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The dualistic synergy between artificial intelligence and business architecture

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Abstract

Recently, organisations have been witnessing a proliferation of artificial intelligence (AI) applications. This is because AI presents computational systems that can perform complex activities faster and efficiently than humans. However, even though AI brings many benefits to organisations, it also presents a challenge for organisations. One of the challenges is the lack of synergy between AI and business architecture (BA). BA is one of the domains of enterprise architecture, which aims to provide a holistic view of the business strategy and capabilities. Consequently, the lack of synergy between AI and business architecture contributes to the design and implementation of AI solutions that are not aligned with the overall objectives of the organisation, impeding organisational agility and responsiveness. This study addresses the following objectives: (1) to examine the synergy between AI and BA in organisations, and (2) to understand how the two concepts can be complementarily applied to improve business design and processes.

Keywords: artificial intelligence, business architecture, synergy, business process, business design

Introduction

Business architecture is a domain within enterprise architecture (EA) that focuses on the design and management of an organisation (Iyamu, 2023). The coverage of the business architecture includes organisational structure, capabilities, information, and value streams, which are primarily geared towards achieving strategic goals (Sahu, Sahu & Sahu, 2020; Zhao et al., 2008). It therefore provides a holistic, multidimensional view of the business and is primed to align with an organisation's strategy and operations. Thus, business architecture enables an organisation to have a comprehensive and transparent view of current and future states, including the mechanisms of achieving the end goal (Kitsios & Kamariotou, 2019). Also, the concept of business architecture facilitates and translates strategies into actionable plans and informed decision-making, which helps the IT specialists in defining their enabling strategy and supporting operations of business initiatives and goals (Shaanika & Iyamu, 2018).

Despite the potential benefits of the business architecture, the implementation of the concept faces several challenges in many organisations. Some of the challenges include aligning business strategy with IT solutions, managing change in their rapidity, engaging the vast stakeholders, and navigating the consistent complexity (Javanbakht & Chia, 2023; Haldorai, Ramu & Suriya, 2020). In addressing these challenges, some organisations have begun to explore their synergy with artificial intelligence (AI) tools. Hsu (2025) suggests that AI is increasingly becoming a key driver for the innovation of business architecture models.

AI is transforming businesses by automating and optimising organisational strategies and operations (Perifanis & Kitsios, 2023). Fitriani, Khodra and Surendro (2024) developed a business architecture framework for adopting AI, which does not seem to have resolved the debate of dual synergy. This intertwining enhances stakeholders' experiences, improves productivity, and drives growth. AI helps to better understand stakeholders' psychology as they make decisions that affect the organisation (Hsu, 2025). AI technologies like machine learning and natural language processing are being explored in the design of business architecture and processes, which are intended to provide insights that improve decision-making. Matter and Gado (2024) suggest that AI is revolutionising processes and automating tasks traditionally performed by humans. Some of the key components of business design and processes include automation, predicting the future, managing inventory, and engaging stakeholders through its deliverables' content.

Other areas of AI significance include enabling real-time analysis. Haldorai et al. (2020) examined how business architecture can integrate AI and IoT-driven processes with traditional processes. Enholm et al. (2022) argued that the complementary application of the two concepts can help to gain a deeper understanding of how to use machine learning to simulate a process. Klingenstein et al. (2025) proposed an approach for assessing and enhancing the AI readiness in organisations. The fundamental question that remains unanswered is: can business architecture guide the implementation of AI in ensuring alignment with strategic goals, mitigating potential risks? This is a dualistic approach that is needed to gain an improved value of the synergy between the concepts. This is the question this research seeks to answer. We argued that only then can the synergic intertwined synergy be better understood in applying AI to transform business architecture for organisational strategic and operational purposes. Also, dualistic synergy is intended to enable business architecture to ensure sustainability in the increasingly volatile and aggressive competitive world of business. By embracing the dualistic synergy approach, it can take an organisation to a new level.

The paper is organised into six main sections, which begin with the introduction of the study, followed by the review of the literature. The concept of translation of actor-network theory underpins the study, and it is discussed in the third section. Next, the research applied in the study is covered. In the fifth section, the focus of the study, the dualistic approach for leveraging BA and AI, is presented and discussed. The sixth section concludes the paper.

Literature Review

Business architecture

Business architecture (BA) is a key domain within enterprise architecture (EA). It covers business strategy, goals and objectives, governance, capabilities, processes, and rules that adapt and guide the organisation (Fitriani et al., 2024; Javanbakht & Chia, 2023). Accordingly, BA aims to align business strategy and operations with the organisation's strategic needs and goals (Fitriani et al., 2024). Due to its focus, which is the alignment of business strategy with the organisation's resources, BA cannot be a stand-alone entity. Iyamu (2022) explains that BA provides the foundation for the development and implementation of technological solutions and infrastructures in the organisation. Therefore, because of its strategic nature and vast influence, there is a need for synergy between BA and various organisational capabilities and resources, including information technology/information systems (Gellweiler, 2022).

Synergy refers to two or more components working together to gain a competitive advantage over a certain situation, rather than having each component as a standalone (Jasińska, 2020). Benecke et al. (2007) emphasise that synergy happens when different business units come together and work as one system. Synergy among units, as opposed to individual entities, promotes alignment among organisational

resources, in turn enhancing coherence and maximising return on various investments (Malyzhenkov & Ivanova, 2017). From the BA perspective, synergy embraces capabilities, priorities, decisions and actions from organisations' various functions to support the business strategy (Gellweiler, 2022).

However, achieving synergy can be a daunting task for organisations. This could be a result of constant change across organisational factors (Jasińska, 2020). Dila et al. (2024) pointed out that one of the BA challenges is the incoherence and synchronisation with information technology solutions. AI is an example of a technology solution where synergy with BA is lacking and is considered an area requiring research.

Artificial intelligence

Organisations are increasingly integrating AI to bring intelligence and seamless automation to the forefront of their operations (Hasan, 2023). AI refers to the simulation of human intelligence in machines to perform complex tasks that are done by humans with greater precision and speed (Duggal, 2024). According to Fitriani et al. (2024), AI has revolutionised various aspects of business operations, improving efficiency, decision-making, and customer experience. Michael (2024) noted that AI-powered chatbots can facilitate expedient customer service, whereas AI-driven inventory management systems can optimise stock levels, minimise costs, and enhance supply chain efficiency. By leveraging AI, organisations can expand their operations and increase competitiveness.

However, to fully realise these benefits and more, it is of paramount importance that there is synergy between AI and BA in organisations. Crupi et al. (2025) explained that AI and BA should not be viewed as opposing forces but complementary components that can be combined to improve organisational effectiveness. Having synergy between AI and BA ensures that AI is strategically applied in organisations. Fitriani et al. (2024) shared that the synergy between AI and BA leads to organisations achieving operational efficiency by leveraging the full spectrum of AI capabilities and technologies. Walker (2023) found that organisations without synergy between AI and BA fail to derive value from AI. Consequently, organisations design and develop fragmented AI solutions that are not aligned with business goals.

Theoretical Framework

Actor-network theory (ANT) uses "translation" in a unique way, distinct from the term's use in linguistics (Callon, 1986). In ANT, translation is the process by which actors (both human and non-human) are brought into a network and transformed into new actors with different roles and interests (Iyamu, 2021). Actors align specific interests through the process of translation and shifting negotiation to focus on value co-enactment (Carroll, 2014). In the translation process, the designer who creates the artefacts intends for them to be used in a certain manner, and this is then inscribed into the tool.

This study adopts the theoretical concept of translation from actor-network theory (ANT) to deepen our understanding of the dualistic synergy between business architecture and AI. In adopting this perspective, we argue that both social construct and technical determinism are essential in the dualistic approach and therefore propose a socio-technical account in which neither technical nor social positions are privileged. The concept of translation works to solidify actor-worlds (Callon, 1986). Law (1992: 5) instinctively explains that "Translation is a verb which implies transformation and the possibility of equivalence, the possibility that one thing may stand for another". Implicitly, when something such as a process or design is translated, it is to some extent transformed.

We attempt to use the metaphor of distancing space, the artefacts of business architecture can be designed in a more nuanced way as their attributes and elements pass through one form of translation process or another. Such a transformative process can be enacted by AI. On the one hand, the concept of translation sheds light on the underpinning attributes and elements of business architecture design. Instead of starting with studying the network effect, ANT stresses that it is vital to first trace the process of translation that lies beneath the phenomenon under study (Akrich, 2023). On the other hand, ANT opens ways through which the various modes of business designs can be traced (Gallivan, 2024). It therefore transgresses the one-dimensional approach of designing business architecture in an organisation. This understanding implies that translation is inherently about alternative and transformation.

There is often, although sometimes silent, tension among actors because of diverse interests. Thus, translation plays a vital role in enabling stability (Dery et al., 2013). Translation, therefore, helps re-interpret, re-present unique semiotic business landscapes. Hanseth et al. (1998) suggest that to align interests, stability and social order are continually negotiated. Stability fortifies synergy, which this study seeks to gain a better understanding of in its dualistic manner.

Research Approach

Based on the objective of the study, which is to examine the synergy between AI and BA, and to understand how the two concepts can be complementarily applied to improve business design and processes in organisations, the qualitative approach was followed. The qualitative approach allows the researcher to identify issues from the participant's perspective and understand the meanings and interpretations that are given to events (Hennink et al., 2020). Renjith et al. (2021) emphasise that qualitative studies are conducted in their natural environments to gain a deeper understanding of the participants' experiences and realities.

This study employs document analysis as a data collection technique. This technique was selected because the researcher has the potential to access a wide variety of materials regarding the application of AI and business architecture across organisations. Morgan (2022) shared that, for document analysis, the researcher is active in discovering, collecting, and making decisions about which materials will be analysed and which will be ignored. In this study, data will only be collected from peer-reviewed academic sources, including books, conference papers and journal articles. Peer-reviewed articles are credible due to the rigorous verification process they go through before publication. These articles will be sourced from various databases such as Google Scholar, Emerald, IEEE, Scopus, and Taylor and Francis. These are the most subscribed databases at our university, as they provide access to a broad range of articles on technologies and business processes. In searching for relevant articles, the study used the following keywords: artificial intelligence, business architecture, synergy, business process, and business design. Because of the high popularity and dominance of topics (Artificial Intelligence and Business architecture) in various quarters, the study will use peer-reviewed articles within the range of five years (2020-2025).

The collected data will be analysed interpretively using actor network theory (ANT). ANT is a social technical theory (Iyamu, 2021), providing a lens that enables the researcher to think deeper about how and why AI and BA synergy in organisations can be achieved. Without the socio-technical theory acting as a lens, it's challenging for the researcher to see things differently and thus continue to be limited to normal settings. Shaanika et al. (2025) alluded that researchers apply socio-technical theories to gain meaning in the processes and activities beyond the conventional interpretivist approach. This study adopts the theoretical concept of translation from actor-network theory (ANT) to deepen our understanding of the dualistic synergy between business architecture and AI.

The Dualistic Approach for leveraging Business architecture and Artificial Intelligence

Even though Business Architecture (BA) and Artificial Intelligence (AI) are known to be unique concepts with each having its focus, the two should not be operating in isolation. Rather, there is a need for coherence and alignment between the two concepts to ensure their successful integration across organisational structures. Therefore, due to the interdependence between the two, there is a need for a dualistic approach that focuses on and enables an understanding of the factors that influence the two concepts. There might be a long list of factors, but this study focuses on four critical factors: alignment, automation, process and business design, as shown in Table 1. These factors define the focus and direction of the two concepts in organisations.

Table 1: The dualistic leverage approach

Critical factors	Business Architecture	Artificial Intelligence
Alignment	<i>What is the role of BA in ensuring alignment between AI and business strategy?</i> When a business problem has the potential to be transformed by AI, it is not always clear how to execute and develop the solution (Takeuchi & Yamamoto, 2020). This is primarily because BA can provide a structured approach to aligning business strategy with operational process using AI capabilities (Fitriani et al., 2024). Thus, BA acts as a strategic enabler and governance mechanism for AI solutions by providing business strategies and process (Mathroo, 2025).	<i>How can AI be used for the alignment between business architecture and business strategy?</i> AI facilitates predictive planning using search and optimisation algorithms and enhances decision-making by learning from data. Thus, AI can be applied to ensure effective interaction between BA and machines including automation of processes. This helps to generate new content, ultimately refining and improving value delivery to customers and stakeholders (Fitriani et al., 2024).
Automation	<i>How is BA influenced by AI for business capabilities automation?</i> BA is neither static in development nor in implementation. However, the flexibility must be engineered through technology automation using AI capability. Business processes are becoming increasingly powerful, quicker and error-prone, with the incorporation of techniques from AI. As a result, organisations can concentrate on decision-making and business strategies other than manual and repetitive operations (Gomes, 2024).	<i>How can AI be guided by BA for the automation of business capabilities?</i> BA acts as a blueprint that provides a comprehensive guide for AI adoption that encompasses all aspects, from the machine intelligence continuum to AI use in automation and augmentation (Trad, 2021). This can be attributed to why Hsu (2025) argues that AI technology has become a key driving force for the innovation of BA.
Process	<i>How can BA be applied with AI to manage business processes?</i> Business processes are increasingly diverse, making it more challenging for BA. Enholm et	<i>How can AI be informed by BA in the management of business processes?</i> BA comprises a coherent whole of principles, methods, and models that are used in the design

Critical factors	Business Architecture	Artificial Intelligence
	al. (2022) suggest that AI can provide business value within an organisational context. Thus, AI can be applied to process data fast and deliver meaningful insights, allowing business executives to make quick and educated decisions. This agility is essential for BA to effectively manage processes in an organisation (Zohuri, 2023).	and realisation of the organisation structures, business processes, information systems and infrastructures (Zhang, 2018). However, these factors are often not automated and lag interaction (Iyamu, 2024; Ilin, Lyovina & Antipin, 2015). Gomes (2025) AI automate tasks, which include human and technological interactions.
Business Design	<i>How can BA enable AI to improve business design?</i> BA can guide the enablement of AI for the design of organisational processes (Ramírez, 2023). AI-driven data analytics tools provide BA with valuable insights into consumer behaviour and preferences (Adeleye, 2024). These insights inform the design process, enabling the creation of more targeted and effective design solutions (Dwivedi et al., 2021).	<i>How can AI be integrated with BA to improve business design?</i> The transformational effects of AI's process capabilities materialised by reengineering processes (Wamba-Taguimdje et al., 2020). To integrate AI with BA, it requires an understanding of the various AI applications and identifying common aspects of AI applications which allow a more unified architecture for the implementation of AI in organisations (Walker, 2023).

The table presented above contributes theoretically to the understanding of the dualistic approach between BA and AI. With the ongoing adoption of AI in organisations' processes, the dualistic approach can guide and be used as a contact point for various aspects of innovation being implemented. The four critical factors, as discussed, constitute core elements of organisational operation and understanding their relationship can help improve their successful implementation.

Conclusion

We propose a dualistic synergy between BA and artificial intelligence in an organisation's setting. This is to leverage alignment between the concepts and improve organisational design and processes, including the automation of business capabilities. The dualistic synergy is intended to address some of the challenges increasingly encountered when applying either of the concepts, such as business strategy with IT solutions, managing change in their rapidity, engaging with the vast stakeholders, and navigating the consistent complexity within an organisation. Applying the translation concept of ANT brings a fresh perspective to gaining a better understanding of how BA and AI can be complementarily applied in an organisation. The theory helps to gain insights into the dynamics between BA and AI in an organisational context and their relevance.

Based on the growing interest in both BA and AI, this study contributes towards the advancement of the concepts from a complementary perspective. Additionally, the study adds to the existing literature in the areas of organisational capability, BA, AI, and the application of ANT in the IS field.

The proposed framework is purely conceptual. Thus, an empirical study will be more beneficial to organisation including the academic domain. We therefore suggest that further studies should consider applying case studies to strengthen and demonstrate their practical applicability.

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References

- Adeleye, I. (2024). The Impact of Artificial Intelligence on Design: Enhancing Creativity and Efficiency. *Journal of Engineering and Applied Sciences*, 3, 1-14. 10.70560/vvsfej12.
- Akrich, M. (2023). Actor Network Theory, Bruno Latour, and the CSI. *Social Studies of Science*, 53(2), 169–173.
- Benecke, G., Schurink, W., & Roodt, G. (2007). Towards a substantive theory of synergy. *SA Journal of Human Resource Management*, 5(2), 9-19.
- Callon, M. (1986). Some elements of a sociology of translation: domestication of the scallops and the fishermen of St Brieuc Bay. In: Law, J. (ed.), *Power, Action and Belief: A New Sociology of Knowledge?*, pp. 196-229. London: Routledge and Kegan Paul.
- Carroll, N. (2014). Actor-network theory: A bureaucratic view of public service innovation. In *Technological advancements and the impact of actor-network theory* (pp. 115-144). IGI Global Scientific Publishing.
- Crupi, A., Marinelli, L., & Cacciatore, E. (Eds.). (2025). *The Generative AI Impact: Reframing Innovation in Society 5.0*.
- Dery, K., Hall, R., Wailes, N., & Wiblen, S. (2013). Lost in translation? An actor-network approach to HRIS implementation. *The Journal of Strategic Information Systems*, 22(3), 225-237.
- Dila, R. A., Lubis, M., & Ramadani, L. (2024). Verification and validation of business processes in business architecture using the formal method with V-Model concept. *Procedia Computer Science*, 234, 718-724.
- Dwivedi, Y. K., Hughes, D. L., Ismagilova, E., Aarts, G., Coombs, C., Crick, T., & Williams, M. D. (2021). Artificial Intelligence (AI): Multidisciplinary perspectives on emerging challenges, opportunities, and agenda for research, practice, and policy. *International Journal of Information Management*, 57, 101994. <https://doi.org/10.1016/j.ijinfomgt.2019.08.002>

- Enholm, I. M., Papagiannidis, E., Mikalef, P., & Krogstie, J. (2022). Artificial intelligence and business value: A literature review. *Information systems frontiers*, 24(5), 1709-1734.
- Fitriani, L., Khodra, M. L., & Surendro, K. (2024). Artificial Intelligence Adoption Framework for Business Architecture: Note: Sub-titles are not captured in Xplore and should not be used. In *2024 11th International Conference on Advanced Informatics: Concept, Theory and Application (ICAICTA)* (pp. 1-6). IEEE.
- Gallivan, M. J. (2024, May). What Every Information Systems Researcher Should Know about Actor-Network Theory and its Potential Value to Their Work. In *Proceedings of the 2024 Computers and People Research Conference* (pp. 1-9).
- Gellweiler, C. (2022). IT architects and IT-business alignment: a theoretical review. *Procedia Computer Science*, 196(2022), 13-20.
- Gomes Rizzi, M. T. (2025). Artificial Intelligence as a Catalyst for Business Model Innovation in Architectural Practice: Insights from the Swedish Industry.
- Gomes, P., Verçosa, L., Melo, F., Silva, V., Filho, C. B., & Bezerra, B. (2022). Artificial intelligence-based methods for business processes: a systematic literature review. *Applied Sciences*, 12(5), 2314
- Haldorai, A., Ramu, A., & Suriya, M. (2020). Enterprise Architecture for IoT: Challenges and Business Trends. In *Business Intelligence for Enterprise Internet of Things* (pp. 123-138). Cham: Springer International Publishing.
- Hasan, M. F. (2024). Bibliometric Review of Research Trends in Artificial Intelligence in Education. In *Proceedings International Conference on Religion, Science and Education* (Vol. 3), (pp. 1-7).
- Hennink, M., Hutter, I., & Bailey, A. (2020). *Qualitative research methods*. Sage.
- Hsu, K. (2025, May). Innovative Strategies for Business Architecture Models in the Era of Artificial Intelligence. In *2024 2nd International Conference on Economic Management, Financial Innovation and Public Service (EMFIPS 2024)* (pp. 260-268). Atlantis Press.
- Ilin, I. V., Lyovina, A. I., & Antipin, A. R. (2015). Business architecture development and process and project maturity. In *Emerging Trends in Information Systems: Recent Innovations, Results and Experiences* (pp. 51-63). Cham: Springer International Publishing.
- Iyamu, T. (2023). *The concept of Enterprise architecture from theory to practice*. New York: Auerbach Publications.
- Iyamu, T. (2022). *Enterprise architecture for strategic management of modern IT solutions*. Auerbach Publications.

- Iyamu, T. (2021). *Applying theories for information systems research*. Routledge.
- Jasińska, M. (2020). Synergy-an enhancement of learning organisations undergoing a change. *Entrepreneurship and Sustainability Issues*, 7(3), 1902.
- Javanbakht, N., & Chia, E. S. (2023). A generic business architecture reference model using systems theory perspective in enterprise architecture. In *2023 IEEE 25th Conference on Business Informatics (CBI)* (pp. 1-10). IEEE.
- Kitsios, F., & Kamariotou, M. (2019). Business strategy modelling based on enterprise architecture: a state of the art review. *Business Process Management Journal*, 25(4), 606-624.
- Klingenstein, F., Kessler, S., Hoeltl, M., Daume, P., & Fischer, M. (2025). A maturity model to assess and enhance the AI readiness of an Enterprise Architecture. In *the Proceedings of the 31st Americas Conference on Information Systems*, Montreal, Canada, 14-16 August
- Latour, B. (1997). On actor-network theory. *A few clarifications plus more than a few complications*. http://www.bruno-latour.fr/sites/default/files/P-67_20.
- Law, J. (1992). Notes on the theory of the actor-network: Ordering, strategy, and heterogeneity. *Systems practice*, 5(4), 379-393.
- Matharoo, S. (2025). Role of Enterprise Architecture in Adoption of AI in Enterprises. *International Journal of Technology, Management and Humanities*, 11(04), 16-25.
- Malyzhenkov, P. V., & Ivanova, M. I. (2017). An architectural approach to IT-business alignment. *Business Informatics*, 3(41), 56-64.
- Matter, MN., & Gado, GN. (2024). Artificial intelligence in architecture: integration into architectural design process. *Engineering Research Journal*, 181, 1-16.
- Michael, O. (2024). of Artificial Intelligence. *The Future of Small Business in Industry*, 5, 215.
- Morgan, H. (2022). Conducting a qualitative document analysis. *The qualitative report*, 27(1), 64-77.
- Perifanis, N. A., & Kitsios, F. (2023). Investigating the influence of artificial intelligence on business value in the digital era of strategy: A literature review. *Information*, 14(2), 85.
- Ramírez, J. G. C. (2023). Incorporating Information Architecture (ia), Enterprise Engineering (ee) and Artificial Intelligence (ai) to Improve Business Plans for Small Businesses in the United States. *Journal of Knowledge Learning and Science Technology ISSN: 2959-6386 (online)*, 2(1), 115-127.

- Renjith, V., Yesodharan, R., Noronha, J. A., Ladd, E., & George, A. (2021). Qualitative methods in health care research. *International journal of preventive medicine*, 12.
- Sahu, A. K., Sahu, A. K., & Sahu, N. K. (2020). A review on the research growth of industry 4.0: IIoT business architectures benchmarking. *International Journal of Business Analytics (IJBAN)*, 7(1), 77-97.
- Shaanika, I., Nyakana, W., & Iyamu, T. A Method for Selecting Sociotechnical Theories in Information Systems Research. In *Proceedings of the 23rd European Conference on Research Methods in Business and Management*. Academic Conferences and Publishing Limited.
- Shaanika, I., & Iyamu, T. (2018). Developing the enterprise architecture for the Namibian government. *The Electronic Journal of Information Systems in Developing Countries*, 84(3), e12028.
- Takeuchi, H., & Yamamoto, S. (2020). Business analysis method for constructing business–AI alignment model. *Procedia Computer Science*, 176, 1312-1321.
- Trad, A. (2021). The business transformation enterprise architecture framework for innovation: The role of artificial intelligence in the global business education (RAIGBE). *The Business & Management Review*, 12(1), 82-97.
- Wæraas, A., & Nielsen, J. A. (2016). Translation theory ‘translated’: Three perspectives on translation in organisational research. *International Journal of Management ReCamera-readyviews*, 18(3), 236-270.
- Walker, A. (2023). Business Process Architecture for the Integration of Artificial Intelligence at Aerospace Organisations. *International Journal of Aviation, Aeronautics, and Aerospace*, 10(4), 5.
- Wamba-Taguimdje, S. L., Fosso Wamba, S., Kala Kamdjoug, J. R., & Tchatchouang Wanko, C. E. (2020). Influence of artificial intelligence (AI) on firm performance: the business value of AI-based transformation projects. *Business process management journal*, 26(7), 1893-1924.
- Zhang, M., Chen, H., & Luo, A. (2018). A Systematic Review of Business-IT Alignment Research with Enterprise Architecture. *IEEE Access*, 6, 18933-18944.
- Zhao, L., Macaulay, L., Adams, J., & Verschueren, P. (2008). A pattern language for designing e-business architecture. *Journal of Systems and Software*, 81(8), 1272-1287.
- Zohuri B (2023). The Synergy of Business Resilience Systems and Artificial Intelligence Entanglement. *Current Trends in Engineering Science*, 3(4), 1039