

# AI in Decision Making: Transforming Business Strategies

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## ABSTRACT

This paper delves into the transformative impact of Artificial Intelligence (AI) on strategic business decision-making, offering a nuanced perspective on how AI is reshaping the corporate world. The primary purpose of this study is to explore the emergence and evolution of AI within the realm of business strategy, examining its role in disrupting traditional decision models and enhancing business agility. This study systematically analyzes academic and industry sources through a meticulous literature review, providing a comprehensive understanding of AI's multifaceted role in business. The methodology adopted is a systematic literature review, which serves as a robust framework for evaluating source credibility and synthesizing insights. This approach enables a thorough examination of AI's integration into business management, its influence on corporate performance metrics, and its potential in fostering inclusive business practices. The study also addresses the unique challenges and opportunities presented by AI in the business context. Key findings reveal that AI is not merely a technological tool but a strategic asset that significantly redefines business decision-making. The integration of AI into business strategies demonstrates substantial potential in enhancing corporate performance and promoting sustainable business practices. The study concludes that AI is a cornerstone in business evolution, offering unparalleled opportunities for innovation and efficiency. Recommendations advocate for a balanced approach to AI integration, emphasizing the need for businesses to align AI with their core values and strategic objectives. As AI continues to evolve, its role in business decision-making is expected to shape the corporate landscape significantly.

**Keywords:** Artificial Intelligence, Business Strategy, Decision-Making, Corporate Performance, Sustainable Business Practices, Technological Innovation

## 1. INTRODUCTION

### 1.1. Emergence of AI in Strategic Business Decisions

The integration of Artificial Intelligence (AI) into strategic business decisions marks a transformative era in corporate strategy, reshaping traditional models and enhancing business agility. Kitsios and Kamariotou (2021) emphasize the significant role AI and machine learning have played in recent years, particularly in digital transformation initiatives within organizations. Their systematic literature review reveals a

convergence of AI with corporate strategy, highlighting the potential of AI in creating business value. This convergence is not without challenges, particularly in the practical implementation and strategic usage of AI tools, which necessitates a deeper understanding and expertise (Kitsios & Kamariotou, 2021).

The evolution of strategic management processes, as discussed by Stipić (2021), further underscores the importance of AI in corporate decision-making. The study indicates that a methodological approach to strategic planning incorporating AI can significantly influence corporate profitability and success. This integration of AI into strategic planning is crucial for companies to navigate complex business environments effectively and make quality, effective decisions that drive successful business outcomes (Stipić, 2021).

Moreover, the influence of digitalization, including AI, on the formation of corporate strategy and new business models is highlighted by Akmaeva et al. (2020). Their research asserts that the current socio-economic and political processes, accelerated by the pandemic, necessitate a reevaluation of corporate management strategies. They advocate for the integration of cutting-edge technologies like AI in all aspects of corporate activities, emphasizing the shift from traditional hierarchical models to more agile, technology-driven approaches. This shift is crucial for developing new business models and strategies responsive to the rapidly changing business landscape (Akmaeva et al., 2020).

The emergence of AI in strategic business decisions is a pivotal development in the corporate world. It offers immense potential for value creation, necessitates rethinking traditional strategic planning processes, and drives the evolution of new business models. As companies navigate this AI-driven landscape, the focus shifts towards harnessing AI's potential to enhance decision-making processes, improve corporate performance, and ensure sustainable business growth in an increasingly digitalized world.

## 1.2. Tracing AI's Evolution in Corporate Strategy

The evolution of Artificial Intelligence (AI) in corporate strategy has been a journey of transformative impact and continuous adaptation. Over the past decade, AI has evolved from a novel technological concept to a core element in strategic business decision-making, reshaping the way corporations approach challenges and opportunities in the digital era.

Kitsios and Kamariotou (2021) provide a comprehensive overview of this evolution, highlighting the significant advances in machine learning techniques and their integration into business strategies. Their research underscores the potential of AI in solving complex business challenges, while also acknowledging the difficulties in its practical implementation. The lack of expertise in strategically utilizing AI for business value creation is a notable challenge. They propose a theoretical model based on their systematic literature review, which discusses the alignment of AI tools with organizational strategy, knowledge management, decision-making processes, and service innovation.

Mithas, Murugesan, and Seetharaman (2020) delve into the strategic considerations that organizations must make in the age of AI. They pose critical questions about how firms should integrate AI into their digital and information technology strategies. Their work suggests that while AI may not entirely steer a firm's strategic decisions, its role in modifying the architecture of resources and qualifications within firms is undeniable. This new architecture necessitates an internal reorganization for effective deployment in business process strategies. The authors argue that given the nature of decisions automated by AI, it is imperative for firms to establish governance bodies to define the doctrine for using such technology.

Delbufalo, Di Bernardo, and Risso (2022) explore the interaction between human and machine intelligence in the context of competitive business in the digital era. They emphasize the importance of striking a balance between human and artificial intelligence in decision-making processes. Their study highlights the need for businesses to adapt their models and roles to accommodate the intelligent transformation supported

by technological development. This adaptation is crucial for maintaining competitiveness and ensuring sustainable strategies and policies.

The journey of AI in corporate strategy is marked by its ability to enhance decision-making, drive innovation, and create new value propositions. From enhancing machine learning capabilities to redefining the roles of human and machine intelligence, AI's evolution in corporate strategy reflects a broader shift towards more agile, data-driven, and technologically advanced business practices. As AI continues to evolve, it is likely to further reshape the strategic landscape, offering new opportunities and challenges for businesses worldwide.

### **1.3. AI's Disruption of Conventional Decision Models**

The advent of Artificial Intelligence (AI) has significantly disrupted traditional decision-making models in business, leading to a paradigm shift in how strategies are formulated and executed. This disruption is not merely a technological advancement but a fundamental change in organisations' cognitive and strategic processes.

El-Namaki (2016) explores how AI is being applied to business strategy formulation, emphasizing the shift from human-centric to AI-driven strategic processes. AI's ability to analyze vast datasets and identify patterns unrecognizable to the human eye has revolutionized product and market strategies. The study presents several case studies across different industries, illustrating how AI is penetrating the strategic realm, leading to changes in both the concept and application of business strategies. The paper proposes a conceptual framework for AI application in business, positioning AI as a tool and a core component of strategic formulation.

Tejeda et al. (2022) delve into the cognitive aspects of AI-assisted decision-making. Their research focuses on understanding the human reliance on AI in joint decision-making scenarios. By developing a cognitive model, they infer the latent reliance strategies of humans on AI assistance, providing insights into how AI influences human decision-making processes. The study reveals that while AI assistance is becoming ubiquitous in decision-making applications, there is a need to understand and manage the dynamics of human-AI collaboration. This understanding is crucial for businesses to leverage AI effectively without undermining human judgment and intuition.

Meske and Bunde (2020) address the critical issue of trust and transparency in human-AI interaction, particularly in decision support systems that utilize computer vision. Their research highlights the 'black box' problem in AI, where the complexity of algorithms often leads to a lack of transparency and trust. By employing "Explainable Artificial Intelligence" (XAI), they demonstrate how AI's decision-making processes can be more transparent, enhancing trust in AI systems. The study underscores the importance of explainability in AI, not just for ethical reasons but also for practical applications in business decision-making.

AI's disruption of conventional decision models in business is multifaceted, encompassing changes in strategic formulation, cognitive processes, and the need for trust and transparency. AI has transformed the landscape of business strategy, challenging traditional models and necessitating a new approach that harmoniously integrates human intelligence with artificial intelligence. As AI continues to evolve, its impact on decision-making models will likely deepen, offering both opportunities and challenges for businesses in the digital age.

### **1.4. Enhancing Business Agility through AI**

In the contemporary business landscape, agility has become a critical factor for success. The integration of

Artificial Intelligence (AI) into business processes has emerged as a key driver in enhancing this agility, transforming the way organizations make decisions and adapt to rapidly changing environments.

Rajagopal et al. (2022) investigate the impact of AI systems on business outcomes, focusing on decision-making processes within organizations. Their study reveals that AI-driven digital frameworks significantly contribute to the precision of decision-making, innovation in policy formulation, and the speed of executing decisions. By analyzing various industries, they demonstrate how AI systems facilitate a more dynamic and responsive business culture. The research underscores the role of AI in refining the decision-making process, particularly in terms of speed and accuracy, thereby enhancing the overall agility of businesses.

Pérez-Campuzano et al. (2021) explore the potential of AI in strategic decision-making within the airline industry, especially during the challenging times of COVID-19. Their review highlights how AI algorithms, particularly Machine Learning (ML) methods, can be utilized for market analysis and cost estimation, thereby aiding in strategic decisions during crises. The study provides a roadmap for implementing AI tools in strategic functions, suggesting that AI can significantly contribute to businesses' agility in managing resources and analyzing competitive environments effectively.

Prange (2020) delves into the concept of strategic agility, emphasizing decision-making beyond mere speed. The study argues that agility in business is not just about the rapidity of responses but also about the flexibility and transformational capabilities of organizations. AI plays a crucial role in this context by enabling businesses to make informed and swift decisions, thus maintaining a competitive edge in turbulent environments. The research suggests that strategic agility, powered by AI, involves a deeper understanding of market dynamics and the ability to adapt strategies quickly and efficiently.

AI has become a pivotal element in enhancing business agility. By providing advanced analytical capabilities and enabling faster, more accurate decision-making, AI is reshaping the way businesses respond to changes and challenges in their environments. As AI continues to evolve, its role in fostering agile business practices is expected to grow, offering new avenues for strategic innovation and competitive advantage.

### **1.5. Conceptual Frameworks: AI in Business Context**

The integration of Artificial Intelligence (AI) into business contexts necessitates the development of robust conceptual frameworks to guide its implementation and maximize its potential. These frameworks are essential for understanding how AI can be effectively incorporated into various business processes and decision-making strategies.

Najdawi (2020) addresses the challenge of AI adoption in organizations by proposing a framework to assess AI readiness. This framework is grounded in established theories from the Information Systems discipline, such as the Technology-Organizations-Environment (TOE) framework and the Diffusion of Innovation theory. Najdawi's study is particularly focused on the socio-technical aspects of AI implementation, emphasizing the need to consider local contexts, as demonstrated in the case of the United Arab Emirates. The proposed framework aims to identify critical factors for successful AI strategy implementation, highlighting the importance of aligning AI initiatives with organizational capabilities and environmental factors.

Solberg et al. (2022) contribute to the conceptual understanding of AI in business by developing a model that connects trust in AI with organizational decision-making. Their model is an extension of Mayer, Davis, and Schoorman's model of organizational trust, adapted to the context of AI decision aids. This conceptual model emphasizes the role of trust, perceived risk, and reliance on AI in organizational settings. It redefines central concepts and introduces new constructs like perceived control over AI decision aids. This framework

is significant for businesses as it provides a structured approach to understanding and managing the human-AI interaction in decision-making processes.

Eisenstadt, Althoff, and Langenhan (2020) explore the application of AI in the early conceptual phases of architectural design, providing insights into how AI frameworks can support creative and complex tasks. Their work on the MetisCBR framework demonstrates the use of modern AI techniques, such as explainable AI and generative adversarial nets, in enhancing the capabilities of AI systems in design-related tasks. This example illustrates the broader applicability of AI frameworks in various business contexts, extending beyond traditional data-driven decision-making processes.

The development of conceptual frameworks for AI in business contexts is crucial for harnessing the full potential of AI technologies. These frameworks provide a structured approach to understanding and implementing AI, ensuring that its integration into business processes is aligned with organizational goals and environmental contexts. As AI continues to evolve, these frameworks will play a vital role in guiding businesses in their AI journey, enabling them to leverage AI for strategic advantage and innovation.

## **1.6. Review Purpose and Goals**

The primary aim of this review is to critically examine the integration and impact of Artificial Intelligence (AI) in strategic business decision-making, highlighting its transformative role in modern business practices.

### **Objectives:**

1. To explore how AI technologies are reshaping strategic decision-making processes in various business sectors.
2. To assess the effectiveness of AI in enhancing competitive advantage and operational efficiency in businesses.
3. To identify the challenges and risks associated with the implementation of AI in business strategies.
4. To investigate the ethical considerations and societal impacts of deploying AI in business contexts.
5. To forecast future trends and developments in AI applications within the realm of business strategy and management.

### **1.6.1. Key Research Queries**

Several key research queries emerge in exploring the integration of Artificial Intelligence (AI) in strategic business decision-making. Firstly, we seek to understand how AI is transforming traditional business decision-making models, marking a shift from conventional methods to more AI-driven approaches. This involves examining the extent to which AI influences strategic decisions and alters long-standing business practices.

Additionally, it is crucial to quantify the impact of AI on business performance and competitiveness. This query delves into measuring the tangible benefits and enhancements that AI brings to businesses, including improved efficiency, accuracy, and innovation.

Another significant aspect is identifying the challenges and obstacles businesses face when integrating AI into their strategies. This encompasses both technical and organizational hurdles, as well as addressing potential resistance to change.

Furthermore, the ethical considerations and societal implications of using AI in business contexts cannot be overlooked. This involves scrutinizing the moral responsibilities and potential societal impacts associated

with deploying AI technologies in business operations.

Lastly, anticipating future developments in AI applications for business strategy is essential. This query looks forward to emerging trends, potential advancements, and the evolving landscape of AI in the realm of business, preparing organizations for the next wave of technological innovation.

### **1.6.2. Exploring Uncharted Territories in AI and Business Strategy**

The exploration of uncharted territories in the integration of Artificial Intelligence (AI) and business strategy reveals a landscape rich with potential and challenges. This section delves into how AI is pushing the boundaries in various business sectors, reshaping traditional practices, and creating new paradigms for success.

Esqueda and Melo (2020) provide an intriguing perspective on the impact of AI in the gaming industry, particularly in the context of game localization and translation. Their study highlights how AI-driven strategies are essential in navigating complex sociocultural and linguistic borders, thereby expanding the reach of products in global markets. This example serves as a microcosm of how AI can be leveraged in various business sectors to transcend traditional barriers, offering insights into the broader implications of AI in global business strategies.

Chuang et al. (2020) explore the journey of Creative Design Ltd., a start-up that ventured into uncharted business territories. Their case study illustrates how AI and innovative business models can be synergized to seize opportunities for innovation, even in unfamiliar domains. This narrative underscores the importance of AI in enabling businesses to adapt and thrive in rapidly changing environments, highlighting the transformative power of AI in fostering entrepreneurship and business growth.

Shaheen, Arshad, and Iqbal (2020) examine the role of AI and Machine Learning in the transportation sector, showcasing how these technologies are revolutionizing traditional business models. Their research emphasizes the significance of AI in enhancing decision-making processes, particularly in managing and analyzing vast amounts of data for intelligent transportation systems. This study exemplifies the diverse applications of AI across different business sectors, demonstrating its potential to optimize operations and improve efficiency.

The exploration of uncharted territories in AI and business strategy reveals a dynamic interplay between technology and business. AI is not only transforming existing business models but also enabling the creation of new ones, driving innovation, and enhancing competitiveness across various sectors. As businesses navigate these new frontiers, they are faced with both opportunities and challenges, underscoring the need for strategic planning and adaptation in the age of AI.

### **1.6.3. Boundaries and Focus of the Analysis**

In this review, the boundaries and focus of the analysis are carefully delineated to provide a coherent and comprehensive understanding of AI's role in strategic business decision-making. The analysis primarily concentrates on the application of AI within the realm of business strategy, emphasizing its impact on decision-making processes, competitive advantage, and operational efficiency.

The scope is specifically tailored to explore how AI technologies are being integrated into various business models and sectors, highlighting both the transformative potential and the challenges inherent in such integration. This includes an examination of AI's influence on data-driven decision-making, customer engagement, and market analysis.

Furthermore, the review pays special attention to the ethical implications and societal impacts of AI in

business. This involves a critical examination of privacy concerns, data security, and the potential for AI to disrupt traditional employment patterns.

Lastly, the analysis remains focused on current trends and future projections, aiming to provide insights into how AI is likely to evolve within the business context and what this means for future strategic planning and innovation. This forward-looking perspective is crucial for businesses aiming to stay ahead in an increasingly AI-driven world.

## **2. RESEARCH METHODOLOGY**

### **2.1. Blueprint for AI-Business Literature Exploration**

The exploration of AI in business strategy necessitates a structured approach to literature review, ensuring comprehensive coverage and depth of analysis. Gina and Budree (2020) emphasize the importance of identifying critical factors that drive tool selection in business intelligence, which is analogous to selecting literature in AI-business research. This involves categorizing studies based on their relevance to AI's role in business strategy, focusing on both technical and non-technical factors that influence AI's integration into business processes.

Yin and Fernandez (2020) advocate for a systematic review approach, which is instrumental in this context. Their methodology, involving well-established criteria for literature selection from recognized databases, ensures the inclusion of relevant and high-quality studies. This approach aids in synthesizing a broad spectrum of research, ranging from AI's technical applications to its strategic implications in business.

### **2.2. Criteria for AI-Business Study Selection**

The criteria for selecting studies in AI-business research are multifaceted. Stojanović et al. (2016) propose a model for selecting business process improvement methodologies, which can be adapted for selecting AI-business literature. This model suggests focusing on criteria such as the relevance to AI in business strategy, the methodological rigor of the studies, and their practical implications in the business context.

Júnior et al. (2020) demonstrate the importance of a systematic literature review in understanding enterprise architecture in healthcare systems. Their approach, involving a rigorous selection process and assessment of the level of disagreement in evaluations, can be mirrored in AI-business research. This ensures a balanced and comprehensive understanding of AI's role in business, encompassing various methodologies, tools, best practices, and criteria for selection.

The methodology for AI-business literature exploration and the criteria for study selection are grounded in a systematic, rigorous approach. This ensures a thorough understanding of AI's multifaceted role in business strategy, encompassing both its technical capabilities and strategic implications.

### **2.3. Dissecting Themes in AI Business Research**

The thematic analysis in AI business research involves identifying and exploring key themes that emerge from the literature. Vergara-Villegas et al. (2021) provide an excellent example of this approach in their thematic issue on AI for Industry 4.0. They demonstrate how thematic analysis can be used to categorize and understand the various applications of AI in industry, from IoT architectures to decision-making processes. This approach is crucial for identifying the diverse ways in which AI impacts business strategies and operations.

Similarly, Anderson, Lees, and Avery's (2015) work on the Thematic Analysis Grid offers a practical tool for synthesizing key themes from academic literature. This method allows for a structured approach to literature review, enabling researchers to identify both consensus and contradictions within the field. By applying this grid to AI business research, one can effectively map out the landscape of current knowledge, identifying gaps and emerging trends.

## 2.4. Synthesis Method for AI Business Insights

The synthesis of AI business insights requires a method that can integrate diverse findings into a coherent narrative. Kreines and Kreines (2019) discuss the use of AI tools for objective analysis of scientific texts, which can be adapted for synthesizing business research. Their approach involves using AI to map out the scientific landscape, identifying key topics and trends. This method can be particularly useful in synthesizing AI business research, where the volume of literature is vast and the topics are diverse.

The synthesis process involves not only aggregating findings but also critically evaluating and interpreting them in the context of business strategy and operations. This requires a deep understanding of both the technical aspects of AI and its practical implications in the business world. The end goal is to provide actionable insights that can inform business decisions and strategies in an AI-driven marketplace.

## 3. FINDINGS

### 3.1. Strategies for AI-Integrated Business Management

The integration of Artificial Intelligence (AI) into business management strategies represents a significant shift in how corporations approach decision-making and operational efficiency. This section explores the strategies for AI-integrated business management, drawing insights from recent scholarly contributions.

Lin, Lin, and Yang (2017) discuss an innovative approach to estimate corporate risk and profit using AI techniques. Their study introduces a model combining random projection and data envelopment analysis, integrated with AI-based techniques for forecasting firm performance ranking. This approach underscores the potential of AI in enhancing corporate decision-making, particularly in dynamic environments where traditional models may fall short (Lin, Lin, & Yang, 2017).

Amine Belhadi et al. (2022) focus on the application of AI in building resilient supply chains. They propose an integrated Multi-criteria decision-making technique powered by AI algorithms to develop supply-chain resilience strategies. This study highlights the role of AI in optimizing supply chain management, a critical aspect of business operations. The use of fuzzy logic programming, machine learning, and agent-based systems demonstrates the versatility of AI in addressing complex business challenges (Belhadi, Kamble, Wamba, & Queiroz, 2022).

Vagin et al. (2022) explore the role of AI and Big Data in environmental decision-making within business management. Their research reveals the key role of these technologies in optimizing decisions that balance economic and environmental interests. This study provides insights into how AI can be leveraged for sustainable business practices, an increasingly important aspect of corporate strategy (Vagin, Klimenko, Telegina, & Aleksashina, 2022).

The integration of AI into business management strategies is multifaceted, encompassing risk assessment, supply chain resilience, and sustainable decision-making. These studies illustrate the transformative potential of AI in enhancing corporate decision-making processes, offering new avenues for strategic planning and operational efficiency.



## 2.1. AI's Role in Business Skill Enhancement

The advent of Artificial Intelligence (AI) in the business landscape has ushered in a new era of workforce development, where the enhancement of business skills is increasingly intertwined with technological proficiency. This section delves deeper into how AI is reshaping skill development in the business world.

Bai-Ngern and Tubtiang (2020) highlight the critical role of leadership skills in navigating the digital era. They argue that the integration of AI in business processes demands a new breed of leaders who are not only tech-savvy but also possess the ability to foster innovation and collaboration in AI-enhanced environments. This necessitates a shift in leadership training programs to include AI literacy, emphasizing the importance of understanding AI capabilities and limitations. The study suggests that such training should focus on developing strategic thinking skills that leverage AI for competitive advantage.

ElZomor et al. (2020) delve into the transformative potential of robotic automation and artificial intelligence technologies, particularly in the Architecture, Engineering, and Construction sectors. Their study highlights the role of these technologies in reshaping job skills and supporting economic growth, thereby empowering a diverse workforce. This research underscores the significance of AI-driven educational tools in enhancing learning experiences, thereby contributing to inclusive growth and diversity in the workplace.

Smolarek and Scrivener (2021) provide an insightful analysis of the UpSkill Houston initiative, a business-driven education reform program. Their work sheds light on how AI and digital technologies are being utilized to align workforce skills with the evolving needs of the industry. The initiative underscores the importance of developing a curriculum that is responsive to the dynamic demands of the labor market, particularly in sectors heavily influenced by AI and automation. The study highlights the role of AI in providing real-time labor market data, which can be used to inform and adapt educational programs accordingly.

Furthermore, the integration of AI in business skill enhancement is not limited to technical skills alone. There is a growing recognition of the need for 'soft skills' such as emotional intelligence, critical thinking, and adaptability in the AI-augmented workplace. AI-driven analytics can help identify skill gaps and tailor training programs to address these needs. This holistic approach to skill development ensures that employees are not only technically proficient but also equipped to handle the complex interpersonal and ethical challenges posed by AI technologies.

AI's role in business skill enhancement is multifaceted, encompassing the development of both technical and soft skills. The studies reviewed here illustrate the transformative potential of AI in reshaping workforce development, highlighting the need for innovative approaches to training and education in the digital age. As businesses continue to integrate AI into their operations, the focus on skill enhancement will be crucial in maintaining a competitive edge and fostering a resilient, adaptable workforce.

## 2.2. AI's Influence on Corporate Performance Metrics

The integration of Artificial Intelligence (AI) into corporate business and financial management has significantly altered the landscape of performance metrics and analysis. This section explores the transformative impact of AI on corporate performance metrics, drawing on recent scholarly research.

Rasheed, Ishaq, and Rehman (2021) conducted a comprehensive analysis of AI's role in financial and corporate business management in Pakistan. Their study reveals that AI applications have profoundly influenced all aspects of financial management and corporate business activities. The research indicates that 80% of senior business executives believe AI boosts productivity and creates new business avenues. Furthermore, the study categorizes organizations into four maturity clusters based on their AI adoption: Pioneers, Investigators, Experimenters, and Passives. This categorization provides a nuanced understanding

of how different organizations leverage AI for performance enhancement. The findings suggest that Pioneer organizations, which fully understand and adopt AI, have seen significant improvements in their performance metrics.

Lin and Chang (2021) explore the relationship between corporate governance and dynamic business performance, particularly in the semiconductor industry. Their work introduces AI as a transformative tool for improving corporate governance, which in turn impacts corporate performance. The study proposes the use of AI for automatic warning systems in corporate governance, suggesting that AI can play a crucial role in identifying and mitigating risks, thereby enhancing overall performance metrics. This approach underscores the potential of AI in enhancing transparency and accountability in corporate governance, leading to improved performance outcomes.

Jiang et al. (2021) present a methodology for benchmarking High-Performance Computing (HPC) AI systems, focusing on their application in business and scientific computing. The study introduces a new metric, Valid FLOPS, which emphasizes both throughput performance and target quality. This metric is particularly relevant in the context of AI's impact on corporate performance, as it provides a comprehensive measure of AI system efficiency. The research highlights the importance of benchmarking AI systems to understand their impact on corporate performance metrics accurately.

The integration of AI in corporate business and financial management has led to a paradigm shift in how performance metrics are analyzed and interpreted. The studies reviewed here illustrate the diverse ways in which AI is influencing corporate performance, from enhancing productivity and creating new business opportunities to improving corporate governance and developing comprehensive benchmarking methodologies. As AI continues to evolve, its impact on corporate performance metrics is likely to deepen, offering new insights and opportunities for businesses to optimize their operations and strategies.

### **2.3. AI as a Catalyst for Inclusive Business Practices**

The integration of Artificial Intelligence (AI) into business practices has not only revolutionized operational efficiencies but also opened new avenues for inclusive and socially responsible business models. This section delves into how AI is acting as a catalyst for inclusive business practices, drawing insights from recent scholarly research.

Negro (2019) provides a comprehensive understanding of the intersection between corporate social responsibility (CSR) and inclusive business in the Peruvian business environment. The study emphasizes the role of AI in enhancing these concepts, particularly in developing economies. AI, as Negro suggests, can be instrumental in identifying and addressing social and economic disparities, thereby fostering inclusive business practices. This is particularly relevant in the context of poverty reduction and sustainable development, where AI can analyze vast datasets to identify areas needing urgent attention and aid in the formulation of targeted strategies.

Mai and Nguyen (2021) explore the impact of CSR on competitive advantage and business success, highlighting the role of AI in enhancing these aspects. Their study, conducted in the Vietnamese context, indicates that AI-driven CSR initiatives, particularly in ethical, legal, and philanthropic domains, positively affect competitive advantage. AI's ability to process and analyze large volumes of data can help businesses in making informed decisions regarding CSR investments, thereby enhancing their overall success and reputation.

Arenas-Torres, Bustamante-Ubilla, and Campos-Troncoso (2021) investigate the incidence of ethics and CSR on diverse business practices in Chilean companies. Their findings reveal an incipient level of standardization in adopting social responsibility practices, with AI playing a significant role in this

transformation. AI technologies enable companies to integrate CSR into their core operations more effectively, leading to a positive and significant impact on practices related to diversity, environment, and community.

AI emerges as a powerful tool in driving inclusive business practices and enhancing corporate social responsibility. The studies reviewed here illustrate AI's potential in identifying social and economic disparities, aiding in CSR decision-making, standardizing social responsibility practices, and aligning business operations with global sustainability goals. As AI continues to evolve, its role in fostering inclusive and responsible business models is expected to become more pronounced, offering new pathways for businesses to contribute positively to society.

#### **2.4. Navigating Business Hurdles with AI Tools**

In the rapidly evolving landscape of business and technology, artificial intelligence (AI) has emerged as a pivotal tool for navigating various business hurdles. The integration of AI into business practices is not just about technological advancement but also involves a deep understanding of ethics, corporate culture, and sustainability. Attard-Frost, De los Ríos, and Walters (2023) highlight the importance of considering the ethics of AI business practices, emphasizing that AI ethics guidelines should extend beyond algorithmic decision-making to include the political and economic implications of AI in business. This perspective is crucial in understanding how AI can be used responsibly and ethically in a business context.

The role of leadership and corporate culture in embracing AI for digital transformation is underscored by Frost, Jeske, and Ottersböck (2020). They argue that the successful implementation of AI and hybrid business models requires a change in management and corporate culture. This change is not just technological but also involves the development of skills and competencies among managers and employees. The study suggests that many companies overlook the need to develop these skills, which is essential for thriving in the digital era.

Sustainability is another critical aspect of integrating AI into business practices. Isensee, Griese, and Teuteberg (2021) explore how corporate culture influences the use of AI in terms of sustainable development. They introduce the concept of Sustainable Artificial Intelligence (SAI), which includes a normative element and is influenced by the features of a sustainability-oriented corporate culture. The study offers insights into how specific manifestations of corporate culture can impact the handling of AI in the sense of SAI, indicating that corporate culture is both an indicator and an influencing factor in ensuring the sustainable use of AI.

The integration of AI into business practices presents several challenges and opportunities. One of the primary challenges is the ethical consideration of AI deployment. As AI systems become more complex and influential in decision-making processes, businesses must ensure that these systems are fair, accountable, transparent, and sustainable. This requires a holistic approach to AI ethics that goes beyond technical aspects and considers the broader business practices and political economies in which these systems operate.

Another significant challenge is the transformation of corporate culture to support AI integration. The shift towards AI-driven business models necessitates a change in the mindset and skills of both leaders and employees. Companies must invest in training and development programs to equip their workforce with the necessary skills to leverage AI effectively. This involves fostering a culture of continuous learning and innovation, where employees are encouraged to explore new technologies and apply them in their work.

Sustainability is an increasingly important consideration in business practices, and AI offers both opportunities and risks in this regard. On the one hand, AI can contribute to sustainability goals by optimizing resource use, reducing waste, and improving efficiency. On the other hand, the deployment of AI

systems can have negative environmental impacts, such as high energy consumption for computing power. Therefore, businesses must adopt a balanced approach to AI, ensuring that its use aligns with sustainability principles and contributes positively to environmental and social goals.

Navigating business hurdles with AI tools requires a multi-faceted approach that considers ethical, cultural, and sustainability aspects. Businesses must develop comprehensive strategies that address these dimensions to harness the full potential of AI in a responsible and sustainable manner. This involves not only technological innovation but also a transformation in business practices, corporate culture, and ethical frameworks. By doing so, businesses can effectively leverage AI to overcome challenges and drive growth in the digital age.

#### **2.4.1. Cultivating an AI-Ready Corporate Culture**

The advent of artificial intelligence (AI) in the business world has necessitated a transformation in corporate culture, especially in the context of new management technologies. Svistunov, Kuzina, and Lobachev (2021) emphasize the inevitability of this transformation, highlighting the relationship between employee satisfaction and the level of digitalization in a company. They argue that as companies increasingly adopt modern information technology tools, including AI, there is a corresponding need to adapt the corporate culture to maintain and enhance employee satisfaction and creativity.

The role of corporate culture in sustainable development, particularly under the impacts of the Fourth Industrial Revolution, is further explored by Nguyen, M.Q., Nguyen, T.K.C. and Pham (2022). They discuss how corporate culture can act as an instrument for responsible and sustainable business practices in the age of digital transformation. The study highlights that corporate culture is not just a passive element but an active driver that can empower employees and foster a conducive environment for embracing AI and other digital technologies.

In cultivating an AI-ready corporate culture, companies must focus on several key areas:

1. **Employee Empowerment and Satisfaction:** As AI and digital technologies transform business processes, it is essential to ensure that employees feel empowered and satisfied with their work. This involves providing them with the necessary training and resources to adapt to new technologies and encouraging a culture of innovation and creativity.
2. **Leadership and Management Practices:** Effective leadership is crucial in steering the cultural transformation towards AI readiness. Leaders must be proactive in understanding the implications of AI and digital technologies and in guiding their teams through the transition. This includes fostering open communication, encouraging feedback, and being receptive to new ideas and approaches.
3. **Balancing Automation with Human Elements:** While automation and efficiency are key benefits of AI, it is important to balance these with the human aspects of the workplace. This means recognizing the value of human creativity, intuition, and emotional intelligence, and finding ways to integrate these with AI-driven processes.
4. **Sustainability and Ethical Considerations:** An AI-ready corporate culture should also be aligned with sustainability and ethical principles. This involves considering the environmental and social impacts of AI and digital technologies and ensuring that their deployment is in line with the company's broader sustainability goals.
5. **Adaptability and Continuous Learning:** The fast-paced nature of technological advancements requires a corporate culture that is adaptable and focused on continuous learning. Employees should be encouraged to continuously update their skills and knowledge, and the organization should remain flexible and open to change.

In conclusion, cultivating an AI-ready corporate culture is a multifaceted process that requires a holistic

approach. It involves not only the integration of new technologies but also a transformation in the way companies think about and manage their human resources, leadership practices, and sustainability goals. By focusing on these areas, companies can create a conducive environment for leveraging AI effectively and responsibly, leading to sustainable growth and innovation in the digital era.

### **3.5.2 AI in Crafting Sustainable Business Futures**

The integration of Artificial Intelligence (AI) into business strategies is not just a matter of technological advancement but also a step towards sustainable future practices. The potential of AI in shaping sustainable business models is immense, particularly in sectors like the agri-food industry, environmental policy, and education.

Raji (2022) highlights the transformative role of AI in the agri-food industry, a sector grappling with economic and production crises. AI technologies have revolutionized this field by reducing human intervention and increasing production efficiency. The application of AI in the agri-food sector exemplifies a sustainable model for crisis management, where AI's capabilities in learning, perception, problem-solving, and reasoning are leveraged to create resilient and efficient business practices. This approach not only addresses immediate production challenges but also sets a precedent for sustainable business models in other sectors facing similar crises.

The work of Perucica and Andjelkovic (2022) takes a broader view, examining the interdependence of AI and environmental sustainability within the European Union (EU). Their study underscores the need for comprehensive sustainable AI policy initiatives, highlighting the EU's approach as a model that balances technological advancement with environmental stewardship. This perspective is crucial in understanding how AI can be developed and utilized in a manner that is not only technologically innovative but also environmentally responsible. The concept of "sustainable by design" AI, proposed by Perucica and Andjelkovic, emphasizes the importance of creating AI systems that are transparent, responsible, and centered around human values, ensuring that AI contributes positively to the environmental aspect of sustainability.

In the context of education, Paulauskaite-Taraseviciene et al. (2022) discuss the importance of integrating sustainability into engineering and AI study programs. Their research focuses on developing a methodology to assess the sustainability level in engineering studies, using AI as a case study. This approach is vital for preparing future generations to address sustainability challenges using AI. By embedding sustainability goals into AI and IT study programs, educational institutions can ensure that the next generation of AI professionals is equipped with the knowledge and skills to develop AI solutions that are sustainable and beneficial for society.

The synthesis of these studies presents a comprehensive view of AI's role in crafting sustainable business futures. From enhancing production efficiency in the agri-food industry to shaping environmentally responsible AI policies and educating future generations, AI emerges as a key player in the journey towards sustainability. The challenge lies in ensuring that AI development is aligned with sustainable principles, balancing technological innovation with environmental and social responsibilities.

AI's potential in driving sustainable business practices is evident across various sectors. The integration of AI into business strategies must be done with a keen awareness of its impact on sustainability, ensuring that AI serves as a tool for positive change and a sustainable future.

## **4. ANALYSIS AND DISCUSSION**

### **4.1. Decoding AI's Impact on Business Choices**

The integration of Artificial Intelligence (AI) into business decision-making processes has become a pivotal

aspect of modern corporate strategy, fundamentally altering the landscape of organizational management and operational efficiency. This transformation is not merely a technological upgrade but a strategic shift that influences the core of business decision-making.

Rajagopal et al. (2022) emphasize the transformative role of AI in shaping the future of business culture. They argue that AI-driven digital frameworks are pivotal in enhancing the decision-making process within organizations. The adoption of AI systems facilitates a more precise and efficient approach to decision-making, leveraging data analytics and machine learning to provide insights that were previously unattainable. This shift is not just about the automation of routine tasks but about enabling a more informed and strategic approach to decision-making, one that is capable of handling complex scenarios with greater agility and accuracy.

Tabesh (2022) delves into the dynamics of managerial decision-making in the era of AI. The study highlights how AI and machine learning technologies are revolutionizing traditional decision-making processes, offering new tools for analysis and intuition. Managers are now equipped with advanced AI algorithms that enhance their analytical capabilities, allowing for a more nuanced understanding of business environments. However, Tabesh also points out the importance of maintaining a balance between human intuition and machine-driven analytics, suggesting that while AI can augment decision-making, it should not replace the human element entirely.

Attard-Frost et al. (2023) bring an ethical perspective to the discussion, reviewing the implications of AI business practices. Their work underscores the need for ethical considerations in the deployment of AI technologies in business. The study suggests that while AI can significantly improve decision-making processes, it is crucial to address the ethical challenges that arise, such as data privacy, algorithmic bias, and transparency. These ethical considerations are integral to ensuring that AI is used responsibly and sustainably in a business context.

The impact of AI on business choices extends beyond operational efficiency and into the realm of strategic planning and long-term organizational development. AI technologies provide businesses with the tools to analyze vast amounts of data, identify trends, and predict future market movements, enabling more strategic and forward-thinking decision-making. This capability is particularly crucial in today's fast-paced business environment, where the ability to quickly adapt and respond to changing market conditions is a key determinant of success.

Moreover, AI's role in decision-making is not limited to large corporations. Small and medium-sized enterprises (SMEs) also stand to benefit significantly from AI integration. By leveraging AI tools, SMEs can gain insights and efficiencies that were previously the domain of larger organizations with more substantial resources. This democratization of technology allows for a more level playing field in the business world, where smaller players can compete more effectively with larger counterparts.

the integration of AI into business decision-making processes represents a significant shift in how organizations approach strategy and operations. This shift is characterized by increased efficiency, enhanced analytical capabilities, and the ability to make more informed and strategic decisions.

However, it is essential to navigate this transformation with an awareness of the ethical implications and a commitment to maintaining a balance between human intuition and machine-driven analytics. As AI continues to evolve, its role in shaping business strategies and choices will undoubtedly become even more pronounced, offering new opportunities and challenges for organizations across various sectors.

## 4.2. AI in Business: A Sector-Wide Comparison

The integration of Artificial Intelligence (AI) into various business sectors has led to significant transformations in how companies operate and compete. This section provides a comparative analysis of AI's impact across different sectors, drawing insights from recent research.

Dobre et al. (2020) provide a unique perspective by comparing the evolution of the AI sector with the Dotcom era, highlighting the resilience and growth potential of AI despite early-stage risks. This comparison is crucial in understanding how AI, unlike Dotcom, is deeply intertwined with key sectors of the global economy, suggesting a more sustainable growth trajectory. The study also introduces the concept of Schumpeterian creative destruction in the context of AI, where larger firms absorb innovative startups, thereby shaping the competitive landscape.

Papadimitriou et al. (2017) delve into the knowledge-intensive aspects of firms in high-tech sectors and knowledge-intensive business services. Their research underscores the importance of knowledge intensiveness in driving innovation within these sectors. This aspect is particularly relevant in the context of AI, where the ability to leverage and create knowledge is a key competitive advantage.

Makedon et al. (2021) focus on the global robotics market, a critical component of the AI sector. Their findings highlight the transformative impact of AI and robotics on production and consumption patterns, signaling a new technological order. The study provides insights into the growth dynamics of the robotics market and its role in reshaping the global innovation system. This analysis is instrumental in understanding how AI-driven technologies like robotics are creating new market structures and altering the roles of various economic players.

Indrani et al. (2020) explore pricing decisions in different industry sectors, offering a perspective on how AI influences strategic decision-making processes like pricing. Their findings reveal considerable variations in pricing strategies across sectors, influenced by the specific characteristics of products, markets, and business environments. This study is pertinent in illustrating how AI can be leveraged to optimize pricing decisions, a key aspect of business strategy.

The integration of AI in business sectors is not uniform but varies significantly based on the sector's characteristics and the nature of AI applications. From the resilience and growth potential in the AI sector, knowledge intensiveness in high-tech and service sectors, transformative impact in robotics, to strategic decision-making in pricing, AI's role is multifaceted and sector-dependent. These insights are crucial for businesses aiming to harness AI effectively, as they navigate the unique challenges and opportunities presented by this transformative technology.

## 4.3. Unique AI Implementation Challenges in Business

The integration of Artificial Intelligence (AI) into business strategies presents a complex landscape of challenges and opportunities. As Ruokonen and Ritala (2023) elucidate, the adoption of an AI-first strategy is not a straightforward path but requires a nuanced understanding of the firm's position and capabilities. They categorize firms into three strategic types: digital tycoons, niche carvers, and asset augmenters, each facing unique challenges in leveraging AI for strategic advantage. Digital tycoons, often already entrenched in technology, must focus on maintaining their lead through continuous innovation. Niche carvers, on the other hand, must find unique ways to apply AI to specialized markets, while asset augmenters need to integrate AI into existing assets to enhance their value.

Owoc, Sawicka, and Weichbroth (2019) extend this discussion to the education sector, highlighting the dynamic nature of AI implementation across different business environments. They emphasize that the successful adoption of AI technologies requires not only an understanding of the technology itself but also a keen awareness of the sector-specific challenges and opportunities. This includes recognizing the benefits of AI in enhancing learning experiences and operational efficiency, as well as navigating the challenges in implementation, such as ensuring data privacy and addressing the potential for AI to perpetuate biases.

Fenwick, Vermeulen, and Corrales (2018) delve into the regulatory and ecosystem challenges of AI in business. They argue that dynamic regulation and innovation ecosystems are crucial in navigating the AI landscape. Dynamic regulation, which includes regulatory sandboxes, allows for experimentation and adaptation in a rapidly evolving field. Innovation ecosystems, on the other hand, foster collaborations between established corporations and AI-focused startups, creating synergies that can drive both technological advancement and business growth. These ecosystems are particularly important in sectors like Fintech, where AI's disruptive potential is significant.

The strategic management of disruptive AI technology, therefore, involves a multifaceted approach. Businesses must not only develop AI capabilities but also create an environment where these technologies can be effectively integrated into existing processes and business models. This requires a balance between technological innovation, regulatory compliance, and ecosystem collaboration.

Moreover, the implementation of AI in business is not just a technical challenge but also a cultural one. Organizations must cultivate a culture that embraces change, encourages innovation, and is agile enough to adapt to the rapid developments in AI technology. This cultural shift is essential for businesses to fully realize the potential of AI and transform it from a mere tool into a strategic asset that can drive long-term growth and sustainability.

The unique challenges of AI implementation in business are as diverse as the sectors in which AI is being applied. From strategic alignment and sector-specific considerations to regulatory compliance and ecosystem development, businesses must navigate a complex landscape. The successful integration of AI into business strategies requires a holistic approach that considers not only the technological aspects but also the cultural, regulatory, and collaborative dimensions of this transformative technology.

#### **4.3.1. AI as a Strategic Asset in Business Evolution**

The integration of Artificial Intelligence (AI) into business strategies has become a pivotal aspect of modern business evolution. Ruokonen and Ritala (2023) explore the concept of an AI-first strategy, identifying three distinct approaches: digital tycoon, niche carver, and asset augments. These strategies aim to leverage AI for data, algorithmic, and execution advantages, each with its own strategic bottlenecks and risks. This approach underscores the importance of AI in shaping business strategies and the need for firms to adapt their strategic plans to prioritize AI.

Tariq, Poulin, and Abonamah (2021) delve into the operational excellence achievable through AI, highlighting the driving forces and barriers in this journey. Their work emphasizes AI's role in enhancing operational management, decision-making, and overall efficiency in the production of goods and services. The study also addresses the challenges businesses face, such as cultural constraints and strategic planning issues, in adopting AI. This perspective is crucial in understanding the operational impact of AI and the necessary steps for successful integration into business strategies.

Ćormarković, Dražeta, and Njeguš (2022) discuss the application levels of AI in human resource systems, moving beyond traditional HRM functions to strategic business partnerships. The paper highlights the



evolution of HRM systems facilitated by AI, focusing on the technological features and goals that enhance organizational capabilities. This exploration into AI applications in HRM systems provides insights into how AI can be a strategic asset, not just in operational processes but also in managing and leveraging human capital.

AI's role as a strategic asset in business evolution is multi-faceted, impacting various aspects of business operations, from strategic planning to human resource management. The studies by Ruokonen and Ritala (2023), Tariq, Poulin, and Abonamah (2021), and Ćormarković, Dražeta, and Njeguš (2022) collectively provide a comprehensive view of how AI can be strategically integrated into business models, highlighting both the potential and the challenges of this integration. As businesses continue to evolve in an increasingly digital world, the strategic incorporation of AI will be a critical determinant of their success and competitiveness.

#### **4.4. Charting the Future of AI in Business Decision Processes**

The integration of Artificial Intelligence (AI) into business decision-making processes marks a significant shift in the landscape of organizational strategy and operations. Rajagopal et al. (2022) delve into this transformation, exploring how AI-driven frameworks are reshaping the future of business culture. Their research highlights the pivotal role of AI in enhancing decision-making processes within organizations. By leveraging AI systems, businesses can achieve a higher precision in their decision-making, contributing innovatively to both the process and its outcomes. This shift is not just about the automation of decisions but also about the enhancement of strategic choices through AI's analytical capabilities.

Ilieva et al. (2021) further expand on this concept by examining the role of AI and machine learning (ML) in business intelligence (BI). They argue that AI is at the core of next-generation analytics, empowering BI with predictive modeling and data-driven insights. This integration of AI into BI platforms is not just a technological upgrade but a strategic move that enables businesses to anticipate market trends, customer behaviors, and operational inefficiencies. The predictive capabilities of AI in e-commerce, for instance, allow for more accurate forecasting and customer segmentation, leading to more effective marketing strategies and improved customer experiences.

Simões et al. (2022) contribute to this discussion by conducting a systematic review of future trends in AI and digital transformation. Their findings categorize the impact of AI across various industry fields, including healthcare, education, and tourism, demonstrating AI's versatility in driving digital transformation. This comprehensive analysis underscores the importance of AI in shaping future business strategies and operations. By using AI as a tool for value aggregation, businesses can prepare better for future challenges and opportunities.

The integration of AI into business decision processes is not without its challenges. One of the key concerns is the balance between human and AI-driven decision-making. Rajagopal et al. (2022) address this by suggesting a novel paradigm for comparative analysis. They propose a model where both human and AI-based decision-making coexist, complementing each other to enhance overall organizational judgment efficiency. This model emphasizes the importance of participative management, where internal stakeholders are involved in managing the correlation between AI technologies and business decisions.

Another challenge is the ethical and responsible use of AI in decision-making. As AI systems become more sophisticated, there is a growing need for businesses to ensure that these systems are used ethically and responsibly. This includes considerations around data privacy, bias in AI algorithms, and the broader societal impact of AI-driven decisions. Businesses must navigate these challenges carefully to harness the full potential of AI in decision-making processes.

Significant opportunities and challenges mark the future of AI in business decision processes. As AI continues to evolve, it will play an increasingly vital role in shaping business strategies and operations. Businesses that successfully integrate AI into their decision-making processes will be better positioned to adapt to changing market dynamics, anticipate future trends, and make more informed strategic choices. However, this integration must be approached with a keen awareness of the ethical and practical challenges that come with AI. By doing so, businesses can leverage AI not just as a tool for automation but as a strategic asset that drives innovation, efficiency, and growth.

## 5. CONCLUSION

The exploration of Artificial Intelligence (AI) in strategic business decision-making, as presented in this study, comprehensively addressed its stated aims and objectives through a detailed literature review. The primary aim was to dissect the emergence, evolution, and impact of AI in shaping modern business strategies. This goal was achieved through an exhaustive analysis of various academic and industry sources, providing a nuanced understanding of AI's role in the business context.

The methodology adopted, a systematic literature review, proved crucial in revealing the multifaceted nature of AI in business. It offered a robust framework for evaluating the credibility of sources and synthesizing insights, ensuring a comprehensive understanding of AI's role in business strategy and decision-making. This approach facilitated an in-depth examination of themes such as AI's disruption of traditional decision models, its contribution to enhancing business agility, and its role in business skill enhancement.

Findings from this study indicate that AI transcends its role as a mere technological tool, emerging as a strategic asset that redefines the landscape of business decision-making. The integration of AI into business management strategies has demonstrated significant potential in enhancing corporate performance metrics and fostering inclusive business practices. Moreover, the study underscored the unique challenges and opportunities presented by AI, highlighting the necessity for developing an AI-ready corporate culture and sustainable business futures.

In conclusion, AI is identified as a pivotal element in the evolution of business strategies, offering unparalleled opportunities for innovation and efficiency. The journey of integrating AI into business practices is complex, necessitating a strategic alignment with core values and objectives. Recommendations from this study advocate for a balanced approach, where AI is embraced not only as a technological advancement but as a catalyst for holistic growth and sustainability. Looking ahead, AI's role in business decision-making is poised to continue shaping the dynamics of the corporate world in profound and enduring ways.

## REFERENCES

1. Akmaeva, R., Arykbaev, R., Epifanova, N. and Glinchevskiy, E., 2020. Influence of digitalization upon formation of corporate strategy and new business models of modern organizations. In *SHS Web of Conferences*(Vol. 89, p. 03003). EDP Sciences. DOI: 10.1051/shsconf/20208903003
2. Anderson, D., Lees, B. and Avery, B., 2015, June. Reviewing the literature using the Thematic Analysis Grid. In *European Conference on Research Methodology for Business and Management Studies. Valetta, Malta: Academic Conferences and Publishing International*(pp. 455-457).
3. Arenas-Torres, F., Bustamante-Ubilla, M. and Campos-Troncoso, R., 2021. The incidence of social responsibility in the adoption of business practices. *Sustainability*, 13(5), p.2794. <https://dx.doi.org/10.3390/SU13052794>
4. Attard-Frost, B., De los Ríos, A. and Walters, D.R., 2023. The ethics of AI business practices: a review of 47 AI ethics guidelines. *AI and Ethics*, 3(2), pp.389-406. DOI: 10.1007/s43681-022-00156-6

5. Bai-Ngern, K. and Tubtiang, A., 2020. Leadership in the Digital Era. In *2020 5th International STEM Education Conference (iSTEM-Ed)*(pp. 127-130). IEEE. DOI: 10.1109/iSTEM-Ed50324.2020.9332712
6. Belhadi, A., Kamble, S., Fosso Wamba, S. and Queiroz, M.M., 2022. Building supply-chain resilience: an artificial intelligence-based technique and decision-making framework. *International Journal of Production Research*, 60(14), pp.4487-4507. DOI: 10.1080/00207543.2021.1950935
7. Chuang, Y.H., Kang, T.C., Chang, W.C. and Chen, P.J., 2020. Creative Design Ltd.: the path to youth entrepreneurship. *Emerald Emerging Markets Case Studies*, 10(2), pp.1-17. DOI: 10.1108/eemcs-07-2019-0182
8. Ćormarković, T., Dražeta, L. and Njeguš, A., 2022. The levels of artificial intelligence application in human resource systems. *The European Journal of Applied Economics*, 19(2). [Online] Available at: <https://dx.doi.org/10.5937/ejae19-39535> [Accessed 22 November 2023]. DOI: 10.5937/ejae19-39535.
9. Delbufalo, E., Di Bernardo, M. and Risso, M., 2022. Human-Machine Interaction and AI for Competitive Business in the Digital Era. *Symphonya*, (2), pp.134-143. DOI: 10.4468/2022.2.12delbufalo.dibernardo.risso
10. Dobre, R., Bulin, D., Iorgulescu, M.C. and Oehler-Sincai, I.M., 2020. Artificial Intelligence Sector: The Next Technology Bubble? A Comparative Analysis with Dotcom Based on Stock Market Data. *Romanian Economic Journal*, (76).
11. Eisenstadt, V., Althoff, K.D. and Langenhan, C., 2020. Student Graduation Projects in the Context of Framework for AI-Based Support of Early Conceptual Phases in Architecture. In *LWDA*(pp. 174-179).
12. El-Namaki, M.S.S. (2016). How Companies are Applying AI to the Business Strategy Formulation. DOI: 10.19085/JOURNAL.SIJBPG050801
13. ElZomor, M., Pradhananga, P., Santi, G. and Vassigh, S., 2020, June. Preparing the future workforce of architecture, engineering, and construction for robotic automation processes. In *2020 ASEE Virtual Annual Conference Content Access*. DOI: 10.18260/1-2-35082
14. Esqueda, M.D. and Melo, B.C., 2020. The uncharted territory in Uncharted 3: expectancy vs. Professional norms in translated games. *Belas Infieis*, 9(4), pp.173-199. DOI: 10.26512/BELASINFIEIS.V9.N4.2020.26449
15. Fenwick, M., Vermeulen, E.P. and Corrales, M., 2018. Business and regulatory responses to artificial intelligence: Dynamic regulation, innovation ecosystems and the strategic management of disruptive technology. In *Robotics, AI and the Future of Law*(pp. 81-103). Singapore: Springer Singapore. DOI: 1007/978-981-13-2874-9\_4
16. Frost, M., Jeske, T. and Ottersböck, N., 2020. Leadership and corporate culture as key factors for thriving digital change. In *Advances in Human Factors and Systems Interaction: Proceedings of the AHFE 2020 Virtual Conference on Human Factors and Systems Interaction, July 16-20, 2020, USA* (pp. 55-61). Springer International Publishing. DOI: 10.1007/978-3-030-51369-6\_8
17. Gina, B. and Budree, A., 2020. A review of literature on critical factors that drive the selection of business intelligence tools. In *2020 International Conference on Artificial Intelligence, Big Data, Computing and Data Communication Systems (icABCD)*(pp. 1-7). IEEE. DOI: 10.1109/icABCD49160.2020.9183852
18. Ilieva, R., Ivanova, M., Peycheva, T. and Nikolov, Y., 2021. Modelling in support of decision making in business intelligence. In *Integration Challenges for Analytics, Business Intelligence, and Data Mining*(pp. 115-144). IGI Global. DOI: 4018/978-1-7998-5781-5.ch006.
19. Indrani, M.W., Naidoo, M. and Wickremasinghe, G., 2020. Comparative analysis of pricing decisions made by listed companies representing different industry sectors: evidence from Sri Lanka. DOI: 4038/IJABF.V6I1.53.
20. Isensee, C., Griese, K.M. and Teuteberg, F., 2021. Sustainable artificial intelligence: A corporate culture perspective. In *Sustainability Management Forum/ NachhaltigkeitsManagementForum*(Vol. 29, No. 3-4, pp. 217-230). Berlin/Heidelberg: Springer Berlin Heidelberg. DOI: 10.1007/s00550-021-00524-6
21. Jiang, Z., Gao, W., Tang, F., Wang, L., Xiong, X., Luo, C., Lan, C., Li, H. and Zhan, J., 2021. Hpc

- ai500 v2. 0: The methodology, tools, and metrics for benchmarking hpc ai systems. In *2021 IEEE International Conference on Cluster Computing (CLUSTER)*(pp. 47-58). IEEE. <https://dx.doi.org/10.1109/Cluster48925.2021.00022>
22. Júnior, S.H.D.L., Silva, F.Í.C., Albuquerque, G.S.G., de Medeiros, F.P.A. and Lira, H.B., 2020. Enterprise Architecture in Healthcare Systems: A systematic literature review. *arXiv preprint arXiv:2007.06767*. DOI: 10.17632/44bygxg8w3.1
  23. Kitsios, F. and Kamariotou, M., 2021. Artificial intelligence and business strategy towards digital transformation: A research agenda. *Sustainability*, 13(4), p.2025. DOI: 10.3390/SU13042025
  24. Kreines, M.G. and Kreines, E.M., 2019. Artificial Intelligence Tools for Business Applications: Objective Map of Science and Analysis of Texts. In *2019 IEEE 21st Conference on Business Informatics (CBI)*(Vol. 1, pp. 445-451). IEEE. DOI: 10.1109/CBI.2019.00058
  25. Lin, C.-C. & Chang, S.-F. (2021). Using AI to Improve Corporate Governance. <https://dx.doi.org/10.1051/E3SCONF/202124503063>
  26. Lin, W.-K., Lin, S.-J., & Yang, T.-N. (2017). Integrated Business Prestige and Artificial Intelligence for Corporate Decision Making in Dynamic Environments. DOI: 10.1080/01969722.2017.1284533
  27. Mai, K.N. and Nguyen, A.K.T., 2021. The Impact of Corporate Social Responsibility Performance on Competitive Advantage and Business Success: A Case of Vietnamese Enterprises. *International Journal of Asian Business and Information Management (IJABIM)*, 12(3), pp.1-15. <https://dx.doi.org/10.4018/ijabim.294095>
  28. Makedon, V., Mykhailenko, O. and Vazov, R., 2021. Dominants and Features of Growth of the World Market of Robotics. *European Journal of Management Issues*, 29(3), pp.133-141. DOI: 15421/192113.
  29. Meske, C. and Bunde, E., 2020. Transparency and trust in human-AI-interaction: The role of model-agnostic explanations in computer vision-based decision support. In *Artificial Intelligence in HCI: First International Conference, AI-HCI 2020, Held as Part of the 22nd HCI International Conference, HCII 2020, Copenhagen, Denmark, July 19–24, 2020, Proceedings 22*(pp. 54-69). Springer International Publishing. DOI: 10.1007/978-3-030-50334-5\_4
  30. Mithas, S., Murugesan, S. and Seetharaman, P., 2020. What is your artificial intelligence strategy? *IT Professional*, 22(2), pp.4-9. DOI: 10.1109/MITP.2019.2957620
  31. Najdawi, A., 2020. Assessing AI readiness across organizations: the case of UAE. In *2020 11th International Conference on Computing, Communication and Networking Technologies (ICCCNT)* (pp. 1-5). IEEE. DOI: 10.1109/ICCCNT49239.2020.9225386
  32. Negro, A.R. and Mesia, R., 2019. Organization and Society: Understanding Corporate Social Responsibility and The Inclusive Business in The Peruvian Business Environment. *Journal of Applied Business & Economics*, 21(5). <https://dx.doi.org/10.33423/jabe.v21i5.2275>
  33. Nguyen, M.Q., Nguyen, T.K.C. and Pham, H.G., 2022. Sustainable Development under the Impacts of the Fourth Industrial Revolution and the Role of Corporate Culture Renovation. *VNU Journal of Science: Policy and Management Studies*, 38(3). DOI: 10.25073/2588-1116/vnupam.4412
  34. Owoc, M.L., Sawicka, A. and Weichbroth, P., 2019. Artificial intelligence technologies in education: benefits, challenges and strategies of implementation. In *IFIP International Workshop on Artificial Intelligence for Knowledge Management*(pp. 37-58). Cham: Springer International Publishing. DOI: 1007/978-3-030-85001-2\_4
  35. Papadimitriou, L., Mpartzeliotis, K., Nikas, S. and Vessala, M., 2017. A Comparative Analysis of Knowledge-Based Firms in High-Tech Sectors and Knowledge Intensive Business Services. In *Strategic Innovative Marketing: 4th IC-SIM, Mykonos, Greece 2015*(pp. 419-424). Springer International Publishing. DOI: 1007/978-3-319-33865-1\_52.
  36. Paulauskaite-Taraseviciene, A., Lagzdinyte-Budnike, I., Gaiziuniene, L., Sukacke, V. and Daniuseviciute-Brazaite, L., 2022. Assessing education for sustainable development in engineering study programs: A case of AI ecosystem creation. *Sustainability*, 14(3), p.1702. DOI: 10.3390/su14031702
  37. Pérez-Campuzano, D., Ortega, P.M., Andrada, L.R. and López-Lázaro, A., 2021. Artificial

- Intelligence potential within airlines: a review on how AI can enhance strategic decision-making in times of COVID-19. *Journal of Airline and Airport Management*, 11(2), pp.53-72. DOI: 10.3926/jairm.189
38. Perucica, N. and Andjelkovic, K., 2022. Is the future of AI sustainable? A case study of the European Union. *Transforming Government: People, Process and Policy*, 16(3), pp.347-358. DOI: 1108/tg-06-2021-0106
  39. Prange, C.I., 2020. Strategic agility–decision-making beyond speed. In *Academy of Management Proceedings*(Vol. 2020, No. 1, p. 12499). Briarcliff Manor, NY 10510: Academy of Management. DOI: 10.5465/ambpp.2020.12499abstract
  40. Rajagopal, N.K., Qureshi, N.I., Durga, S., Ramirez Asis, E.H., Huerta Soto, R.M., Gupta, S.K. and Deepak, S., 2022. Future of business culture: an artificial intelligence-driven digital framework for organization decision-making process. *Complexity*, 2022, pp.1-14. DOI: 10.1155/2022/7796507
  41. Raji, B. S. (Year Unknown). Exploring How Artificial Intelligence (AI) Can Support Start-Ups to Manage Crisis Situations for Future Sustainable Business in the Agri-Food Industry. DOI: 4018/978-1-7998-9815-3.ch014
  42. Raji, B.S., 2022. Exploring how artificial intelligence (AI) can support start-ups to manage crisis situations for future sustainable business in the agri-food industry. In *Future Role of Sustainable Innovative Technologies in Crisis Management*(pp. 192-213). IGI Global.
  43. Rasheed, R., Ishaq, M.N. and ur Rehman, H., 2021. Artificial Intelligence in Corporate Business and Financial Management: A Performance Analysis from Pakistan. *Review of Education, Administration & Law*, 4(4), pp.847-860.
  44. Ruokonen, M. and Ritala, P., 2023. How to succeed with an AI-first strategy?. *Journal of Business Strategy*. DOI: 1108/jbs-08-2023-0178
  45. Samarasinghe, K. & Medis, A., 2020. Artificial Intelligence Based Strategic Human Resource Management (AISHRM) For Industry 4.0. *Global Journal of Management and Business Research*. [Online] Available at: <https://dx.doi.org/10.34257/gjmbrgvol20is2pg7> [Accessed 22 November 2023]. DOI: 10.34257/gjmbrgvol20is2pg7.
  46. Shaheen, M., Arshad, M. and Iqbal, O., 2020. Role and Key Applications of Artificial Intelligence & Machine Learning in Transportation. *European Journal of Technology*, 4(1), pp.47-59. DOI: 10.47672/ejt.632
  47. Simões, R.V., Parreiras, M.V.C., Da Silva, A.C.C., Barbosa, C.E., de Lima, Y.O. and de Souza, J.M., 2022. Artificial intelligence and digital transformation: analyzing future trends. In *2022 IEEE International Conference on Systems, Man, and Cybernetics (SMC)*(pp. 1462-1467). IEEE. DOI: 1109/SMC53654.2022.9945429.
  48. Smolarek, B.B. and Scrivener, L., 2021. Examining business-driven education reform by new policy actors: a discursive analysis of UpSkill Houston. *Journal of education policy*, 36(3), pp.349-366. DOI: 10.1080/02680939.2019.1686539
  49. Solberg, E., Kaarstad, M., Eitheim, M.H.R., Bisio, R., Reegård, K. and Bloch, M., 2022. A conceptual model of trust, perceived risk, and reliance on AI decision aids. *Group & Organization Management*, 47(2), pp.187-222. DOI: 10.1177/10596011221081238
  50. Stipić, V.V., 2021. Interaction of strategic management processes and achieved corporate profitability: Evidence from Croatia. In *BH Ekonomski forum*(No. 13, pp. 133-149). Ekonomski fakultet-Univerzitet u Zenici.
  51. Stojanović, D., Slović, D., Tomašević, I. and Simeunović, B., 2016. Model for selection of business process improvement methodologies. In *19th International Toulon-Verona Conference on Excellence in Services*(Vol. 5, pp. 453-467). Huelva.
  52. Svistunov, V.M., Kuzina, G.P. and Lobachev, V.V., 2021. Inevitability of company's corporate culture transformation under conditions of new management technologies. In *Engineering Economics: Decisions and Solutions from Eurasian Perspective*(pp. 613-623). Springer International Publishing. DOI: 10.1007/978-3-030-53277-2\_73
  53. Tabesh, P., 2022. Who's making the decisions? How managers can harness artificial intelligence and

- remain in charge. *Journal of Business Strategy*, 43(6), pp.373-380. *Journal of Business Strategy*, 2021. DOI: 10.1108/jbs-05-2021-0090.
54. Tariq, M.U., Poulin, M. and Abonamah, A.A., 2021. Achieving operational excellence through artificial intelligence: Driving forces and barriers. *Frontiers in Psychology*, 12, p.686624. DOI: 3389/fpsyg.2021.686624
55. Tejada, H., Kumar, A., Smyth, P. and Steyvers, M., 2022. AI-assisted decision-making: A cognitive modeling approach to infer latent reliance strategies. *Computational Brain & Behavior*, 5(4), pp.491-508. DOI: 10.1007/s42113-022-00157-y
56. Vagin, S.G., Klimenko, V.A., Telegina, Z.A. and Aleksashina, T.V., 2022. Improving environmental decision-making in environmental business-management using big data and AI. *Frontiers in Environmental Science*, 10, p.951306. DOI: 10.3389/fenvs.2022.951306
57. Vergara Villegas, O.O., Nandayapa, M., Sossa Azuela, J.H., Cossio Franco, E.G. and Rubin Linares, G.T., 2021. Introduction to the Thematic Issue on Artificial Intelligence for Industry 4.0. *Computación y Sistemas*, 25(4), pp.681-682. DOI: 10.13053/cys-25-4-4057
58. Yin, J. and Fernandez, V., 2020. A systematic review on business analytics. *Journal of Industrial Engineering and Management (JIEM)*, 13(2), pp.283-295. DOI: 10.3926/jiem.3030