and evaluation. Risk identification is a fundamental step in risk management, encompassing various risks such as credit, market, liquidity, operational, and systemic risks across different sectors (Rumasukun, 2024). In relation to innovation, this activity is exposed to various kinds of risks such as technical, cost, time-related and project management risks (Walas-Trębacz et al., 2023)

A large number of techniques exist for risk identification, including survey methods (e.g., risk checklists, interviews) and search methods (e.g., empirical data analysis, fault tree analysis, Ishikawa diagrams) (Spodakh, 2021). These methods help in systematically identifying potential risks and their sources. The outcome of this process will generate a list of risks associated with disruptive innovation to ensure necessary actions are being developed and implemented to address the risks.

iii) Risk Analysis

Risk analysis involves understanding the risk's likelihood (probability of the risk happening) and potential impact (severity if the risk materialises). The assurance in determining the level of risk and its sensitivity to preconditions and assumptions should be considered in the analysis and communicated effectively to decision-makers and, as appropriate, other stakeholders (ISO 31000:2018). The resulting impact of the risk can be estimated by preparing a Risk Level Matrix or a Risk Map based on the likelihood and impact of the risk.

Various studies (Rumasukun et al., 2024; Liu, 2024; Marks, 2020) explained the usage of numerical methods for quantitative risk analysis, which is particularly useful in high-risk industries such as finance and chemical production, where precise calculations are necessary to manage potential losses effectively. Techniques such as value-at-risk modelling, scenario analysis, and statistical algorithms are commonly employed to quantify risks and inform decision-making processes. As an alternative to the quantitative method, qualitative risk analysis focuses on identifying potential risk areas and understanding the factors influencing risk levels. This approach is often used with quantitative methods to provide a more holistic view of risk management. It involves expert judgment and the use of frameworks like NIST SP 800-30 to assess threats and vulnerabilities, particularly in IT governance and other sectors where human and systemic factors play a significant role (Syaputra, 2022; Gusev et al., 2022; Shurda, 2020).

iv) Risk Evaluation

Risk evaluation is a process used to determine the significance of the risks. The importance or criticality of the identified risk should be determined to prioritise actions that need to be taken to mitigate or manage the identified risk. Risk evaluation may also be used to assist in the decision to accept or treat the risk. Scenario-based risk measures such as Expected Shortfall (ES) and Value-at-Risk (VaR) are prominent in financial risk management. These measures are used for their tractability, scenario relevance, and robustness. New scenario-based risk measures, including Max-ES and Max-VaR, have been proposed to enhance risk evaluation in financial contexts (Wang et al., 2021). In some circumstances, the decision can also lead to undertaking further analysis instead of taking specific actions. Decisions should consider the broader context of the risk and consider the risk's impact on stakeholders.

v) Risk Treatment

Risk treatment is a process to modify risk (ISO 73:2009). Effective risk treatment requires a structured decision-making framework incorporating risk evaluation, cost-benefit analysis, and uncertainty reduction metrics. This approach helps prioritise projects and treatment options based on risk tolerance and potential benefits, ensuring that resources are allocated efficiently (Syed et al., 2020). This process is essential, and the risk treatment strategies should consider the resources available to address the exploration and exploitation approach to ambidexterity.

vi) Communication and Consultation

Communication and consultation are critical components of effective risk management, particularly in complex fields such as healthcare, environmental health, and disaster management. These processes involve exchanging information and ideas to understand and manage risks appropriately. In public health, risk communication involves a multifaceted process that includes verbal, numerical, and visual strategies to convey risks to patients. Clinicians aim to balance raising awareness with minimising anxiety, often using tools like natural frequencies and pictograms to aid understanding. (Richter et al., 2020). Since risk management emphasises the importance of this process, it is imperative to ensure that all the challenges and threats in innovation activities, including strategies to explore and exploit, are communicated effectively across all levels within an organisation.

vii) Monitoring and Review

Monitoring and review involves regular checking or observation of the risk identified related to the disruptive innovation to:-

- i) Ensure controls are implemented sufficiently and effectively enough to address the risks identified
- ii) Obtain new information to enhance risk assessment further
- iii) Detect changes in the context of risk management, including modifications to the risk, which will require changes of improvement on risk treatment plans

5. Strategies for Balancing Risk and Innovation Driven by Ambidexterity

Balancing risk and innovation requires a holistic approach integrating strategic planning, leadership engagement, and technological advancements. Dynamic resource allocation emerges as a critical strategy, enabling organisations to adapt their focus between exploratory and exploitative activities based on market demands (Zhou et al., 2024). Such adaptability ensures that firms remain agile despite shifting market conditions while maintaining operational stability. In addition, aligning risk assessment methodologies with innovation goals creates synergies that enhance organisational adaptability. Ferras-Hernandez (2023) emphasises leveraging predictive analytics and advanced data-driven tools to strengthen this alignment. These technologies provide organisations with actionable insights, enabling them to navigate uncertainties effectively. By integrating risk and innovation strategies, firms can ensure that their growth objectives are ambitious and sustainable.

Furthermore, leadership plays a central role in fostering this balance. Leaders can drive innovation while maintaining oversight to manage risks by cultivating a culture that encourages experimentation and collaboration. This requires a commitment to change management practices that align leadership goals with organisational priorities. Leadership strategies prioritising adaptability and responsiveness are particularly effective in dynamic markets, where the ability to innovate and mitigate risks simultaneously is critical (Settembre-Blundo et al., 2021; Kameli, 2023)

Technological integration is vital for balancing risk and innovation across various sectors by enhancing operational efficiency and enabling proactive risk management. However, achieving a balance between risk and innovation requires organisations to adopt a proactive approach that integrates advanced technologies while fostering a culture of adaptability and resilience. For example, Logistics Service Providers (LSPs) leverage digital transformation to improve visibility and analytics, which allows them to anticipate and mitigate risks associated with supply chain disruptions Cichosz et al. (2020). Similarly, the implementation of real-time monitoring systems, such as utilising IoT technology, facilitates immediate data collection and analysis, which is crucial for identifying potential hazards in industries like agriculture (Korlepara, 2024).

Finally, cross-sector collaborations offer valuable opportunities for balancing risk and innovation. Organisations can leverage diverse perspectives and resources by partnering with stakeholders across different industries. For instance, the collaboration between state-owned enterprises, regional enterprises, and academic institutions has enhanced social innovation in rural areas, benefiting local economies and communities (Kasumaningrum, 2024). Furthermore, effective governance and leadership within these collaborations significantly influence their success, as they help navigate the inherent complexities and foster a shared purpose among stakeholders (Bauer et al., 2022; Stadler & Karakulak, 2020).

While these strategies provide a structured framework for balancing risk and innovation, they are not without challenges. An overemphasis on risk management can inhibit creativity and delay the innovation process. Additionally, the complexity of integrating diverse strategies and aligning stakeholder interests can result in inefficiencies and higher costs.

6. Discussions and Findings

Organisational ambidexterity represents a dynamic interplay between exploration, aimed at discovering new opportunities, and exploitation, focused on optimising existing resources. This duality is not merely a theoretical construct but a practical necessity for organisations operating in highly volatile and competitive environments. While exploration fuels innovation, exploitation ensures sustainability by consolidating the gains from innovative activities. Failure to balance these dimensions often results in organisations overextending into unproven ventures or stagnating due to an overreliance on existing competencies.

A central finding from this study is the inclination of organisations to lean excessively toward one dimension of ambidexterity, often dictated by external pressures or internal resource constraints. For instance, firms prioritising exploration tend to allocate excessive resources to speculative projects, jeopardising operational stability. Conversely, those overly focused on exploitation risk diminishing their adaptability, as evidenced by industries unable to pivot during disruptive market shifts. Achieving equilibrium requires strategic leadership capable of navigating these inherent tensions.

Empirical evidence highlights the efficacy of hybrid leadership models in fostering this balance. Case studies across technology and pharmaceutical sectors reveal that organisations employing leaders with both transformational and transactional qualities exhibit greater resilience. Such leaders inspire innovation and institute mechanisms to evaluate and manage associated risks systematically (Roth et al., 2024). By embedding risk management frameworks within their innovation processes, these organisations mitigate uncertainties while seizing emerging opportunities, underscoring the practical benefits of a balanced approach.

Cultural adaptability also emerges as a critical enabler of ambidexterity. Organisations that cultivate a culture of empowerment and accountability at all levels are better positioned to integrate exploration and exploitation seamlessly. Adaptive risk management, as advocated by Lebedev et al. (2022), provides a structural foundation for this integration. It aligns organisational objectives with governance mechanisms, fostering a proactive stance toward navigating uncertainties. This adaptability is particularly critical for firms in regulated industries, where compliance requirements often constrain experimental initiatives.

Ambidexterity's broader implications extend beyond its direct application to innovation and risk management. This study underscores its utility as a framework for addressing internal organisational challenges, including ethical governance and leadership alignment. By employing ambidextrous strategies, organisations can create a cohesive environment where ethical decision-making and leadership efficacy reinforce one another. This interconnectedness enhances overall organisational resilience, ensuring sustained competitiveness in an ever-evolving landscape.

In summary, the findings reaffirm the critical role of organisational ambidexterity in navigating the complexities of modern business environments. By integrating robust risk management practices with a commitment to innovation, organisations can achieve a sustainable balance that promotes growth while mitigating potential pitfalls. This equilibrium is a characteristic of organisational success and a blueprint for long-term resilience in the face of disruption.

6. Conceptual Framework

The conceptual framework positions organisational ambidexterity and risk management as a strategic mechanism for balancing the dual imperatives of exploration and exploitation. This balance is critical for fostering innovation and operational efficiency in an era of rapid technological advancements and market disruptions. Exploration, focusing on radical innovation and identifying new opportunities, serves as the engine for future growth. In contrast, exploitation emphasises the refinement and optimisation of existing resources, ensuring stability and sustainability. The interplay between these dimensions is central to achieving organisational resilience.

As a strategic mechanism, risk management underscores the framework's adaptability to uncertainty. Adaptive risk frameworks, such as those guided by ISO 31000, are embedded to proactively identify, evaluate, and mitigate risks associated with innovation. These frameworks also help organisations leverage opportunities arising from uncertainties, turning potential disruptions into strategic advantages. By integrating risk management processes with innovation initiatives, the framework ensures that exploratory efforts do not compromise organisational stability.

Leadership emerges as the pivotal foundation in navigating this balance. A hybrid leadership model, which integrates transformational leadership's visionary and motivational qualities with transactional leadership's focus on processes and structure, provides the strategic alignment necessary for ambidexterity. Leaders play a critical role in fostering cultural adaptability, ensuring that an organisational culture of accountability, empowerment, and agility supports both exploratory and exploitative efforts.

Cultural adaptability acts as another foundational component in this framework, ensuring the seamless integration of ambidextrous activities. Organisations with a culture that embraces change, supports continuous learning, and aligns employee goals with strategic objectives are better equipped to sustain ambidexterity. This cultural foundation enables the organisation to adapt to external pressures while maintaining internal cohesion, a critical determinant of long-term success.

This conceptual framework extends beyond traditional applications of ambidexterity. It integrates internal organisational dimensions such as ethical governance and leadership alignment into its scope, emphasising their interconnectedness with innovation and risk management. The framework addresses how organisations can thrive in volatile markets and provides a robust pathway for internal coherence and strategic alignment. By leveraging this framework, organisations can achieve a balanced and sustainable growth trajectory in an increasingly uncertain global environment.



Figure 2: Conceptual Framework of Balancing Innovation and Risk, Driven by Organisational Ambidexterity

6. Conclusions

Achieving a balance between risk management and innovation is fundamental to organisational success in today's disruptive and complex environments. This paper underscores the importance of organisational ambidexterity and risk management as a strategic approach to navigating these challenges, with leadership and culture as pivotal foundational elements. Through this integration, organisations can foster resilience and innovation concurrently, ensuring long-term sustainability and competitiveness.

The findings from this study reaffirm that achieving ambidexterity is not merely about balancing exploration and exploitation but about cultivating a holistic framework that aligns innovation with risk management. Leadership plays a decisive role in shaping this balance, ensuring that strategic goals are met without compromising operational stability. Additionally, cultural adaptability and technological integration are vital enablers of ambidextrous strategies, particularly in regulated or volatile sectors.

Future research should explore the sector-specific adaptations of ambidextrous strategies, especially in addressing emerging challenges such as ethical governance, AI-driven decision-making, and environmental sustainability. Furthermore, investigating the role of advanced analytics and digital transformation in enhancing ambidexterity offers valuable avenues for expanding this research field. By addressing these gaps, organisations can gain deeper insights into how to navigate an increasingly volatile global landscape.

Ultimately, this paper contributes to organisational resilience and adaptability discourse, offering a roadmap for practitioners and academics seeking to balance risk and innovation. By adopting a proactive and integrated approach, organisations can position themselves for enduring success in an ever-evolving business environment. The findings reaffirm the critical role of organisational ambidexterity in navigating the complexities of modern business environments. By integrating robust risk management practices with a commitment to innovation, organisations can achieve a sustainable balance that promotes growth while mitigating potential pitfalls. This balance is key to organisational success and a foundation for lasting resilience in times of disruption.

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