Commentary

Is Artificial intelligence (AI) the game-changer for business? Exploring current insights, opportunities, and potential research agenda

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Abstract

Artificial Intelligence (AI) is radically reshaping global business practices, offering significant potential for enhanced operational efficiency, improved consumer engagement, and innovative solutions. While major organisations have successfully deployed AI across diverse sectors, the enthusiasm surrounding its transformative powers often overshadows the complex challenges it presents. High costs, ethical dilemmas, regulatory uncertainty, and risks to human employment persist as critical barriers to AI adoption. These concerns are especially salient in Asia, where labour costs are relatively low, there are strong preferences for human touch, and cultural and linguistic variances demand tailored AI approaches and governance. Despite Asia's growing role in AI development, existing research remains heavily Western-centric, leaving a gap in understanding the region-specific implications of AI integration. This article discusses the critical discourse of AI by urging more empirical research that investigates its impact on multi-faceted industries and stakeholders, particularly in the Asian contexts. Only through ethical, inclusive, and critically informed implementation can AI move beyond hype to become a truly equitable driver of sustainable business growth in a digital era.

Introduction

Artificial intelligence (AI), an innovation that combines computer systems and machine learning technology, has the ability to mimic problem-solving and decision-making capabilities like human intelligence and human cognitive functions (Zirar et al., 2023). Since its inception, AI has been regarded as a revolutionary technology and key tool that reshapes people's lives and business processes as well. In the business context, AI is used as a tool to support the human workforce by optimising workflows and making their operations more efficient by generating information based on machine learning algorithms, predicting future outcomes based on data analysis, rapidly processing enormous amounts of data, extracting meaningful insights, and automating repetitive tasks. For example, AI powers various business automations in technology, including self-driving cars, chatbots, virtual travel booking platforms, payment gateways, smart assistants, automated financial investing, manufacturing robots, social media monitoring, healthcare management, and more. The integration of AI has brought about transformative changes in business contexts, significantly altering the way businesses function and compete in the marketplace.

Considering the potential of AI, its adoption by enterprises could generate up to \$4.4 trillion in annual worldwide economic value (Mckinsey.com, 2024). Consistent with this trend, PricewaterhouseCoopers (PwC) estimates AI technologies could contribute up to US\$ 15.7 trillion to the global economy by 2030 (PwC.com, 2024). In Asia, AI investment is projected to exceed USD 110 billion by 2028, as an increasing number of companies across diverse industries adopt its capabilities in their operations (Asianinsiders.com, 2025). To further emphasise, AI investments in Asia are projected to continuously enjoy a compound annual growth rate of approximately 25 percent from 2023 to 2028 (AsianInsiders.com, 2025). In line with this encouraging sentiment, Lazada, a subsidiary of Alibaba Group, reported that 68% of online sellers in Southeast Asia exhibit a strong familiarity with AI and regularly use these tools in their daily business activities, indicating the potential of this technology in the region (SCMP.com, 2025). These trends exhibit the promising growth potential of AI in the context of the business ecosystem.

Additionally, numerous businesses have successfully integrated AI into their operations. For instance, United Parcel Service (UPS), the American logistics behemoth, has employed AI to mitigate hazards in parcel handling, particularly concerning package theft issues. John Deere, a prominent American brand and manufacturer of agricultural machinery and industrial equipment, has incorporated AI into its "See & Spray" technology, which employs machine learning and computer vision to identify weeds in real time, thereby enhancing farmers' efficiency and maximising crop yields. The integration of AI is also evident in an Asian context, where companies like Alibaba and Lazada employ AI algorithms to study consumer behaviour and provide highly targeted product recommendations on their online e-commerce platforms. These systems will customise advertisements, product recommendations, and content to facilitate an engaging and cohesive customer experience that aligns with local preferences and tastes. In China, the WeChat social networking application features AI-driven chatbots and mini programs that manage various tasks, including customer enquiries and financial transactions, thereby facilitating a seamless user experience. In Southeast Asia, the preeminent ride-hailing application, Grab, employs AI to enhance driver allocation, forecast demand trends, reduce ride pairing durations,

and augment daily journey volumes. These examples portrayed the vast potential of AI and its adoption in the business ecosystem globally.

Opportunities

The fast-growing use of AI has been an emerging technology topic among the industry players and researchers for the past decades, given its vast benefits to the industries and users. AI from its first generation of inception has evolved through years, having the capability to enhance day-to-day business operations and efficiency through automation, personalise customer experiences, foster innovation, accelerate response times, increase revenue, deliver market insights through data integration, create positive omnichannel experiences, reduce operational costs and time, enhance response times further, optimise retail supply chains, and much more. The recent trending type of disruptive AI is generative AI, which uses sophisticated machine learning models to create original content such as images, software code, video, audio, or text in response to a user's request or prompt (Khan et al., 2024; Sigala et al., 2024). Similar to the conventional AI, the benefits of generative AI could also help businesses in their decision-making to improve the customer experience, develop new products and services, reduce costs, drive productivity, forecast finances, drive profitability, and promote sustainability, among others (Doshi et al., 2024); however, it has a stronger and more relevant predictive capability.

Challenges

Despite AI presents businesses with opportunities to improve their efficiency and value creation, there are a great deal of problems involved with the use of AI. For instance, many industry participants remain apprehensive about fully integrating AI into their operations. The high costs of training and the time needed to implement the technology were suggested to be among the barriers to its widespread use (Peretz-Andersson et al., 2024). Especially considering the low labour cost in Asia, making investment on AI less attractive compared to other countries in the West. Apart from that, challenges related to the displacement of human roles, ethics, and security are also a key factor that business organisations need to address, given its potential in affecting the adoption of AI and to gain a potential competitive advantage from the said technology. Displacement of human role, for example, may contradict the social goals of creating employment opportunity and improving the wealth of the society. Another issue related to the ethical adoption of AI is something that needs to be considered carefully by practitioners. Many nations have established regulations to govern and safeguard the safety and privacy aspects of users (Wong et al., 2025). Additionally, cultural and language barriers have particular implications for businesses adopting AI. This scenario is relevant, especially in the Asia-Pacific region where culture and language are diverse, and the communication of AI languages will be particularly difficult.

Research Agendas

No doubt AI could bring significant benefits to businesses; it needs to be implemented thoughtfully and ethically. Although there are ample past studies that have focused on

AI adoption in businesses, there is limited empirical evidence on its broader impact on multi-faceted stakeholders in different industry setting, particularly within the Asian context. Hence, future research is recommended to challenge the existing status quo on the impact of AI on businesses and explore the uncertainties associated with the technology. As Asia is among the key players in the development and implementation of AI (Trabelsi, 2024; Xu et al., 2024) globally, a focus on its perspective will further enhance the body of knowledge in this region. Therefore, we recommend the future studies to address the following research avenues:

1) What are the key challenges (i.e., legal, regulatory, economic, and social) that businesses encounter in adopting AI technologies in Asia?
2) How can governments effectively regulate and facilitate the implementation of AI across various industries?
3) What are the geopolitical implications of AI development and implementation for global business competitiveness?
4) What strategic and operational benefits can AI offer from a business perspective?
5) Where (i.e., in what sectors or areas of business) should the use of AI be focused to minimise the potential negative impacts and maximise its benefits?
6) What are the primary operational and organisational challenges faced by firms as they adopt and integrate AI into their business processes?
7) What is the impact of AI adoption on overall business performance and employee productivity?
8) What are the critical factors influencing the adoption of AI in different multi-industry settings?
9) What are the key organisational enablers and barriers to AI adoption in large versus SME enterprises?
10) How does AI adoption reshape employee engagement, define job roles, and make decisions in modern organisations?
11) How can AI support sustainability efforts in business?
12) How can AI adoption promote community-driven business?
13) How can AI reshape and enhance consumer experience across industries?
14) What are the broader implications of AI adoption for both consumers and employees in business contexts?
15) What are the potential risks and negative consequences associated with AI implementation in business operations?
16) What factors contribute to the resistance or non-adoption of AI among businesses?
17) To what extent does the use of AI influence customer behaviour and perceptions across different stages of the decision-making process—namely, before, during, and after the consumption of products or services?

Conclusion

Artificial Intelligence (AI) is undoubtedly transforming the global business environment, bringing about significant innovations across various sectors. Its ability to automate processes, provide accurate data-driven insights, and enhance customer experiences establishes it as a fundamental element of contemporary business strategy.

As evidenced by prominent companies such as UPS, John Deere, Alibaba, and Grab, the practical uses of AI extend across a wide range of industries—from logistics and agriculture to e-commerce and mobility services—demonstrating its vast potential for value creation. Additionally, the swift increase in AI investments throughout Asia, especially Southeast Asia, emphasises the region's preparedness to adopt this digital transformation and leverage its economic opportunities.

However, despite the remarkable prospects, the adoption of AI is accompanied by several challenges. Significant implementation costs, ethical dilemmas, regulatory limitations, and the potential displacement of human jobs continue to obstruct widespread integration. Furthermore, the cultural and linguistic diversity present in the Asia-Pacific region introduces a distinct array of obstacles that require context-specific AI models and governance structures. These challenges highlight the necessity for responsible, inclusive, and well-regulated AI development, particularly in areas experiencing digital transitions.

Although considerable research has been conducted in the Western context, future research should explore the intricate legal, ethical, organisational, and operational ramifications of AI adoption, especially concerning small and medium-sized enterprises (SMEs), particularly in the Asia region. Investigating the effects of AI on consumer behaviour, job functions, and strategic decision-making is essential for deeper understanding. Only through such focused research can businesses and policymakers ensure that AI is used ethically and effectively. In all, AI serves as both a driver of innovation and a challenge that necessitates strategic foresight. It's responsible implementation, supported by appropriate governance and ethical considerations, is crucial for maximising its benefits while mitigating potential risks.

References

Asianinsiders.com, (2025), *AI investment in Asia heats up as more companies embrace innovation*, Available at: https://asianinsiders.com/2025/03/18/2025-ai-investment-asia/#:~:text=AI%20Investment%20in%20Asia%20Heats%20Up%20as%20More%20Companies%20Embrace%20Innovation&text=AI%20investment%20in%20Asia%20is%20expected%20to%20surpass%20USD110%20billion,build%20an%20AI%20value%20chain (accessed 22 September 2025).

Doshi, A.R., Bell, J.J., Mirzayev, E. and Vanneste, B.S., (2025), "Generative artificial intelligence and evaluating strategic decisions", *Strategic Management Journal*, vol. 46, no. 3, pp. 583–610.

Khan, N., Khan, Z., Koubaa, A., Khan, M.K. and Salleh, R.B., (2024), "Global insights and the impact of generative AI-ChatGPT on multidisciplinary: a systematic review and bibliometric analysis", *Connection Science*, vol. 36, no. 1, p. 2353630.

McKinsey.com, (2024), *Implementing generative AI with speed and safety*, Available at: https://www.mckinsey.com/capabilities/risk-and-resilience/ourinsights/implementing-generative-ai-with-speed-and-safety (accessed 22 September 2025).

Peretz-Andersson, E., Tabares, S., Mikalef, P. and Parida, V., (2024), "Artificial intelligence implementation in manufacturing SMEs: A resource orchestration approach", *International Journal of Information Management*, vol. 77, p. 102781.

PwC.com, (2024), *Sizing the prize: What's the real value of AI for your business and how can you capitalise?*, Available at: https://www.pwc.com/gx/en/issues/artificial-intelligence/publications/artificial-intelligence-study.html (accessed 22 September 2025).

SCMP.com, (2025), *94% of Southeast Asia's e-commerce sellers see AI's potential*, Available at: https://www.scmp.com/native/business/topics/leaders-gen-ai-e-commerce/article/3305945/94-southeast-asias-e-commerce-sellers-see-ais-potential (accessed 22 September 2025).

Sigala, M., Ooi, K.B., Tan, G.W.H., Aw, E.C.X., Cham, T.H., Dwivedi, Y.K. and Wirtz, J. *et al.*, (2024), "ChatGPT and service: opportunities, challenges, and research directions", *Journal of Service Theory and Practice*, vol. 34, no. 5, pp. 726–737.

Trabelsi, M.A., (2024), "The impact of artificial intelligence on economic development", *Journal of Electronic Business & Digital Economics*, vol. 3, no. 2, pp. 142–155.

Wong, B.K.M., Tan, M.K.M., Chua, C.S.W. and Kaur, M., (2025), "Ethical and legal considerations in digital healthcare ecosystems: The Malaysian experience" in De-Pablos, P.O., Almunawar, M.N. and Anshari, M. (Eds.), *Digital healthcare, digital transformation and citizen empowerment in Asia-Pacific and Europe for a healthier society*, Amsterdam: Elsevier, pp. 287–304.

Xu, J., Lee, T. and Goggin, G., (2024), "AI governance in Asia: policies, praxis and approaches", *Communication Research and Practice*, vol. 10, no. 3, pp. 275–287.

Zirar, A., Ali, S.I. and Islam, N., (2023), "Worker and workplace artificial intelligence (AI) coexistence: Emerging themes and research agenda", *Technovation*, vol. 124, p. 102747.