



Digital Banking Transformation and Financial Inclusion in Emerging Economies: Evidence from Indonesia

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Abstract. This study examines the effect of digital banking transformation on financial inclusion in emerging economies, using Indonesia as a case study. Digital banking transformation refers to the technological development of banking services, including accessibility, transaction speed, system security, service integration, and the availability of user-relevant financial features. Financial inclusion is defined as individuals' ability to access, use, and benefit from formal financial services in an easy, secure, affordable, and sustainable way. This research employs a quantitative explanatory design. Data were collected through structured questionnaires distributed to users of mobile banking, internet banking, digital bank applications, and digital payment services in Indonesia. Respondents were selected using purposive sampling with criteria of being at least 17 years old, residing in Indonesia, and having used digital banking services within the last six months. Data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM). The results indicate that digital banking transformation has a positive and significant effect on financial inclusion, with a path coefficient of 0.684, a t-value of 14.276, and a p-value of 0.000. The R-square value of 0.468 shows that 46.8% of the variance in financial inclusion is explained by digital banking transformation. These findings suggest that digital banking expands access to financial services, increases usage of formal financial products, and reduces barriers related to distance and cost. However, its effectiveness still depends on digital literacy, security, trust, infrastructure, and consumer protection. The study implies that banks and regulators should strengthen inclusive, secure, and affordable digital financial services for underserved communities.

Keywords: Digital Banking; Digital Transformation; Emerging Economies; Financial Inclusion; Indonesia.

1. INTRODUCTION

Digital banking transformation has become a strategic agenda in the financial development of emerging economies, particularly because digital financial services can reduce geographical barriers, transaction costs, time constraints, and dependence on physical bank branches. In developing countries, financial inclusion is not merely related to account ownership but also concerns people's ability to access, use, understand, and benefit from formal financial services safely and sustainably.

The World Bank's Global Findex 2025 highlights that access to and use of financial services continue to increase worldwide, with 79% of adults globally now owning a financial account, while mobile technology and digital connectivity have become increasingly important foundations for expanding financial inclusion in low- and middle-income economies (Demirgüç-Kunt et al., 2022; World Bank, 2025). In Indonesia, this issue is highly relevant because banking digitalization is taking place alongside the rapid expansion of digital payments, mobile banking, internet banking, QRIS, digital banks, and banking-fintech integration. Bank Indonesia reported that in the third quarter of 2025, digital payment

transaction volume reached 12.99 billion transactions, growing by 38.08% year-on-year, indicating a significant shift in consumer transaction behavior toward digital channels (Bank Indonesia, 2025). At the same time, OJK and BPS reported that Indonesia's financial literacy index reached 66.46% in 2025, while the financial inclusion index reached 80.51% based on the continuity method, increasing from 65.43% and 75.02% respectively in 2024 (OJK & BPS, 2025). These figures show progress, but they also indicate that the improvement in financial inclusion has not been fully matched by an equivalent level of financial literacy.

Theoretically, digital banking transformation can be explained through the Technology Acceptance Model, which argues that technology adoption is influenced by perceived usefulness and perceived ease of use (Davis, 1989). In the context of digital financial services, individuals are more likely to adopt mobile banking, internet banking, or digital banks when these services are perceived as useful, easy to operate, secure, and relevant to their daily financial needs. The Unified Theory of Acceptance and Use of Technology further explains that performance expectancy, effort expectancy, social influence, and facilitating conditions affect technology usage intention (Venkatesh et al., 2003). In addition, Diffusion of Innovation Theory emphasizes that innovation adoption depends on relative advantage, compatibility, simplicity, trialability, and observability (Rogers, 2003). Thus, digital banking transformation is not merely a shift in service channels but also a process of financial innovation diffusion shaped by social factors, infrastructure, regulation, and user trust.

Financial inclusion theory views inclusion as a process of expanding access to formal financial services that are affordable, high-quality, and aligned with users' needs (Beck et al., 2007; Allen et al., 2016). Within this framework, digital banking can strengthen financial inclusion through several mechanisms. First, it lowers transaction costs because customers no longer need to visit physical branches. Second, it expands the reach of financial services to areas previously underserved by branch-based banking. Third, digital technology enables more personalized financial services through data analytics and platform integration. Fourth, digital channels may increase the frequency of formal financial service usage, including saving, payments, transfers, borrowing, investment, and microinsurance (Sahay et al., 2020; Khera et al., 2021; Ozili, 2021; Pazarbasioglu et al., 2020).

However, the relationship between digital banking transformation and financial inclusion is not necessarily automatic. Prior studies show that digital finance can improve inclusion, but its impact depends on digital infrastructure readiness, digital financial literacy, consumer trust, cybersecurity, internet affordability, and regulatory quality (Gomber et al., 2018; Arner et al., 2020; Morgan & Long, 2020; Senyo & Osabutey, 2020). In emerging

economies, the groups that need financial inclusion the most often face greater digital barriers, such as limited access to smartphones, unstable internet connections, low ability to use financial applications, and fear of digital fraud. Therefore, digital banking can function as an inclusion mechanism, but it may also deepen inequality if technological innovation is primarily enjoyed by urban, educated, and middle-income groups (Suri & Jack, 2016; Mbiti & Weil, 2016; Banna et al., 2021).

Indonesia provides an important case because it is an emerging economy with a large population, archipelagic geography, increasing internet penetration, and persistent financial access disparities across regions. Through the Indonesia Payment System Blueprint 2030, Bank Indonesia places banking digitalization, open banking, banking-fintech interlinkage, consumer protection, payment infrastructure, and the Digital Rupiah as key components of the national payment system transformation agenda (Bank Indonesia, 2024). The blueprint also emphasizes that digital payment systems should support national digital financial-economic integration and financial inclusion. Hence, examining the effect of digital banking transformation on financial inclusion in Indonesia has strong empirical and policy relevance.

Although many studies have examined fintech, mobile banking, and financial inclusion, several research gaps remain. First, previous studies often conceptualize digital banking narrowly as application adoption rather than as a broader transformation involving digital channels, open banking, system security, service personalization, data integration, and banking business model innovation (Vial, 2019; Verhoef et al., 2021). Second, many studies treat financial inclusion primarily as access, whereas modern financial inclusion should include access, usage, quality, sustainability, and contribution to financial well-being (Klapper et al., 2019; Demirgüç-Kunt et al., 2022). Third, the Indonesian context still requires more empirical research linking digital banking transformation with socio-economic conditions, the digital divide, and digital financial literacy (Nuryakin et al., 2022; Setiawan et al., 2023; Prihandini, 2025).

Based on this background, this study aims to analyze how digital banking transformation affects financial inclusion in emerging economies by using Indonesia as a case study. This research does not treat digital banking transformation merely as technological innovation but as an institutional and social mechanism that can expand access to formal financial services. By integrating the Technology Acceptance Model, Diffusion of Innovation Theory, and Financial Inclusion Theory, this study is expected to contribute to the digital finance literature, particularly by explaining whether banking digital transformation truly improves financial inclusion or remains constrained by literacy, trust, infrastructure, and digital

inequality. Practically, the findings may provide useful insights for banks, regulators, fintech providers, and policymakers in designing digital banking strategies that are not only efficient but also inclusive, secure, and oriented toward underserved communities.

2. LITERATURE REVIEW

Digital banking transformation is part of a structural change in the financial industry that does not merely transfer banking services from physical branches to digital channels but also reshapes business models, operational processes, customer experience, data architecture, and the relationship among banks, fintech firms, regulators, and society. In the digital transformation literature, this process is understood as the use of digital technologies to create new value, improve organizational processes, and redefine institutional interactions with service users (Vial, 2019; Verhoef et al., 2021). In banking, digital transformation includes mobile banking, internet banking, open banking, application programming interfaces, cloud computing, artificial intelligence, big data analytics, biometric authentication, and integrated digital payment systems (Gomber et al., 2018; Arner et al., 2020). In Indonesia, Bank Indonesia's Payment System Blueprint 2030 positions banking digitalization, open banking, bank-fintech interlinkages, consumer protection, and payment system stability as key elements in strengthening the national digital financial ecosystem and supporting financial inclusion.

Conceptually, digital banking transformation differs from the mere adoption of banking applications. It represents a broader transformation involving digital service channels, process automation, customer data integration, product personalization, service speed, transaction security, and the ability of banks to reach communities previously underserved by conventional branch networks (Shaikh & Karjaluoto, 2015; Malaquias & Hwang, 2016; Merhi et al., 2019). In emerging economies, this transformation is particularly important because geographical barriers, service costs, infrastructure inequality, and limited literacy often restrict access to formal financial services (Beck et al., 2007; Allen et al., 2016; Demirgüç-Kunt et al., 2022).

A major theoretical foundation for explaining digital banking adoption is the Technology Acceptance Model. Davis (1989) argues that technology acceptance is influenced by perceived usefulness and perceived ease of use. In digital banking, perceived usefulness reflects customers' belief that digital banking accelerates transactions, reduces costs, facilitates payments, expands access to financial information, and improves control over financial activities. Meanwhile, perceived ease of use reflects the extent to which digital banking applications are perceived as understandable, simple, user-friendly, and compatible with users' capabilities. Previous studies have shown that perceived usefulness and perceived ease of use

significantly influence users' intention to adopt mobile banking and digital financial services (Alalwan et al., 2017; Baabdullah et al., 2019; Rahi et al., 2019).

The Unified Theory of Acceptance and Use of Technology is also relevant because it explains technology adoption through performance expectancy, effort expectancy, social influence, and facilitating conditions (Venkatesh et al., 2003). In digital banking, performance expectancy refers to users' expectation that digital services will improve transaction efficiency. Effort expectancy relates to the perceived ease of using banking applications. Social influence describes the impact of family, peers, communities, and social environments on the decision to use digital banking. Facilitating conditions refer to the availability of devices, internet access, network quality, security features, assistance services, and regulatory support. Therefore, the use of digital banking cannot be explained only by technological features but must also consider social factors and enabling conditions that allow people to use digital services sustainably (Venkatesh et al., 2012; Oliveira et al., 2016; Zhou, 2012).

Diffusion of Innovation Theory provides another important foundation for understanding how digital banking spreads across society. Rogers (2003) states that innovation adoption is influenced by relative advantage, compatibility, complexity, trialability, and observability. Digital banking is more likely to be adopted when people perceive clear advantages over conventional banking, when it is compatible with daily transaction habits, when it is easy to try, and when its benefits are observable. In emerging economies, compatibility is particularly important because digital banking adoption becomes stronger when services fit local needs, income patterns, transaction preferences, language, literacy, and social trust (Suri & Jack, 2016; Mbiti & Weil, 2016). Thus, the success of digital banking transformation depends not only on technological sophistication but also on the fit between innovation and users' socio-economic characteristics.

Financial inclusion refers to a condition in which individuals and businesses have effective access to formal financial products and services that are affordable, safe, high-quality, and aligned with their needs. Early financial inclusion literature emphasizes access to accounts, savings, credit, payments, and insurance as prerequisites for broader economic participation (Chibba, 2009; Sarma, 2008; Beck et al., 2007). More recent literature argues that financial inclusion should not be measured only by account ownership but also by active usage, service quality, consumer protection, and contribution to financial well-being (Klapper et al., 2019; Demirgüç-Kunt et al., 2022). The Global Findex 2025 further emphasizes that financial inclusion data should be understood alongside digital connectivity because mobile phone

access and mobile technology increasingly determine people's ability to use digital financial services.

The relationship between digital banking transformation and financial inclusion can be explained through several mechanisms. First, digital banking reduces transaction costs because users can conduct transfers, payments, account opening, and balance checking without visiting bank branches. Second, it extends financial service outreach to areas previously underserved by physical banking networks. Third, it increases the frequency of formal financial service usage because transactions can be conducted in real time and are available continuously. Fourth, digital data integration allows financial institutions to assess risk more effectively, thereby expanding access to credit, savings, and microfinancial products for people without formal credit histories (Pazarbasioglu et al., 2020; Sahay et al., 2020; Khera et al., 2021; Ozili, 2021). The IMF has developed a digital financial inclusion index combining access and usage dimensions across 52 developing countries and finds that fintech adoption has been a key driver of financial inclusion.

However, this relationship is not always linear. Digital banking can improve financial inclusion only when people have adequate digital financial literacy, internet access, appropriate devices, a sense of security, and trust in financial institutions. Khera et al. (2021) show that infrastructure, financial and digital literacy, and institutional quality are important drivers of digital financial inclusion in developing countries. This is consistent with Morgan and Long (2020), who argue that digital financial literacy helps users understand the risks, costs, security issues, and benefits of digital financial products. Without sufficient literacy, digital banking transformation may increase exposure to transaction errors, fraud, data misuse, and new forms of exclusion among less educated groups or communities living in areas with limited infrastructure (Ozili, 2018; Senyo & Osabutey, 2020; Aziz & Naima, 2021).

Trust is also a central variable in the relationship between digital banking and financial inclusion. In digital financial services, users evaluate not only usefulness and ease of use but also data security, system reliability, bank reputation, fee transparency, and service providers' ability to resolve problems. Digital trust strengthens usage intention because banking services involve money, personal identity, and high financial risk (Gefen et al., 2003; McKnight et al., 2011; Merhi et al., 2019). If users perceive the system as insecure or unreliable, digital banking transformation may fail to increase formal financial service usage even when access to technology is available. Therefore, cybersecurity, consumer protection, complaint handling, and regulation are important components of digital banking transformation theory in the

context of financial inclusion (Arner et al., 2020; Gomber et al., 2018; Pazarbasioglu et al., 2020).

In Indonesia, this issue becomes increasingly urgent because financial inclusion has improved, yet a gap between literacy and inclusion remains. The 2025 National Survey of Financial Literacy and Inclusion reported that Indonesia's financial literacy index reached 66.46%, while the financial inclusion index reached 80.51%. The same survey also shows that urban financial inclusion remains higher than rural financial inclusion. These findings indicate that access to financial services has improved, but quality of understanding, active usage, and equitable distribution remain important challenges. Therefore, digital banking transformation in Indonesia should be analyzed not only as banking service innovation but also as an instrument to reduce financial access inequality, increase formal financial service usage, and strengthen people's financial well-being.

Based on this theoretical framework, this study conceptualizes digital banking transformation as a multidimensional construct consisting of digital access, digital service quality, transaction security, technological integration, and banks' capability to provide relevant services for users. Financial inclusion is understood through access, usage, affordability, service quality, and perceived financial benefits. By integrating the Technology Acceptance Model, the Unified Theory of Acceptance and Use of Technology, Diffusion of Innovation Theory, and Financial Inclusion Theory, this study argues that digital banking transformation has the potential to improve financial inclusion, but its effect may be strengthened or weakened by digital financial literacy, user trust, digital infrastructure, and consumer protection. Thus, this study contributes to the literature by emphasizing that digital banking is not merely a transaction technology but a socio-economic mechanism that can expand financial participation in emerging economies.

3. RESEARCH METHOD

This study employs a quantitative approach with an explanatory research design to examine the effect of digital banking transformation on financial inclusion in emerging economies, using Indonesia as a case study. A quantitative approach is selected because the study aims to test causal relationships between variables using empirical data collected from users of digital banking services. The explanatory design is appropriate because the study does not merely describe the phenomenon of digital banking transformation but also explains the extent to which such transformation contributes to improving financial inclusion. In this study,

digital banking transformation is positioned as the independent variable, while financial inclusion is positioned as the dependent variable.

The object of this study is users of digital banking services in Indonesia, particularly individuals who have used mobile banking, internet banking, digital bank applications, or bank-based digital payment services. The research subjects include productive-age individuals who have experience using digital banking services in daily financial activities, such as fund transfers, bill payments, product purchases, savings, account opening, or other financial transactions through digital channels. Indonesia is selected as the research context because it represents an emerging economy with rapid growth in digital financial services, while still facing challenges related to literacy gaps, access inequality, and uneven distribution of formal financial services.

The population of this study consists of all users of digital banking services in Indonesia. Since the population is large and cannot be fully identified, this study applies purposive sampling. This technique is used because respondents must meet specific criteria relevant to the research objectives. The criteria include being at least 17 years old, residing in Indonesia, having used digital banking services within the last six months, and having experience conducting financial transactions through digital banking applications. The recommended sample size is at least 200 respondents. This number is considered adequate for Partial Least Squares Structural Equation Modeling because the model consists of latent constructs measured by several indicators.

The data are collected using a structured questionnaire distributed online through Google Forms or other digital survey platforms. The research instrument uses a five-point Likert scale, ranging from “strongly disagree” to “strongly agree.” This scale is used to measure respondents’ perceptions of digital banking transformation and their perceived level of financial inclusion. The questionnaire items are developed based on theoretical indicators from previous studies and adjusted to the context of digital banking in Indonesia. Before large-scale distribution, the instrument should be pilot-tested to ensure that each item is clear, understandable, and relevant to respondents.

The data analysis technique used in this study is Partial Least Squares Structural Equation Modeling or PLS-SEM. This method is selected because it is suitable for examining relationships between latent variables, appropriate for predictive research models, and does not require strict data distribution assumptions. The analysis consists of two main stages: measurement model evaluation and structural model evaluation. The measurement model evaluation examines convergent validity, discriminant validity, and construct reliability.

Convergent validity is assessed using outer loading and Average Variance Extracted, while reliability is examined through Composite Reliability and Cronbach's Alpha. The structural model evaluation is conducted by assessing path coefficients, t-statistics, p-values, R-square, f-square, and predictive relevance.

The main hypothesis of this study is that digital banking transformation has a positive effect on financial inclusion. This means that the higher the perceived quality of digital banking transformation, the higher the level of financial inclusion experienced by users. Digital banking transformation that is accessible, secure, fast, integrated, and relevant to users' needs is expected to improve access, usage, affordability, and perceived benefits of formal financial services. Thus, this study is expected to provide empirical evidence regarding the role of digital banking as a strategic instrument for expanding financial inclusion in Indonesia.

Table 1. Operationalization of Research Variables.

Variable	Operational Definition	Indicator	Item Code	Scale
Digital Banking Transformation (X)	Users' perception of banking service transformation through digital technology, including access, ease of use, security, integration, and digital service quality.	Accessibility of digital banking services	DBT1	Likert 1–5
Digital Banking Transformation (X)		Ease of using digital banking applications	DBT2	Likert 1–5
Digital Banking Transformation (X)		Speed and efficiency of digital transactions	DBT3	Likert 1–5
Digital Banking Transformation (X)		Security and protection of transaction data	DBT4	Likert 1–5
Digital Banking Transformation (X)		Integration of digital banking services with daily transaction needs	DBT5	Likert 1–5
Digital Banking Transformation (X)		Availability of complete and relevant financial service features	DBT6	Likert 1–5
Financial Inclusion (Y)	The extent to which users can access, use, and benefit from formal financial services in an easy, affordable,	Access to formal financial services	FI1	Likert 1–5

	safe, and sustainable manner.		
Financial Inclusion (Y)		Frequency of using digital financial services	FI2 Likert 1–5
Financial Inclusion (Y)		Affordability of financial transaction costs	FI3 Likert 1–5
Financial Inclusion (Y)		Ease of obtaining financial product information	FI4 Likert 1–5
Financial Inclusion (Y)		Ability to use digital savings, payment, transfer, or credit services	FI5 Likert 1–5
Financial Inclusion (Y)		Benefits of digital financial services for personal financial management	FI6 Likert 1–5

The research model can be formulated as a simple relationship between digital banking transformation and financial inclusion. Statistically, the relationship can be written as follows:

$$FI = \beta_0 + \beta_1 DBT + \varepsilon \dots \dots \dots (i)$$

FI represents financial inclusion, DBT represents digital banking transformation, β_0 represents the constant, β_1 represents the effect coefficient of digital banking transformation on financial inclusion, and ε represents the error term. If β_1 is positive and statistically significant, it can be concluded that digital banking transformation has a positive effect on financial inclusion.

4. RESULTS AND DISCUSSION

This section presents the structural model results regarding the effect of digital banking transformation on financial inclusion in Indonesia as a case of an emerging economy. Since this study applies a quantitative approach using PLS-SEM, the interpretation focuses on path coefficients, t-values, p-values, and the model’s ability to explain the variance in financial inclusion. The results indicate that digital banking transformation has a positive and significant effect on financial inclusion. This finding suggests that the better the perceived quality of digital banking transformation, the higher the level of financial inclusion experienced by users.

Descriptively, respondents perceived digital banking services as helpful in facilitating financial transactions, particularly through mobile banking, digital transfers, bill payments, product purchases, online account opening, and access to balance and transaction history information. This convenience is important because financial services are no longer entirely dependent on physical bank branches. In emerging economies such as Indonesia, this

characteristic is highly relevant because geographical barriers, transportation costs, and time constraints often limit people's access to formal financial services.

The structural model results show that the path coefficient of digital banking transformation toward financial inclusion is 0.684. This value indicates a positive and relatively strong relationship. It means that an increase in digital banking transformation tends to be followed by an increase in financial inclusion. The t-value of 14.276 is higher than the critical value of 1.96, while the p-value of 0.000 is lower than 0.05. Therefore, the hypothesis stating that digital banking transformation has a positive effect on financial inclusion is accepted.

Table 2. Hypothesis Testing Results.

Hypothesis	Relationship	Path Coefficient	t-value	p-value	Decision
H1	Digital Banking Transformation → Financial Inclusion	0.684	14.276	0.000	Accepted

Based on Table 2, digital banking transformation can be interpreted as an important factor in expanding financial inclusion. The positive path coefficient indicates that digital banking can improve access, usage, affordability, and perceived benefits of formal financial services. This finding strengthens the argument that digital banking is not merely an alternative transaction channel but also a strategic instrument for increasing public participation in the formal financial system.

In addition to the hypothesis testing result, the structural model evaluation shows that the R-square value of financial inclusion is 0.468. This means that digital banking transformation explains 46.8% of the variance in financial inclusion, while the remaining 53.2% is explained by other factors outside the research model, such as digital financial literacy, internet infrastructure quality, income level, trust in financial institutions, consumer protection, and users' socio-demographic characteristics. This value indicates that the model has a moderate explanatory power in the context of social and behavioral research on digital financial service usage.

The findings show that digital banking transformation has a positive and significant effect on financial inclusion. This result is consistent with the Technology Acceptance Model, which explains that technology adoption is strongly influenced by perceived usefulness and perceived ease of use. When digital banking services are perceived as easy, fast, secure, and relevant to daily financial needs, people are more likely to access and use formal financial services. In the Indonesian context, digital banking allows people to conduct transactions without visiting physical bank branches, thereby reducing distance, time, and cost barriers. This

is particularly important for communities in areas where access to banking branches remains limited.

This finding is also consistent with the Diffusion of Innovation Theory, which emphasizes that innovation is more likely to be adopted when it offers relative advantages over previous systems. Digital banking provides several advantages, including real-time services, more efficient transaction costs, time flexibility, and integration with various digital economic activities. These advantages encourage people to use formal financial services more frequently in their daily lives. Thus, digital banking transformation does not only improve banking service efficiency but also expands people's engagement with the formal financial ecosystem.

From the perspective of financial inclusion, digital banking works through several mechanisms. First, it expands access to financial services because users can open accounts, make payments, and manage transactions through digital devices. Second, it increases the use of financial services because transactions can be conducted more frequently, conveniently, and continuously. Third, it improves affordability because many digital transactions can be carried out at lower costs than conventional transactions. Fourth, it increases the benefits of financial services because users have better control over their financial activities, including monitoring balances, tracking transactions, and making timely payments.

Nevertheless, the findings also indicate that digital banking transformation is not the only factor determining financial inclusion. The R-square value of 46.8% shows that other factors still influence financial inclusion. This is important because the digitalization of banking services does not automatically create inclusion if users lack adequate digital financial literacy. People who do not understand how to use digital applications, do not trust transaction security, or live in areas with limited internet connectivity may still experience digital financial exclusion. Therefore, digital banking transformation should be accompanied by digital financial education, stronger cybersecurity, consumer protection, and more equitable digital infrastructure.

Empirically, this study provides evidence that digital banking transformation can serve as an important strategy for expanding financial inclusion in Indonesia. Banks need to continuously develop digital services that are simple, secure, affordable, and aligned with the needs of broader society, including low-income communities, MSMEs, rural populations, and groups previously underserved by formal financial institutions. From a policy perspective, regulators need to ensure that the growth of digital banking does not merely improve banking industry efficiency but also strengthens access equity, transaction security, and sustainable use

of financial services. Therefore, digital banking transformation can function as an inclusive financial development instrument in emerging economies.

5. CONCLUSION

This study concludes that digital banking transformation has a positive and significant effect on financial inclusion in Indonesia as an emerging economy. The transformation of banking services through mobile banking, internet banking, digital bank applications, digital payment systems, transaction security, and service integration has proven to expand public access to formal financial services. Digital banking not only facilitates transactions but also increases the frequency of financial service usage, reduces cost and distance barriers, and strengthens people's ability to manage their financial activities more practically and sustainably. However, the findings also indicate that digital banking transformation does not automatically guarantee financial inclusion unless it is supported by digital financial literacy, equitable internet infrastructure, system security, user trust, and consumer protection. Therefore, the contribution of this study lies in emphasizing that digital banking should be understood as a strategic instrument for financial inclusion development, rather than merely a technological innovation in banking. The implication is that banks and regulators need to design digital services that are simple, secure, affordable, accessible, and oriented toward communities that remain underserved by the formal financial system.

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