
Managerial Myopia and Strategic Decision-Making: A Survey

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Abstract

Managerial myopia, a focus on short-term gains over long-term strategic objectives, significantly impacts strategic decision-making and competitive advantage. This survey explores the multifaceted nature of managerial myopia, encompassing temporal and spatial dimensions, and its effects on organizational strategy. The study highlights how cognitive biases and structural misalignments contribute to myopic decision-making, leading to underinvestment in innovation and strategic misalignments. It underscores the importance of strategic distinctiveness and alignment with organizational goals to mitigate myopic tendencies. Advanced decision-making frameworks and technological innovations, such as AI and machine learning, are essential in overcoming these challenges by providing predictive insights and enhancing data integration. The role of information systems in supporting sustainable practices is also emphasized, promoting long-term strategic alignment. The survey suggests future research directions, including the integration of prescriptive modeling and exploration of new decision-making paradigms in response to digital transformation. By addressing the root causes of managerial myopia and leveraging innovative strategies, organizations can enhance their decision-making processes, ensuring sustained competitive advantage in dynamic business environments.

1 Introduction

1.1 Understanding Managerial Myopia

Managerial myopia is a critical concept in strategic management, defined by a short-term focus on financial performance and immediate gains, often at the expense of long-term investments and sustainability. This short-sightedness can significantly impede an organization's enduring success, leading to under-investment in innovative technologies and sustainable practices. Cognitive biases, particularly present bias, exacerbate this issue by favoring immediate rewards over future benefits, which can manifest in organizational practices such as hiring that prioritize immediate candidate quality over long-term potential [1]. Additionally, the structural positions and performance of social actors, such as firm directors, can influence decision-making processes, integrating behavioral and structural perspectives [2].

In strategic contexts, managerial myopia often results in decisions that prioritize short-term gains, such as accumulating technical debt, without adequately considering broader business impacts and long-term value creation. This focus limits exploratory innovation investments, essential for maintaining competitive advantage in dynamic environments [3]. Understanding managerial myopia's implications is crucial for aligning strategic objectives with long-term sustainability and optimizing organizational performance [4]. Furthermore, recognizing the influence of leading experts on investment decisions emphasizes the need for comprehensive frameworks that equip managers for better strategic decision-making.

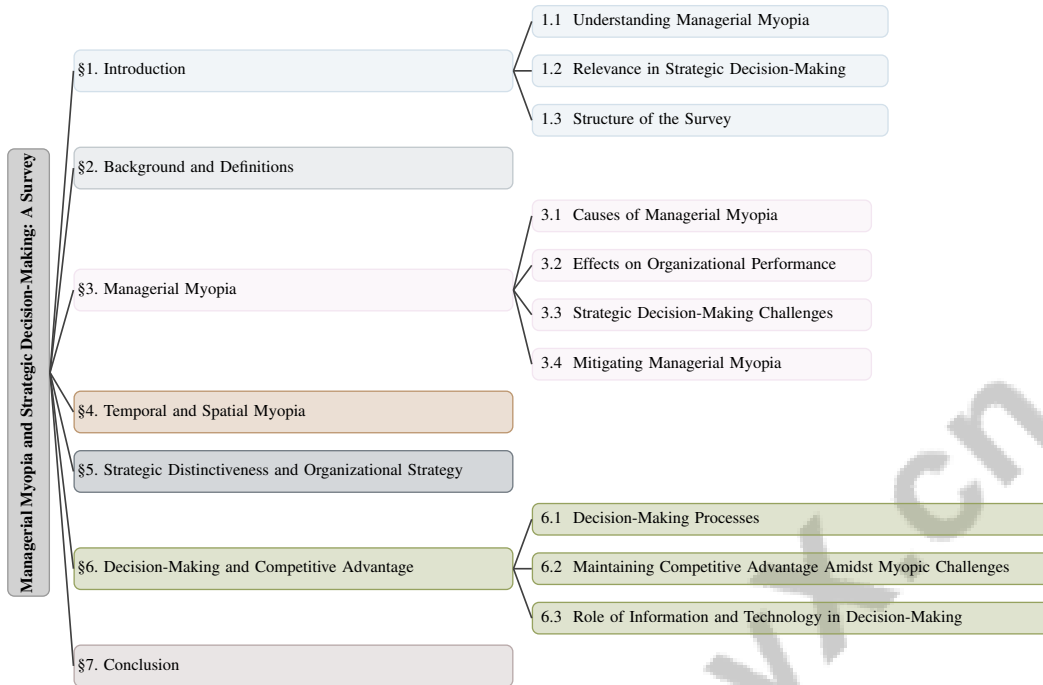


Figure 1: chapter structure

1.2 Relevance in Strategic Decision-Making

Managerial myopia significantly affects strategic decision-making by fostering a focus on immediate gains at the expense of long-term objectives [5]. This approach is particularly detrimental in environments requiring the synthesis of diverse data for informed decisions. For example, A/B testing can lead to misleading short-term results that skew long-term product development choices [6]. Similarly, proximity biases associated with CEO locality can result in decisions favoring short-term benefits, undermining strategic goals [7].

The complexities of A/B experiments further complicate decision-making, especially on online platforms where myopic perspectives can distort strategic outcomes [8]. Additionally, frequent financial reporting can exacerbate managerial myopia by steering firms toward decisions favoring immediate financial performance over sustainable growth, thus impacting investment strategies and long-term expansion [9]. The challenges of costly information acquisition and the complexity of decisions based on incomplete data further illustrate the pervasive impact of managerial myopia [10].

Prioritizing technical debt without aligning it with broader business objectives exemplifies how managerial myopia can lead to suboptimal decision-making [11]. This short-sightedness can hinder essential exploratory innovation investments, critical for sustaining competitive advantage [3]. The strategic use of historical narratives can provide a competitive edge, underscoring the necessity for decision-making frameworks that incorporate long-term perspectives [12].

Incorporating an understanding of managerial myopia into strategic decision-making is essential for organizations aiming to maintain a competitive edge. This involves recognizing present bias constraints and developing strategies that align immediate actions with long-term objectives [13]. By addressing these challenges, organizations can enhance their capacity for sustained growth and innovation, ensuring that strategic goals are met in a manner that balances short-term imperatives with future aspirations [14]. Furthermore, the parallels between herd behavior in investment decisions and managerial myopia highlight the need for strategic frameworks that mitigate such biases [15].

1.3 Structure of the Survey

This survey is systematically structured to explore the multifaceted concept of managerial myopia and its implications for strategic decision-making and competitive advantage. The paper begins with an introduction defining managerial myopia and its significance in strategic contexts, followed by a

detailed background section explaining key concepts such as temporal and spatial myopia, strategic distinctiveness, organizational strategy, decision-making, and competitive advantage.

Subsequent sections provide a comprehensive analysis of managerial myopia, examining its causes, effects, and challenges to strategic decision-making. The survey explores temporal and spatial myopia as specific manifestations of managerial myopia, discussing their theoretical foundations and impacts on strategic outcomes.

The role of strategic distinctiveness and organizational strategy is analyzed, emphasizing their contributions to competitive advantage and the influence of managerial myopia. The decision-making processes within organizations are critically examined, particularly regarding the adverse effects of managerial myopia on long-term investment strategies and competitive advantage preservation. Research indicates that managerial myopia, characterized by a short-term focus, negatively impacts capital expenditures and research and development investments, especially in firms facing intense competition, poor performance, and those that are non-state-owned. However, increased institutional investor ownership and analyst coverage can mitigate these negative effects, highlighting the governance structure's role in aligning managerial behavior with sustainable long-term objectives [16, 5]. The paper concludes with a synthesis of key findings, implications for strategic decision-making, and suggestions for future research, aiming to provide a holistic understanding of managerial myopia and its broader organizational impacts. The following sections are organized as shown in Figure 1.

2 Background and Definitions

2.1 Defining Managerial Myopia

Managerial myopia describes the propensity of managers to focus on short-term gains at the expense of long-term strategic objectives, often driven by cognitive biases and decision-making constraints [3, 13]. This short-sightedness can impede sustainable growth and innovation, especially in complex decision-making environments that require balancing immediate outcomes with future benefits [17]. The relationship between managerial myopia and technical debt is pronounced; managers often opt for quick fixes that hinder long-term strategic planning and innovation, notably in investments in cost-effective green technologies [3]. This immediate focus widens the gap between normative benchmarks and actual investments, intensifying managerial myopia challenges [15].

Temporal and spatial myopia are distinct forms of this phenomenon. Temporal myopia skews time perception, prioritizing short-term results, while spatial myopia overlooks broader contextual factors, leading to decisions that miss critical environmental or market dynamics [18]. Both contribute to strategic failures by narrowing managerial vision and undermining long-term organizational success. Key traits of managerial myopia include an emphasis on immediate rewards, the influence of sunk costs, and strategic domain segmentation, collectively leading to suboptimal outcomes. Addressing these issues is vital for enhancing decision-making processes and ensuring sustainable performance [13]. Integrating various decision-making theories can further aid in understanding and mitigating managerial myopia, particularly within multinational enterprises [19].

2.2 Interrelationships and Significance

The interplay between managerial myopia, strategic distinctiveness, and competitive advantage is crucial for both academic research and practical application. Managerial myopia, characterized by a short-term focus, significantly affects organizational performance, particularly in investment and innovation strategies, often resulting in suboptimal long-term outcomes [20]. The integration of upper echelons theory and agency theory reveals how managerial characteristics influence these decisions, highlighting the role of individual biases and organizational contexts [13].

Moreover, the relationship between managerial myopia and technical debt management underscores the need for frameworks that align business priorities with strategic decision-making. The 'Tracy' framework exemplifies this integration by demonstrating how technical debt aligns with broader business metrics, ensuring that immediate technical decisions do not compromise long-term strategic goals [4]. This alignment is crucial in rapidly evolving technological environments where skilled personnel are essential for managing complex information systems.

Organizational identity and stakeholder perceptions are shaped by historical narratives, which guide strategic decisions by providing context for past actions and future directions [13]. The interaction between these narratives and managerial myopia underscores the importance of storytelling in both academic and practical settings, as it can counteract the adverse effects of myopic decision-making by offering a long-term perspective.

Furthermore, the connections among data-driven decision-making, risk assessment, and competitive advantage highlight the importance of leveraging data analytics in strategic contexts. Effective data utilization enhances decision-making and competitive positioning, particularly in sectors like heavy machinery, aligning with the theory of bounded rationality, which suggests that both human and machine decision-making are influenced by optimization and model complexity [4].

Exploring the intricate relationships between managerial myopia and innovation strategies enables organizations to effectively address the challenges of short-term focus, fostering a balanced investment in both exploratory and exploitative innovations. This approach not only promotes long-term sustainability and competitive advantage but also provides insights into how factors like economic policy uncertainty and agency problems influence these dynamics, thereby informing management practices aimed at enhancing sustainable development and core competitiveness [3, 16, 14].

In examining the complexities of managerial myopia, it is crucial to understand the multifaceted nature of its implications within organizational contexts. As illustrated in Figure 2, the hierarchical structure of managerial myopia is depicted, detailing its various causes and the effects it has on organizational performance. This figure categorizes the cognitive, structural, and strategic factors that contribute to managerial myopia, highlighting not only the inefficiencies that arise from such short-sightedness but also the challenges it poses in strategic decision-making. Furthermore, it explores frameworks and innovations that can be employed to mitigate these adverse effects, thereby enhancing organizational adaptability and overall effectiveness. This visual representation serves to reinforce the theoretical discussions presented herein, providing a comprehensive overview of both the challenges posed by managerial myopia and the potential strategies for overcoming them.

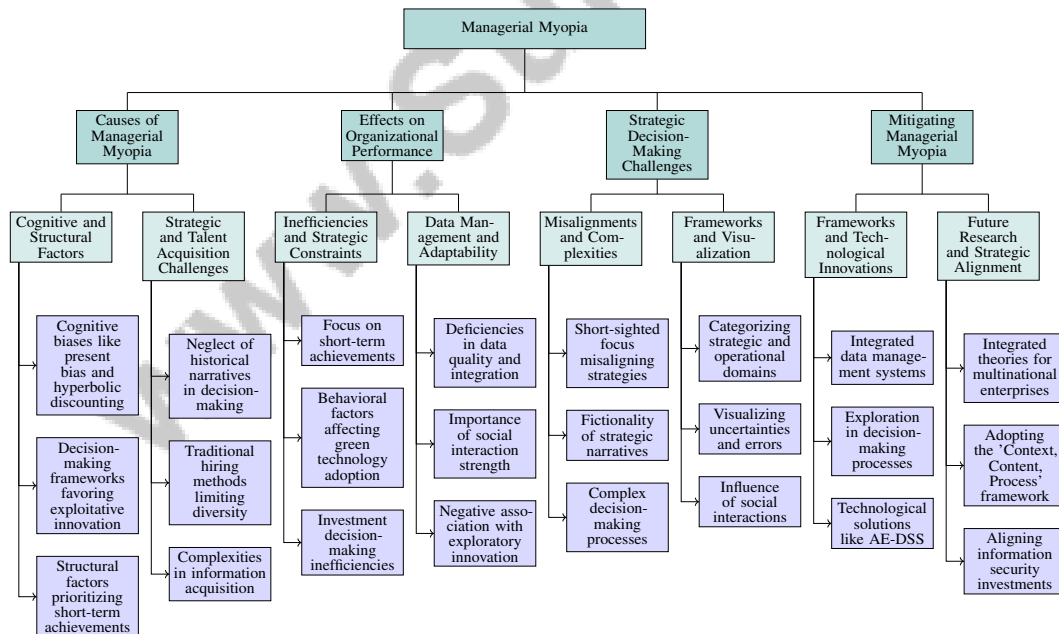


Figure 2: This figure illustrates the hierarchical structure of managerial myopia, detailing its causes, effects on organizational performance, challenges in strategic decision-making, and strategies for mitigation. It categorizes the cognitive, structural, and strategic factors contributing to managerial myopia, highlights its impact on inefficiencies and adaptability, and explores frameworks and innovations to mitigate its effects.

3 Managerial Myopia

3.1 Causes of Managerial Myopia

Managerial myopia, typified by a short-term orientation that undermines long-term strategic goals, arises from cognitive biases, organizational structures, and strategic misalignments. Cognitive biases such as present bias and hyperbolic discounting skew decision-making toward immediate rewards, often at the cost of future benefits [13]. This tendency is exacerbated by decision-making frameworks that favor exploitative over exploratory innovation, promoting predictability and minimizing perceived risks [15], leading to underinvestment in initiatives crucial for competitive advantage.

Structural factors further compound managerial myopia, where individual performance dynamics and hierarchical influence favor short-term achievements over strategic foresight [19]. Biases in expert decision-making can result in choices driven by short-term pressures rather than long-term considerations [13]. Strategically, the neglect of historical narratives as decision-making tools fosters myopia by overlooking insights into past decisions and future strategies, resulting in 'catastrophic forgetting' and impaired adaptability [15].

In talent acquisition, this myopia manifests through traditional hiring methods that prioritize immediate candidate quality, limiting diversity and challenging the alignment of short-term objectives with sustainable growth [19]. The complexities of information acquisition in modern business environments, such as e-commerce, further complicate effective long-term strategic planning [13]. Addressing these multifaceted factors is crucial for developing strategies that counteract managerial myopia, particularly in long-term investments and sustainable practices like green innovation. Research shows that managerial myopia adversely affects a firm's capacity for green innovation and long-term investments, though institutional investors and equity incentives can mitigate these effects [16, 5].

3.2 Effects on Organizational Performance

Managerial myopia significantly undermines organizational performance by fostering inefficiencies and constraining strategic growth. The focus on short-term achievements often leads to suboptimal decision-making, where immediate outcomes overshadow long-term strategic objectives, exemplified by the mismanagement of technical debt [11]. Behavioral factors contribute to these challenges, with a substantial portion of the energy efficiency gap attributed to such factors, resulting in lower adoption rates of green technologies [20].

Inefficiencies in investment decision-making methods negatively impact organizational performance [21]. While decision-making roles correlate with higher earnings growth, myopia can hinder this potential by focusing excessively on immediate gains [17]. Behavioral implications of management control systems often lead to a focus on short-term outcomes at the expense of long-term strategic goals [22].

Data management practices are critical for performance, as deficiencies in data quality and integration adversely affect outcomes [4]. The relationship between social interaction strength and group performance underscores the importance of optimal interaction levels for superior outcomes [23]. Evidence shows a significant negative association between managerial myopia and exploratory innovation investment, essential for sustaining competitive advantage in dynamic markets [3].

As illustrated in Figure 3, the key factors affecting organizational performance are highlighted, emphasizing the impact of managerial myopia, investment decision-making, and data management practices. This figure underscores the significant role of managerial myopia in undermining performance and innovation, the influence of behavioral factors and continual learning in investment decisions, and the critical importance of data quality and business intelligence systems in optimizing organizational outcomes.

Strategic adaptability is vital for mitigating managerial myopia's adverse effects. High-status directors are more likely to adapt strategies when performance exceeds aspirations, counteracting myopic tendencies [2]. This adaptability is crucial for aligning strategic objectives with long-term sustainability, necessitating a rigorous approach to strategy that integrates formulation and implementation [13].

Herd behavior studies reveal that similar patterns significantly affect investment decisions, akin to myopia's impact on performance [15]. Enhancing user engagement and training in business intelligence

systems can improve acceptance and strategic decision-making, mitigating managerial myopia [18]. Addressing these effects requires comprehensive strategies incorporating robust decision-making frameworks and strategic alignment. Research indicates that managerial myopia negatively impacts exploratory innovation investment, essential for long-term success, while exploitative innovation remains unaffected. Factors like economic policy uncertainty and strong equity incentives can mitigate myopia's effects, supporting firms' commitment to innovation and sustainability [3, 16].

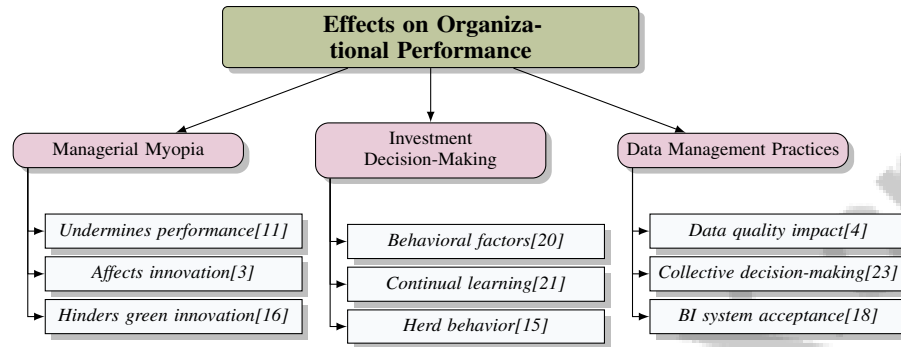


Figure 3: This figure illustrates the key factors affecting organizational performance, emphasizing the impact of managerial myopia, investment decision-making, and data management practices. It highlights the significant role of managerial myopia in undermining performance and innovation, the influence of behavioral factors and continual learning in investment decisions, and the critical importance of data quality and business intelligence systems in optimizing organizational outcomes.

3.3 Strategic Decision-Making Challenges

Managerial myopia poses significant challenges in strategic decision-making by fostering a short-sighted focus that misaligns organizational strategies with long-term objectives. This perspective prioritizes immediate gains over sustainable growth, compromising strategic alignment and stakeholder expectations [24]. The fictionality of strategic narratives can exacerbate these challenges by not accurately reflecting organizational complexities, leading to misjudgments and strategic misalignments [24].

The complexity of decision-making processes is compounded by the need for responsible and rational action, as highlighted in prescriptive modeling frameworks [25]. Such frameworks require decision-makers to navigate managerial myopia's challenges, ensuring strategic decisions are informed by both immediate data and long-term goals. Integrating fuzzy and temporal logic offers a theoretical approach to managing vague and uncertain decision-making processes influenced by myopic tendencies [26].

Categorizing information into strategic and operational domains enhances decision-making by providing clarity and focus, mitigating managerial myopia's adverse effects [27]. This approach enables systematic evaluation of decision-making options based on criteria like affordability and risk, crucial for maintaining strategic coherence [28].

Visualizing uncertainties and errors is vital for improving decision-making accuracy and trust, particularly where intuitive and analytical reasoning must coexist. Challenges in A/B experiments illustrate the potential for misjudgments in strategic decision-making, as myopic perspectives can lead to erroneous conclusions and misguided initiatives [8].

Social interactions and individual knowledge, as explained by the Ising-Glauber dynamics and the N-K model, influence decision-making processes, emphasizing the need for a nuanced understanding of these interactions with managerial myopia [23]. The parallels between herd behavior in investment decisions and managerial myopia highlight the importance of strategic frameworks that mitigate biases, ensuring decisions are informed by a comprehensive understanding of both immediate and long-term implications [15].

Method Name	Decision-Making Frameworks	Technological Innovations	Strategic Governance
CB-RSA[1]	Contextual Bandits	Contextual Bandit Approach	Algorithmic Design
AE-DSS[29]	Autoencoder-based Decision	Autoencoder Neural Network	Sustainable Growth Advantage
CLA[21]	Continual Learning Augmentation	Dynamic Time Warping	Sustainable Growth Advantage

Table 1: Overview of decision-making frameworks, technological innovations, and strategic governance methods for mitigating managerial myopia. The table highlights the integration of contextual bandits, autoencoder-based decision support systems, and continual learning augmentation in enhancing long-term strategic planning and sustainable growth.

3.4 Mitigating Managerial Myopia

Mitigating managerial myopia requires a multifaceted approach combining advanced decision-making frameworks, strategic governance, and technological innovations. Table 1 provides a comprehensive overview of the methods and frameworks employed to mitigate managerial myopia, emphasizing the role of decision-making frameworks, technological innovations, and strategic governance in fostering sustainable growth and adaptability. Developing integrated data management systems can streamline fragmented data collection processes, providing comprehensive insights for strategic decision-making and reducing myopic focus on short-term data points [4]. Enhancing digital tools for stakeholders can facilitate better data integration and utilization, supporting long-term strategic planning.

Incorporating exploration into decision-making processes counters managerial myopia. The contextual bandit approach to hiring introduces exploration into algorithms, improving diversity and long-term adaptability [1]. This method aligns with the growing importance of decision-making skills vital for job success and career advancement, crucial for mitigating myopic tendencies [17].

Technological solutions, such as the Autoencoder-based Decision Support System (AE-DSS), provide granular feedback on deviations from normality, equipping managers with insights for informed long-term decisions [29]. The Continual Learning Augmentation (CLA) framework addresses inefficiencies in traditional investment decision-making, offering a strategy for overcoming managerial myopia by continuously updating decision-making models with new information [21].

Future research should develop integrated theories accounting for decision-making complexities in multinational enterprises, considering emerging trends and technological advancements [19]. Such theories can enhance understanding of the global business environment, enabling organizations to navigate managerial myopia's challenges effectively.

Adopting the 'Context, Content, Process' framework alongside various information security investment models can significantly improve decision-making processes. This approach aligns information security investments with overarching organizational strategies, facilitating prioritization and evaluation of these investments. Consequently, organizations can better achieve long-term strategic objectives, fostering sustainable growth and gaining a competitive advantage in today's technology-driven business environment [13, 30].

4 Temporal and Spatial Myopia

Understanding temporal and spatial myopia requires an exploration of their theoretical underpinnings, rooted in cognitive psychology and decision theory. These frameworks elucidate the cognitive biases and contextual factors influencing strategic management decisions. This section delves into these theoretical foundations, offering a comprehensive overview of the literature and key concepts concerning temporal and spatial myopia.

4.1 Theoretical Foundations of Temporal and Spatial Myopia

Temporal and spatial myopia are grounded in decision theory and cognitive psychology, illuminating how individuals and organizations prioritize information across time and space. Temporal myopia, linked to memory limitations and intertemporal choice models, is influenced by probabilistic models affecting time perception, as discussed by Ortega et al. This aligns with Hüllermeier et al.'s exploration of rational decision-making under uncertainty, highlighting the need for adaptive strategies to manage temporal biases and risk perceptions [10, 26].

Spatial myopia involves overlooking broader contextual factors in favor of immediate surroundings. Chen's 'locality effect' suggests that CEOs with strong community ties are less prone to myopic decisions, promoting sustainability and corporate social responsibility [16, 7]. This underscores the importance of spatial awareness in strategic management, further elaborated by Atiyah, who stresses the integration of temporal and spatial variables in planning.

The NK-framework, as outlined by Blanco-Fernández et al., provides a basis for adaptation in complex environments, addressing spatial myopia through multilevel strategies that enhance managerial performance and sustainable growth [31, 14]. Czakon's multidimensional approach to strategic myopia integrates various perspectives, offering a comprehensive understanding of myopic decision-making.

The interaction between time and uncertainty is crucial in both temporal and spatial myopia. Nascimento's use of fuzzy and temporal logic in decision-making models emphasizes the collective consideration of these factors to improve decision accuracy. Gabaix's research, merging Bayesian decision theory with cognitive psychology, reveals that agents use noisy simulations and prior knowledge to form beliefs about future utilities, leading to behaviors akin to classical time preferences [32, 33]. This highlights the cognitive mechanisms behind myopic behavior, particularly where foresight is limited.

Bertoni's framework for management control systems advocates for a holistic approach, differentiating control types to tackle managerial myopia's multifaceted nature, encompassing competitive, cooperative, temporal, and learning dimensions [31, 14]. These interdisciplinary perspectives contribute to a comprehensive understanding of how myopia can impede managerial performance by prioritizing short-term gains over long-term strategic goals, affecting organizational competitiveness and sustainability [31, 14].

4.2 Impact on Strategic Outcomes

Temporal and spatial myopia significantly influence strategic outcomes by narrowing decision-making scope and limiting adaptability to dynamic environments. Temporal myopia, characterized by a focus on short-term results, often leads to the neglect of long-term initiatives, impeding sustainable growth and innovation. Cognitive biases like present bias exacerbate this focus, resulting in suboptimal investments and increased technical debt [11].

Spatial myopia involves a narrow focus on local contexts, potentially leading to strategic misalignments by neglecting broader environmental and market dynamics. Chen's locality effect indicates that CEOs with strong community ties may exhibit less spatial myopia, benefiting from diverse perspectives that enhance strategic decision-making [7]. However, overlooking wider contextual factors can result in inadequate responses to external changes, threatening long-term viability.

The interplay between temporal and spatial myopia complicates strategic outcomes, necessitating alignment of short-term objectives with long-term goals while considering local and global contexts. As illustrated in Figure 4, the impact of temporal and spatial myopia on strategic outcomes is categorized into key influences and mitigation strategies. Temporal myopia emphasizes short-term focus and neglect of long-term goals, while spatial myopia highlights local focus and strategic misalignments. Mitigation strategies include multilevel adaptation, decision models, and integrated frameworks. Implementing these strategies, as proposed by the NK-framework, can help mitigate myopia's effects by fostering a holistic approach to strategic planning [19]. Decision-making models incorporating fuzzy and temporal logic can enhance strategic decision accuracy by addressing uncertainties and complexities in time and space [26].

Addressing the impact of temporal and spatial myopia requires understanding the cognitive and contextual factors driving myopic behavior. By adopting integrated frameworks and leveraging technological innovations, organizations can enhance strategic adaptability, ensuring alignment with long-term objectives and broader environmental considerations [4]. This approach not only bolsters organizational resilience but also supports sustained competitive advantage in an evolving business landscape.

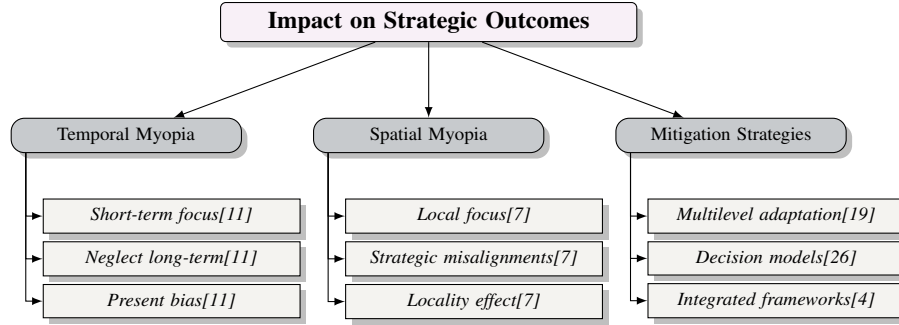


Figure 4: This figure illustrates the impact of temporal and spatial myopia on strategic outcomes, categorizing key influences and mitigation strategies. Temporal myopia emphasizes short-term focus and neglect of long-term goals, while spatial myopia highlights local focus and strategic misalignments. Mitigation strategies include multilevel adaptation, decision models, and integrated frameworks.

5 Strategic Distinctiveness and Organizational Strategy

5.1 Strategic Distinctiveness

Strategic distinctiveness, essential for achieving and sustaining competitive advantage, arises from unique strategies that distinguish an organization from its rivals. Zollo emphasizes the importance of viewing strategic decisions as interconnected, advocating for a holistic approach to strategy formulation that enhances value creation [34]. As illustrated in Figure 5, the key components of strategic distinctiveness emphasize holistic strategy formulation, diverse perspectives, and unique investment opinions. This figure highlights interconnected decisions, local connections, and cognitive load management as crucial elements for a comprehensive strategy.

Managerial myopia significantly impacts strategic distinctiveness by shaping leaders' strategic choices. Local connections can promote long-term investment strategies, aligning immediate actions with broader organizational objectives and enhancing distinctiveness [7]. Such alignment is crucial for maintaining a competitive edge, as it ensures decisions are informed by both local insights and market dynamics.

Cognitive load and domain-specific experience influence discounting behavior, affecting strategic distinctiveness [32]. Managing cognitive load effectively allows leaders to incorporate diverse perspectives into planning, enriching organizational identity and culture. Barry supports this through a narrative approach that includes multiple voices, fostering a richer organizational culture [24]. Additionally, the formation of heterogeneous teams is critical for strategic distinctiveness. Blanco-Fernández illustrates that diverse teams facilitate distributed decision-making, enabling organizations to adapt to complex environments and maintain a unique strategic position [35]. This adaptability is vital for navigating dynamic markets and ensuring sustained competitive advantage.

Integrating behavioral and structural theories provides a comprehensive understanding of strategic distinctiveness. Kim's framework explores the interplay between relative performance, risk preferences, and social positions, offering insights into leveraging unique attributes for differentiation [2]. Furthermore, Wang's concept of investment opinion highlights strategic distinctiveness in decision-making, where cultivating distinct investment opinions differentiates strategic approaches and enhances competitive positioning [15].

5.2 Strategic Alignment and Organizational Goals

Strategic alignment with organizational goals is pivotal for long-term success but is often undermined by managerial myopia. This short-sighted focus on immediate objectives can misalign managerial incentives with corporate goals, hindering sustainable growth [16]. Aligning incentives with long-term objectives is crucial to counteract myopia, fostering strategies that enhance resilience and adaptability. Managerial awareness and strategic planning are vital for aligning organizational goals with strategic initiatives [31]. Such awareness enables managers to understand the broader implications of their

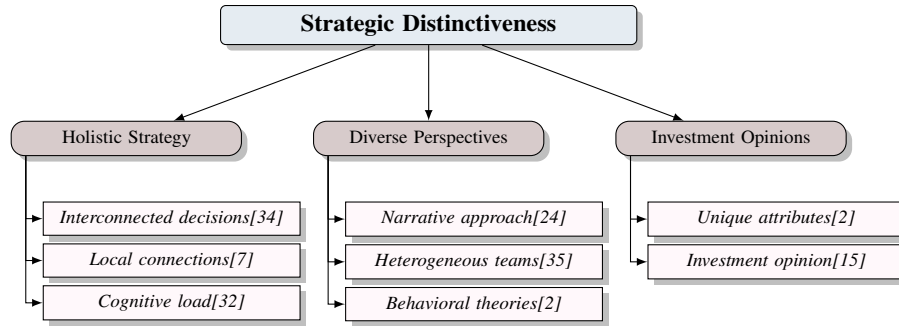


Figure 5: This figure illustrates the key components of strategic distinctiveness, emphasizing holistic strategy formulation, diverse perspectives, and unique investment opinions. It highlights interconnected decisions, local connections, and cognitive load management as crucial for a holistic strategy. Diverse perspectives are fostered through narrative approaches, heterogeneous teams, and behavioral theories. Finally, unique investment opinions are shaped by leveraging distinctive attributes and understanding investment dynamics.

decisions, promoting a balance between immediate needs and future aspirations. The necessity for strategic planning is underscored by the need for organizations to develop long-term technology strategies, aligning investments with corporate objectives [3].

For startups and emerging businesses, selecting higher-risk solutions with greater long-term benefits is essential [28]. This requires embracing uncertainty and committing to strategic initiatives critical for sustaining competitive advantage. By fostering a culture of strategic foresight and encouraging risk-taking, organizations can better align strategic objectives with long-term goals.

6 Decision-Making and Competitive Advantage

6.1 Decision-Making Processes

Organizational decision-making is influenced by cognitive biases, strategic misalignments, and managerial myopia, often prioritizing short-term gains over sustainable outcomes, thereby misaligning technical debt prioritization with broader business goals [11]. An integrated approach to strategic and operational information is crucial for effective decision-making systems, ensuring both immediate and long-term considerations are addressed [27]. Structured decision frameworks, such as Zollo's, mitigate myopia's effects by aligning decisions with organizational goals.

The design of shared information displays affects decision-making outcomes, emphasizing the need for frameworks that balance short-term insights with long-term objectives [36, 9]. CEOs' locality influences decision-making, with local leaders leveraging social capital for long-term strategies. Qualitative decision methods, which allow preference expression without specific weights, address quantitative methods' limitations related to myopia [37]. This, combined with the AE-DSS, enhances decision processes by analyzing data for insights into normality [29].

Visualization plays a critical role in decision-making, influencing intuitive and analytical reasoning [38]. Kim's model shows how status and distinctiveness interact with performance to affect decision-making [2]. Deming's method highlights managerial myopia's impact on decision-making through regression analyses of roles, experience, and earnings [17]. Herd behavior exacerbates myopia, leading to decisions misaligned with strategic objectives [15].

6.2 Maintaining Competitive Advantage Amidst Myopic Challenges

To maintain competitive advantage despite managerial myopia, organizations must adopt strategic frameworks prioritizing long-term objectives while addressing short-term pressures. The AE-DSS enhances strategic decision-making, supporting competitive advantage against myopic tendencies [29]. Mitigating herd behavior is critical for maintaining competitive advantage, with methods developed to counteract biases inherent in myopic decision-making, facilitating informed investment decisions aligned with long-term goals [15].

Incorporating diverse perspectives into decision-making is vital for sustaining competitive advantage. The contextual bandit approach to hiring enhances candidate diversity, improving strategic positioning and adaptability in dynamic markets. Advanced information management systems facilitate better decision-making and competitive positioning through improved data integration and management [4]. Visualization techniques bridge intuitive and analytical reasoning, enhancing decision-making processes and supporting competitive advantage [38]. As illustrated in Figure 6, the strategies for maintaining competitive advantage amidst managerial myopia focus on strategic frameworks, diverse perspectives, and addressing behavioral barriers.

Addressing behavioral barriers is crucial for promoting technology adoption and sustaining competitive advantage. A comprehensive approach that considers behavioral aspects, beyond financial incentives, is necessary to encourage innovative technology adoption [20]. Through multifaceted strategies, organizations can effectively navigate managerial myopia's challenges, ensuring sustainable growth and a competitive edge.

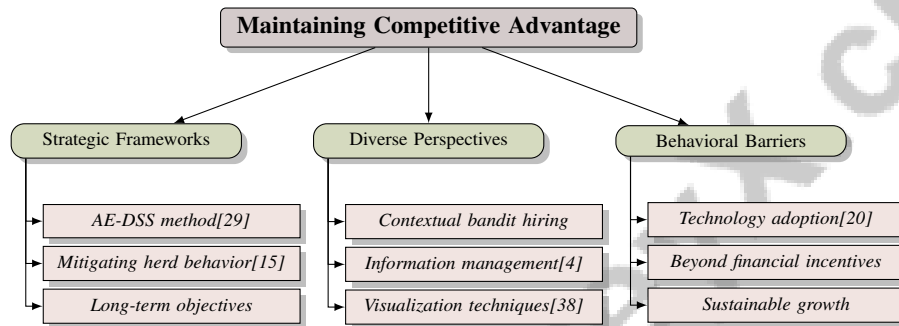


Figure 6: This figure illustrates the strategies for maintaining competitive advantage amidst managerial myopia, focusing on strategic frameworks, diverse perspectives, and addressing behavioral barriers.

6.3 Role of Information and Technology in Decision-Making

Information and technology are pivotal in decision-making processes, particularly for mitigating managerial myopia. Integrating advanced information systems and technological innovations equips organizations to overcome short-term biases and align strategic decisions with long-term objectives. Future research should focus on integrating AI and ML in information systems and exploring sustainable practices in information management [39]. These technologies enhance data processing capabilities, enabling comprehensive analysis and informed decision-making.

AI and ML transform decision-making frameworks by providing predictive insights and prescriptive modeling, guiding optimal actions in real-world scenarios. Their impact is evident in sectors like heavy machinery, where techniques such as Ridge Regression and Markov chain analysis optimize production management and risk assessment. The integration of autoencoders in strategic decision support underscores the importance of data-driven tools that enhance human decision-making by providing granular feedback and addressing inconsistencies [25, 40, 41, 29]. By leveraging AI and ML, organizations can develop robust decision-making models that account for immediate and future implications, reducing myopic tendencies.

Sustainable practices in information systems management are essential to ensure technological advancements enhance operational efficiency while aligning with long-term organizational goals. Integrating these practices enables informed decisions regarding information security investments, fostering a culture of innovation that balances exploratory and exploitative strategies to maintain competitive advantage in complex environments [3, 13, 30, 24, 39]. Adopting sustainable information systems supports strategic alignment by promoting resource efficiency and minimizing environmental impacts, increasingly critical in today's business landscape.

7 Conclusion

The exploration of managerial myopia within this survey underscores its profound impact on strategic decision-making and the maintenance of competitive advantage. This short-term focus can lead to

strategic misalignments, adversely affecting investment strategies, innovation, and long-term success. The necessity for decision-making frameworks that integrate both strategic and operational data is evident, offering a means to mitigate myopia's adverse effects. Incorporating prescriptive modeling and advanced technologies like AI and machine learning can enhance decision-making by providing predictive insights and automating routine tasks. Furthermore, the application of fuzzy temporal logic in decision-making models offers valuable tools for managing the complexities of time preferences and risk assessments.

Future research should delve into the behaviors of emerging actors and the structural antecedents that shape decision-making. The development of integrated management control systems that balance short-term and long-term objectives is crucial, especially in the context of crisis management. Additionally, the implications of technological changes on decision-making roles and life-cycle wage growth warrant further investigation. The potential of AE-DSS in delivering actionable insights highlights the importance of continued research in overcoming the challenges posed by managerial myopia.

Moreover, examining the evolving nature of corporate strategies in response to digital transformation and globalization, alongside enhancing cooperative strategies among firms, is essential. The promising forecasting capabilities of CLA suggest a fruitful avenue for future research aimed at addressing managerial myopia in strategic decision-making.

References

- [1] Danielle Li, Lindsey Raymond, and Peter Bergman. Hiring as exploration, 2024.
- [2] Tohyun Kim and Mooweon Rhee. Structural and behavioral antecedents of change: Status, distinctiveness, and relative performance. *Journal of Management*, 43(3):716–741, 2017.
- [3] Article exploitation or explorat.
- [4] Svan Lembke, Youry Khmelevsky, and Lee Cartier. Developing industry-wide information management capabilities: A case study from british columbia’s tree fruit industry, 2021.
- [5] Qilong Cao, Meng Ju, Jinglei Li, and Changbao Zhong. Managerial myopia and long-term investment: evidence from china. *Sustainability*, 15(1):708, 2022.
- [6] Vickie Zhang, Michael Zhao, , Maria Dimakopoulou, Anh Le, and Nathan Kallus. Evaluating the surrogate index as a decision-making tool using 200 a/b tests at netflix, 2024.
- [7] Qian Chen, Xiang Gao, Shuzhen Niu, Xiao Wang, and Qian Wei. Local-province chief executive officer and managerial myopia: Evidence from china. *Frontiers in Psychology*, 13:966996, 2022.
- [8] Ramesh Johari, Hannah Li, Anushka Murthy, and Gabriel Y. Weintraub. When does interference matter? decision-making in platform experiments, 2024.
- [9] Arthur G Kraft, Rahul Vashishtha, and Mohan Venkatachalam. Frequent financial reporting and managerial myopia. *The Accounting Review*, 93(2):249–275, 2018.
- [10] Renyuan Xu, Thaleia Zariphopoulou, and Luhao Zhang. Decision making under costly sequential information acquisition: the paradigm of reversible and irreversible decisions, 2024.
- [11] Rodrigo Rebouças de Almeida, Christoph Treude, and Uirá Kulesza. Tracy: A business-driven technical debt prioritization framework, 2019.
- [12] William M Foster, Diego M Coraiola, Roy Suddaby, Jochem Kroezen, and David Chandler. The strategic use of historical narratives: A theoretical framework. *Business history*, 59(8):1176–1200, 2017.
- [13] Robert M Grant. *Contemporary strategy analysis*. John Wiley & Sons, 2021.
- [14] Wojciech Czakon, Patrycja Klimas, Arkadiusz Kawa, and Sascha Kraus. How myopic are managers? development and validation of a multidimensional strategic myopia scale. *Journal of Business Research*, 157:113573, 2023.
- [15] Huisheng Wang and H. Vicky Zhao. Optimal investment with herd behaviour using rational decision decomposition, 2024.
- [16] Xin Liu. Managerial myopia and firm green innovation: Based on text analysis and machine learning. *Frontiers in Psychology*, 13:911335, 2022.
- [17] David J Deming. The growing importance of decision-making on the job. Technical report, National Bureau of Economic Research, 2021.
- [18] Mehrdad Maghsoudi and Navid Nezafati. Navigating the acceptance of implementing business intelligence in organizations: A system dynamics approach, 2023.
- [19] This is a repository copy of dec.
- [20] F. Knobloch and J. F. Mercure. The behavioural aspect of green technology investments: a general positive model in the context of heterogeneous agents, 2016.
- [21] Daniel Philips, Tillman Weyde, Artur d’Avila Garcez, and Roy Batchelor. Continual learning augmented investment decisions, 2019.
- [22] Michele Bertoni, Bruno De Rosa, Laura Peressin, et al. Early warning systems: A risk of increasing managerial myopia? *Management*, 14(4):305–323, 2019.

-
- [23] Giuseppe Carbone and Ilaria Giannoccaro. Model of human collective decision-making in complex environments, 2015.
- [24] David Barry and Michael Elmes. Strategy retold: Toward a narrative view of strategic discourse. In *The aesthetic turn in management*, pages 39–62. Routledge, 2017.
- [25] Eyke Hüllermeier. Prescriptive machine learning for automated decision making: Challenges and opportunities, 2021.
- [26] José Cláudio do Nascimento. Decision-making and fuzzy temporal logic, 2019.
- [27] Omar Abahmane and Mohamed Binkkour. Strategic and operational information support of decision making processes and systems, 2015.
- [28] Shaoshan Liu. Critical business decision making for technology startups – a perceptin case study, 2020.
- [29] Sam Verboven, Jeroen Berrevoets, Chris Wuytens, Bart Baesens, and Wouter Verbeke. Autoencoders for strategic decision support, 2020.
- [30] Pankaj Pandey. 'context, content, process' approach to align information security investments with overall organizational strategy, 2015.
- [31] Abbas Gatea Atiyah. Effect of temporal and spatial myopia on managerial performance. *Journal La Bisecoman*, 3(4):140–150, 2022.
- [32] Xavier Gabaix and David Laibson. Myopia and discounting. Technical report, National bureau of economic research, 2017.
- [33] Jon Kleinberg, Sigal Oren, and Manish Raghavan. Planning with multiple biases, 2017.
- [34] Maurizio Zollo, Mario Minoja, and Vittorio Coda. Toward an integrated theory of strategy. *Strategic Management Journal*, 39(6):1753–1778, 2018.
- [35] Darío Blanco-Fernández, Stephan Leitner, and Alexandra Rausch. Multi-level adaptation of distributed decision-making agents in complex task environments, 2021.
- [36] Dongping Zhang, Jason Hartline, and Jessica Hullman. Designing shared information displays for agents of varying strategic sophistication, 2024.
- [37] Ankit Agrawal. Qualitative decision methods for multi-attribute decision making, 2015.
- [38] Melanie Bancilhon and Alvitta Ottley. Did you get the gist of it? understanding how visualization impacts decision-making, 2020.
- [39] Managing and using information s.
- [40] Tian Tian and Jiahao Deng. Unleashing the power of ai: Transforming marketing decision-making in heavy machinery with machine learning, radar chart simulation, and markov chain analysis, 2024.
- [41] Meng Ai, Zhuo Chen, Jibin Wang, Jing Shang, Tao Tao, and Zhen Li. Improve roi with causal learning and conformal prediction, 2024.

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