



# The Intersection of AI and Strategy: Navigating Challenges and Opportunities

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**Abstract:** This study explores the transformative potential of artificial intelligence (AI) in strategic management, focusing on its capacity to drive innovation, enhance efficiency, and address complex ethical and regulatory challenges. A key objective is to establish best practices that help firms mitigate risks associated with AI adoption while ensuring sustainable growth.

AI's role in decision-making, operational efficiency, and competitive advantage, highlighting its impact across various business functions such as marketing, supply chain, and risk management. It also addresses the broader socio-economic implications of AI beyond organizational benefits. The study employs a secondary research approach with a descriptive research design, utilizing thematic analysis of scholarly articles, industry reports, and empirical studies. A positivist philosophy guides the research, ensuring an objective evaluation of AI's role in strategic management.

The findings indicate that AI-driven automation is reshaping business operations, influencing workforce dynamics, and raising societal concerns. Through systematic analysis of twelve relevant studies, the research underscores the pivotal role of data in adapting to an evolving business landscape powered by emerging technologies. The conclusion and recommendations emphasize the need for robust AI governance frameworks and continuous learning environments within organizations. Establishing structured AI implementation strategies and fostering innovation will be crucial for businesses to leverage AI effectively while addressing ethical and regulatory challenges.

**Keywords:** Artificial Intelligence (AI), Strategic Management, AI-driven Automation, AI-Challenges.

## I. INTRODUCTION

Artificial Intelligence (AI) is an evolving field that is reshaping business strategies, competition, and operations within the digital economy. The intersection of technology and organizational cognition has led to a transformative shift in strategic decision-making, operational efficiency, and competitive advantage. According to Kasowaki & Yildiz (2024), AI adoption enables the automation of routine tasks while enhancing analytical capabilities, allowing executives to make faster, evidence-driven decisions. These advancements facilitate real-time market responsiveness, ensuring improved customer satisfaction and strategic foresight in identifying emerging opportunities. Similarly, Allioui & Mourdi (2023) highlight how AI-driven predictive analytics and machine-learning algorithms optimize supply chains, personalize customer experiences, and drive growth and innovation.

However, along with these opportunities, AI integration presents significant challenges, particularly concerning ethics, regulatory compliance, and workforce adaptation. The ethical implications of AI include concerns about data privacy, biases in algorithmic decision-making, and potential job displacement due to automation. Thomas et al. (2024) argue that strategic AI management requires navigating complex regulatory environments, promoting ethical AI development, and mitigating risks associated with over-reliance on automated systems. Organizations must establish frameworks that support human oversight while fostering a culture that balances AI-driven efficiency with transparency and trust. Díaz-Rodríguez et al. (2023) emphasize the importance of using AI ethically to build and sustain customer trust, comply with regulations, and integrate AI into practical business applications without exacerbating socio-political inequalities.

Thus, AI integration into strategic management presents both opportunities and challenges for businesses. While AI enhances decision-making and operational efficiency, it also raises ethical and compliance concerns (Techtarget, 2023). Organizations must navigate these challenges by fostering responsible AI usage and ensuring that technological advancements align with regulatory requirements and societal expectations. The challenge lies in leveraging AI's transformative potential while managing risks such as unintended biases in decision-making processes and workforce displacement. This study aims to establish frameworks that enable firms to harness AI's capabilities responsibly while maintaining sustainable growth.



As AI becomes a driving force in strategic management, its influence on global business practices continues to grow. The initial phase of the digital revolution, centered around information technology (IT), provided efficiency gains but failed to significantly boost productivity (U-next, 2022). However, the advent of AI, combined with computational advancements, introduces new opportunities for innovation, decision-making, and operational excellence. Research in this domain can provide insights into best practices for AI integration, helping businesses navigate ethical, regulatory, and strategic challenges. As Benbya et al. (2020) assert, rapid advancements in AI necessitate a fundamental shift in corporate strategy, requiring organizations to develop agile, AI-driven strategic frameworks.

The research aims to explore how AI transforms business strategy by evaluating its opportunities and challenges. Specifically, this study examines AI's impact on strategic management at the firm level, including decision-making processes, competitive strategy, operational efficiency, and innovation. It also addresses ethical considerations, regulatory implications, and organizational adaptation to AI adoption. The research focuses on AI applications across various industries, considering both large enterprises and small businesses to develop comprehensive strategic management frameworks in the AI era. To achieve this aim, the research intends to: 1) assess AI's influence on strategic decision-making processes; 2) analyse AI's role in innovation and product development; 3) identify opportunities and challenges associated with AI implementation; and 4) evaluate the competitive advantages gained through AI adoption.

This study seeks to address the following key research questions:

1. How does AI influence strategic management decisions within organizations?
2. In what ways does AI enhance operational efficiency and performance?
3. What are the key opportunities and challenges associated with AI adoption?
4. How can organizations leverage AI to gain a competitive advantage?
5. What strategic approaches can help mitigate the risks of AI implementation?

To further understand AI's influence on strategic management, this study develops a theoretical framework, as shown in Figure 1. This framework is structured around a dependent variable (i.e., organizational performance) and an independent variable (i.e., AI adoption and integration) to provide a structured analytical approach.

By employing qualitative research methodologies and aligning findings with the theoretical framework, this study aims to offer a comprehensive and systematic examination of AI's impact on strategic management, particularly in the era of technological advancement and digital business transformation. The findings are expected to provide valuable insights for both practitioners and researchers, helping to enhance and integrate AI effectively into business strategic management. To establish a purposeful analytical approach, the proposed framework serves as a guiding tool to ensure a balanced and systematic assessment of AI's impact on strategic management practices within businesses.

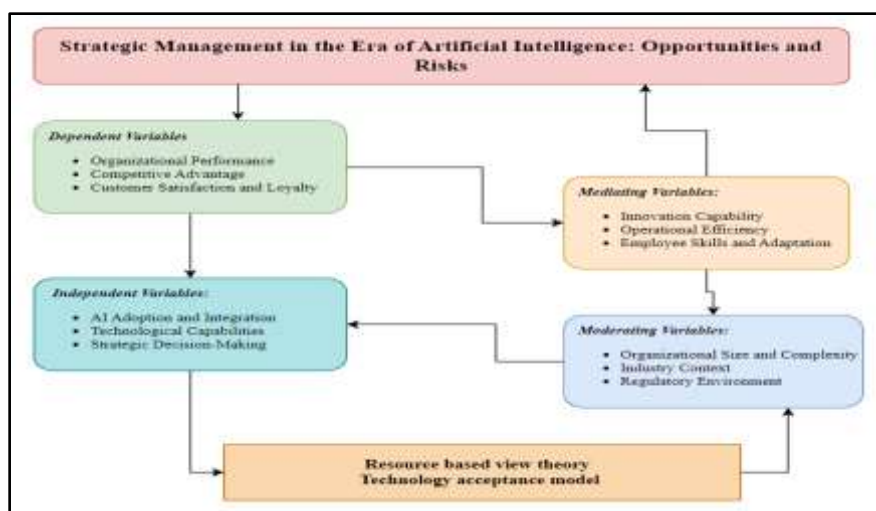


Fig 1: Conceptual framework



## II. LITERATURE REVIEW

In the digital era, almost every organisation leverages Artificial Intelligence (AI) to enhance operational efficiency and maximise business profitability. However, AI implementation presents both risks and opportunities, underscoring the importance of understanding AI's role in business and recognising its associated challenges and benefits. Within strategic management, AI models play a crucial role in business operations and strategy formulation, particularly in an increasingly digitalised environment.

According to Bharadiya (2023), AI tools enable organisations to analyse vast datasets quickly and accurately. In this context, Gill et al. (2022) argue that AI-driven predictive analytics allow businesses to forecast future trends by leveraging historical data. Beyond identifying current patterns, predictive analysis helps organisations anticipate customer behaviour and forecast demand. This capability enables data-driven decision-making, reducing reliance on guesswork and allowing managers to make more informed strategic choices based on real-time market conditions.

Moreover, Natural Language Processing (NLP) plays a significant role in business analytics, allowing companies to analyse textual data such as social media comments and customer reviews. By evaluating customer sentiment, businesses can better understand consumer perceptions of their products and services. This insight is essential for making necessary adjustments to improve offerings and enhance customer satisfaction.

On the other hand, AI models also contribute to operational efficiency by automating repetitive tasks such as scheduling and data entry. According to Kumar et al. (2023), AI-driven automation frees up human resources, allowing employees to focus on more creative and strategic initiatives. Similarly, Engstrom et al. (2020) highlight that AI algorithms automate administrative tasks, including report generation and expense management. AI tools help managers categorise expenses and verify reports automatically, improving efficiency and reducing manual workload.

Additionally, AI enhances document management systems by organising and tagging files based on content, reducing the time spent on manual document handling and facilitating quick information retrieval. In industrial settings, AI-driven predictive maintenance systems analyse sensor data from machinery to anticipate maintenance needs. By monitoring equipment performance in real time, managers can detect potential failures early, enabling proactive maintenance scheduling. This predictive capability helps reduce repair costs, minimise downtime, and extend the lifespan of machinery.

Furthermore, Feng et al. (2022) emphasise that AI models continuously learn from new datasets and feedback, refining their insights and recommendations over time. This adaptability ensures that AI-driven insights align with real-time business conditions. By leveraging real-time data, businesses can drive innovation and maintain a competitive edge through differentiation from competitors.

AI significantly impacts organisations at all levels and departments. Organisations across various industries seek operational efficiency through AI implementation. Stone et al. (2020) and Chandra et al. (2022) suggested that the integration of AI has revolutionised all aspects of business (e.g., the marketing process and personalised marketing). AI allows companies to engage with customers, analyse their behaviours, and identify trends (Stone et al., 2020; Chandra et al., 2022). In marketing, AI not only enables personalisation and behaviour analysis but also supports the optimisation of marketing campaigns, allowing teams to adjust their strategies based on predictive insights.

As Yandrapalli (2023) suggested, AI also plays a role in supply chain optimisation. AI utilisation transforms traditional inventory management by using machine learning for real-time data processing. AI is applied in various operational areas such as warehouse operations, storage allocation, and layout design (Van Geest et al., 2021). It also improves logistical efficiency by optimising transportation routes based on factors such as fuel efficiency, delivery costs, and timing (Van Geest et al., 2021). Furthermore, AI helps detect anomalies in data patterns, enabling organisations to identify potential issues early and intervene proactively. This enhances risk assessment accuracy, supports compliance with regulatory requirements, and ensures adherence to industry standards (Mirsky et al., 2023; Hegde & Rokseth, 2020).

Beyond operational efficiency, AI presents both opportunities and risks for strategic management. AI provides critical support for businesses, improving decision-making accuracy, facilitating quick and accurate data mining, and enhancing organisational capabilities (Stone et al., 2020). AI allows organisations to improve key metrics such as revenue, production, research, recruitment, and automation of routine processes (Tschang & Almirall, 2021). However, risks associated with AI include the replacement of human decision-making in strategic management, susceptibility to cyber-attacks on personal data, and ethical concerns due to potential biases in AI algorithms (Piloidis, 2020). The algorithms



governing AI-driven decision-making can sometimes amplify existing social biases and inequalities, undermining fairness and transparency (Malliaroudaki & Zoumas, 2024; Lim et al., 2022).

Competitive advantage is a crucial strategic factor for business survival, particularly in the era of technological advancement. Organisations leverage AI applications and knowledge to gain an edge over competitors (Akilandeewari et al., 2024). AI enables big data analysis, supporting strategic decision-making, leading to faster market responses, and offering a competitive advantage over slower, less data-driven competitors (Akilandeewari et al., 2024). AI optimises production schedules and maximises efficiency by predicting optimal maintenance times, thereby reducing downtime and costs (Panda et al., 2024; Lo et al., 2024). Ng et al. (2021) and Hassan et al. (2023) stated that digital risk analysis ensures compliance, allowing companies to maintain a sustainable competitive edge. The integration of AI into decision-making enhances resource allocation and innovation, further strengthening competitive positioning (Koć-Januchta et al., 2022; Varadarajan, 2020).

## 2.1 Theoretical Underpinnings

To guide this study and provide a structured approach to understanding AI's impact on strategic management, a theoretical framework is developed. The significance of theoretical underpinnings lies in ensuring that the study is grounded in existing knowledge rather than isolated observations. This study relies on the Resource-Based View (RBV) and the Technology Acceptance Model (TAM) to validate findings and propose new insights.

### 2.1.1 Resource-Based View Theory

Rishi et al. (2022) suggested that organisations can enhance their efficiency by leveraging valuable, inimitable, and rare resources. According to Lubis (2022), the RBV theory posits that sustaining superior performance and gaining competitive advantages require organisations to utilise a unique bundle of resources and capabilities. In the AI context, organisations can use AI tools for predictive analytics and personalised customer services, positively influencing customer experience. AI enhances human resource efficiency, facilitates automation, and supports strategic business operations. By leveraging valuable resources such as analytical insights and automation, organisations strengthen their competitive edge and create barriers for competitors attempting to replicate their products and services.

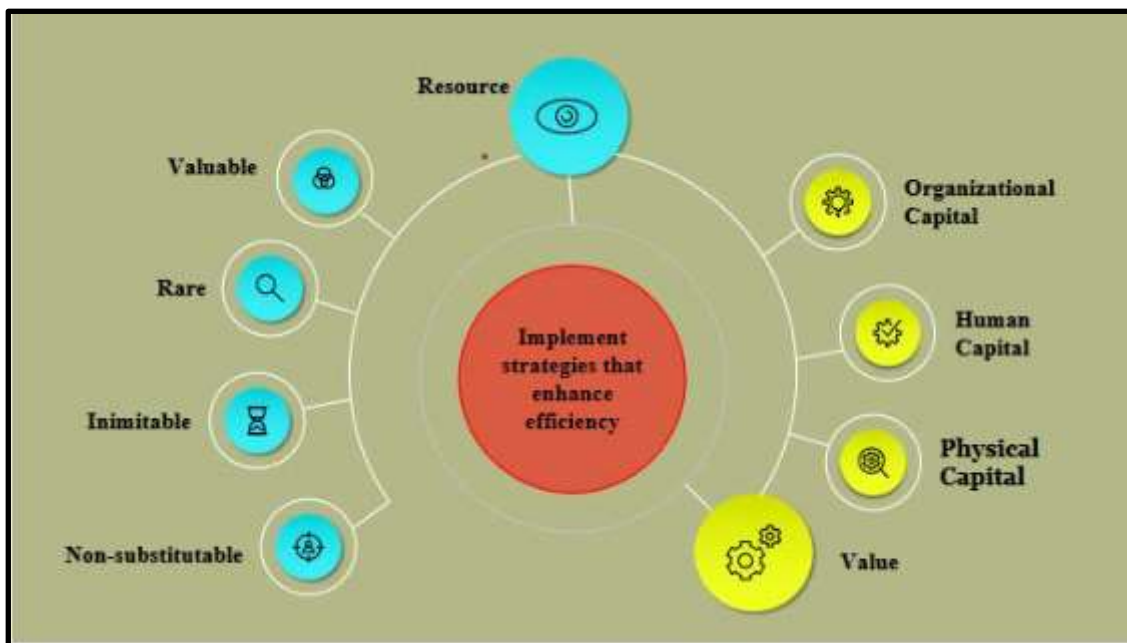


Fig 2: Resource-based view theory (Source: Rishi *et al.* 2022)

### 2.1.2 Technology Acceptance Model

The Technology Acceptance Model (TAM) explains user adoption of new technologies based on perceived ease of use and usefulness (Miller & Khera, 2010). TAM identifies key factors influencing technology adoption (Kamal et al., 2020). Applying TAM to AI adoption reveals that businesses adopt AI for increased productivity and improved decision-making. However, adoption is also influenced by concerns such as high maintenance costs and reduced human dependency. Understanding these factors is crucial for identifying AI's risks and opportunities within a business context. Successful



AI implementation requires senior management to consider stakeholder opinions, including managers, investors, customers, and employees, to maximise AI's potential and address organisational barriers.

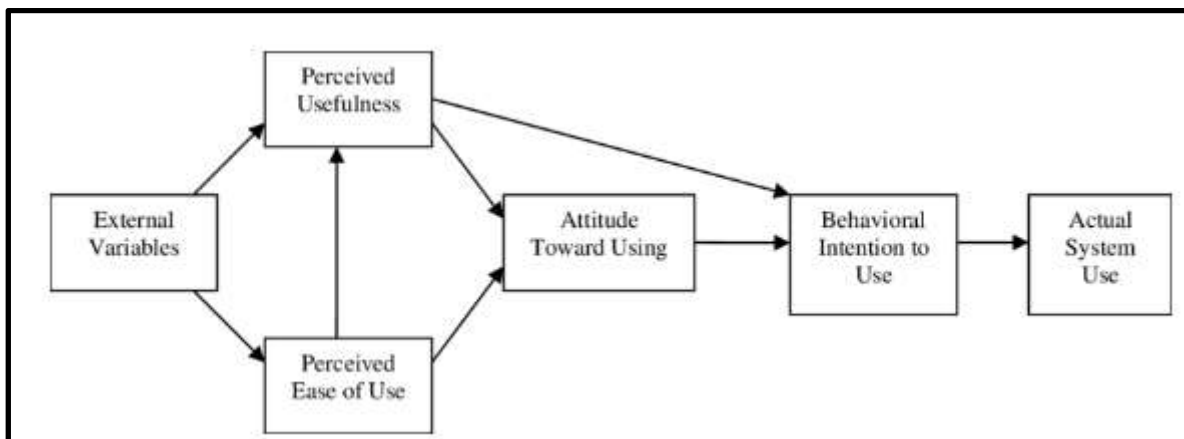


Fig 3. Technology acceptance model (Source: Miller, & Khera, 2010)

## 2.2 Literature Gap

The intersection of AI with business management and strategies is often analysed through the lens of practical metrics (e.g., operations, supply chain management), which stem from strategic management (Tschang & Almirall, 2021). Existing literature presents diverse perspectives on AI's impact on business strategies. Some scholars argue that AI is essential for enhancing efficiency and gaining a competitive advantage (Akilandeewari et al., 2024). Others, however, challenge this view, raising concerns about ethical issues and biases in AI-driven decision-making, as well as its broader impact on humans in both business and social contexts (Malliaroudaki & Zoumas, 2024; Lim et al., 2022).

Following an extensive review of the literature, notable gaps have emerged, particularly regarding the broader socio-economic impacts of AI beyond organizational benefits. Current studies on AI adoption in strategic management often overlook critical issues such as job displacement, ethical concerns in competition, and societal inequalities. Additionally, theoretical underpinnings are frequently neglected, with scholars primarily focusing on the practical applications of AI in business functions. Future research should address these broader implications to foster a more holistic understanding of AI's transformative effects.

## III. METHODOLOGY

The methodology section outlines the approach used to explore the role of Artificial Intelligence (AI) in strategic management within a business setting. This study employs an exploratory research approach and adopts qualitative methods to examine the impact of AI on strategic management in organizations. The primary objective is to gain insights, generate new ideas, and establish a foundation for further research rather than providing conclusive answers.

This study primarily relies on secondary data to gain a better understanding of AI's impact on strategic management by analysing existing literature on the topic. The section follows a structured approach to analyse secondary research, employing an exploratory research approach to understand how AI influences decision-making, innovation, and competitive advantage in business environments. The secondary research is based on pre-existing scholarly articles, industry reports, and empirical data to explore the broader theme of AI's role in strategic management through an exploratory research approach.

This study highlights how AI is leveraged to reconsider decision-making processes and enhance innovation in product development. Additionally, it investigates the opportunities and risks associated with AI in achieving competitive advantage. Furthermore, the research examines the significance of incorporating AI into strategic management, emphasising the necessity for managers to understand the technological implications of AI adoption. The study provides an in-depth analysis of AI models in strategic management, offering probabilistic insights and reliable answers to complex questions. The conclusion addresses strategic risks related to AI adoption and proposes recommendations to mitigate these risks effectively.

Research philosophy represents the underlying beliefs or assumptions regarding the nature of knowledge and how it can be attained (Damamisau et al., 2020). It serves as a foundation for data collection, interpretation, and analysis, guiding the methodology and research methods adopted. Given this study's objectives, positivism is an appropriate research



philosophy, as it focuses on the objective study of phenomena using empirical evidence. This approach facilitates an unbiased interpretation of AI's influence on strategic management. Additionally, its empirical-analytic orientation allows for measurable insights into AI's impact on decision-making, innovation, and competitive advantage.

Despite the strengths of positivism, its focus on observable facts necessitates complementary secondary research methods that rely on existing data and scholarly literature. As described by Gläser-Zikuda et al. (2020), secondary research enables the exploration of topics from multiple perspectives using empirical literature. Investigating AI's business applications through secondary research allows for a detailed examination of empirical evidence without the need for primary data collection. When combined with positivism, this approach ensures a rigorous evaluation of AI's role in business strategy, culminating in evidence-based recommendations for strategic management in the AI era.

Further research on AI's impact on competitive advantage, strategic decision-making, and innovation was conducted using electronic databases such as Google Scholar. Thematic analysis was applied to the collected data to identify recurring themes, patterns, opportunities, and risks associated with AI in strategic management. The qualitative methodology adopted ensures a balanced empirical assessment of AI's impact on various strategic management processes. Exploratory research approach was chosen for this study, as it allows for a systematic exploration of available data and interpretations regarding AI's influence on strategic management. According to Siedlecki (2020), exploratory research enables a comprehensive analysis by utilizing various secondary sources, drawing insights from empirical data collected from multiple perspectives. This approach allows for an overarching view of AI's impact on business organisations while minimising the need for raw primary data collection. As Doyle et al. (2020) suggest, descriptive research is particularly suited for analysing complex phenomena, making it an appropriate choice for investigating AI's implications on competitive advantage, regulatory risks, privacy, and diversity in strategic management.

By leveraging secondary research and exploratory approach, this study enhances the existing literature on AI in strategic management, integrating current knowledge to provide prescriptive recommendations on how organizations can capitalize on digital transformation. According to Dzwigol (2022), the accuracy and value of research findings depend on the chosen research design and methodologies. This approach ensures that strategic management decisions are informed by the best available empirical findings on AI adoption in organisations.

Data collection methods fall into two broad categories: primary and secondary (Adeoye-Olatunde et al., 2021). Primary data collection involves gathering new data firsthand through surveys, interviews, or experiments. It is often time-consuming and resource-intensive. In contrast, secondary data collection relies on pre-existing data sources, such as peer-reviewed studies, industry reports, and public databases (Rassel et al., 2020). Secondary data is particularly useful when primary data collection is impractical or unnecessary.

For this study, secondary data collection was selected to develop a systematic understanding of AI's impact on strategic management, innovation, and competitive positioning. As Ribeiro-Navarrete et al. (2021) argue, secondary data provides access to a wealth of publicly available research, including industry analyses, empirical studies, and expert evaluations. This approach allows for a comprehensive synthesis of existing knowledge, enabling a robust examination of AI's role in strategic decision-making, innovation, and competitive advantage.

Data analysis involves systematically applying techniques to interpret, summarise, and derive insights from collected data. In this study, thematic analysis was used to identify, analyze, and report patterns within the qualitative data. According to Dawadi (2021), thematic analysis is a widely used qualitative data analysis technique that provides flexibility while ensuring valuable insights. It allows for an in-depth analysis of AI's impact on business strategy, innovation, and competitive advantage by synthesizing findings from existing literature.

Thematic analysis offers a structured yet flexible approach to understanding how AI influences organizational processes. It facilitates the identification of opportunities and risks while ensuring a methodical evaluation of empirical findings. As Finlay (2021) highlights, thematic analysis enhances research rigor by enabling clear and actionable conclusions. By identifying recurring themes, this method ensures reliable recommendations for AI-driven strategic management practices.

Data reliability refers to the consistency and stability of data across multiple trials and analyses (Rose & Johnson, 2020). The study is considered reliable by using peer-reviewed scholarly articles, credible industry reports, and verified data sources. Ensuring reliability requires adherence to high research standards and methodological consistency. Generalisability refers to the extent to which findings can be applied to broader contexts beyond the specific sample studied (Hays & McKibben, 2021). Since this study relies on secondary data, its generalisability is inherently limited.



However, by analysing a wide spectrum of studies from diverse industries and geographical regions, this research provides insights applicable to various organizational settings. While findings should be interpreted within their contextual limitations, the study presents a broad perspective on AI's strategic management implications across different business environments.

#### IV. FINDING & ANALYSIS

This section presents the analysis and findings of the study, focusing on the impact of AI on the strategic management within businesses. AI provides opportunities and risks related to strategic management and plays a significant role in shaping organisational strategic outcomes. As organizations strive to maintain competitive advantages, understanding how strategic management influences its performance and gain competitive advantage AI becomes crucial. The analysis builds upon data collected through archival research, employing thematic analysis to identify patterns and themes that link AI with key strategic management metrics. By exploring these relationships within the strategic management context of business, this study provides insights into the extent to which AI contributes to fostering effective use of AI in decision-making processes, competitive strategy, operational efficiency, and innovation. This section aims to uncover whether AI serves as a pivotal factor in aligning strategic management with organisational goals, and how its presence or absence correlates with organisational success. The findings presented addresses the research objectives, offering a nuanced understanding of the interplay between AI, and strategic management.

##### 4.1 Findings

No	Name of Article	Author	Method	Findings
1	Keding, C. (2021). Understanding the interplay of artificial intelligence and strategic management: four decades of review research. <i>Management Review Quarterly</i> , 71(1), 91-134.	Keding, 2021	The study follows the systematic review of utilising AI based on strategic management and research related to the outcomes. The systematic review in the research study promises the research aspects in understanding the quantifiable impact of AI based on strategic management.	The results of this study indicate that it is important to better evaluate the relevance based on strategic management. More research is required on the understanding of artificial intelligence as well as strategic management.
2	Stone, M., Aravopoulou, E., Ekinci, Y., Evans, G., Hobbs, M., Labib, A., ... & Machtynger, L. (2020). Artificial intelligence (AI) in strategic marketing decision-making: a research agenda. <i>The Bottom Line</i> , 33(2), 183-200.	Stone et al. 2020	To obtain the results in a better way the study has conducted a comparative literature review regarding the implications based on artificial intelligence technology in strategic situations. A literature review has been conducted to recognise the research which is required in particular areas for implementing AI in terms of decisions based on strategic marketing	The key findings of the study include that there is more required in terms of decision-making based on the application of AI. It has been found that the application of AI is taking place currently in terms of decision making but because of the competitive nature sometimes the data is also not always available for the authors.
3	Bécue, A., Praça, I., & Gama, J. (2021). Artificial intelligence, cyber-threats and Industry 4.0: Challenges and opportunities.	Bécue, Praça, & Gama, 2021	The study has selected primary quantitative data collection methods to gain important insights. The study has focused on conducting a survey questionnaire which includes the opportunities as well as	The findings of the study include intrusion detection systems which are already incorporating AI techniques. It also includes the strengths as well as weaknesses of the utilisation of artificial intelligence. The AI-based techniques in terms of monitoring the



	Artificial Intelligence Review, 54(5), 3849-3886.		threats based on utilising artificial intelligence technology based on the manufacturing sector.	optimisation of the product as well as controlling the insights on several cases of application are also important.
4	Ashta, A., & Herrmann, H. (2021). Artificial intelligence and fintech: An overview of opportunities and risks for banking, investments, and microfinance. <i>Strategic Change</i> , 30(3), 211-222.	Ashta, & Herrmann, 2021	To collect the data related to understanding the benefits as well as advantages of AI the study has included a case study analysis. It has been conducted for the overall development of understanding of several perspectives based on the opportunities as well as areas of risk of using AI.	It has been observed in the findings section that AI is becoming a major issue in terms of policy and the international levels. The major trends based on AI in the financial markets include data intelligence expert knowledge and prediction.
5	Galaz, V., Centeno, M. A., Callahan, P. W., Causevic, A., Patterson, T., Brass, I., ... & Levy, K. (2021). Artificial intelligence, systemic risks, and sustainability. <i>Technology in Society</i> , 67, 101741.	Galaz et al. 2021	The study has included a systematic review of the journals and articles to understand the systematic readers as well as sustainability based on the utilisation of artificial intelligence.	The major findings of this study are the incorporation of the understanding based on the utilisation of advanced technology in certain sectors which are having high potential for sustainability such as forestry and marine resources farming. The article has focused on the systematic risk which can be included in these particular domains in case artificial intelligence is used.
6	Berente, N., Gu, B., Recker, J., & Santhanam, R. (2021). Managing artificial intelligence. <i>MIS quarterly</i> , 45(3).	Berente et al. 2021	To gain an understanding of the management of artificial intelligence, the research study has conducted a case study analysis based on the factors influencing the management of AI.	The findings section of this research study includes that AI is not only considered a technology but is continuously evolving in terms of the capabilities of computing. It is the responsibility of the managers to provide training to the other team members regarding AI and the important decisions based on AI are also taken by the managers of the organisation. However, several challenges have also been faced by the managers using the AI-based system in the organisation.
7	Krakowski, S., Luger, J., & Raisch, S. (2023). Artificial intelligence and the changing sources of competitive advantage. <i>Strategic Management Journal</i> , 44(6), 1425-1452.	Krakowski et al. (2023)	The study embraces the variety of anecdotal observations and the prior theoretical accounts by going to utilising the abductive approach.	The study reveals how the adoration of AI has brought changes in the context of competitive advantages and at the same time in turn there are needs a managers in terms of developing new capabilities in order to stay relevant within today's competitive landscape.
8	Ahmad, T., Zhang, D., Huang, C., Zhang, H., Dai, N., Song, Y.,	Ahmad et al. (2021)	The study followed the secondary method of data collection in terms of	The study findings have exploited the fact that AI has become the primary enabler of the new, complex as well





	& Chen, H. (2021). Artificial intelligence in sustainable energy industry: Status Quo, challenges and opportunities. <i>Journal of Cleaner Production</i> , 289, 125834.		understanding the integrated role of AI.	and data-related energy industry mainly by providing the key tools in the context of increasing efficiency as well as operational performance in the increasingly cut-throat business environment.
9	Wong, L. W., Tan, G. W. H., Ooi, K. B., Lin, B., & Dwivedi, Y. K. (2024). Artificial intelligence-driven risk management for enhancing supply chain agility: A deep-learning-based dual-stage PLS-SEM-ANN analysis. <i>International Journal of Production Research</i> , 62(15), 5535-5555.	Wong et al. (2024)	The study followed the online survey questionnaires and distributed them randomly, especially to Malaysian manufacturing firms.	The result of this study has identified the important usage of AI in the context of risk management and severely influences supply chain agility as well as re-engineering capabilities.
10	Moinuddin, M., Usman, M., & Khan, R. (2024). Strategic Insights in a Data-Driven Era: Maximizing Business Potential with Analytics and AI. <i>Revista Espanola de Documentacion Cientifica</i> , 18(02), 117-133	Moinuddin et al. (2024)	The study integrates both the qualitative as well as quantitative approaches in terms of understanding the strategic insights regarding transformative potential in terms of AI and data analytics within the business context.	The findings of the study have significantly revealed that strategic implications of both AI and data analytics can significantly lead toward enhancing business performances and at the same time business competitiveness. However, the overall results highlight the important role of AI and data analytics in terms of shaping the very future of business and its strategic alignment with continuous innovation.
11	Benbya, H., Davenport, T. H., & Pachidi, S. (2020). Artificial intelligence in organizations: Current state and future opportunities	Benbya et al. (2020)	Following the survey method helps in understating the meaningfulness and importance of AI in larger organisations, especially also increasing over time.	AI technology is still maturing and its very implications have been raised within the workplace and can be facilitative along with certain challenges. Therefore, the companies need to focus on working on the development of AI algorithms in terms of creating economic value which can lead towards orchestrating the work mainly by machines as well as humans.



12	Doroshuk, H. (2021). Prospects and efficiency measurement of artificial intelligence in the management of enterprises in the energy sector in the era of Industry 4.0. <i>PolitykaEnergetyczna</i> , 24.	Doroshuk, (2021)	Scientific research methods and algorithms assess artificial intelligence as the most important part of performance measurement and for processing the information in order to set the management.	The study reveals that both digitalisation as well as intellectualisation mainly in the context of artificial intelligence played a crucial role. However, the study also mentioned that the implementation of artificial intelligence requires the consideration of the features as well as stages of implementation.
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#### v. THEMATIC ANALYSIS

Thematic analysis is a qualitative research technique deployed to find, analyse, and interpret patterns and themes in a dataset. It is commonly useful in several fields, such as business, to explore complex issues related to AI impact on strategic management and gain profounder insights into this study. This approach aids in the systematic categorisation of the information, making it easier to identify key trends, relationships, between AI and strategic management and its implications within businesses context.

In the context of artificial intelligence (AI) and strategic management, thematic analysis is beneficial in understanding how AI effects business decision-making, risk management, supply chain efficiency, and ethical considerations. By analysing applicable literature and data, the study reveals evolving themes associated with AI's role in diverse industries, its advantages, challenges, and future potential.

This study applies thematic analysis to explore AI's incorporation into strategic management, the fintech sector, societal impact, business competitiveness, and supply chain risk management. The findings provide valuable insights into how AI is transforming industries and shaping the future of business operations.

#### Theme 1: The Intersection of Artificial Intelligence with Strategic Management

The utilisation of artificial intelligence (AI) helps automate various aspects of management, and its use is increasing worldwide for strategic management tasks. According to Keding (2021), understanding the intersection of AI and strategic management is crucial, as there remains an imbalance between these two aspects. Research indicates that AI is rapidly transforming the business landscape and significantly impacting strategic management within organisations. This interplay provides businesses with opportunities to gain a competitive advantage in the marketplace but also to consider the risk associated with AI use.

Stone et al. (2020) argue that AI excels in evaluating vast amounts of data and extracting key insights that would be difficult for humans to identify. AI assists strategic managers by enabling data-driven decision-making rather than relying solely on subordinates. Additionally, AI fosters scenario planning by predicting potential outcomes based on various strategic choices, allowing managers to choose the least risky strategies. AI is also instrumental in competitive analysis, helping organisations gather and analyse data on pricing strategies, marketing campaigns, and product offerings. This enables managers to identify opportunities and threats in the competitive landscape and develop strategies to maintain a market advantage.

Resource allocation plays a pivotal role in organisational development. Bécue, Praça, and Gama (2021) highlight that AI optimises resource allocation processes, including budgeting, staffing, and supply chain logistics. AI is particularly beneficial for large businesses in competitive industries. However, some companies have faced failures when implementing AI technology, emphasising the importance of informed decision-making regarding AI adoption. AI tools are becoming increasingly sophisticated, enabling strategic managers to make data-driven decisions and identify growth opportunities. Nonetheless, organisations must adopt a positive yet cautious approach toward AI, acknowledging the challenges associated with its implementation.

**Theme 2: Artificial Intelligence in the Fintech Industry**

Fintech is a concept based on the incorporation of various online technologies to provide financial services to customers. According to Ashta & Herrmann (2021), AI in fintech offers several advantages, including product optimization and system monitoring. AI-based tools enhance security, automate tasks, and unlock new financial products and services.

Conversely, Galaz et al. (2020) state that financial companies leverage AI to analyse and manage vast amounts of data from various sources. AI is essential in deriving insights for performance measurement, demand forecasting, customer service, and real-time data retrieval. AI also enhances risk management and compliance in the fintech sector. Advanced machine learning algorithms analyse transaction data in real time to detect potential fraud and money laundering activities. AI aims to balance cutting-edge technology with accountable financial services.

In the fintech market, AI is revolutionising traditional banking. Banks use AI-powered chatbots to handle customer inquiries regarding accounts, transactions, and balances. Investment firms utilise AI algorithms to manage robo-advisory platforms, creating personalized investment portfolios for customers. Fintech startups leverage AI to develop new financial products and services (Galaz et al., 2020). While AI automation is transforming the fintech sector, responsible AI adoption and careful consideration of challenges are essential for future growth.

**Theme 3: The Impact of AI and Technology on Society**

AI is transforming industries such as business, healthcare, and daily interactions, making it a game-changer in today's digitalised world. AI can recognize patterns, analyse data, and make independent decisions that reshape modern society. According to Galaz et al. (2021), predictive analytics and automated decision-making significantly contribute to technological advancements. The study highlights that the COVID-19 pandemic accelerated digitalization and automation in supply chains and other economic sectors.

Berente et al. (2021) note that AI marks the rise of a new technological era. Machine learning algorithms have greater autonomy, learning capacity, and complexity, significantly impacting society. Intelligent assistants such as Alexa, Siri, and Google Assistant are transforming human interactions. AI is also enhancing sectors such as transportation, education, employment, and healthcare.

AI-driven predictive analytics and automation are changing how governments, businesses, and communities respond to climate change. AI is being integrated into research related to sustainability and environmental protection. The COVID-19 pandemic has intensified digitalization and automation in supply chains, emphasising AI's growing role in business operations.

**Theme 4: The Role of AI in Competitive Business Landscapes – Challenges and Opportunities**

AI is revolutionising the global business landscape by driving operational efficiency and innovation. Big data analytics and machine learning enable predictive market trend analysis and strategic decision-making. Krakowski et al. (2023) highlight that AI enables machines to perform cognitive functions associated with human minds, aiding decision-making and managerial tasks.

AI provides businesses with a competitive advantage by analyzing competitor strategies, customer sentiment, and market trends. Ahmad et al. (2021) assert that AI outperforms traditional models in big data management, cybersecurity, robotics, and computational efficiency. However, AI adoption poses challenges, including inadequate technical infrastructure, a lack of expertise, and legal concerns. Additionally, AI's reliance on vast amounts of energy data contributes to the global carbon footprint of information technology.

Krakowski et al. (2023) emphasize AI's dualistic impact—while it enhances competitiveness, it also triggers human job substitution. AI integration in renewable energy sources improves resilience, reliability, and efficiency. Moreover, AI plays a critical role in asset management and field service operations, transforming today's business landscape with both opportunities and challenges.

**Theme 5: AI in Risk Management and Supply Chain Agility**

AI empowers businesses to harness data-driven insights and streamline decision-making, enhancing supply chain resilience. Wong et al. (2024) state that AI enables supply chains to respond dynamically to volatile environments and mitigate potential risks. AI technologies such as big data analytics, cloud computing, and distributed ledgers improve supply chain efficiency.

AI-driven predictive approaches enhance risk management by identifying potential disruptions in supply chains. Digitalized and cloud-based AI systems help organisations detect new opportunities and implement data-driven risk assessments (Wong et al., 2024). Moinuddin et al. (2024) highlight the transformative value of AI in unlocking strategic insights and optimising operations. AI-powered algorithms monitor regulatory changes, improving compliance and reducing uncertainties.



Wong et al. (2024) note that AI enhances supply chain agility through demand forecasting, cost minimisation, and inventory optimisation. AI-driven predictive analytics enable businesses to anticipate disruptions and adapt accordingly, ensuring supply chain resilience in the data-driven era.

#### **Theme 6: Ethical AI, Fuzzy Systems, and Risk Management Methods in Supply Chains**

AI-driven risk management in supply chains includes predictive analytics, neural networks, and genetic algorithms. Wong et al. (2024) highlight the importance of AI in mitigating supply chain uncertainties through machine learning-based risk management methods.

Algorithmic bias is a critical concern in AI applications. Benbya et al. (2020) suggest that organisations conduct small-scale simulations and regularly evaluate training datasets to mitigate bias. Human oversight in AI evaluations can improve transparency and accuracy.

Moinuddin et al. (2024) emphasise the importance of responsible AI practices, ethical guidelines, and data privacy considerations. Konidena, Malaiyappan, and Tadimarri (2024) advocate for transparent AI deployment and ethical compliance. Doroshuk (2021) stresses the importance of communication between AI developers to mitigate operational risks.

Malik & Singh (2020) highlight software quality assurance as a key component of AI risk management. Neuro-fuzzy workflows enhance system accuracy, while fuzzy logic improves computational flexibility. Businesses can mitigate AI-related risks by implementing software quality assurance techniques, ensuring AI applications are reliable and effective.

### **VI. CONCLUSION & DISCUSSION**

This section summarises the key findings of the study on the influence of AI on strategic management. The study highlights how AI fosters a positive influence, enhances strategy formulation, and contributes to organisational competitiveness. Based on these insights, practical recommendations are provided to aid companies integrate AI practices, ensuring long-term sustainability and a competitive advantage.

Findings indicate that the increasing adoption of AI in various business organizations has enabled the automation of routine tasks, streamlining operational efficiency and decision-making processes. AI-powered decision-making tools have provided businesses with enhanced capabilities to analyse complex data, leading to more informed and strategic choices. Additionally, machine learning algorithms and AI-driven predictive analytics have facilitated the identification of emerging competitive opportunities, offering deeper insights into the evolving business landscape.

Moreover, AI has significantly improved organisational value propositions by personalising customer experiences and optimizing supply chains. Beyond recognising existing patterns, predictive analytics empowers businesses to anticipate customer behaviour and accurately forecast demand, thereby reducing reliance on guesswork.

Furthermore, the study found that AI enhances the accuracy of strategic decision-making by providing real-time data, allowing organisations to respond swiftly to market changes. However, despite its benefits, the study also identified several risks associated with AI adoption, including ethical concerns, increasing social inequalities, cybersecurity threats, and the potential amplification of biases within AI-driven systems. Addressing these challenges will be critical in ensuring the responsible and effective implementation of AI in strategic management.

Artificial intelligence (AI) has a significant impact on strategic decision-making. The analysis found that business managers make more effective decisions based on data-driven structures and AI tools rather than solely relying on subordinates. In this context, Bharadiya (2023) highlighted that AI enables businesses to analyze vast datasets quickly and accurately. Many multinational companies have adopted AI to enhance decision-making processes. This discussion reinforces the claim that AI significantly influences decision-making, aligning with one of the research objectives.

Regarding AI's influence on innovation and product development, the analysis suggests that businesses and organizations have successfully generated product prototypes and improved existing products using AI (Galaz et al., 2021). Additionally, predictive analytics has driven transformative changes in product development by analyzing consumer behavior and market trends. Personalized marketing enables businesses to engage customers effectively by offering tailored services and products based on individual preferences and behaviors (Chandra et al., 2022).

For example, companies such as Amazon, Netflix, and Spotify utilize AI-driven recommendation engines to analyze user behavior and preferences, providing personalized content and product suggestions. This enhances user experience, increases engagement, and drives sales. Furthermore, AI-generated design and prototyping are revolutionizing industries such as manufacturing and fashion. For instance, Nike employs AI-powered generative design tools to develop innovative



shoe designs based on customer preferences and performance data. This application of AI reduces design time, enhances customization, and optimizes material usage.

In the service sector, AI-powered virtual assistants and chatbots have transformed customer service and retail. AI chatbots, such as ChatGPT, Google Assistant, and banking assistants like Erica by Bank of America, provide 24/7 customer support, improving service efficiency and enhancing customer satisfaction by reducing response time and personalizing interactions (Krakowski et al., 2023).

The study also identified that AI plays a crucial role in strategic decision-making and problem-solving. In the finance sector, AI is instrumental in fraud detection and risk management. Businesses leverage AI-driven machine learning algorithms to detect unusual transaction patterns, preventing fraud before it occurs. Companies such as PayPal, Mastercard, and JPMorgan Chase use AI to process payments securely, enhancing security, reducing financial losses, and increasing trust in banking systems.

AI also aids problem-solving in other industries. For example, in manufacturing, AI-powered predictive maintenance systems analyze sensor data to detect early signs of equipment failure, minimizing downtime and optimizing operational efficiency.

Furthermore, thematic analysis recognizes that AI provides a significant competitive advantage for businesses by enhancing efficiency, decision-making, customer experience, innovation, automation, cost reduction, and predictive analytics for market trends. AI enables companies to gain and sustain a competitive edge in both global and local business environments (Ahmad et al., 2021). Moreover, as Akilandeewari et al. (2024) argue, AI has positively impacted resource allocation, pricing strategies, and informed decision-making.

However, despite these advantages, AI poses several risks. Piloidis (2020) elaborates on concerns such as ethical and bias issues, particularly in AI-driven hiring tools. Additionally, data privacy and security risks, including misuse, hacking, and unauthorized access, are significant challenges. AI-generated deepfakes and misinformation also make it increasingly difficult to distinguish truth from falsehoods.

This study contributes valuable insights for various stakeholders, including governments, enterprises, employees, society, and consumers. Governments can use these findings to develop suitable regulations and policies for AI implementation within organizations. Business enterprises can improve decision-making by integrating AI into their operations while small businesses can better assess AI's risks and opportunities. Additionally, AI adoption enables employees to enhance their work efficiency and adapt to evolving business landscapes.

### 6.1 Theoretical Implication

Both the Resource-Based View (RBV) Theory and the Technology Acceptance Model (TAM) are incorporated in this study. The Resource-Based View (RBV) Theory suggests that for a business to achieve superior performance and gain a competitive advantage, it must effectively utilize its exceptional resources and capabilities. In the technological era, AI applications are considered one of the most treasured resources a business can own, as they empower predictive analytics and personalised customer service, thus improving customer experience.

The Technology Acceptance Model (TAM) emphasises that businesses adopting AI and technological frameworks early in their strategic management processes are more likely to gain a competitive advantage. Companies such as Walmart and Ryanair have utilised AI to minimise production costs and offer lower prices than competitors while maintaining profitability, securing a cost leadership advantage. Additionally, AI adoption has led to increased productivity, improved decision-making, and the attainment of a differentiation strategy, allowing businesses to fashion exceptional products and services that stand out based on quality and features (e.g., Apple and Tesla).

However, AI adoption is also influenced by challenges such as high maintenance costs and concerns over reduced human dependency. Understanding these factors is crucial for assessing both the risks and opportunities AI presents in a business context. Successful AI implementation requires senior management to consider stakeholder perspectives—including those of managers, investors, customers, and employees—to maximise AI's potential while addressing organizational barriers.

### 6.2 Recommendations

The recommendations derived from this study should be considered by businesses and organizations to optimize AI implementation while addressing associated risks. The first recommendation is the adoption of a neuro-fuzzy workflow,



a significant strategy for risk management in AI-driven business environments (Malik & Singh, 2020). To mitigate ethical concerns and biases in algorithmic decision-making, businesses must ensure the ethical and transparent use of AI. As Almeida et al. (2021) emphasize, establishing regulatory frameworks and formal guidelines is essential to uphold AI ethics.

The second recommendation is the establishment of a robust AI governance framework. In the current business landscape, it is crucial to define clear objectives, rules, and ethical guidelines for AI usage in business management. With continuous technological advancements, updating standards and regulations is necessary to ensure responsible AI governance (Florin, 2024). Implementing this recommendation would help organizations effectively address ethical concerns related to AI in strategic management.

The third recommendation is fostering a culture of innovation and continuous learning within organizations. Companies that encourage innovation and ongoing learning are better positioned to explore new ideas, grow, and contribute significantly to organizational evolution (Andapalli, 2024). A continuous learning environment will also enhance employees' understanding of AI applications. Implementing this recommendation would lead to improved strategic management and an enhanced customer experience.

### 6.3 Future Research Opportunities

A limitation of this study is its reliance solely on secondary data. Future research should consider using primary data from a broader range of businesses to provide deeper insights. Additionally, this study identifies ethical risks associated with AI-driven decision-making. Future research could examine the implications of AI-related ethical concerns, focusing on how AI algorithms influence decision-making. Conducting primary research and statistical analyses on this topic would provide a more comprehensive understanding of AI-related ethical challenges.

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