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Sustaining Digital Transformation: The Human Touch in AI Adoption for Economic Resilience in Malaysia's Financial Sector

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Abstract

This paper examines the critical role of the human touch in fostering sustainable adoption of generative artificial intelligence (GenAI) within Malaysia's financial sector. Drawing upon insights from recent Bank Negara Malaysia surveys, which reveal that only 20% of C-suite executives actively engage with GenAI tools, the study underscores the leadership gap that constrains inclusive digital transformation. Anchored in the literature on emotional intelligence and trust in technology-driven change, the paper employs a conceptual analysis informed by industry reports, regulatory frameworks, and recent empirical findings. The discussion highlights how leaders equipped with emotional intelligence can reduce resistance to technological change, inspire workforce adaptability, and build trust in AI-driven systems, thereby strengthening both organisational resilience and sectoral sustainability. Furthermore, the study situates AI adoption within broader discourses of sustainable economic development by linking technological innovation to human capital enhancement, ethical governance, and inclusive financial services. Findings suggest that balancing automation with the human touch is indispensable for ensuring that AI-driven transformation supports productivity, equity, and long-term sustainability. The paper concludes with policy recommendations, emphasising leadership development, responsible AI governance, and targeted workforce reskilling as key enablers of sustainable digitalisation in Malaysia's financial sector.

Keywords

Generative artificial intelligence (GenAI), sustainable digital transformation, financial sector Malaysia, leadership and governance, workforce reskilling

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Introduction

In the study of Artificial Intelligence (AI) related to this paper, human touch refers to the essential role that people, whether they are developers, users, leaders, or communities, play in ensuring that AI technologies are not only technically effective but also ethically responsible, socially inclusive, and aligned with human values. The revelation of Malaysia's first homegrown large language modal (LLM) known as *Intelek Luhur Malaysia Untukmu* (ILMU) brings a leap for the nation's race in AI development. ILMU was developed by YTL AI Labs in collaboration with Universiti Malaya, as the Generative Artificial Intelligence (GenAI) rivalling GPT-4o (Kaur, 2025).

Malaysia has explicitly pinpointed AI as a strategic pillar for elevating national competitive standing, with projections indicating that the GenAI segment alone could inject approximately USD 113.4 billion into the economy, representing 28 per cent of projected gross domestic product in 2024 (Ng, Haridas, Teoh, & Toh, 2023). This achievement was inline with the progression of Malaysia towards AI adoption stipulated in the National Artificial Intelligence Roadmap 2021-2025 or AI-RMAP 2021-2025 (Ministry of Science Technology and Innovation (MOSTI), 2021).The organisation readiness on AI adoption is impeded by a number of structural and human capital hurdles. In 2023, a report from MyDIGITAL Corporation on AI adoption in Malaysia anticipates that, nationwide, only 15 to 20 per cent of enterprises will move to operationalise AI capabilities in the forthcoming three to five years, a sentiment mirrored by the finding that merely 19 per cent of the labour force perceives its digital skill set as commensurate with emerging demands (Ng et al., 2023). Such indicators reveal a pronounced disparity between the scale of macroeconomic opportunity and the complementary preparedness of the human ecosystem. In contrast, the financial sector is positioning itself as an early mover; Bank Negara Malaysia reports that, by 2024, 71 per cent of banking institutions and 77 per cent of insurance providers had embedded AI modules (Bank Negara Malaysia, 2025). This study set out to analyse the conditions identified by reports provided by credible sources under which human-touch in artificial intelligence adoption will be sustainable for a progressive digital transformation and economic resilience in Malaysia's financial sector.

Methodology

Research Design

The research design employed in this study was document analysis on two credible report on AI adoption in Malaysia namely from MyDIGITAL Corporation GenAI report and Bank Negara Malaysia Discussion Paper on AI readiness, published in the year 2023 and 2025 respectively. The approach was suitable to investigate the aspect of human touch in AI adoption amongst Malaysia's financial sector because this brings an insight on the responses from both the public as well as the financial industry on this pertinent issue that needs to be unmasked and discussed academically.

Data Analysis

Data from the reports were extracted and presented in several tables in this study which were discussed extensively in order to provide the view on the state of AI adoption and this study further provided a deeper evaluation on technological and innovation impact of AI adoption amongst financial sector's in Malaysia on achieving sustainable economic growth based on findings of the

MyDIGITAL Corporation GenAI report 2023 and Bank Negara Malaysia AI Readiness Survey 2024.

Results and Discussion

Macro-Level National AI Readiness

The state of AI adoption of Malaysia at the macro-level can be found from the findings of MyDIGITAL Corporation GenAI Report in 2023 as illustrated in Table 1 below.

Table 1. Work activities in Malaysia potentially transformed by generative AI

Industry	Work Contribution
Wholesale & Retail Trade	21%
Manufacturing	19%
Hotels & Restaurant	13%
Education, Health & Social Work	13%
Construction	8%
Others (including Financial Services Sector)	26%

Source: MyDIGITAL GenAI Report 2023

Table 1 provide the findings from MyDIGITAL GenAI Report 2023 on work activities transformed by generative AI. In Malaysia, sectors most agreeable to generative AI adoption indicate wholesale and retail trade at 21% and manufacturing at 19% of overall transformative potential. Accommodation and food services, combined with education, health, and social care—each accounting for 13%—indicate strong prospects, especially within client-facing and information-intensive operations. It was reported that others industry (including financial service sector) encompassing 26% of the total, underscores extensive use of generative AI in 2023.

Sector-Level: Financial Services

A survey on AI Readiness amongst the financial service providers in Malaysia was conducted by Bank Negara Malaysia in 2024 provided much needed insights as to how the financial industry were addressing its digital transformation towards adopting AI in its operations. Table 2 below provided an overview of trends in AI adoption amongst the respondents of the BNM AI Survey 2024.

Table 2. Trends in AI Adoption Among Financial Service Providers in Malaysia

Institution Type	)23 Rate of Adoption	2024 Rate of Adoption
Banking Institutions & Development Financial Institutions (DFIs)	56%	71%
Insurance & Takaful Operators (ITOs)	58%	77%

Source: BNM AI Survey 2024

The data from Table 2 highlights a clear upward trend in AI adoption across financial institutions between 2023 and 2024. Banking institutions and Development Financial Institutions (DFIs) increased their adoption rate from 56% to 71%, marking a 15 percentage point rise, while

Insurance and Takaful Operators (ITOs) showed an even stronger uptake, climbing from 58% to 77%, a 19 percentage point increase. This suggests that while both sectors are accelerating their AI integration, ITOs are slightly ahead of banks and DFIs, indicating greater momentum in embedding AI into their operations. The findings point to a broader shift in the financial sector where AI is moving from experimentation toward mainstream adoption, with insurance players emerging as early leaders in implementation.

Comparative Analysis Between Macro-Level Report vs Financial Sector Report on the state of AI Adoption

Findings from the MyDIGITAL GenAI 2023 report and BNM AI Survey 2024 were deduced in this study in presenting the AI adoption in Malaysia which stipules two broad spectrum namely at the national scale in the 2023 versus the financial service industry in 2024. Table 3 summarises these findings and the researchers' deduction on the implication for the digital transformation in relation to sustainable development for the economy as well as the future pathways in AI adoption in the financial sector of Malaysia.

Table 3. Macro Level vs. Financial Sector

Dimension	Macro Economy (Malaysia, GenAI Impact 2023)	Financial Sector (BNM AI Survey 2024)	*Implication to Digital Transformation (IR4.0)
Skills readiness	Only 19% feel digitally skilled; ~15% engaged in advanced digital skills	Talent shortage cited by approximate 70% of FSPs; integration/budget constraints remain	Upskilling is the critical bottleneck at both economy and sector levels.
Firm adoption rate	Only 15–20% of firms expected to embrace AI soon	71% of banks/DFIs and 77% of insurers using AI in 2024 (up from 56% and 58% in 2023)	Financial services are leading adoption relative to other sectors.
Sectoral priority	Manufacturing = 23.4% of GDP (2022), identified as high GenAI potential	Financial services: most active sector in AI pilots & deployments	Banking/finance and manufacturing are dual priority sectors for IR4.0

**Authors' own deductions based on the document analysis*

The findings indicate that while Malaysia grapples with a pronounced national readiness deficit—especially in workforce capabilities and breadth of firm-level implementation—the financial sector has emerged as a formidable sector in the realisation of AI under the digital transformation in line with the Fourth Industrial Revolution (IR4.0) scope. With Bank Negara Malaysia's finely-tuned governance architectures such as the AI Governance Framework currently being structured and developed with their commitment for a regulatory approach for AI that aligns with the principles of parity, proportionality, and neutrality for regulating innovation., expedited operational ramp-up, and strategic focus upon generative AI (GenAI) together furnish a potential exemplar for some industry sectors, most notably manufacturing, to outperform other industry. However, challenges in talent acquisition, variances in leadership absorption rates, and fragmented

organisational cultures signals that technological change, in this setting, demands intentional human-centred interventions to achieve sustainable organisational readiness on AI adoption within the current condition of Malaysia's economic environment.

Responsible AI Principles Under AI Governance Framework for Malaysia's Financial Sector

In establishing a sustainable AI adoption environment in the financial service sector with emphasis of human-centred leadership, financial industry players would follow seven principles in AI Governance Framework which consist of fairness, ethical, accountability, transparency, explainability, reliability and security (Bank Negara Malaysia, 2025).

Although no contextual description on human-centred leadership mentioned, but based on the above AI Governance Framework, it can be ascertained that it connects directly to the human touch in AI adoption because it places "people" that can be aspired as the employees, leaders and customers — their rights, trust, and accountability — at the centre of how financial institutions deploys AI. The guiding principles such as fairness, ethical use, accountability, transparency, and explainability are all about ensuring AI does not replace human judgment blindly but rather complements it in ways that are justifiable, understandable, and responsible.

Shaharruddin and Musa (2022) argued while embracing new technologies, banks must not lose sight of the human aspect of their services. This balance is critical for customer satisfaction and employee engagement. A new leadership model proposed by them known as 'Leadership 4.0', was proposed to facilitate changes in banks towards transformation in IR4.0. They have proposed that leaders acting as the change agent in the organisation should maintain human touch with their subordinates, engaging them through informal avenues and celebrating small wins, while also conveying the importance of optimizing new technologies such as AI adoption.

Frambach and Schillewaert (2002) and Jöhnk, Weibert and Wyrtki (2021) shared similar view about how innovation adoption needs constructive understanding in identifying organisational readiness. Jöhnk et al. (2021) emphasizes that perceived benefits, particularly economic incentives and net benefits, have an important effect on organisational adoption. This suggests that perceived benefits may have a strong positive impact on the adoption decision. While he have stated that AI readiness and AI adoption have a complex, intertwined relationship. This complex relationship implies that organisations should view AI readiness not as a one-time precursor to adoption, but as an integral and ongoing element throughout the entire AI adoption process(Mei, Bodog, & Badulescu, 2024; Noreen, Shafique, Ahmed, & Ashfaq, 2023). The approaches that Bank Negara Malaysia currently deploy and the strategies mentioned in the BNM AI Survey 2024 are in lined towards sustainable AI adoption for the financial services providers and are set to meet its targeted mission stated in the Financial Sector Blueprint 2022-2026 produced by Bank Negara Malaysia (2022).

Conclusion

Artificial intelligence (AI) is capable to significantly enhance human capabilities and accelerate workflows, thereby boosting business productivity. This technology helps people do more and not

replacing their work in terms of improved service quality, highly personalized customer experiences, and broadened access to financial offerings. Human touch in AI would bring balance to the businesses where AI cannot replace empathy in advice as well as ethics in decisions, leadership and judgement in businesses. As digital platforms take over more routine tasks, human intermediaries as a form of human touch are expected to focus on delivering more specialized, needs-based, and cost-efficient advisory services. As indicated in the Financial Sector Blueprint 2022-2026, there is a need to for financial service providers, to evolve their practices to remain relevant in an increasingly digital landscape. This suggests a shift in how human touch will be delivered in the future for the services in the financial sector. The wider impact of this study is to reconceptualise AI integration as an ongoing socio technical metamorphosis. Within the Malaysian context, the fulfilment of the Industrial Revolution 4.0 potential consequently demands that capital outlay in technology be matched by intentional and systematic development of leadership attributes capable of sustaining trust, advancing fairness, and promoting inclusive participation across the industry. This would demand further investigation on financial services transformation and sustainable economic development in future research.

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