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AI-Driven Strategic Decision-Making Models for Sustainable Organizational Growth

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Abstract

One transformative opportunity for sustainable organizational development is integrating Artificial Intelligence (AI) into strategic decision-making processes. This paper provides an examination of procedural models of strategic decision-making using AI models, focusing on how decision-making may be improved in terms of socialness, flexibility, and long-term performance. Organizations can use AI methods, such as machine learning, predictive analytics, and decision support systems to enhance decision-making in increasingly complex business environments. This paper will utilize a mixed-methods research design and include an empirical component of selected case studies and conceptual models. The findings indicate that AI informs the integration of strategic goals with sustainability goals, encompassing social, environmental, and economic elements throughout the decision-making process, in addition to supporting data-driven, real-time decision-making. The research showed governance, ethical application, and cross disciplinary integration had several facilitators and barriers to implementing the AI-supported decision-making frameworks. A theoretical framework is suggested to offer a scalable framework for organizations seeking to alter their sustainability level, and is offered to help with a better integration of AI into the strategy planning process. The results have practical implications for researchers, IT executives, and practitioners in the intersections of AI strategic management, and sustainable development.

Keywords: Predictive analytics; sustainable development; strategic decision making; artificial intelligence; organizational transformation; decision support systems.

Introduction

Trunk et al. (2020) noted that organizations base their longevity and growth upon strategic decision-making. Quite frankly, strategic decisions affect stakeholder engagement, product innovation, market positioning, and resource allocation. Decision-makers in either the private or public sector were guide primarily by their experience, their gut, or linear forecasting models until only a few decades ago when a new approach was introduced and more models formed. While these decision-making approaches may have been well suited to more stable conditions, advances in renewable resources, globalization, new technologies, climate change, and changing social expectations present a much more complex, dynamic and nonlinear world for decision-makers who must now rely more heavily on data-based models and flexible decision-making that also emphasize sustainability (Rajagopal et al., 2022).

Vudugula et al. (2023) observed that artificial intelligence presents a valuable opportunity to confront these issues. Through the utilization of machine learning, predictive analytics, and decision support systems, companies can analyze large data sets, identify trends that humans would not, and make predictions about the future that are more accurate than ever before (Kim & Seo, 2023). AI can fundamentally change strategic decision-making itself (as well as operational efficiencies) because sustainability can be seamlessly integrated into strategic processes, which supports managers in balancing profit with social and environmental responsibilities.

Zhao and Gómez Fariñas (2023) explained that this article explores how AI influenced decision-making models can contribute to organizational growth over the long-term. It presents the frameworks surrounding sustainability, theoretical models of decision-making, and the status of AI applications in management and engineering. This mixed-method study provides case examples from global firms, combined with conceptual modeling, to fully recognize the challenges to implementation that companies face while proposing a scalable conceptual framework that actually describes how one model of AI may support sustainable initiatives (Kulkov et al., 2024).

Literature Review

Strategic Decision-Making Theories

Badghish and Soomro (2024) identified one transformative opportunity for sustainable organizational development is integrating Artificial Intelligence (AI) into strategic decision-making processes. This paper provides an examination of procedural models of strategic decision-making using AI models, focusing on how decision-making may be improved in terms of socialness, flexibility, and long-term performance. Organizations can use AI methods, such as machine learning, predictive analytics, and decision support systems to enhance decision-making in increasingly complex business environments (Al-Surmi et al., 2022). This paper will utilize a mixed-methods research design and include an empirical component of selected case studies and conceptual models. The findings indicate that AI informs the integration of strategic goals with sustainability goals, encompassing social, environmental, and economic elements throughout the decision-making process, in addition to supporting data-driven, real-time decision-making (Stone et al., 2020).

AI in Management and Engineering

Artificial intelligence is becoming an important resource in engineering and management because of its support for activities such as supply chain optimization, customer analytics, financial forecasting, and predictive maintenance. By using machine learning and predictive analytics organizations can improve planning precision, automate processes, and predict risks (Olan et al., 2022). Bringing together AI's capacity to simulate scenarios, monitor in real-time, and continuously learn further improve organizational responsiveness and enhances decision-making (Keding, 2021).

Sustainability Frameworks

Lăzăroiu et al. (2022) explained that sustainability frameworks such as the UN Sustainable Development Goals, ESG measures, and Triple Bottom Line provide organizations with opportunities to connect corporate goals and society and environment obligations (Table 1). These approaches highlight that performance needs to be assessed in ways other than financial performance. AI enables organizations to integrate sustainability goals into their strategic and tactical decision-making process. AI does this by providing real-time data analysis, predictive modeling, and performance monitoring (Kitsios & Kamariotou, 2021).

Table 1. Key Sustainability Frameworks and Their Focus

Framework	Main Focus	Application in Organizations	Role of AI
Triple Bottom Line (TBL)	Economic, Environmental, and social performance	Encourages balance between profitability, environmental care, and social responsibility	Supports integrated reporting and analysis of impacts across all three dimensions
Environmental, Social, and Governance (ESG) Metrics	Performance indicators for responsible business practices	Used by investors, regulators, and stakeholders to assess organizational responsibility	AI enables automated ESG data collection, risk analysis, and compliance tracking
UN Sustainable Development Goals (SDGs)	17 global goals for sustainable development	Guides organizations in aligning strategies with global sustainability priorities	AI helps map organizational activities to specific SDGs and monitor progress

Gaps and Barriers

Strategic planning is facing continuous challenges to AI usage. In many cases, the effective implementation of AI is limited by issues of ethics, cultural resistance, and poor governance practices (Kar et al., 2021). Further, costs of adoption remain high for firms, especially smaller firms with limited resources, which means challenges remain for AI implementation in business strategy. In order to address these challenges, companies need to establish clear

governance, values, and a cultural environment that supports the effective use of AI to promote future growth (Singh & Goyal, 2023).

Methodology

Design

In this study, Nica and Stehel (2021) used a mixed-methods approach taking a blend of empirical case study analysis and conceptual modeling together. The conceptual model brings in understandings from sustainability frameworks, AI implementations, and decision-making frameworks. The case study analysis can provide practical validations through analysis of organizations that have incorporated AI into their strategic planning (Figure 1).

Figure 1. Framework of Strategy, Organizational Design, and Organizational Effectiveness

Data Collection

Peng et al. (2023) reported that data were drawn from industry analysis, academic studies, annual disclosures, and business sustainability reports completed between 2020 and 2025 (Goralski & Tan, 2020). Companies that represent consumer goods, energy, and technology have been utilized for the case study review for their advanced application of AI-led strategies (Paramesha et al., 2024).

Analysis

1. **In what ways does AI enhance organizational agility and decision quality?**

   AI enhances decision quality through real-time data analysis, predictive modeling, and scenario testing, directing decision makers away from rationalized gut instinct and ignorance (Chang & Ke, 2024). AI enhances agility through the early identification of shifts in the environment and allows organizations to make rapid changes to operations and strategy; this increased agility in a volatile environment delivers increased competitiveness (Hong & Xiao, 2024).

2. **In what ways does AI assist with embedding sustainability into strategy?**

   AI assists with foundation frameworks such as TBL, ESG, and the SDGs, operationalizing sustainability (Brendel et al., 2021). It enables organizations to assess social impacts more precisely, efficiency of resources, and emissions monitoring. AI will embed sustainability as a core of strategy, placing all insights into the plan (Rimon, 2024).

3. **What are the key enablers and barriers to implementing AI-assisted decision-making frameworks**?

   Governance, a culture of innovation, and collaboration between strategy and technology teams are examples of enablers (Shaik et al., 2024). Culturally, organizations may experience resistance to the digital shift and face substantial implementation costs, while ethically, bias related to using AI may represent a barrier. Whether AI

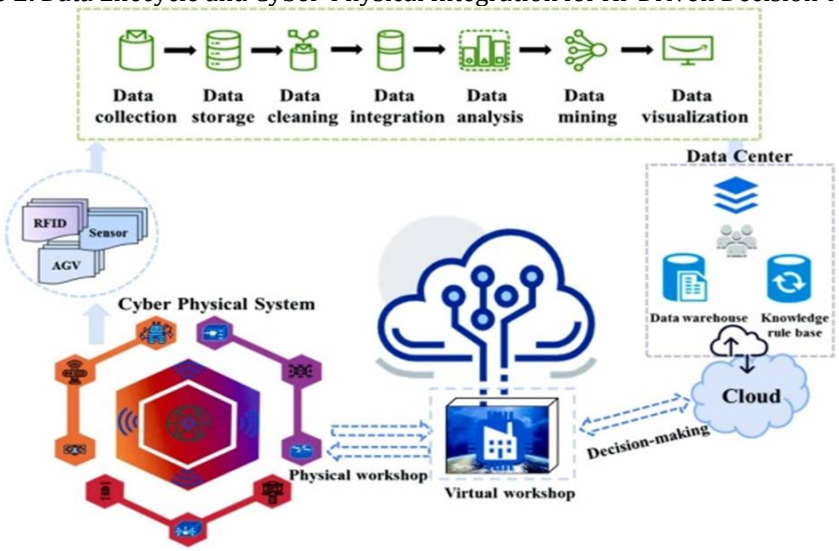
adoption will lead to sustainable growth is dependent on the relationship of these enablers and barriers (Belhadi et al., 2022).

Result

Improving Decision Quality and Agility

This study indicates that by delivering real-time insights from large and complicated datasets, AI-based models facilitate better quality decisions. In the field of IT, AI-enabled sustainability calculators enable organizations to monitor emissions tracking, assess energy consumption, and initiate changes to operations to reach environmental targets (Dicuonzo et al., 2023). Predictive maintenance solutions have improved the efficiency with which renewable energy installations are serviced, minimizing downtime and increasing reliability in the energy field (Figure). These examples demonstrate how AI improves an organization's agility to provide a quick response to external shocks while monitoring the universe beyond that (Truby, 2020).

Figure 2. Data Lifecycle and Cyber-Physical Integration for AI-Driven Decision-Making



Aligning Strategic Objectives with Sustainability Goals

Wilson and van der Velden (2022) noted that AI has started to provide an avenue for directly incorporating sustainability into decision-making (Figure 3). For example, multinational consumer goods companies have started implementing AI-based logistics optimization to reduce shipping waste and improve resource efficiency.

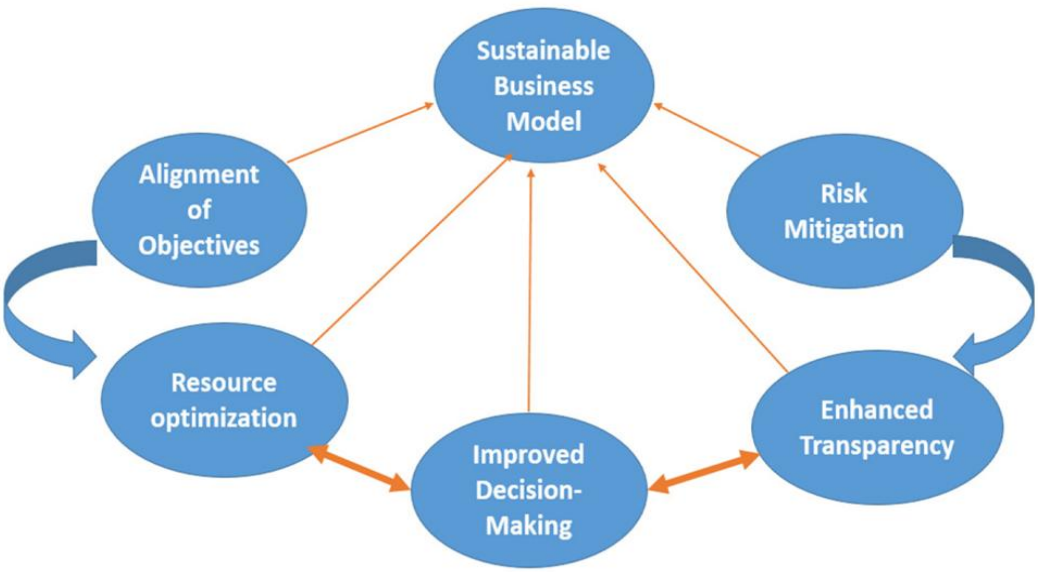


Figure 3. Key Drivers of a Sustainable Business Model through AI-Enabled Strategic Decision-Making

Overall, this aligns business practices to broader sustainability targets like clean energy and responsible consumption (D'Amore et al., 2022). AI provides organizations with tools to both evaluate the trade-offs between sustainability and profit, as well as create well-informed decisions that ultimately help to ensure long-term resilience, through forecasts and simulations of a whole set of norms (Jarrahi et al., 2023).

Critical Enablers

Three enablers were identified as important for adoption:

- governance regimes that established ethical norms, accountability, and transparency;
- organizational cultures that foster creativity and build trust in AI systems;
- cross-functional integration (openness to collaboration between strategic planning, sustainability and IT),

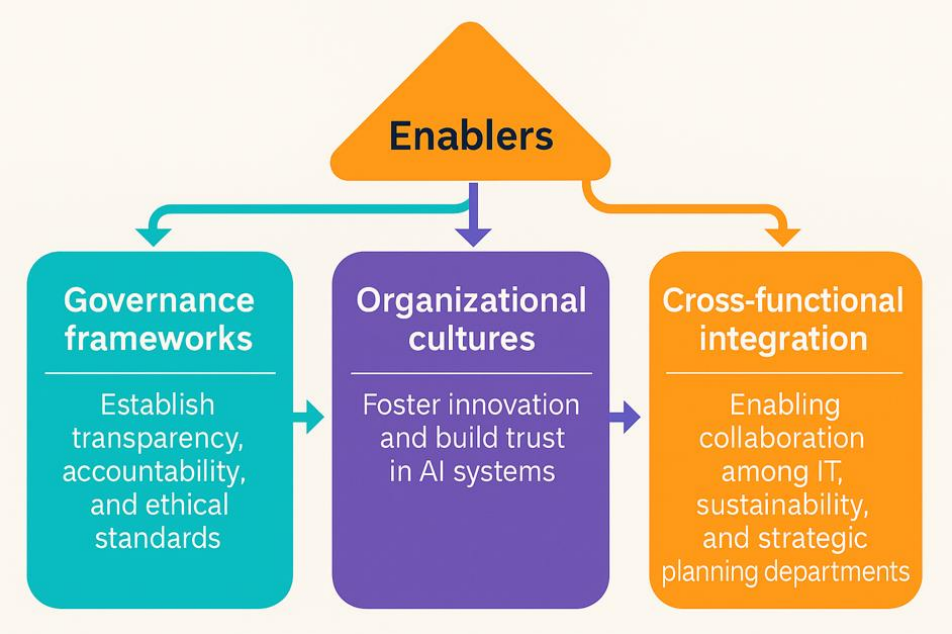


Figure 5. Key Enablers for Effective Implementation of AI-Driven Strategic Decision-Making Models

These enablers assure that AI insights are generated and applied in a manner that is consonant with the company's values and sustainability commitments (Tsolakis et al., 2023).

Barriers to Adoption

Martini et al. (2024) noted that barriers still exist. The credibility of AI-based models continues to be undermined by algorithmic bias, including in areas such as social impact evaluation and talent management (Figure 5). Beyond the affordability challenges that limit small businesses' adoption of sophisticated AI technologies, resistance is also evident among employees and leaders, either because of limited awareness or fear of losing control over their own decision-making (Bogachov et al., 2020). Finally, business adoption of AI is hampered by uncertainty surrounding laws governing intellectual property and data ownership (Michael, 2025).

A similar dynamic has been documented in other data-driven adoption settings: resistance to shifting from intuition-based to evidence-based decisions among senior staff, compounded by persistent skill gaps, has been identified as a comparable barrier to sustained analytics adoption in higher education institutions Chin et al. (2026), often traced to insufficient structured training in using new digital tools Chin et al. (2026).

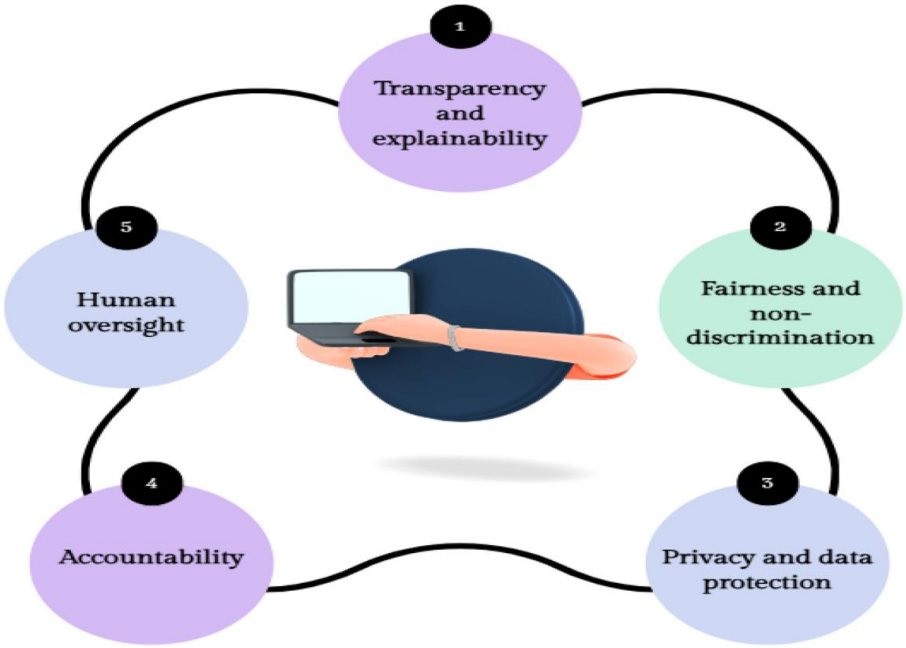


Figure 6 . Ethical and Governance Principles for Responsible AI Deployment

Conceptual Framework

From the proposed conceptual framework, AI is considered a meta-capability embedded in the strategic decision-making processes. The four key components are:

- **Input:** Market and stakeholder information, ESG metrics, and organizational data.
- **AI Processing Layer:** Decision making tools, machine learning and predictive analytics that generate insights and predict outcomes.
- **Decision functions:** AI-based intelligence-assisted resources transformations, opportunity-taking, and strategic sensing.
- **Outcomes:** Enhanced decision-making, greater organizational adaptability, and alignment to sustainability objectives.

The framework emphasizes that organizational culture and governance play a mediating role in whether AI adoption has any lasting impacts. The modular nature of the framework allows for scalability from small to large and flexibility from industry to industry.

Discussion

Theoretical Implications

Gupta et al. (2022) explained that the research expands the domain of decision-making theories by conceptualizing AI as a tool that enhances dynamic capacities and mitigates bounded rationality. AI lessens cognitive and information constraints, allowing firms to take more rational evidence-based solutions in contingent contexts. Additionally, in terms of organizational agility theories, it enhances one's ability to take in changes in the environment and address them (Abrokwah-Larbi & Awuku-Larbi, 2024).

Practical Implications

Oluoha et al. (2022) stressed the need to reframe AI as an adviser, not in place of human thought. Managers must develop governance structures, in addition to investing in ethical AI and establishing an innovative culture. Extensive training and collaboration across divisions are vital to ensuring AI-provided recommendations are integrated into decision-making processes (Wang et al., 2023). AI provides tools to improve the systems in operation and engineering aspects that would additionally help achieve an overall sustainability plan.

Alignment with Sustainability Strategies

Richey et al. (2023) found that the triple bottom line and ESG goals are explicitly supported when AI is incorporated into strategic decision-making. Integrating sustainability criteria into the decision-making process allows businesses to balance between profitability and their societal and environmental responsibilities. In

markets where sustainability issues are becoming increasingly relevant, this alignment enhances resilience, attracts investment, and increases organizations' legitimacy (Di Vaio et al., 2020).

Conclusion

This study demonstrates that AI-driven strategic decision-making models significantly enhance decision quality, speed, and sustainability alignment. Drawing on examples from consumer products, energy, and technology, the findings show how AI enables organizations to operationalize sustainability goals while strengthening competitiveness. Key facilitators of successful adoption include cross-functional collaboration, organizational culture, and governance structures, whereas major barriers remain in the areas of ethical challenges, implementation costs, and resistance to change. To address these challenges, a conceptual model has been introduced to guide firms in scaling AI-driven decision-making frameworks for sustainable growth.

Despite these contributions, the study has certain limitations. It relies primarily on conceptual modeling and secondary case data, which, while theoretically robust, require validation through primary field research and cross-industry analysis. Empirical testing is necessary to confirm the adaptability and effectiveness of the proposed framework in diverse organizational contexts.

Looking ahead, future research should focus on longitudinal assessments to evaluate the long-term implications of AI-driven strategies for organizational sustainability. Comparative studies between small and large firms could highlight differences in adoption patterns and resource capabilities, providing richer insights into scaling challenges. Moreover, advancing the ethical integration of AI into strategic planning will require interdisciplinary collaboration among management researchers, ethicists, and engineers to ensure that technological innovation aligns with social responsibility.

List of abbreviations

- **AI** – Artificial Intelligence
- **ML** – Machine Learning
- **DSS** – Decision Support Systems
- **NLP** – Natural Language Processing
- **ESG** – Environmental, Social, and Governance
- **TBL** – Triple Bottom Line
- **SDGs** – Sustainable Development Goals
- **CSR** – Corporate Social Responsibility
- **KPI** – Key Performance Indicator
- **SME** – Small and Medium-sized Enterprises
- **ROI** – Return on Investment
- **IoT** – Internet of Things
- **BI** – Business Intelligence
- **ERP** – Enterprise Resource Planning
- **GDP** – Gross Domestic Product

Author Contributions

Alongside an extensive literature search, a methodology design, case study analysis and conceptual framework, the author was responsible for the origin, design, and development of the study. Moreover, the author completed the preparation, review, and submission of the manuscript.

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Data Availability Statement

The documentations used to inform the study's conclusions were based on public sources, including industry studies, academic articles, annual reports, and sustainability reports. No proprietary or privately held information was used.

Conflicts of Interest

The author declares no conflicts of interest relevant to the content of this article.

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References

1. Abrokwah-Larbi, K., & Awuku-Larbi, Y. (2024). The impact of artificial intelligence in marketing on the performance of business organizations: Evidence from SMEs in an emerging economy. *Journal of Entrepreneurship in Emerging Economies*, *16*(4), 1090-1117. https://doi.org/10.1108/JEEE-07-2022-0207

2. Al-Surmi, A., Bashiri, M., & Koliousis, I. (2022). AI-based decision making: Combining strategies to improve operational performance. *International Journal of Production Research*, *60*(14), 4464-4486. https://doi.org/10.1080/00207543.2021.1966540

3. Badghish, S., & Soomro, Y. A. (2024). Artificial intelligence adoption by SMEs to achieve sustainable business performance: Application of the technology-organization-environment framework. *Sustainability*, *16*(5), Article 1864. https://doi.org/10.3390/su16051864

4. Belhadi, A., Kamble, S., Fosso Wamba, S., & Queiroz, M. M. (2022). Building supply-chain resilience: An artificial intelligence-based technique and decision-making framework. *International Journal of Production Research*, *60*(14), 4487-4507. https://doi.org/10.1080/00207543.2021.1950935

5. Bogachov, S., Kwilinski, A., Miethlich, B., Bartosova, V., & Gurnak, A. (2020). Artificial intelligence components and fuzzy regulators in entrepreneurship development. *Entrepreneurship and Sustainability Issues*, *8*(2), 487-499. https://doi.org/10.9770/jesi.2020.8.2(29)

6. Brendel, A. B., Mirbabaie, M., Lembcke, T. B., & Hofeditz, L. (2021). Ethical management of artificial intelligence. *Sustainability*, *13*(4), Article 1974. https://doi.org/10.3390/su13041974

7. Chang, Y. L., & Ke, J. (2024). Socially responsible artificial intelligence empowered people analytics: A novel framework towards sustainability. *Human Resource Development Review*, *23*(1), 88-120. https://doi.org/10.1177/15344843231200930
8. Chin, Y. F., Lee, D. C. E., Sunasundram, S., & Shin, C. (2026). Data analytics integration in Malaysian higher education: Issues, outcomes, and organizational readiness. *Journal of Intelligent Decision Making and Information Science*, *3*(5s), 1476–1491.
9. Chin, Y. F., Yong, F. L., Lee, D. C. E., & Ng, H. Y. (2026). Teacher training and technology integration for SDG4: Leveraging technology innovations to enhance quality education in resource-scarce environments. *AIP Conference Proceedings*, *3383*(1), 020015. https://doi.org/10.1063/5.0308953
10. D'Amore, G., Di Vaio, A., Balsalobre-Lorente, D., & Boccia, F. (2022). Artificial intelligence in the water-energy-food model: A holistic approach towards sustainable development goals. *Sustainability*, *14*(2), Article 867. https://doi.org/10.3390/su14020867

11. Di Vaio, A., Boccia, F., Landriani, L., & Palladino, R. (2020). Artificial intelligence in the agri-food system: Rethinking sustainable business models in the COVID-19 scenario. *Sustainability*, *12*(12), Article 4851. https://doi.org/10.3390/su12124851

12. Dicuonzo, G., Donofrio, F., Fusco, A., & Shini, M. (2023). Healthcare system: Moving forward with artificial intelligence. *Technovation*, *120*, Article 102510. https://doi.org/10.1016/j.technovation.2022.102510

13. Goralski, M. A., & Tan, T. K. (2020). Artificial intelligence and sustainable development. *The International Journal of Management Education*, *18*(1), Article 100330. https://doi.org/10.1016/j.ijme.2019.100330

14. Gupta, S., Modgil, S., Bhattacharyya, S., & Bose, I. (2022). Artificial intelligence for decision support systems in the field of operations research: Review and future scope of research. *Annals of Operations Research*, *308*(1), 215-274. https://doi.org/10.1007/s10479-020-03856-6

15. Hong, Z., & Xiao, K. (2024). Digital economy structuring for sustainable development: The role of blockchain and artificial intelligence in improving supply chain and reducing negative environmental impacts. *Scientific Reports*, *14*(1), Article 3912. https://doi.org/10.1038/s41598-024-53760-3

16. Jarrahi, M. H., Kenyon, S., Brown, A., Donahue, C., & Wicher, C. (2023). Artificial intelligence: A strategy to harness its power through organizational learning. *Journal of Business Strategy*, *44*(3), 126-135. https://doi.org/10.1108/JBS-11-2021-0182

17. Kar, S., Kar, A. K., & Gupta, M. P. (2021). Modeling drivers and barriers of artificial intelligence adoption: Insights from a strategic management perspective. *Intelligent Systems in Accounting, Finance and Management*, *28*(4), 217-238. https://doi.org/10.1002/isaf.1503

18. Keding, C. (2021). Understanding the interplay of artificial intelligence and strategic management: Four decades of research in review. *Management Review Quarterly*, *71*(1), 91-134. https://doi.org/10.1007/s11301-020-00181-x

19. Kim, J.-S., & Seo, D. (2023). Foresight and strategic decision-making framework from artificial intelligence technology development to utilization activities in small-and-medium-sized enterprises. *Foresight*, *25*(6), 769-787. https://doi.org/10.1108/FS-06-2022-0069

20. Kitsios, F., & Kamariotou, M. (2021). Artificial intelligence and business strategy towards digital transformation: A research agenda. *Sustainability*, *13*(4), Article 2025. https://doi.org/10.3390/su13042025

21. Kulkov, I., Kulkova, J., Rohrbeck, R., Menvielle, L., Kaartemo, V., & Makkonen, H. (2024). Artificial intelligence-driven sustainable development: Examining organizational, technical, and processing approaches to achieving global goals. *Sustainable Development*, *32*(3), 2253-2267. https://doi.org/10.1002/sd.2773

22. Lăzăroiu, G., Androniceanu, A., Grecu, I., Grecu, G., & Neguriță, O. (2022). Artificial intelligence-based decision-making algorithms, Internet of Things sensing networks, and sustainable cyber-physical management systems in big data-driven cognitive manufacturing. *Oeconomia Copernicana*, *13*(4), 1047-1080. https://doi.org/10.24136/oc.2022.030

23. Martini, B., Bellisario, D., & Coletti, P. (2024). Human-centered and sustainable artificial intelligence in Industry 5.0: Challenges and perspectives. *Sustainability*, *16*(13), Article 5448. https://doi.org/10.3390/su16135448

24. Michael, O. (2025). Maximising the potentials of small and medium scale business enterprises in developing nations through the use of artificial intelligence: AI adoption by SMEs in the developing nations. In T. O. Olubiyi, S. D. Suppiah, & C. Chidoko (Eds.), *The future of small business in Industry 5.0* (pp. 215-246). IGI Global Scientific Publishing. https://doi.org/10.4018/979-8-3693-7362-0.ch009

25. Nica, E., & Stehel, V. (2021). Internet of Things sensing networks, artificial intelligence-based decision-making algorithms, and real-time process monitoring in sustainable Industry 4.0. *Journal of Self-Governance and Management Economics*, *9*(3), 35-47. https://doi.org/10.22381/jsme9320213

26. Olan, F., Arakpogun, E. O., Suklan, J., Nakpodia, F., Damij, N., & Jayawickrama, U. (2022). Artificial intelligence and knowledge sharing: Contributing factors to organizational performance. *Journal of Business Research*, *145*, 605-615. https://doi.org/10.1016/j.jbusres.2022.03.008

27. Oluoha, O., Odeshina, A., Reis, O., Okpeke, F., Attipoe, V., & Orieno, O. H. (2022). Optimizing business decision-making with advanced data analytics techniques. *Iconic Research and Engineering Journals*, *6*(5), 184-203. https://www.irejournals.com/paper-details/1703887

28. Paramesha, M., Rane, N., & Rane, J. (2024). *Big data analytics, artificial intelligence, machine learning, Internet of Things, and blockchain for enhanced business intelligence* [Preprint]. SSRN. https://doi.org/10.2139/ssrn.4855856

29. Peng, Y., Ahmad, S. F., Ahmad, A. Y. B., Al Shaikh, M. S., Daoud, M. K., & Alhamdi, F. M. H. (2023). Riding the waves of artificial intelligence in advancing accounting and its implications for sustainable development goals. *Sustainability*, *15*(19), Article 14165. https://doi.org/10.3390/su151914165

30. Rajagopal, N. K., Qureshi, N. I., Durga, S., Ramirez Asis, E. H., Huerta Soto, R. M., Gupta, S. K., & Deepak, S. (2022). Future of business culture: An artificial intelligence-driven digital framework for organization decision-making process. *Complexity*, *2022*, Article 7796507. https://doi.org/10.1155/2022/7796507

31. Richey, R. G., Jr., Chowdhury, S., Davis-Sramek, B., Giannakis, M., & Dwivedi, Y. K. (2023). Artificial intelligence in logistics and supply chain management: A primer and roadmap for research. *Journal of Business Logistics*, *44*(4), 532-549. https://doi.org/10.1111/jbl.12364

32. Rimon, S. T. H. (2024). Leveraging artificial intelligence in business analytics for informed strategic decision-making: Enhancing operational efficiency, market insights, and competitive advantage. *Journal of Artificial Intelligence General Science*, *6*(1), 600-624. https://newjaigs.org/index.php/JAIGS/article/view/278

33. Shaik, A. S., Alshibani, S. M., Jain, G., Gupta, B., & Mehrotra, A. (2024). Artificial intelligence (AI)-driven strategic business model innovations in small- and medium-sized enterprises: Insights on technological and strategic enablers for carbon-neutral businesses. *Business Strategy and the Environment*, *33*(4), 2731-2751. https://doi.org/10.1002/bse.3617

34. Singh, S., & Goyal, M. K. (2023). Enhancing climate resilience in businesses: The role of artificial intelligence. *Journal of Cleaner Production*, *418*, Article 138228. https://doi.org/10.1016/j.jclepro.2023.138228

35. Stone, M., Aravopoulou, E., Ekinci, Y., Evans, G., Hobbs, M., Labib, A., Laughlin, P., Machtynger, J., & Machtynger, L. (2020). Artificial intelligence (AI) in strategic marketing decision-making: A research agenda. *The Bottom Line*, *33*(2), 183-200. https://doi.org/10.1108/BL-03-2020-0022

36. Truby, J. (2020). Governing artificial intelligence to benefit the UN sustainable development goals. *Sustainable Development*, *28*(4), 946-959. https://doi.org/10.1002/sd.2048

37. Trunk, A., Birkel, H., & Hartmann, E. (2020). On the current state of combining human and artificial intelligence for strategic organizational decision making. *Business Research*, *13*(3), 875-919. https://doi.org/10.1007/s40685-020-00133-x

38. Tsolakis, N., Schumacher, R., Dora, M., & Kumar, M. (2023). Artificial intelligence and blockchain implementation in supply chains: A pathway to sustainability and data monetization? *Annals of Operations Research*, *327*(1), 157-210. https://doi.org/10.1007/s10479-022-04785-2

39. Vudugula, S., Chebrolu, S. K., Bhuiyan, M., & Rozony, F. Z. (2023). Integrating artificial intelligence in strategic business decision-making: A systematic review of predictive models. *International Journal of Scientific Interdisciplinary Research*, *4*(1), 1-26. https://ijsir.org/index.php/IJSIR/article/view/2

40. Wang, Z., Deng, Y., Zhou, S., & Wu, Z. (2023). Achieving sustainable development goal 9: A study of enterprise resource optimization based on artificial intelligence algorithms. *Resources Policy*, *80*, Article 103212. https://doi.org/10.1016/j.resourpol.2022.103212

41. Wilson, C., & van der Velden, M. (2022). Sustainable AI: An integrated model to guide public sector decision-making. *Technology in Society*, *68*, Article 101926. https://doi.org/10.1016/j.techsoc.2022.101926

42. Zhao, J., & Gómez Fariñas, B. (2023). Artificial intelligence and sustainable decisions. *European Business Organization Law Review*, *24*(1), 1-39. https://doi.org/10.1007/s40804-022-00262-2