

The Role of Fintech Adoption in Accelerating Business Growth for SMEs: Evidence from Emerging Market

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Abstract. Small and Medium Enterprises (SMEs) are critical drivers of inclusive and sustainable economic growth, especially in emerging markets, by creating jobs, fostering innovation, and strengthening local economies. The rapid rise of financial technology (fintech) offers new opportunities for SMEs to access finance, enhance operational efficiency, and integrate into global value chains. However, adoption rates remain uneven due to barriers such as low digital literacy, infrastructure limitations, and concerns over data security. This study aims to examine the direct impact of fintech adoption on SME business growth and to explore the mediating role of financial management efficiency in this relationship. A quantitative, cross-sectional survey will be conducted with 500 SMEs operating in the trade, culinary, and service sectors, using a structured Likert-scale questionnaire. Data will be analyzed using Structural Equation Modeling–Partial Least Squares (SEM-PLS). The study is expected to contribute to the integration of technology adoption and business management perspectives, offering practical insights for policymakers and SME owners in leveraging fintech for sustainable development.

Keywords: Fintech adoption, SME growth, financial management efficiency, emerging markets.

Introduction

Small and Medium Enterprises (SMEs) are critical to achieving the Sustainable Development Goals (SDGs), particularly SDG 8 (Decent Work and Economic Growth) and SDG 9 (Industry, Innovation, and Infrastructure), by fostering employment, innovation, and inclusive economic development (Sanga & Aziakpono, 2025). In recent years, financial technology (fintech) has emerged as a transformative force in global finance, especially in emerging markets where mobile connectivity, affordable digital services, and underserved populations have driven rapid adoption (World Bank, 2023; Demirgüç-Kunt et al., 2022). For SMEs, fintech offers unprecedented opportunities to access financing, streamline transactions, and participate in global value chains (Frost et al., 2020), while also posing risks such as cybersecurity threats, regulatory uncertainties, and potential digital exclusion (Claessens et al., 2022).

Despite its potential, fintech adoption among SMEs in many emerging economies remains slow. Key barriers include limited digital literacy among owners and managers (Nguyen et al., 2023), concerns over data security and fraud (Ryu, 2022), the complexity of integrating fintech solutions into existing processes (Awais et al., 2021), and infrastructural constraints such as unstable internet connectivity (World Bank, 2023). These challenges hinder SMEs from optimizing financial management, accessing alternative funding sources, and competing in increasingly digitalized markets.

Most existing research has focused on the technological aspects of fintech adoption, platform usability, system security, and innovation diffusion, without adequately examining its direct relationship with core business management functions, such as financial planning, cash flow control, and strategic resource allocation (Gomber et al., 2018; Feyen et al., 2021). This gap is significant, as fintech should not be viewed solely as a technological innovation, but also as a strategic management tool capable of reshaping decision-making, risk management, and operational scalability in SMEs.

To address this gap, the present study aims to (1) evaluate the direct impact of fintech adoption on SME business growth, and (2) investigate the mediating role of financial management efficiency in this relationship. The findings are expected to contribute to the integration of fintech adoption research within the broader field of business management and to offer practical insights for SME owners and policymakers in emerging markets.

Literature Review

Small and Medium Enterprises (SMEs) and Their Economic Role

Small and Medium Enterprises (SMEs), or Usaha Mikro, Kecil, dan Menengah (UMKM) in Indonesia, constitute a dominant share of global and national economic activity. The OECD (2023) reports that SMEs comprise more than 90% of all enterprises worldwide, contributing between 40% and 60% of employment in developing economies. In the Indonesian context, data from the Ministry of Cooperatives and SMEs (Kementerian Koperasi dan UKM RI, 2024) indicate that UMKM account for 99% of business entities, absorb over 97% of the workforce, and contribute approximately 61% to national GDP. Their contributions extend beyond economic metrics, fostering inclusive growth, poverty reduction, and innovation, while also strengthening community resilience through local supply chain networks and preservation of cultural industries (Tambunan, 2019).

The strategic role of SMEs is closely aligned with the Sustainable Development Goals (SDGs), particularly SDG 8 (Decent Work and Economic Growth) and SDG 9 (Industry, Innovation, and Infrastructure), where SMEs serve as vehicles for job creation, industrial diversification, and technological upgrading (UNCTAD, 2022). However, despite this significance, many SMEs face persistent barriers such as limited access to capital, inadequate technological infrastructure, and managerial capacity constraints (Ayyagari, Demirgüç-Kunt, & Maksimovic, 2011). These challenges can restrict SMEs' ability to adapt to global market shifts and to leverage opportunities presented by digital transformation, including the integration of financial technology (fintech) solutions into their operations.

Recent studies highlight that fintech adoption could potentially address several of these structural limitations by enabling alternative financing channels, improving payment efficiency, and enhancing transparency in financial management (Frost et al., 2020; Abu, Pires da Silva, & Vieira, 2024). Nevertheless, while fintech's technological capabilities are well documented, its integration into core business management functions within SMEs, particularly in emerging markets, remains an underexplored area. This gap in the literature justifies further investigation into the managerial implications of fintech adoption as a driver for sustainable SME growth.

Financial Technology (Fintech) as a Tool for Financial Inclusion

Financial Technology (fintech) refers to the application of digital technologies to deliver financial services in more efficient, accessible, and innovative ways (Gomber et al., 2018). According to the Financial Stability Board

(2022), fintech encompasses a broad range of technological solutions that aim to improve financial intermediation processes, lower transaction costs, and expand access to financial products and services. In the context of financial inclusion, fintech has been recognized as a transformative enabler, particularly in emerging markets where traditional banking infrastructure remains limited. By leveraging mobile connectivity, cloud computing, big data analytics, and artificial intelligence, fintech platforms can reach underserved populations, including micro and small enterprises, thus promoting broader participation in the formal economy (Demirgüç-Kunt et al., 2022).

The scope of fintech services is diverse and can be categorized into several primary segments. **Payment systems** include mobile wallets, QR-code payments, and digital remittance platforms, which simplify transactions and reduce cash dependency (Frost et al., 2020). **Digital lending** platforms provide alternative credit access through peer-to-peer lending, crowdfunding, and micro-loan services, often utilizing non-traditional credit scoring methods based on behavioral and transaction data (Nguyen et al., 2023). **Investment platforms** enable users to participate in capital markets, mutual funds, or alternative investment products through low-cost, user-friendly interfaces (Lee & Shin, 2018). **Insurtech** leverages technology to streamline insurance distribution, underwriting, and claims processing, increasing affordability and accessibility of risk protection products (PwC, 2023). These categories illustrate the multifaceted nature of fintech and its potential to address various aspects of financial exclusion.

Empirical studies have shown that fintech adoption can significantly improve financial inclusion metrics, such as account ownership, credit access, and usage of formal financial services among SMEs (Abu, Pires da Silva, & Vieira, 2024; World Bank, 2023). However, while the technological potential is widely acknowledged, challenges remain in ensuring that fintech solutions are effectively integrated into SMEs' financial management practices. Without adequate digital literacy, supportive regulation, and trust in digital systems, the benefits of fintech for financial inclusion may not fully materialize, particularly in emerging market contexts.

Theoretical Framework

This study employs an integrated theoretical approach, combining the Technology Acceptance Model (TAM) and the Resource-Based View (RBV) to examine the relationship between fintech adoption, financial management efficiency, and business growth among SMEs in emerging markets.

The Technology Acceptance Model (TAM) (Davis, 1989) posits that the acceptance and adoption of new technology are influenced by Perceived Usefulness (PU), the degree to which an individual believes the technology will enhance performance, and Perceived Ease of Use (PEOU), the degree to which using the technology is free from effort. Within the SME context, these constructs explain how owners and managers decide to integrate fintech tools into their business operations. High perceptions of usefulness, such as improving transaction speed and access to finance, coupled with ease of integration into existing systems, increase the likelihood of adoption.

The Resource-Based View (RBV) (Barney, 1991) argues that sustainable competitive advantage stems from resources that are valuable, rare, inimitable, and non-substitutable (VRIN). Fintech-enabled financial management capabilities, such as real-time cash flow monitoring, automated bookkeeping, and expanded financing channels, can serve as strategic resources. Once adopted, these capabilities can improve operational efficiency, enhance decision-making quality, and strengthen SMEs' market positioning, creating barriers to imitation by competitors.

By integrating TAM and RBV, this research captures both the behavioral drivers and the strategic implications of fintech adoption. In this framework, fintech adoption is hypothesized to:

1. Directly influence SMEs' business growth by expanding market reach and operational efficiency.
2. Indirectly influence business growth through the mediating role of financial management efficiency, which transforms digital capabilities into tangible competitive advantages.

Previous Studies

Prior research on fintech adoption in developing countries has primarily focused on the technological and infrastructural determinants influencing uptake among SMEs. For example, Gomber et al. (2018) highlighted that ease of integration, platform usability, and perceived security were critical to adoption in Asian and African markets. Similarly, Nguyen et al. (2023) demonstrated that digital literacy and mobile internet penetration were strong predictors of fintech usage in Vietnam's SME sector. Studies conducted in sub-Saharan Africa (Bongomin et al., 2022) emphasized fintech's role in improving access to finance, particularly through mobile money services, while research in Latin America (Roa & Mercado, 2021) underscored regulatory flexibility as a catalyst for rapid diffusion.

Despite these insights, most studies have remained within the technological acceptance and innovation diffusion paradigms, paying limited attention to the managerial implications of fintech adoption. Very few have examined how fintech-enabled capabilities, such as real-time financial tracking, automated budgeting, and alternative financing, translate into measurable improvements in financial management efficiency, and in turn, business growth. This is a notable gap because in many emerging markets, SMEs face not only technological barriers but also managerial capacity constraints that hinder the full utilization of fintech tools.

The present study differentiates itself by integrating the Technology Acceptance Model (TAM) with the Resource-Based View (RBV) to capture both behavioral adoption factors and strategic capability outcomes. By examining financial management efficiency as a mediating mechanism, this research moves beyond the "adoption yes/no" question and investigates the transformational impact of fintech on SMEs' competitive advantage and growth sustainability in emerging markets.

Methods

This study employed a quantitative research design with a cross-sectional survey approach to investigate the relationship between fintech adoption, financial management efficiency, and business growth among small and medium-sized enterprises (SMEs). The choice of a quantitative approach enables the collection of measurable data that can be statistically analyzed to test the proposed hypotheses, while the cross-sectional design captures data at a single point in time, providing a snapshot of current trends and relationships.

The target population comprised SMEs operating in the trade, culinary, and service sectors across emerging market contexts. Total of 200 SMEs were selected using purposive sampling to ensure representation from sectors with high potential for fintech utilization. The inclusion criteria were: (1) operating for at least two years, (2) having a formal business registration, and (3) potential or actual engagement with digital financial services.

Data were collected using a structured questionnaire developed based on validated measurement items from prior studies, adapted to the context of emerging markets. The instrument utilized a five-point Likert scale ranging from 1 ("strongly disagree") to 5 ("strongly agree") to measure perceptions and experiences. The

questionnaire consisted of four main sections: demographic profile, fintech adoption level, financial management efficiency, and business growth indicators.

Variables and Measurements

Independent Variable: Fintech adoption, measured through three indicators – number of fintech services used, duration of use, and usage intensity in daily operations.

Dependent Variable: Business growth, operationalized as the percentage increase in revenue, customer base expansion, and market reach over the past year.

Mediating Variable: Financial management efficiency, measured by improvements in cash flow monitoring, budgeting accuracy, and timeliness of financial reporting.

Data Analysis Technique

The collected data will be analyzed using Structural Equation Modeling with Partial Least Squares (SEM-PLS). This technique was chosen for its robustness in handling complex models with latent variables and its suitability for exploratory research in emerging market contexts. The analysis will be conducted in two stages:

- (1) Measurement model assessment to evaluate reliability, convergent validity, and discriminant validity;
- (2) Structural model assessment to test the direct and indirect relationships between fintech adoption, financial management efficiency, and business growth.

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