EFFECT OF DIGITAL FINANCIAL SERVICES ON THE PERFORMANCE OF SMALL AND MEDIUM SCALE ENTERPRISES IN FEDERAL CAPITAL TERRITORY, ABUJA

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Abstract
Despite the proliferation of Digital financial services in Nigeria, limited empirical evidence exists on their specific impact on Small and Medium Scale Enterprises (SMEs) performance in the Federal Capital Territory, Abuja. SMEs continue to face challenges accessing adequate financing and efficient financial services, hindering their growth potential in Nigeria's administrative and commercial hub. This study examined the effect of Digital financial services on SME performance in FCT Abuja, specifically focusing on mobile banking and peer-to-peer lending as key digital financial service components. The research objectives were to assess the effect of mobile banking on SME performance and evaluate the impact of peer-to-peer lending on SME performance in FCT Abuja. A quantitative research design was employed, utilizing a cross-sectional survey of 449 registered SMEs selected through stratified random sampling across the six area councils of FCT Abuja. Data were collected using structured questionnaires and analyzed through Partial Least Squares Structural Equation Modeling (PLS-SEM) using SmartPLS 4.0 software. The findings revealed that mobile banking significantly and positively affects SME performance ($\beta = 0.456$, $p < 0.001$), while peer-to-peer lending also demonstrates a significant positive impact ($\beta = 0.287$, $p < 0.001$). The combined model explained 63.4% of variance in SME performance, indicating substantial explanatory power. The study recommends that SMEs should accelerate mobile banking adoption and explore P2P lending opportunities, while digital financial services companies should enhance user experience and develop SME- specific solutions. Policymakers should establish supportive regulatory frameworks and promote digital financial services inclusion initiatives to maximize digital financial services benefits for SME development.
Keywords: *Digital Financial Services, Mobile Banking, Peer-to-Peer Lending, SME Performance*

INTRODUCTION

The emergence of digital financial services has revolutionized the global financial services landscape, transformed how businesses access and utilized financial services (Ozili, 2018). In Nigeria, the digital financial service has experienced unprecedented growth, with the Central Bank of Nigeria (CBN) implementing various policies to promote digital financial inclusion and support business development (Adebayo et al., 2022). The Federal Capital Territory (FCT), Abuja, as Nigeria's administrative and commercial hub, hosts a significant concentration of Small and Medium Scale Enterprises (SMEs) that constitute the backbone of the country's economy.

SMEs in Nigeria contribute approximately 48% to the Gross Domestic Product (GDP) and account for 96% of businesses in the country (Okafor et al., 2021). However, these enterprises have historically faced challenges in accessing traditional financial services, including lengthy loan approval processes, high collateral requirements, and limited banking infrastructure (Adegboye et al., 2020). The advent of digital financial services, particularly mobile banking and peer-to-peer lending platforms has created new opportunities for SMEs to overcome these financial constraints and enhance their operational performance.

Mobile banking has emerged as a critical digital financial service that enables businesses to conduct financial transactions through mobile devices, providing convenient access to banking services without the need for physical bank visits (Mushtaq & Bruneel, 2017). This technology has particularly benefited SMEs by reducing transaction costs, improving cash flow management, and facilitating faster payment processing (Krishnamurthy & Mishra, 2023). Similarly, peer-to-peer lending platforms have democratized access to credit by connecting borrowers directly with lenders through digital platforms, bypassing traditional banking intermediaries (Zhang et al., 2021).

The performance of SMEs is multidimensional, encompassing financial indicators such as revenue growth, profitability, and return on investment, as well as operational metrics including efficiency, market reach, and customer satisfaction (Williams & Adegoke, 2019). Understanding how digital financial services influence these performance dimensions is crucial for policymakers, financial institutions, and SME owners in FCT Abuja, where the concentration of government institutions and business activities creates unique opportunities and challenges for enterprise development.

Despite the rapid proliferation of digital financial services in Nigeria, there remains limited empirical evidence on their specific impact on SME performance in the Federal Capital Territory, Abuja. While several studies have examined digital financial services in Nigeria's commercial centers like Lagos and Port Harcourt, the unique characteristics of FCT Abuja as the seat of government and a major business hub warrant specific investigation (Babajide et al., 2021).

SMEs in FCT Abuja continue to face challenges in accessing adequate financing for their operations and growth, with traditional banks maintaining stringent lending criteria that exclude many small businesses (Nkamnebe & Ukenna, 2019). Although mobile banking and P2P lending platforms have been introduced to address these challenges, there is insufficient understanding of how these innovations specifically affect SME performance outcomes in the territory.

Furthermore, the existing literature on digital financial services and SME performance in Nigeria largely focuses on broad national assessments or single-city studies in commercial centers, leaving a knowledge gap regarding the effectiveness of specific digital financial services innovations in government-centric economies like FCT Abuja (Asongu & Odhiambo, 2018). This research gap hinders the development of targeted policies and strategies to maximize the benefits of digital financial services for SME development in the territory.

The main objective of this study is to examine the effect of digital financial services on Small and Medium Scale Enterprises performance in the Federal Capital Territory, Abuja.

Specific Objectives:

i. To assess the effect of mobile banking on Small and Medium Scale Enterprises performance in FCT Abuja.
ii. To evaluate the impact of peer-to-peer lending on Small and Medium Scale Enterprises performance in FCT Abuja.

LITERATURE REVIEW

Digital Financial Services

Digital Financial Services refers to the application of digital technologies to deliver financial services more efficiently, accessibly, and cost-effectively than traditional financial institutions (Arner et al., 2016). According to Gomber et al. (2017), digital financial services encompass a broad range of technological innovations including mobile payments, digital lending, blockchain technology, robo-advisors, and cryptocurrency platforms. The concept represents a paradigm shift from traditional brick-and-mortar banking to digital-first financial service delivery models.

Digital financial services are characterized by its ability to leverage technology to reduce friction in financial transactions, lower costs, and improve user experience (Philippon, 2016). These services typically utilize advanced technologies such as artificial intelligence, machine learning, big data analytics, and cloud computing to create more personalized and efficient financial solutions (Thakor, 2020). The democratizing effect of digital financial services has made financial services more accessible to previously underserved populations, including SMEs that were excluded from traditional banking services.

Mobile Banking

Mobile banking represents a subset of digital financial services that enables users to conduct financial transactions through mobile devices such as smartphones and tablets (Shaikh & Karjaluoto, 2015). This

technology allows businesses to access banking services including account management, fund transfers, bill payments, and loan applications through mobile applications or USSD codes without visiting physical bank branches (Salimon et al., 2017).

The evolution of mobile banking has progressed from simple SMS-based notifications to sophisticated applications offering comprehensive banking services (Malaquias & Hwang, 2016). For SMEs, mobile banking provides critical benefits including reduced transaction costs, improved cash flow management, enhanced security features, and 24/7 access to financial services (Kumar et al., 2020). Technology has proven particularly valuable in emerging markets where traditional banking infrastructure is limited, enabling businesses to participate more fully in the formal financial system.

Peer-to-Peer Lending

Peer-to-peer (P2P) lending is a digital financial service that facilitates direct lending between individuals or businesses through online platforms, eliminating the need for traditional financial intermediaries (Milne & Parboteeah, 2016). These platforms use technology to match borrowers with lenders, assess credit risk, and facilitate loan transactions while typically offering more favorable terms than traditional banks (Chen et al., 2021).

P2P lending platforms leverage alternative data sources and advanced algorithms to evaluate creditworthiness, often enabling access to credit for borrowers who may not qualify for traditional bank loans (Jagtiani & Lemieux, 2018). For SMEs, P2P lending offers advantages including faster loan approval processes, competitive interest rates, flexible repayment terms, and reduced collateral requirements compared to conventional banking (Li et al., 2017). The technology has gained significant traction globally as both borrowers and lenders seek alternatives to traditional banking relationships.

Small and Medium Scale Enterprises Performance

SME performance encompasses multiple dimensions including financial performance, operational efficiency, market performance, and organizational effectiveness (Taouab & Issor, 2019). Financial performance indicators typically include metrics such as revenue growth, profitability ratios, return on assets, and cash flow generation (Dawson et al., 2016). Operational performance measures focus on efficiency indicators including productivity, cost management, and process optimization.

The measurement of SME performance has evolved to include both quantitative metrics and qualitative assessments of business sustainability, innovation capacity, and stakeholder satisfaction (Franco-Santos et al., 2012). In the context of digital financial service adoption, SME performance is often evaluated based on improvements in financial accessibility, transaction efficiency, cost reduction, and market expansion capabilities (Demirgüç-Kunt et al., 2018). Understanding these performance dimensions is crucial for assessing the impact of digital financial services on business outcomes.

Mobile Banking and SME Performance

Several empirical studies have investigated the relationship between mobile banking adoption and SME performance across different contexts. One notable study by Okoye et al. (2023) aimed to investigate the impact of mobile banking adoption on SME financial performance in Nigeria's southeastern region. The researchers employed a quantitative approach, using a cross-sectional survey design with a sample of 300 SMEs selected through purposive sampling. Data were collected via structured questionnaires and analyzed using multiple regression analysis. The findings revealed that mobile banking significantly enhanced financial performance, with a 29% increase in revenue growth and a 21% improvement in cost efficiency among adopters compared to non-adopters (Okoye et al., 2023). The study highlighted mobile banking's ability to streamline payment processes and improve cash flow management. However, a key limitation was the focus on a single region, which may limit generalizability to diverse economic contexts like FCT Abuja, where government-centric activities influence SME operations.

Similarly, Adeyemi and Salami (2024) explored how mobile banking influences SME operational efficiency in Lagos, Nigeria's commercial hub. Their objective was to assess whether mobile banking adoption improved transaction speed and customer satisfaction. The study adopted a mixed-methods approach, combining a survey of 400 SMEs with in-depth interviews of 20 SME owners. Data were analyzed using Structural Equation Modeling (SEM) for quantitative data and thematic analysis for qualitative insights. Results indicated that mobile banking reduced transaction times by 42% and boosted customer satisfaction by 35%, contributing to enhanced market competitiveness (Adeyemi & Salami, 2024). The mixed- methods approach provided a robust understanding of mobile banking's multifaceted impacts. Nonetheless, the study's reliance on self-reported data raises concerns about response bias, and its focus on Lagos may not fully reflect the administrative and regulatory environment of FCT Abuja.

In a broader African context, Mwangi et al. (2022) examined mobile banking's role in fostering SME growth in Kenya, with a specific focus on financial inclusion and business scalability. The study's objective was to evaluate how mobile banking facilitates access to credit and improves operational performance. Using a quantitative longitudinal design, the researchers tracked 500 SMEs over two years, collecting data through surveys and financial records. Analysis via panel regression models showed that mobile banking users experienced a 25% increase in credit access and a 19% improvement in operational efficiency (Mwangi et al., 2022). These findings underscore mobile banking's transformative potential in resource-constrained settings. However, the study's longitudinal nature, while a strength, required significant resources, potentially limiting its replicability in less-funded research settings.

Furthermore, a 2023 study by Gupta and Sharma investigated mobile banking's impact on SME performance in India, focusing on digital payment adoption and its effects on profitability and market reach. The objective was to quantify the relationship between mobile banking usage and SME financial outcomes. The researchers employed a quantitative approach, surveying 600 SMEs across urban and rural areas and analyzing data with Partial Least Squares Structural Equation Modeling (PLS-SEM). Findings revealed that mobile banking adoption led to a 27% increase in profitability and a 22% expansion in market reach, driven by faster payment processing and reduced transaction costs (Gupta & Sharma, 2023). The study's large sample size and rigorous methodology enhance its reliability. However, its focus on India's diverse economic landscape may not fully align with Nigeria's unique SME ecosystem, particularly in a government-centric region like FCT Abuja.

In Nigeria, Adebayo et al. (2022) examined mobile banking adoption among SMEs in Lagos State, reporting positive correlations between mobile banking usage and business performance indicators. Their study of 384 SMEs found that mobile banking adoption led to significant improvements in payment processing speed (47% reduction in payment delays), customer satisfaction (32% improvement), and market reach (25% expansion in customer base). The authors concluded that mobile banking serves as a catalyst for SME growth in emerging markets.

Similarly, Akinwale et al. (2020) investigated mobile banking effects on SME financial inclusion in southwestern Nigeria, demonstrating that businesses utilizing mobile banking services showed improved access to credit facilities and better financial record-keeping practices. Their findings indicated that mobile banking users were 2.3 times more likely to obtain business loans and maintained more accurate financial records, contributing to enhanced business credibility and performance.

Peer-to-Peer Lending and SME Performance

Research on P2P lending's impact on SME performance has gained momentum as this digital financial service becomes more prevalent. Zhang et al. (2021) conducted a comprehensive study on P2P lending and SME growth in China, finding that businesses accessing P2P lending experienced significantly higher growth rates compared to those relying solely on traditional financing. Their analysis of over 2,000 SMEs revealed that P2P lending recipients achieved 28% higher revenue growth and 19% improvement in return on assets.

A significant study by Liu et al. (2024) aimed to analyze the relationship between P2P lending and traditional financing tools for SMEs in China, focusing on its impact on business performance. The researchers conducted a survey of 523 P2P borrowers, employing a quantitative approach with logistic regression analysis to examine factors influencing P2P loan preferences and their effects on business outcomes. Findings revealed that SMEs with limited access to traditional financing, such as newly established firms, experienced a 26% increase in revenue and a 20% improvement in working capital management after utilizing P2P loans (Liu et al., 2024). The study emphasized P2P lending's role in addressing financing gaps for underserved SMEs. However, its focus on China's unique regulatory environment, which saw a sharp decline in P2P platforms due to stringent regulations, limits its applicability to regions like Nigeria, where regulatory frameworks are still evolving.

Similarly, Suryawati et al. (2021) investigated the impact of P2P lending on SME business development in Indonesia, targeting metrics such as turnover, employment, and profitability. The study used a mixed-methods approach, combining a survey of 34 SMEs with interviews and secondary data from government sources. Data were analyzed using paired t-tests and ordinary least squares (OLS) regression. Results showed significant improvements post-P2P lending, including a 30% increase in business turnover and a 15% rise in employment levels (Suryawati et al., 2021). The study's strength lies in its use of primary and secondary data, providing a comprehensive view of P2P lending's impact. However, the small sample size and reliance on a single P2P platform (PT X) raise concerns about generalizability, particularly for diverse economic settings like FCT Abuja.

In a broader context, Chulawate and Kiattisin (2023) explored success factors of P2P lending for SMEs in Thailand, aiming to identify how these platforms drive digital financial services and business performance. The study surveyed 300 lenders using a structured questionnaire and analyzed data with Structural Equation Modeling (SEM) via Mplus software. Findings indicated that P2P lending enhanced SME performance by improving access to credit, leading to a 22% increase in operational efficiency and a 17% boost in market expansion (Chulawate & Kiattisin, 2023). The focus on lender perspectives provided unique insights into platform trust and efficiency. Nevertheless, the study's limitation lies in its emphasis on lenders rather than borrowers, potentially overlooking SME-specific experiences, and its Thai context may not fully reflect Nigeria's economic dynamics.

Additionally, Anderloni et al. (2024) examined the motivations and performance outcomes of SMEs using P2P lending across five European countries. The objective was to understand how P2P lending influences business growth and satisfaction. The study employed a quantitative survey of 200 SMEs, analyzed using multivariate regression analysis. Results showed that P2P lending led to a 24% increase in revenue growth and a 19% improvement in customer satisfaction due to faster access to funds (Anderloni et al., 2024). The multi-country approach enhances the study's robustness, but its European focus, with more developed financial systems, may not fully align with the challenges faced by SMEs in emerging markets like Nigeria, where infrastructure and regulatory hurdles are more pronounced.

Babajide et al. (2021) investigated alternative lending platforms' effect on SME performance in Nigeria, including P2P lending mechanisms. Their research indicated that SMEs accessing alternative lending platforms, including P2P systems, demonstrated better financial performance and operational efficiency. The study showed that businesses using these platforms experienced 31% improvement in working capital management and 24% increase in business sustainability metrics.

Recent research by Chen et al. (2021) on P2P lending's impact on small business performance in emerging markets provided evidence of positive effects on business innovation and market competitiveness. Their multi-country study revealed that SMEs accessing P2P lending were more likely to invest in technology upgrades, expand product lines, and enter new markets, resulting in sustained performance improvements.

Theoretical Framework

Technology Acceptance Model (TAM)

The Technology Acceptance Model, developed by Davis (1989) and subsequently refined by Venkatesh and Davis (2000), provides a theoretical foundation for understanding how digital financial services are adopted by SMEs. TAM suggests that technology adoption is primarily determined by perceived usefulness and perceived ease of use, which influence attitudes toward technology use and subsequent behavioral intentions.

In the context of digital financial services and SME performance, TAM explains how SME owners' perceptions of mobile banking and P2P lending usefulness and ease of use influence their adoption decisions (Venkatesh et al., 2003). The model predicts that SMEs perceiving digital financial services as useful for improving business operations and easy to implement are more likely to adopt these technologies, subsequently leading to performance improvements.

Resource-Based View (RBV)

The Resource-Based View theory, as articulated by Barney (1991) and further developed by Grant (1991), posits that firms achieve competitive advantage and superior performance through the strategic deployment of valuable, rare, inimitable, and non-substitutable resources. In the context of digital financial services can be viewed as strategic resources that enable SMEs to enhance their operational capabilities and competitive positioning.

RBV theory suggests that SMEs adopting Digital financial services like mobile banking and P2P lending gain access to financial resources and capabilities that were previously unavailable, thereby improving their performance relative to non-adopting competitors (Wernerfelt, 1984). The theory provides insight into how digital financial services become embedded in SME operations and contribute to sustained competitive advantages.

Financial Intermediation Theory

Financial Intermediation Theory, developed by Gurley and Shaw (1960) and extended by Diamond (1984), explains how digital financial services reduce transaction costs and information asymmetries between savers and borrowers. This theory is particularly relevant for understanding how digital financial services like mobile banking and P2P lending improve SME access to financial services.

The theory suggests that digital financial services serve as efficient intermediation mechanisms that reduce the costs and complexities associated with traditional financial transactions (Allen & Santomero, 1997). By minimizing information asymmetries and transaction costs, these digital financial services enable SMEs to access financial services more efficiently, leading to improved business performance and growth opportunities.

This study adopts the Technology Acceptance Model (TAM) as its underlying theoretical framework to examine how digital financial services influence the performance of Small and Medium-sized Enterprises (SMEs) in the Federal Capital Territory (FCT), Abuja. The TAM, developed by Davis (1986), is one of the most widely used models for understanding technology adoption. It postulates that two core beliefs Perceived Usefulness (PU) and Perceived Ease of Use (PEOU) are critical in shaping an individual's intention to adopt and use new technology. In the context of this study, digital financial services refer to a range of technology-enabled financial solutions, including mobile banking and peer-to-peerlending. These tools are increasingly used by SMEs to manage transactions, access credit, make payments, and keep financial records. However, their effectiveness in improving SME performance largely depends on the level of adoption and the frequency of usage by SME operators.

According to TAM, Perceived Usefulness refers to the degree to which an individual believes that using a particular system will enhance their job performance. Applied to this study, it relates to whether SME owners and managers perceive digital financial services as beneficial in improving operational efficiency,

financial access, record keeping, or customer service. For example, if business owners believe that using mobile banking or digital payments can reduce transaction costs and speed up payment processing, they are more likely to use these services regularly. Perceived Ease of Use, on the other hand, is the degree to which a person believes that using a particular technology will be free of effort. If digital financial services are perceived as user-friendly and simple to navigate even by those with limited digital literacy SMEs are more inclined to adopt them. This is particularly important in regions such as FCT, Abuja, where there may be variations in digital infrastructure, education levels, and exposure to formal banking systems. By applying TAM, this study aims to understand the psychological and behavioral factors that influence the adoption of digital financial services by SMEs. Furthermore, the model helps explain how this adoption ultimately affects business performance, such as in revenue growth, market expansion, improved cash flow management, and enhanced customer satisfaction. TAM provides a logical and empirically supported basis for evaluating both the motivations and barriers surrounding digital finance usage among SMEs.

Overall, TAM serves as a useful lens for examining the relationship between technology adoption and organizational performance. Its application in this study not only strengthens the theoretical foundation but also supports the development of relevant hypotheses and analysis of findings in relation to SME development in Nigeria's digital economy.

METHODOLOGY

This study employs a quantitative research design to examine the effect of digital financial services on SME performance in FCT Abuja. The quantitative approach is appropriate for testing the hypothesized relationships between digital financial services (mobile banking and P2P lending) and SME performance outcomes (Creswell, 2014). This design enables the collection of numerical data that can be statistically analyzed to determine the magnitude and significance of relationships between variables.

The research adopts a cross-sectional survey design, collecting data at a single point in time to capture SME owners' perceptions and experiences with digital financial services and their business performance (Saunders et al., 2019). This approach is suitable for examining current relationships between variables and testing theoretical propositions about digital financial services effects on SME performance.

The target population for this study comprises all registered Small and Medium Scale Enterprises operating in the Federal Capital Territory, Abuja. According to the Small and Medium Enterprises Development Agency of Nigeria (SMEDAN), FCT Abuja hosts approximately 15,847 registered SMEs across various sectors including trade, services, manufacturing, and agriculture (SMEDAN, 2020).

The population includes SMEs that meet the SMEDAN criteria for small enterprises (10-49 employees, annual turnover of ₦5-50 million) and medium enterprises (50-199 employees, annual turnover of ₦50-500 million). The geographical scope is limited to the six area councils of FCT Abuja: Abuja Municipal Area Council (AMAC), Gwagwalada, Kuje, Abaji, Bwari, and Kwali.
The sample size is determined using Taro Yamane's formula for finite populations:

$$n = \frac{N}{1+Ne2}$$

Where:

n = sample size

N = population size (15,847)

e = margin of error (0.05)

$$n = \frac{15847}{1+15847\times 0.052} = 390$$

To account for potential non-response and ensure adequate representation, the sample size is increased by 15% of the calculated sample size to arrive at 449 SMEs as the sample size.

The study employs a stratified random sampling technique to ensure proportional representation across the six area councils of FCT Abuja. Each area council is treated as a stratum, with sample allocation based on the proportion of registered SMEs in each council. Within each stratum, simple random sampling is used to select individual SMEs for participation.

Data collection is conducted using a structured questionnaire designed to capture information about SME characteristics, digital financial services adoption, and business performance indicators. The questionnaire consists of four main sections:

Section A: Demographic information about the SME and the owner/managers as the respondent, Section B: Mobile banking adoption and usage patterns, Section C: Peer-to-peer lending experience and utilization Section D: SME performance measures

The questionnaire items are developed based on validated scales from previous digital financial services and SME performance studies, adapted to the Nigerian context. A 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree) is used for measuring perceptions and experiences related to digital financial services and performance outcomes.

Data collection is conducted through a combination of online surveys and face-to-face interviews to maximize response rates and ensure data quality. Research assistants are trained on the questionnaire administration process and ethical considerations.

This study employs Partial Least Squares Structural Equation Modeling (PLS-SEM) using SmartPLS 4.0 software for data analysis. PLS-SEM is selected because it is particularly suitable for exploratory research, handles complex models with multiple constructs, and performs well with relatively small sample sizes (Hair et al., 2019).

The PLS-SEM analysis follows a two-stage approach:

Stage 1: Measurement Model Assessment

At this stage, the study checked for:

i. Internal consistency reliability using Cronbach's Alpha and Composite Reliability.
ii. Convergent validity using Average Variance Extracted – AVE.
iii. Discriminant validity using the Fornell-Larcker criterion, HTMT ratio.

Stage 2: Structural Model Assessment

At this stage, the study measured:

i. Path coefficients and their significance
ii. Coefficient of determination (R^2)
iii. Effect sizes (f^2)
iv. Predictive relevance (Q^2)

Bootstrapping procedures with 5,000 subsamples are used to assess the significance of path coefficients and confidence intervals. The analysis follows the guidelines provided by Hair et al. (2017) for PLS-SEM reporting and interpretation.

RESULTS AND DISCUSSION

Descriptive Statistics

4.1.1 Respondent Demographics

Table 4.1: Demographic Characteristics of Owner/Managers of the SMEs

Characteristic	Category	Frequency	Percentage
Gender	Male	267	59.5
	Female	182	40.5
	Total	**449**	**100.0**
Age Group	25-35 years	156	34.7
	36-45 years	178	39.6
	46-55 years	95	21.2
	Above 55 years	20	4.5
	Total	**449**	**100.0**
Education Level	Secondary	45	10.0
	Diploma/NCE	89	19.8
	Bachelor's Degree	234	52.1
	Postgraduate	81	18.1
	Total	**449**	**100.0**
Business Experience	1-5 years	145	32.3
	6-10 years	187	41.6
	11-15 years	87	19.4
	Above 15 years	30	6.7
	Total	**449**	**100.0**

Source: Field Survey Data (2025)

The demographic analysis reveals that the majority of SME owners in the study are male (59.5%), aged between 36-45 years (39.6%), hold bachelor's degrees (52.1%), and have 6-10 years of business experience (41.6%). This profile suggests that the SME sector in FCT Abuja is dominated by educated, experienced entrepreneurs in their prime working years.

SME Characteristics

Table 4.2: SME Characteristics

Characteristic	Category	Frequency	Percentage
Business Size	Small (10-49 employees)	312	69.5
	Medium (50-199 employees)	137	30.5
	Total	**449**	**100.0**
Business Sector	Trade/Commerce	167	37.2
	Services	145	32.3
	Manufacturing	89	19.8
	Agriculture	48	10.7
	Total	**449**	**100.0**
Annual Turnover	₦5-20 million	198	44.1
	₦21-50 million	134	29.8
	₦51-200 million	89	19.8
	Above ₦200 million	28	6.3
	Total	**449**	**100.0**

Source: Field Survey Data (2025)

The SME characteristics show that small enterprises (69.5%) outnumber medium enterprises, with trade/commerce (37.2%) and services (32.3%) being the dominant sectors. Most SMEs (44.1%) have annual turnovers between ₦5-20 million, indicating the prevalence of smaller- scale operations in FCT Abuja.

Digital Financial Services Patterns

Mobile Banking Adoption **Table 4.3: Mobile Banking Adoption and Usage**

Aspect	Category	Frequency	Percentage
Mobile Banking Usage	Yes	387	86.2
	No	62	13.8
	Total	**449**	**100.0**
Primary Mobile Banking Platform	Bank Mobile Apps	198	51.2
	USSD Banking	134	34.6
	Mobile Money	55	14.2
	Total	**387**	**100.0**
Frequency of Use	Daily	156	40.3
	Weekly	145	37.5
	Monthly	86	22.2
	Total	**387**	**100.0**

Source: Field Survey Data (2025)

The results indicate high mobile banking adoption rates (86.2%) among SMEs in FCT Abuja, with bank mobile applications being the preferred platform (51.2%). Daily usage (40.3%) demonstrates the integral role of mobile banking in SME operations.

P2P Lending Experience

Table 4.4: P2P Lending Adoption and Experience

Aspect	Category	Frequency	Percentage
P2P Lending Awareness	Aware	298	66.4
	Not Aware	151	33.6
	Total	**449**	**100.0**
P2P Lending Usage	Yes	156	34.7
	No	293	65.3
	Total	**449**	**100.0**
Loan Amount Range	Below ₦500,000	67	42.9
	₦500,000 - ₦2,000,000	56	35.9
	Above ₦2,000,000	33	21.2
	Total	**156**	**100.0**

Source: Field Survey Data (2025)

P2P lending adoption (34.7%) is lower than mobile banking, though awareness levels (66.4%) are substantial. Most P2P lending users access smaller loan amounts (below ₦500,000), suggesting the platform's role in addressing working capital needs.

Measurement Model Assessment

Reliability and Validity Tests

Table 4.5: Reliability and Convergent Validity Results

Construct	Items	Cronbach's Alpha	Composite Reliability	AVE
Mobile Banking (MB)	6	0.847	0.891	0.578
P2P Lending (P2P)	5	0.823	0.879	0.594
SME Performance (PERF)	8	0.912	0.932	0.635

Source: SmartPLS 4.0 Analysis Output (2025)

All constructs demonstrate adequate internal consistency reliability (Cronbach's Alpha > 0.70) and composite reliability (CR > 0.70). The Average Variance Extracted (AVE > 0.50) confirms convergent validity, indicating that constructs explain more than half of their indicators' variance.

Discriminant Validity

Table 4.6: Fornell-Larcker Criterion for Discriminant Validity

Construct	MB	P2P	PERF
Mobile Banking (MB)	**0.760**		
P2P Lending (P2P)	0.543	**0.771**	
SME Performance (PERF)	0.687	0.612	**0.797**

Source: SmartPLS 4.0 Bootstrapping Analysis (2025)

Note: Diagonal values (in bold) represent the square root of AVE

The Fornell-Larcker criterion is satisfied as the square root of each construct's AVE exceeds its correlations with other constructs, confirming discriminant validity.

Table 4.7: HTMT Ratio Results

Construct Pairs	HTMT Ratio
P2P → MB	0.634
PERF → MB	0.798
PERF → P2P	0.712

Source: SmartPLS 4.0 Bootstrap Analysis (2025)

All HTMT ratios are below the conservative threshold of 0.85, further confirming discriminant validity between constructs.

Structural Model Assessment

Path Coefficients and Hypothesis Testing

Table 4.8: Structural Model Results

Hypothesis	Path	Path Coefficient	Standard Error	t- value	p- value	Decision
H1	MB → PERF	0.456	0.067	6.806	0.000	Supported
H2	P2P → PERF	0.287	0.058	4.948	0.000	Supported

Source: SmartPLS 4.0 Bootstrap Analysis with 5,000 subsamples (2025)

Both hypotheses are supported at the 0.001 significance level. Mobile banking shows a stronger positive effect on SME performance ($\beta = 0.456$) compared to P2P lending ($\beta = 0.287$).

Model Quality Assessment

Table 4.9: Model Quality Indicators

Construct	R^2	R^2 Adjusted	Q^2 (Predictive Relevance)
SME Performance	0.634	0.631	0.387

Source: SmartPLS 4.0 Analysis Output (2025)

The model explains 63.4% of the variance in SME performance, indicating substantial explanatory power. The Q^2 value ($0.387 > 0$) confirms the model's predictive relevance.

Effect Sizes

Table 4.10: Effect Sizes (f^2)

Path	f^2	Effect Size
MB → PERF	0.285	Medium
P2P → PERF	0.098	Small to Medium

Source: SmartPLS 4.0 Analysis Output (2025)

Mobile banking demonstrates a medium effect size on SME performance, while P2P lending shows a small to medium effect, consistent with the path coefficient results.

Discussion of Findings

Mobile Banking and SME Performance

The study's findings strongly support the positive relationship between mobile banking adoption and SME performance in FCT Abuja ($\beta = 0.456$, $p < 0.001$). This result aligns with previous research by

Adebayo et al. (2022) in Lagos State and extends the understanding of mobile banking benefits to Nigeria's capital territory. The significant positive effect suggests that SMEs utilizing mobile banking services experience notable improvements in their operational efficiency, financial management, and overall business performance.

The high adoption rate of mobile banking (86.2%) among SMEs in FCT Abuja indicates widespread recognition of its benefits. The predominant use of bank mobile applications (51.2%) over USSD and mobile money platforms suggests that SMEs prefer comprehensive banking solutions that offer multiple services through a single interface. The daily usage pattern (40.3%) demonstrates that mobile banking has become integral to SME operations, facilitating routine transactions, payment processing, and financial monitoring.

The strong relationship between mobile banking and SME performance can be attributed to several factors identified in the literature. Mobile banking reduces transaction costs by eliminating the need for physical bank visits, thereby saving time and resources that can be redirected to core business activities (Krishnamurthy & Mishra, 2023). Additionally, the 24/7 accessibility of mobile banking services enables SMEs to respond quickly to market opportunities and manage cash flows more effectively, contributing to improved business performance.

The findings also suggest that mobile banking enhances SME competitiveness by enabling faster payment processing and improved customer service delivery. SMEs can process customer payments instantly, reducing payment delays and improving customer satisfaction. This operational efficiency translates into better business relationships and potentially increased revenue generation, as supported by the empirical evidence from this study.

P2P Lending and SME Performance

The study confirms a significant positive relationship between P2P lending and SME performance ($\beta = 0.287$, $p < 0.001$), though the effect is weaker than that of mobile banking. This finding is consistent with international research by Zhang et al. (2021) and Chen et al. (2021), demonstrating that P2P lending platforms contribute positively to SME growth and performance across different economic contexts.

The moderate adoption rate of P2P lending (34.7%) compared to the high awareness level (66.4%) suggests that while SMEs recognize the potential benefits of P2P lending, various factors may influence their actual utilization of these platforms. The predominant use of smaller loan amounts (below ₦500,000 by 42.9% of users) indicates that P2P lending primarily serves working capital needs rather than major capital investments.

The positive impact of P2P lending on SME performance can be explained by improved access to credit that was previously unavailable through traditional banking channels. P2P platforms typically offer faster loan approval processes, reduced collateral requirements, and more flexible terms compared to conventional banks (Jagtiani & Lemieux, 2018). This enhanced credit accessibility enables SMEs to invest in inventory, equipment, and business expansion activities that drive performance improvements.

However, the relatively weaker effect of P2P lending compared to mobile banking may reflect several factors. First, P2P lending adoption is still in its early stages in Nigeria, with many SMEs remaining cautious about non-traditional lending platforms. Second, the regulatory framework for P2P lending in Nigeria is still evolving, which may create uncertainty among potential users. Third, the smaller loan amounts typically accessed through P2P platforms may limit their transformative impact on business performance compared to the comprehensive operational benefits provided by mobile banking.

The study's findings provide empirical support for the Technology Acceptance Model (TAM) in explaining digital financial services and its performance outcomes. The high adoption rates and positive performance impacts of both mobile banking and P2P lending suggest that SMEs perceive these services as useful and relatively easy to use, consistent with TAM predictions.

The Resource-Based View (RBV) theory is also supported by the findings, as digital financial services appear to serve as strategic resources that enhance SME competitive capabilities. The positive performance impacts suggest that digital financial services enable SMEs to develop new operational capabilities and competitive advantages that were previously unavailable through traditional financial services.

The Financial Intermediation Theory finds support in the study's results, particularly regarding P2P lending's role in reducing information asymmetries and transaction costs. The positive impact of P2P lending on SME performance confirms that alternative financial intermediation mechanisms can effectively serve SME financing needs while contributing to business growth.

CONCLUSION AND RECOMMENDATIONS

This study investigated the effect of digital financial services on Small and Medium Scale Enterprises performance in the Federal Capital Territory, Abuja. The research focused on two key digital financial services: mobile banking and peer-to-peer lending. Using a quantitative research design and PLS-SEM analysis of data from 449 SMEs, the study generated several important findings.

First, mobile banking demonstrates a significant positive effect on SME performance ($\beta = 0.456$, $p < 0.001$), with high adoption rates (86.2%) among SMEs in FCT Abuja. The findings reveal that mobile banking adoption leads to improved operational efficiency, better cash flow management, and enhanced customer service delivery, ultimately contributing to superior business performance.

Second, peer-to-peer lending shows a significant but relatively weaker positive impact on SME performance ($\beta = 0.287$, $p < 0.001$). While P2P lending adoption rates are lower (34.7%), the platform serves important financing needs, particularly for working capital requirements. The positive impact suggests that P2P lending platforms effectively complement traditional financing sources for SMEs.
Third, the combined effect of mobile banking and P2P lending explains 63.4% of the variance in SME performance, indicating that digital financial services are substantial determinants of business success in FCT Abuja. The high explanatory power demonstrates the strategic importance of digital financial services for SME competitiveness and growth.

The study concludes that Digital financial services significantly enhance SME performance in the Federal Capital Territory, Abuja. Both mobile banking and peer-to-peer lending contribute positively to business outcomes, though mobile banking demonstrates a stronger impact due to its comprehensive operational benefits and higher adoption rates.

The research confirms that digital financial services serve as strategic resources that enable SMEs to overcome traditional barriers to financial services access and operational efficiency. The widespread adoption of mobile banking and growing utilization of P2P lending platforms indicate that SMEs in FCT Abuja are embracing digital financial solutions to enhance their business performance.

The theoretical frameworks employed in the study - Technology Acceptance Model, Resource- Based View, and Financial Intermediation Theory - provide valuable insights into the mechanisms through which digital financial services influence SME performance. The empirical evidence supports these theoretical perspectives and contributes to the growing body of literature on digital financial services and small business development. The study adopted the Technology Acceptance Model.

Based on the study's findings, several recommendations are proposed for different stakeholders:

i. SMEs not currently using mobile banking services should prioritize adoption to gain operational efficiency benefits and competitive advantages. The high impact of mobile banking on performance justifies the investment in digital payment systems and mobile banking infrastructure.

ii. facing credit constraints should consider P2P lending platforms as viable alternatives to traditional banking. The positive performance impact demonstrates that P2P lending can effectively support business growth and working capital needs.

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