CHAPTER 1
MODERN TRENDS IN PUBLIC ADMINISTRATION

FINTECH DEVELOPMENT: INTERNATIONAL EXPERIENCES AND LESSONS FOR MALAYSIA

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Abstract. *The rapid evolution of financial technology (Fintech) highlights its potential as a highly attractive sector for investors and a key driver toward achieving financial inclusion in countries like Vietnam. Despite its promise, the sector faces significant challenges, including regulatory frameworks, access to capital, market readiness, and customer engagement strategies. The aim of this article is to explore how international Fintech experiences can provide strategic insights for developing a resilient and inclusive financial technology ecosystem in Malaysia. The study employs a qualitative comparative methodology combined with strategic policy analysis, emphasizing the translation of global models into locally appropriate recommendations. These include enhancing legal and regulatory frameworks, fostering institutional and governmental support for startups, attracting global investment capital, and cultivating human capital tailored to the demands of a digital finance economy. This paper examines the Fintech development experiences of China, the United Kingdom, Japan, and Singapore, aiming to draw practical lessons for emerging economies such as Vietnam and, by extension, Malaysia. Based on these international insights, the study proposes four key policy directions to foster Fintech development: (i) enhancing the legal and regulatory framework while continuously optimizing the policy environment; (ii) strengthening support for Fintech companies; (iii) attracting global investors; and (iv) prioritizing the development of human capital for tech-based financial services. These recommendations provide a foundation for policymakers and stakeholders to develop a robust Fintech ecosystem in Malaysia. The practical value of the research lies in its strategic alignment of international innovation models with Malaysia's national priorities, enabling policymakers and stakeholders to design forward-looking frameworks that support inclusive growth, cross-border collaboration, and digital economic resilience.*

Keywords: *Fintech, financial inclusion, Malaysia, regulatory strategy, digital innovation, international experience, startup ecosystem, human capital, financial technology policy.*

JEL Classification*: G21, O16, L50, O38*
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Introduction. Financial technology (Fintech) is revolutionizing the global financial services industry, offering innovative solutions that enhance accessibility, efficiency, and transparency (Ashta & Herrmann, 2021; Nguyen & Dang, 2022, 2023a). In developing and emerging economies, Fintech plays a critical role in promoting financial inclusion and bridging the gap between traditional financial institutions and underserved communities (Dang et al., 2022; Ding et al., 2022; Nguyen, 2022). Fintech is a important factor that can improve the financial system (Li et al., 2017; Nguyen, 2025) and support the economic growth in the developing countries (Luo et al., 2022; Nguyen & Dang, 2023b; Tran et al., 2025). Malaysia, with its growing digital infrastructure, high mobile penetration, and proactive policy direction, is well-positioned to become a regional leader in Fintech development. Over the past decade, Malaysia has made notable progress in advancing its Fintech ecosystem. Regulatory initiatives such as the establishment of the Financial Technology Enabler Group (FTEG) and the introduction of a regulatory sandbox by Bank Negara Malaysia reflect the government's commitment to fostering innovation while maintaining financial stability (Alkdai & Hanefah, 2012; Khan et al., 2021; Tran & Nguyen, 2025). Despite these efforts, challenges remain. Issues such as regulatory clarity, limited access to funding for startups, customer trust, and the availability of skilled talent continue to hinder the full potential of Fintech in Malaysia.

Despite its promising potential, the development of Fintech in developing countries faces numerous structural and institutional challenges. Many nations struggle with outdated financial infrastructure, limited digital literacy, and uneven internet access—especially in rural or underserved areas. Regulatory uncertainty and fragmented oversight further hinder innovation, while early-stage Fintech firms often face difficulties in accessing funding and building consumer trust (Luo et al., 2022; Mancuso et al., 2023; Tian & Han, 2019). In addition, cybersecurity risks and the lack of a skilled digital workforce remain persistent barriers. For countries like Malaysia, these challenges highlight the need for a comprehensive and adaptive strategy that not only supports innovation but also addresses the foundational gaps in financial and digital ecosystems.

To support Malaysia's aspiration of becoming a Fintech hub in Southeast Asia, it is vital to draw lessons from global leaders in the field. This paper examines the Fintech development experiences of China, the United Kingdom, Japan, and Singapore—four countries with mature and diverse Fintech landscapes. Based on these case studies, the paper outlines four strategic recommendations for Malaysia: (i) enhancing the regulatory and policy framework; (ii) strengthening support for Fintech firms; (iii) attracting global investment; and (iv) nurturing digital and financial talent. These lessons aim to inform policymakers, industry leaders, and stakeholders in shaping a robust, inclusive, and sustainable Fintech ecosystem for Malaysia.

Literature review. The rise of Fintech has attracted considerable scholarly and policy interest, particularly due to its potential to disrupt traditional financial systems and enhance financial inclusion. According to Arner, Barberis, and Buckley (2015), the development of Fintech can be divided into three phases: Fintech 1.0 (technological foundations), Fintech 2.0 (integration with traditional finance), and Fintech 3.0

(emergence of tech-led financial services). In the current phase, technology companies are playing a dominant role in reshaping how financial products and services are delivered (Nguyen, 2024a, 2024b).

Fintech has been recognized as a key driver of financial inclusion. Fung et al. (2020) argue that digital financial services can lower transaction costs, increase transparency, and broaden access to financial tools, particularly in developing countries. Wang et al. (2021) further emphasize the role of digital innovation in closing gaps in access to credit, savings, and insurance.

From a regulatory perspective, Белозеров et al. (2020) highlight the tension between innovation and risk management in Fintech governance. While supportive regulatory frameworks such as sandboxes and innovation hubs can promote experimentation, they must be balanced against concerns about consumer protection, cybersecurity, and systemic risk. The experience of countries like the UK and Singapore shows that a flexible, risk-based regulatory approach can encourage innovation while preserving market integrity.

Comparative studies also point to the importance of ecosystem development. According to Romānova and Kudinska (2016), Fintech growth is strongly influenced by factors such as venture capital availability, regulatory openness, digital infrastructure, and human capital (Choi & Byun, 2018; Nguyen, 2023a, 2024c; Pantielieieva et al., 2018). For example, China's success in mobile payments and peer-to-peer lending is linked to its large unbanked population, minimal early regulation, and strong integration with e-commerce platforms (Goodman et al., 2017; Nguyen, 2023b, 2024d; Phan et al., 2020).

In the Southeast Asian context, Malaysia has been identified as a promising Fintech market (FSB, 2017), supported by a forward-looking regulatory stance and growing digital adoption. However, scholars like Dranev et al. (2019) caution that sustained growth will require greater investment in Fintech education, clearer policy roadmaps, and stronger collaboration between stakeholders.

This review underscores that Fintech development is a multidimensional process shaped by legal, economic, and institutional factors. Drawing lessons from global leaders is thus essential for countries like Malaysia seeking to scale up Fintech innovation responsibly and inclusively.

Aims. The purpose of this article is to investigate how the development trajectories and regulatory experiences of leading Fintech ecosystems—specifically those in China, the United Kingdom, Japan, and Singapore—can inform the design of an effective, inclusive, and sustainable Fintech framework for Malaysia. The study aims to identify transferable policy practices that can support Malaysia's goal of becoming a regional Fintech hub, strengthen financial inclusion, and stimulate innovation-driven economic growth. By analyzing global experiences, the article seeks to provide practical recommendations for optimizing Malaysia's regulatory environment, startup support systems, investor engagement, and human capital development within the Fintech sector.

Methodology. The study employs a qualitative comparative approach grounded in strategic policy analysis. It begins with a contextual assessment of Malaysia's

current Fintech ecosystem, followed by a structured case analysis of four advanced economies with diverse Fintech strategies. The research synthesizes insights from regulatory initiatives, market dynamics, and ecosystem-building practices in China, the UK, Japan, and Singapore. Through comparative evaluation, the study distills common success factors and challenges, and translates these into targeted policy directions applicable to Malaysia. The methodology emphasizes relevance to emerging market conditions and focuses on four strategic pillars: regulatory adaptability, startup ecosystem support, global investment attraction, and digital talent development.

Results. Malaysia's Fintech sector has shown rapid progress in recent years, driven by strong government support, increasing digital adoption, and a vibrant startup ecosystem. As of 2020, the country was home to over 230 Fintech startups, with digital payments emerging as the most dominant segment. The COVID-19 pandemic further accelerated digital financial services, leading to a 131% increase in e-wallet transactions and a 164% rise in QR code usage. In 2025, Malaysia's Fintech market is projected to reach USD 53.9 billion, supported by double-digit growth across various segments such as e-wallets, peer-to-peer lending, crowdfunding, and Buy-Now-Pay-Later (BNPL) solutions.

The regulatory environment in Malaysia is considered one of the most progressive in Southeast Asia. Key initiatives include the Regulatory Sandbox by Bank Negara Malaysia (BNM) and the digital investment management framework introduced by the Securities Commission (SC). Additionally, Malaysia's Financial Sector Blueprint 2022–2026 and MyDIGITAL strategy aim to position the country as a regional Fintech hub. However, challenges remain. Fintech startups often face funding constraints, difficulties in scaling beyond early-stage growth, and a shortage of skilled digital talent. While Malaysia has laid a strong foundation for Fintech growth, further efforts are needed to enhance global competitiveness and foster long-term ecosystem sustainability.

Table 1. Challenges to Fintech Growth in Malaysia

Category	Challenges
Regulation	Regulatory clarity and flexibility needed
Funding	Limited early-stage financing for startups
Talent	Shortage of digital financial professionals
Trust	Low user trust in data privacy and security
Infrastructure	Digital divide in rural areas, uneven internet access

Source: systematized by the author

To support Malaysia's ambition of becoming a regional Fintech hub, it is valuable to learn from countries with mature and dynamic Fintech ecosystems. This section highlights key lessons from China, the United Kingdom, Japan, and Singapore – each representing different regulatory styles, innovation models, and market conditions.

China. China is widely regarded as a Fintech pioneer, particularly in mobile payments and peer-to-peer lending. Its rapid growth was fueled by a large unbanked population, minimal early regulatory restrictions, and strong integration with e-commerce platforms such as Alibaba and Tencent. However, the lack of early oversight also led to systemic risks and fraud, prompting a later shift to tighter regulations. For

Malaysia, China's experience underscores the importance of balancing innovation and regulation. Allowing room for experimentation is vital, but it must be accompanied by proactive risk monitoring and consumer protection mechanisms.

United Kingdom. The UK is known for its innovation-friendly regulatory environment. It was one of the first countries to launch a regulatory sandbox, enabling Fintech firms to test products under the supervision of the Financial Conduct Authority (FCA). The UK has also invested heavily in Open Banking infrastructure, which promotes competition and customer control over financial data. Malaysia can adopt a similar approach by expanding its sandbox programs and encouraging secure data-sharing frameworks to foster trust and collaboration between traditional banks and Fintech firms.

Japan. Japan's Fintech strategy emphasizes security, trust, and integration with traditional banking. Rather than direct competition, Japanese Fintech companies often collaborate with banks to deliver new services. Regulatory reforms, such as the revision of the Banking Act, have enabled such partnerships while ensuring customer data protection and system stability. Malaysia could benefit from promoting bank-Fintech partnerships and introducing clearer guidelines to support joint innovation without undermining financial integrity.

Singapore. Singapore has positioned itself as a Fintech innovation hub through a combination of strategic investments, talent development, and strong regulatory support. The Monetary Authority of Singapore (MAS) plays an active role in fostering Fintech, offering funding schemes, innovation labs, and cross-border collaboration platforms. One notable initiative is Project Ubin, which explores blockchain-based payments. Malaysia could draw from Singapore's ecosystem-building approach by investing in Fintech education, expanding public-private partnerships, and supporting regional integration initiatives such as cross-border QR payments.

Table 2. Comparative Overview of Fintech Ecosystems in Selected Countries

Country	Key Strengths	Regulatory Model
China	Mobile payments, e-commerce integration, large unbanked population	Reactive-tightening after initial leniency
United Kingdom	Regulatory sandbox, Open Banking, fintech-friendly regulation	Proactive and risk-based
Japan	Bank-Fintech collaboration, strong data protection laws	Collaborative and security-focused
Singapore	Talent development, MAS support, blockchain experimentation	Strategic and innovation-driven

Source: systematized by the author

To accelerate Fintech development in Malaysia, the government should first focus on strengthening its regulatory and policy framework.

This includes enhancing transparency and consistency in Fintech regulations, expanding the scope of the regulatory sandbox to cover emerging technologies (e.g., blockchain, AI, digital assets), and streamlining licensing processes for startups. At the same time, authorities should promote secure data-sharing practices through Open

Banking standards, while ensuring robust consumer protection and cybersecurity protocols to build public trust.

Table 3. Strategic Policy Recommendations for Malaysia

Policy Area	Recommendation
Legal & Regulatory	Expand sandbox programs, harmonize rules with global standards
Startup Support	Offer tax incentives, simplify licensing, support accelerators
Investment	Facilitate cross-border funding channels and investor networks
Human Capital	Develop fintech curriculum, public-private training partnerships

Source: systematized by the author

Secondly, Malaysia should invest in long-term ecosystem development by supporting Fintech innovation hubs, increasing access to funding (via grants, venture capital incentives, and public-private co-investment schemes), and nurturing digital talent. Collaborations between universities, industry players, and government agencies can help close the skills gap through specialized training programs. Additionally, regional cooperation—such as harmonizing cross-border digital payment systems—can enhance market access and attract global investors. These policy actions will help Malaysia build a resilient, inclusive, and competitive Fintech sector in the years to come.

Discussion. The analysis of global Fintech ecosystems offers important insights for Malaysia's ongoing efforts to strengthen its own digital financial landscape. By drawing lessons from the regulatory and innovation models of China, the United Kingdom, Japan, and Singapore, it becomes evident that a country's success in Fintech development is closely tied to its ability to cultivate a balanced, adaptable, and forward-looking policy environment. Each of these case studies underscores the need to maintain a delicate equilibrium between encouraging innovation and safeguarding consumer protection and systemic stability.

For Malaysia, the first and most critical implication is the necessity to enhance regulatory clarity while preserving flexibility. The UK and Singapore have demonstrated how structured, yet adaptive regulatory sandboxes can serve as platforms for controlled experimentation. Malaysia's existing sandbox program is a positive foundation, but its expansion—particularly toward emerging technologies such as blockchain, artificial intelligence, and decentralized finance—is necessary to position the country competitively in a rapidly evolving global market.

Secondly, institutional support for Fintech startups must be prioritized beyond initial regulatory accommodation. The availability of seed funding, venture capital incentives, and tax relief schemes in countries like Singapore and the UK has been instrumental in helping Fintech startups bridge the often precarious gap between innovation and commercial viability. In Malaysia, however, limited access to early-stage capital and bureaucratic obstacles remain significant barriers to Fintech scaling. Policy tools that streamline business registration, licensing, and investor matching would directly address this issue.

Human capital development also emerged as a recurrent theme across the comparative cases. While Singapore invests heavily in Fintech education and Japan fosters integration between traditional finance professionals and digital service

innovators, Malaysia faces a shortage of digital talent, especially in data science, cybersecurity, and Fintech engineering. Addressing this will require coordinated national investment in educational programs, reskilling initiatives, and stronger collaboration between universities, training providers, and industry stakeholders.

The results also highlight the importance of digital trust and consumer literacy. Regulatory modernization must go hand in hand with efforts to strengthen consumer protection frameworks and improve awareness of digital financial rights and responsibilities. Transparent data governance, cybersecurity protocols, and public-facing communication campaigns are essential in increasing the adoption of Fintech services and overcoming skepticism in underserved or rural populations.

Another dimension of the discussion involves infrastructure and market access. Malaysia's digital divide, particularly between urban and rural areas, limits the reach and scalability of Fintech solutions. In this regard, China's success in mobile-based Fintech delivery—even in underserved regions—offers a compelling model. By leveraging mobile penetration and e-commerce platforms, Malaysia can improve Fintech adoption even in remote areas, provided that foundational internet infrastructure is expanded and mobile platforms are optimized for user experience and trust.

The internationalization and cross-border collaboration are vital. Malaysia should position itself not only as a Fintech hub domestically, but also as a regional gateway by aligning with ASEAN digital frameworks and facilitating cross-border payment and licensing agreements. Initiatives such as regional QR code interoperability and bilateral Fintech agreements can help Malaysian Fintech firms scale beyond national borders.

The comparative perspective reinforces the need for a comprehensive and integrated strategy to Fintech development in Malaysia. This strategy must encompass not only regulatory reform but also institutional finance, talent development, digital trust, and international partnerships. Only through coordinated action across these pillars can Malaysia achieve its vision of becoming a competitive and inclusive Fintech hub in Southeast Asia.

Conclusion. Fintech has become a key enabler of inclusive and innovative financial systems, offering countries like Malaysia a unique opportunity to expand access to financial services, improve efficiency, and enhance economic resilience. As this paper has shown, Malaysia's Fintech ecosystem has made notable strides, supported by a progressive regulatory framework, rising digital adoption, and an active startup community. However, challenges such as limited funding, regulatory gaps, and talent shortages remain significant barriers to sustainable growth.

By learning from the experiences of global Fintech leaders—including China, the United Kingdom, Japan, and Singapore—Malaysia can chart a more effective path forward. These international cases highlight the importance of balancing innovation with regulation, fostering collaboration between Fintech firms and traditional institutions, and investing in human capital and infrastructure.

To accelerate its Fintech development, Malaysia should focus on four key strategies: (i) strengthening the legal and regulatory environment; (ii) providing targeted support for Fintech companies; (iii) attracting global investors; and (iv)

building a skilled workforce for the digital financial sector. Through these efforts, Malaysia can not only enhance its competitiveness in the Fintech space but also contribute meaningfully to financial inclusion and economic development across the region.

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