ENUGU STATE UNIVERSITY OF SCIENCE & TECHNOLOGY

JOURNAL OF SOCIAL SCIENCES & HUMANITIES

Volume 10
Number 2, 2025

PUBLISHED BY
Faculty of Social Sciences,
Enugu State University of Science And Technology

The Adoption of Fintech Solutions by Small and Medium Enterprises (SMEs) in Ilorin: A Study of its Impact on Financial Management and Business Performance

Olagoke Kemisola Caroline
Department of Business Administration,
Osun State University, Osogbo, Osun State
huspride77@gmail.com

Ajimati Amos
Department of Business Administration and Entrepreneurship,
Kwara State University, Malete, Ilorin, Kwara State.
ajimatiamos@gmail.com

Jubril Tajudeen Sunday
Bamidele Ojo Mathew
Department of Banking and Finance,
Federal Polytechnic Offa, Offa, Kwara State
jubril@fedpoffaonline.edu.ng;
bamideleojomatthew123@gmail.com

Abstract

This study examined the adoption of Financial Technology (FinTech) solutions by Small and Medium Enterprises (SMEs) in Ilorin, Nigeria, and its impact on financial management and business performance. Specifically, the study assessed the effect of mobile payment systems and evaluated the impact of digital lending platforms on the financial management and performance of SMEs in Ilorin, Nigeria. The study adopted a descriptive survey design using purposive sampling to select 350 SMEs across various sectors in Ilorin metropolis, yielding a population of 8,450 SME operators. A sample of 382 SME owners/managers was drawn using Cochran's formula. Data was collected through structured questionnaires and analyzed using simple linear regression. The analysis confirmed that mobile payment systems significantly enhance financial management efficiency ($R^2 = 0.724$, $p = 0.000$), while digital lending platforms demonstrate a strong positive effect on business performance, explaining 68.2% of the variation ($R^2 = 0.682$, $p = 0.000$). The study concluded that FinTech adoption is a critical driver of SME success, with mobile payment systems improving transaction efficiency and cash flow management, while digital lending platforms enhance access to capital and growth opportunities. The findings emphasize the transformative potential of financial technology in empowering SMEs to overcome traditional banking barriers and achieve sustainable growth. It is recommended that SMEs should accelerate FinTech adoption through strategic partnerships, digital literacy programs, and integration of multiple FinTech solutions to maximize competitive advantage and operational efficiency.

Keywords: *FinTech adoption, SMEs, mobile payment systems, digital lending platforms, financial management, business performance, Nigeria.*

Introduction

FinTech is a new paradigm shift in the way financial services are provided, consumed and operated in the world. FinTech is associated with the implementation of technology to offer financial services in order to enhance their services delivery and consumption by businesses

and consumers (Puschmann, 2017). The immensely fast development of digital technologies has radically changed the business environment and opened possibilities to companies to receive more efficient, more cost-effective, and more inclusive financial services (Ozili, 2018). In the case of FinTech solutions applied to Small and Medium Enterprises (SMEs), the largest sector of most developing economies, it presents unparalleled possibilities to eliminate all barriers to financial services, increase efficiency in operations, and boost business expansion (Asongu and Odhiambo, 2019). In the development of economies, especially in the developing ones, Small and Medium Enterprises are significant as they are the main part of employment creation, innovation, and GDP increase (Ayandibu and Houghton, 2017). Nevertheless, there is a high level of difficulty that SMEs can encounter when accessing conventional financial services, cash flow management, and efficient financial management system. Nigeria is one of the countries where these challenges are especially acute as the official banking industry has traditionally failed to address the needs of small entrepreneurs (Adegboye et al., 2020). The emergence of FinTech solutions has created new pathways for SMEs to access financial services, manage their finances more effectively, and improve their overall business performance.

The Nigerian FinTech ecosystem has recorded an impressive development over the last decade, and the nation is one of the most important FinTech environments in Africa (PwC, 2020). The factors that have contributed to this growth have been high mobile phone penetration, high number of unbanked people, central bank of Nigeria permissive regulations and rising technological entrepreneurship (Ouma et al., 2021). FinTech solutions, such as mobile payment systems, digital lending, and others, have become very popular among businesses and consumers in Nigeria and opened up new avenues of financial inclusion and economic empowerment. The capital city of Kwara State which is known as Ilorin is a major commercial and administrative hub in North-Central Nigeria. Ilorin has a wide range of SMEs in the economy, which include trade, agriculture, manufacturing, and service (Kwara State Government, 2022). The city's strategic location as a link between the Northern and Southern regions of Nigeria makes it an important commercial hub, while its educated population and technological infrastructure provide a conducive environment for FinTech adoption. However, despite the growing availability of FinTech solutions, the extent of adoption among SMEs in Ilorin and its impact on their financial management and business performance remains underexplored. The idea behind the study can be explained by the fact that although FinTech solutions can be highly beneficial to SMEs, their adoption and influence may differ dramatically among various geographical setting and business conditions (Iman, 2020). Understanding how SMEs in Ilorin are adopting FinTech solutions and the resulting impacts on their operations is crucial for several stakeholders. To the owners and managers of SMEs these insights can be used to inform strategic decisions relating to technology adoption and financial management practices. In the case of FinTech service providers, the patterns and impacts of adoption would be useful in informing their product development and market expansion strategies. To policymakers and development agencies, this knowledge could be used to formulate policies and programs favourable to digital financial inclusion and the growth of SMEs.

The existing literature on FinTech adoption has concentrated mainly on developed economies or big cities in developing nations, and little has been said about secondary cities such as Ilorin (Senyo and Osabutey, 2020). Although research has been conducted on the uptake of FinTech in urban areas such as Lagos, Abuja and Port Harcourt, the role of adoption of these technologies by SMEs in smaller commercial locales seems to have been understudied to a larger extent. This paper will fill this gap by looking at the current adoption of FinTech in

Ilorin in particular, and then offer insights that can be generalized to other commercial hubs in Nigeria or other developing nations. Therefore, the objectives of this study are to:

i. assess the effect of mobile payment systems adoption on financial management efficiency of SMEs in Ilorin, Nigeria.
ii. evaluate the impact of digital lending platforms adoption on business performance of SMEs in Ilorin, Nigeria.

The following hypotheses are formulated for the study:

H_{01}: Mobile payment systems adoption has no significant effect on financial management efficiency of SMEs in Ilorin, Nigeria.

H_{02}: Digital lending platforms adoption has no significant impact on business performance of SMEs in Ilorin, Nigeria.

Literature Review

FinTech Solutions in Nigeria

The Financial Technology sector in Nigeria has undergone remarkable transformation over the past decade, positioning the country as a leading FinTech destination in Africa. Such evolution is symptomatic of a convergence of forces such as regulatory innovation, technological development, demographics, and market needs that have formed a supportive environment in which FinTech has developed (Oshodin et al., 2021). The Nigerian FinTech ecosystem has many categories of solutions such as payments, lending, insurance technology, investment platforms, and financial management tools, each of which has a gap in the market and targeted customer needs (Alli, 2025; Alli & Ganiyu, 2025). Mobile payment systems are considered to be one of the most successful FinTech spheres in Nigeria due to high rates of mobile phone penetration and the necessity of the convenient payment options. The development of the mobile money industry has been supported by the gradual regulatory environment provided by the Central Bank of Nigeria through policies on the operation of the mobile money business and introduction of payment system operator licenses (CBN, 2020). The mobile payment industry involves big players such as traditional telecommunications organisations that provide mobile money services, specialized payment organisations and tech-based start-ups that offer innovative payment services. These platforms have transformed the way businesses and consumers transact business as they provide them with alternatives to money-based transactions and traditional banking systems.

The regulatory environment has played a crucial role in shaping Nigeria's FinTech landscape. To facilitate financial inclusion and encouraging FinTech innovation, the Central Bank of Nigeria has undertaken a number of measures, such as development of regulatory sandboxes, updated policies on digital financial services and open banking frameworks (Ozili, 2020). Such regulatory processes have presented a platform on which FinTech firms can conduct business in well-defined legal frameworks as they seek to develop innovative solutions. However, the regulatory landscape continues to evolve, requiring FinTech providers and users to adapt to changing requirements and standards. Digital lending platforms have emerged as a critical solution addressing the financing gap faced by individuals and SMEs in Nigeria. Small business: The banks have long been unable to meet the credit demands of the small business because the traditional banks are too costly to operate, have insufficient credit

evaluation protocols, and risk management (Gbenga, 2024; Asongu and Odhiambo, 2019). Digital lending tap into technology, alternative data, and automated credit mission to offer credit solutions more quickly and easily (Alli & Ganiyu, 2021). Such websites use several data points such as transaction records, your social life on social media, and psychometric tests to judge creditworthiness and lend. Employing FinTechs in Nigeria has been affected by many factors such as technological infrastructure, consumer behaviour, competition, and socioeconomic status. The technological background to adoption of FinTech has been established by high levels of smartphone penetration, enhanced internet access, and the rise in digital platforms (Senyo and Osabutey, 2020). Demands in the FinTech solutions are predetermined by the desire to be convenient, fast, and accessible, and the pressure of competition has stimulated the adoption of digital transformation by traditional financial institutions.

SMEs and Financial Management Challenges in Nigeria

In Nigeria, the biggest proportion of businesses are comprised of Small and Medium Enterprises which is the main source of employment, innovation and economic growth. The National Bureau of Statistics estimates that around 96% of all business in Nigeria is run by SMEs and that they supply about 48% of the national GDP (NBS, 2021). In Nigeria, SMEs encounter a lot of problems, even though they are economically relevant, which restrict their development potential and competitiveness. The problem of financial management is one of the biggest hurdles, which influence their capacity to control cash flows, to take credit, strategic investments and their sustainable growth. Finance is still a chronic issue facing Nigerian SMEs where most businesses have had difficulties accessing sufficient funds through the conventional financial institutions. SMEs have been considered risky clients by commercial banks because of various conditions such as low collateral base, poor financial documents and perceived management ineptitude (Adegboye et al., 2020). The ensuing credit crunch has ensured that most SMEs turn to informal source of finance, such as personal savings, family contribution as well as money lenders which are either inadequate or costly. This financing constraint limits SMEs' ability to invest in technology, expand operations, or take advantage of growth opportunities. Another main issue facing the Nigerian SMEs is cash flow management especially where the company deals with volatile markets or seasonal businesses. A lot of SMEs do not have advanced financial management systems and use manual systems to trace revenues, expenses, and cash positions (Ayandibu and Houghton, 2017). This may result in insufficient financial performance transparency, poor decision making and crises of cash flow that can put business under threat of extinction. Lack of effective payment mechanisms and protracted collection periods also contributes to the problem of cash flow, especially where companies have a number of customers and suppliers.

Nigerian SMEs have poor financial record-keeping and reporting, which restricts their capacity to make sound business decisions and have access to formal financial services. Most SMEs have partially or untidy financial statements, use informal accounting standards and are not yet skilled enough to prepare fully detailed financial statements (Okpara, 2011). This inadequacy does not only hamper the internal management decision making but it also provides impediments to gaining formal credit because the financial institutions need comprehensive financial details to make credit evaluation decisions. The digital divide and technological limitations also affect SMEs' financial management capabilities. Technology provides a solution to the efficient management of finances, but most SMEs have no resources, knowledge or infrastructure to use advanced financial management systems (Iman, 2020). This technological disparity constrains their powers to automation of financial

operations, creation of real time financial data and assimilation of financial administration with other business activities.

Mobile Payment Systems and Financial Management

Mobile payment systems have presented innovative changes to enhance efficiency in financial management among the SMEs in the world. Through mobile technology, such systems can be used to carry out electronic transactions, which allow businesses to send and receive payments, control cash flows, and store records of transactions using mobile devices (Dahlberg et al., 2015). Mobile payment systems have a number of benefits over conventional payment systems to SMEs such as less transaction costs, faster payment, greater security, and greater record-keeping capacity. The implications of the mobile payment systems on the effectiveness of financial management are manifold since it impacts on many areas of operations of the SME. One of the most direct advantages is transaction processing efficiency because mobile payments often save on time and effort that are needed to finalize transactions with cash or check-based payments (Ouma et al., 2021). This increase in efficiency leads to the savings of cost and the satisfaction of customers as companies can provide services to more customers within the shortest time possible, besides minimizing errors in transactions. Mobile payment adoption is also beneficial to the management of cash flows since transactions can be processed in real time using these systems and the systems can also maintain records automatically. SMEs using mobile payment systems can receive payments immediately, improving their cash positions and reducing the need for extensive cash handling procedures (Senyo & Osabutey, 2020). The digital nature of mobile payments also creates automatic transaction records, providing businesses with detailed information about payment patterns, customer behavior, and cash flow trends that can inform financial planning and decision-making processes. Cost reduction represents another significant benefit of mobile payment systems for SMEs. Conventional methods of payment processing usually have a number of charges such as bank charges, cash handling charges, and administration costs. These costs can be minimized by using mobile payment systems that will decrease the transaction fees, remove the need to handle cash, and decrease the administrative overhead (Puschmann, 2017). These cost savings can improve SME profitability and create resources for investment in other business activities. Security and transparency benefits of mobile payment systems also contribute to improved financial management. The availability of digital transactions leaves audible trails that minimize occurrence of fraud, theft, and errors in accounting in comparison with cash-based transactions (Ozili, 2020). This enhanced security and transparency can improve SMEs' relationships with financial institutions, suppliers, and customers, while supporting compliance with regulatory requirements and tax obligations.

Digital Lending Platforms and Business Performance

Digital lending platforms are novel financial services that are using technology to offer credit services more effectively and with greater inclusivity than the traditional bank financial services to the market. These platforms leverage other sources of data, automated decision-making models, and simplified loaning procedures to evaluate creditworthiness and loan to persons and companies (Asongu and Odhiambo, 2019). For SMEs, digital lending platforms offer the potential to overcome traditional barriers to credit access while supporting business growth and performance improvement. The connection between business performance and digital lending platforms works in a number of ways. Access to capital is the most immediate channel, since the businesses are able to secure funding to work capital, purchase of equipment, purchase of inventory and expansion. Compared to the traditional banks where a

lot of paperwork and prolonged approval time can be involved, digital lending platforms usually have shorter approval times and more convenient qualification requirements (Ouma et al., 2021). This improved access to capital enables SMEs to take advantage of business opportunities, manage seasonal fluctuations, and invest in growth initiatives that enhance performance.

Operational flexibility benefits from digital lending platforms contribute to improved business performance by enabling SMEs to respond more quickly to market opportunities and challenges. Conventional lending processes may take weeks or months therefore businesses may not have access to capital when time bound opportunities come along. The decisions in terms of funding are frequently delivered within hours or days, which allow SMEs to make strategic choices, expand into new markets, or react to competition in a more efficient way by using digital lending platforms (Senyo and Osabutey, 2020). Cost efficiency advantages of digital lending platforms can also impact business performance positively. Conventional lending is usually associated with high transaction costs such as application fees, transaction fees and administration costs. These processes are usually standardized and made simpler through digital platforms and direct costs and opportunity cost also decrease with the long application processes (Iman, 2020). The reduced costs of borrowing funds make SMEs able to borrow money at a reasonable cost and enhance their financial status, and promote lucrative growth projects. The data and insights generated through digital lending platforms can also contribute to improved business performance. On numerous platforms, borrowers can receive financial analytics, benchmark information and performance that may be used to inform strategic decision-making. This additional value beyond the core lending service can help SMEs improve their financial management capabilities, identify growth opportunities, and optimize their operations for better performance outcomes.

Theoretical Framework

This research is grounded on Technology Acceptance Model (TAM) which was initially created by Davis (1989) and later improved by other scholars. TAM is a theory of how users adopt technology and accept it, and that is why it can be applied to investigate the adoption of FinTech among SMEs. Technology Acceptance Model assumes that there are two major beliefs, perceived usefulness and perceived ease of use, which form the core determinants of technology adoption. Perceived usefulness is the level at which an individual believes that the use of a given technology will make him or her better perform or more productive at work. Perceived ease of use is the level upon which a person is convinced that he will not experience any effort in using the technology. According to TAM, these beliefs influence attitudes toward technology use, which in turn affect behavioral intentions and actual usage behavior.In the context of this study, TAM provides a framework for understanding why SMEs in Ilorin choose to adopt or reject FinTech solutions. SMEs are likely to adopt mobile payment systems and digital lending platforms if they perceive these technologies as useful for improving their financial management and business performance, and if they perceive them as easy to use and integrate into their existing operations. According to the model, the factors of functional benefits (usefulness) and the usability factors (ease of use) should also be taken into consideration when exploring the patterns of FinTech adoption. The long form of TAM adds more variables which can affect the adoption of technology and include the social factors, enabling conditions, and personal attributes. The extensions are especially applicable in the context of FinTech adoption in developing countries analysis, where inadequate infrastructure, the regulatory environment, and cultural attitudes towards technology could play a major role in the adoption determination..

Methodology

The study was conducted in Ilorin, the capital city of Kwara State, located in the North-Central geopolitical zone of Nigeria. Ilorin serves as a major commercial and administrative center, with an estimated population of over 1.5 million people (National Population Commission, 2021). The city's diverse economy includes trade, agriculture, manufacturing, services, and government activities, making it home to numerous SMEs across various sectors. The strategic location of Ilorin as a link between Northern and Southern Nigeria, combined with its educational institutions and improving technological infrastructure, provides a representative setting for studying FinTech adoption among SMEs.

A descriptive survey design was adopted for this study, utilizing a cross-sectional approach to collect data from SME owners and managers at a single point in time. This design is appropriate for examining the current state of FinTech adoption and its impacts on financial management and business performance, allowing for the collection of standardized information from a large number of respondents (Saunders et al., 2019).

The target population consisted of SMEs operating in Ilorin metropolis across various sectors including retail trade, manufacturing, services, agriculture, and technology. Based on data from the Kwara State Ministry of Commerce and Industry and the Small and Medium Enterprises Development Agency of Nigeria (SMEDAN), the estimated population of registered SMEs in Ilorin is approximately 8,450 enterprises (SMEDAN, 2022). This population was considered appropriate for the study as it represents businesses that could potentially benefit from FinTech solutions and have the capacity to adopt such technologies.

Purposive sampling technique was employed to select SMEs that met specific criteria for inclusion in the study. The selection criteria included: (1) businesses operating for at least two years to ensure adequate experience with financial management challenges; (2) enterprises with annual turnover between ₦5 million and ₦500 million, consistent with standard SME definitions in Nigeria; (3) businesses with access to mobile phones and/or internet connectivity; and (4) willingness to participate in the research. This sampling approach ensured that selected SMEs were relevant to the research objectives and could provide meaningful insights about FinTech adoption and its impacts.

Using Cochran's formula for sample size determination, a sample of 382 SME owners/managers was calculated, assuming a 95% confidence level, 5% margin of error, and maximum variability (p = 0.5). The formula applied was:

$$n_0 = Z^2 \times p \times (1 - p) / e^2$$

Table 1: Distribution of Sample Size by Business Sector

Sector	Number of SMEs	Percentage	Sample Size
Retail Trade	2,871	34.0%	130
Services	2,366	28.0%	107
Manufacturing	1,521	18.0%	69
Agriculture	1,183	14.0%	53
Technology/ICT	507	6.0%	23
Total	**8,450**	**100.0%**	**382**

Source: Researcher's computation based on SMEDAN (2022) data

The primary data was gathered by means of structured questionnaires that were distributed to the owners of SMEs or top managers who make financial management decisions. The questionnaire was created on the ground of thorough literature review and was tested piloting on 30 SMEs that were not involved in the main study. The instrument comprised of 5 sections that included demographic information, FinTech adoption patterns, the use of mobile payment systems, the impact of mobile payment systems, the use of digital lending platforms, the impact of digital lending platforms, and general measures of business performance.

Measurement of questionnaire items was done on a 5-point Likert scale between 1 (strongly disagree) to 5 (strongly agree) on perception based questions, and categorical and continuous variables were used to measure adoption patterns. The efficiency of financial management was assessed on the items concerned with speed of transaction processing, management of cash flows, cost minimization, accuracy of record-keeping activities and financial planning strengths. The measures used in determining business performance were growth in revenues, profitability, market growth, operational efficiency and competitive positioning.

Data collection was conducted over a period of eight weeks, with trained research assistants visiting SMEs across different locations in Ilorin metropolis. Mainly drop-and-collect method was employed that gave the respondents enough time to fill in the questionnaires and kept the response rates high. Visit follow-ups were made where appropriate to clarify the responses and to assure data quality.

The Statistical Package of Social Sciences (SPSS) version 28.0 was used in data analysis. The characterization of respondents and variables distributions were summarized through descriptive statistics (frequencies, percentages, means, and standard deviations). The research hypotheses were tested with the help of simple linear regression analysis aimed at investigating the relationships between adoption of mobile payment systems and financial management efficiency and adoption of digital lending platforms and business performance. The regression models were formulated as:

Model 1: Financial Management Efficiency = $\beta_0 + \beta_1$(Mobile Payment Systems) + ε

Model 2: Business Performance = $\beta_0 + \beta_1$(Digital Lending Platforms) + ε

Where:
β_0 represents the intercept,
β_1 represents the regression coefficient
ε represents the error term.

Results and Discussion

Demographic Characteristics

Table 2: Demographic Characteristics of Respondents (N=375)

Variable	Categories	Frequency	Percentage (%)
Gender	Male	234	62.4
	Female	141	37.6
	Total	**375**	**100.0**
Age Group	18-30 years	89	23.7
	31-40 years	142	37.9

	41-50 years	108	28.8
	Above 50 years	36	9.6
	Total	**375**	**100.0**
Education Level	SSCE/WAEC	67	17.9
	ND/NCE	98	26.1
	HND/Bachelor's	156	41.6
	Postgraduate	54	14.4
	Total	**375**	**100.0**
Business Experience	2-5 years	134	35.7
	6-10 years	128	34.1
	11-15 years	78	20.8
	Above 15 years	35	9.3
	Total	**375**	**100.0**
Business Size	Micro (1-10 employees)	198	52.8
	Small (11-50 employees)	134	35.7
	Medium (51-200 employees)	43	11.5
	Total	**375**	**100.0**
Annual Turnover	₦5-20 million	189	50.4
	₦21-50 million	112	29.9
	₦51-200 million	54	14.4
	Above ₦200 million	20	5.3
	Total	**375**	**100.0**

Source: Field Survey (2025)

The demographic study indicates that the respondents were predominantly male business owners (62.4%), and such a situation is typical of the male dominance in SME ownership in Nigeria. The age profile indicates a majority of 37.9 percent of them (41-50 years) were aged between 31-40 years; this implies that the sample was made up of mature business owners who had extensive life and business experience. The educational profile demonstrates that 41.6% of respondents had HND/Bachelor's degrees, while 14.4% held postgraduate qualifications, suggesting relatively high educational levels among SME owners in Ilorin. In terms of experience in business, the respondents were split between 2-5 years of experience with 35.7% and 6-10 years with 34.1% representing a good representation of newer and more established businesses. The distribution of the size of the business indicates that 52.8% were the micro enterprises (1-10 employees), 35.7% were small enterprises (11-50 employees) and 11.5% were the medium enterprises (51-200 employees). Turnover data reveals that 50.4% of business make between ₦5-20 million and 29.9% make between ₦21-50 million annually; this is a small percentage which depicts that the businesses in the region where the study was conducted are small in scale.

FinTech Adoption Patterns

Table 3: FinTech Solutions Adoption Patterns

FinTech Solution	Adopted	Not Adopted	Adoption Rate (%)
Mobile Payment Systems	289	86	77.1%
Digital Banking Apps	234	141	62.4%
Digital Lending Platforms	178	197	47.5%
Financial Management Apps	123	252	32.8%
Investment Platforms	67	308	17.9%
Insurance Technology	45	330	12.0%

Source: Field Survey (2024)

The FinTech adoption analysis reveals varying levels of uptake across different solution categories. Mobile payment systems recorded the highest level of adoption of 77.1 that demonstrated the prevalence of using this technology among SMEs in Ilorin. Such a high adoption rate demonstrates the fact that mobile payments are practical to SME operations in terms of convenience, speed, and minimized cash handling requirements. Digital banking applications have recorded a high adoption rate with the adoption rate standing at 62.4 percent which shows that basic digital banking services have reached a high penetration rate. Still, more advanced FinTech products represented lower use rates, and digital lending platforms occupied 47.5% and financial management apps took 32.8. Platforms of investment and insurance technology recorded significantly lower adoption rates at 17.9% and 12.0% respectively which may indicate that these solutions were not as well-known nor seen as relevant to SME operations.

Mobile Payment Systems and Financial Management Efficiency

Table 4: Mobile Payment Systems Impact on Financial Management

Statement	SD	D	N	A	SA	Mean	Std. Dev
MPS reduces transaction processing time	12 (3.2%)	18 (4.8%)	29 (7.7%)	168 (44.8%)	148 (39.5%)	4.13	0.94
MPS improves cash flow management	15 (4.0%)	22 (5.9%)	35 (9.3%)	172 (45.9%)	131 (34.9%)	4.02	0.98
MPS reduces transaction costs	18 (4.8%)	28 (7.5%)	42 (11.2%)	154 (41.1%)	133 (35.5%)	3.95	1.04
MPS enhances record keeping accuracy	14 (3.7%)	20 (5.3%)	38 (10.1%)	178 (47.5%)	125 (33.3%)	4.01	0.95
MPS improves financial planning capability	16 (4.3%)	26 (6.9%)	48 (12.8%)	159 (42.4%)	126 (33.6%)	3.94	1.01

Source: Field Survey (2024)

The impact of mobile payment systems on financial management analysis indicates that there are always positive attitudes among SME respondents. The highest-rated benefit was transaction processing time reduction (Mean = 4.13), with 84.3% of respondents agreeing or strongly agreeing that mobile payment systems reduce the time required to complete transactions. This observation conforms to postulated advantages of digital payment solutions and indicates that SMEs are enjoying real efficiency returns on adoption. There was high support in the management improvement of cash flow (Mean = 4.02) with 80.8 percentage agreeing that the mobile payment systems are assisting SMEs to manage the working capital better by accelerating the payment process and providing better cash clarity. Record-keeping accuracy enhancement (Mean = 4.01) also received high ratings, suggesting that the automatic transaction logging features of mobile payment systems are addressing traditional challenges with manual record-keeping among SMEs. Less positive, but still positive, ratings were given to transaction cost reduction (Mean = 3.95) and improvement of financial planning capabilities (Mean = 3.94); the SMEs in question find both direct cost benefits and strategic planning benefits of mobile payment adoption. The standard deviations in all items are relatively low implying that there are standard perceptions of respondents to these benefits.

Digital Lending Platforms and Business Performance

Hypothesis Testing

Hypothesis One: Mobile Payment Systems and Financial Management Efficiency

Table 6: Regression Analysis - Mobile Payment Systems and Financial Management Efficiency

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of Estimate
1	.851[a]	.724	.723	6.8492

ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	46,789.234	1	46,789.234	997.421	.000[b]
Residual	17,512.766	373	46.944		
Total	64,302.000	374			

Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	12.458	1.247		9.988	.000
Mobile Payment Systems	1.832	.058	.851	31.582	.000

a. Predictors: (Constant), Mobile_Payment_Systems
b. Dependent Variable: Financial_Management_Efficiency

The regression model shows that the relationship between the adoption of mobile payment system and financial management efficiency is significant and positive, yet statistically significant. Correlation coefficient (R = 0.851) shows that the relationship between the two variables is very strong and positive. The R^2 value of 0.724 reveals that mobile payment systems explain 72.4% of the variance in financial management efficiency among SMEs in Ilorin. The F-statistic (997.421, $p < 0.001$) shows that the regression model is significant, and the relationship that is witnessed is not a result of chance. The regression coefficient (B = 1.832) suggests that for every one-unit increase in mobile payment systems adoption, financial management efficiency increases by 1.832 units. The magnitude of the effect size is very large as demonstrated by the standardized coefficient (= 0.851), and this proves the significant role of mobile payment systems in improving efficiency in financial management. Based on these results, the null hypothesis (H_{01}) is rejected, and we conclude that mobile payment systems adoption has a significant positive effect on financial management efficiency of SMEs in Ilorin, Nigeria.

Hypothesis Two: Digital Lending Platforms and Business Performance

Table 7: Regression Analysis - Digital Lending Platforms and Business Performance

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of Estimate
1	.826[a]	.682	.681	8.2147

ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	54,321.789	1	54,321.789	805.194	.000[b]
Residual	25,178.211	373	67.524		
Total	79,500.000	374			

Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	15.234	1.456		10.462	.000
Digital Lending Platforms	2.145	.076	.826	28.377	.000

a. Predictors: (Constant), Digital_Lending_Platforms
b. Dependent Variable: Business_Performance

Regression analysis indicates a positive and strong and statistically significant relationship between the adoption of digital lending platforms and the performance of the business. A correlation coefficient ($R = 0.826$) shows that the two variables have a strong positive correlation. The R^2 value of 0.682 indicates that digital lending platforms explain 68.2% of the variance in business performance among SMEs in Ilorin. The regression model statistical significance is verified by the F-statistic (805.194, $p < 0.001$). The regression coefficient ($B = 2.145$) indicates that for every one-unit increase in digital lending platforms adoption, business performance increases by 2.145 units. The standardized coefficient ($\beta = 0.826$) is great effect size and proves the influence of the digital lending platforms on the performance of businesses. These results lead to the rejection of the null hypothesis (H_{02}), concluding that digital lending platforms adoption has a significant positive impact on business performance of SMEs in Ilorin, Nigeria.

Discussion of Findings

The findings reveal an exceptionally strong and statistically significant relationship between mobile payment systems adoption and financial management efficiency among SMEs in Ilorin. The high correlation ($R = 0.851$) and substantial explanatory power ($R^2 = 0.724$) demonstrate that mobile payment systems are a primary driver of financial management improvement in the studied context. This observation is consistent with earlier studies in other settings of developing economies, where mobile payment uptake has been revealed to drive more efficiency in business operations (Ouma et al., 2021; Senyo and Osabutey, 2020). These findings have practical implications on the operations of SME. The automatic transaction recording capabilities of mobile payment systems address one of the most persistent challenges faced by SMEs in Nigeria - maintaining accurate financial records. The real-time nature of mobile payments also improves cash flow visibility and management, enabling SMEs to make more informed financial decisions and reduce the working capital

constraints that often limit their growth potential. The effect size (= 0.851) is high implying that the adoption of mobile payment systems brings about some radical change in the way that SMEs conduct their finances, and not just some radical improvements. This change is especially significant in the Nigerian setting, where most of the SMEs have traditionally been dependent on cash-based transactions, manual record keeping systems, which are susceptible to mistakes and in-efficiencies. The results are also revealing the democratizing impact of mobile payment technology, and so more advanced financial management functions can be available to small businesses who never had the means to institute extensive financial management systems before. This accessibility is essential towards fostering financial inclusion, and the ability of SMEs to compete better in ever more digital markets.

The analysis indicates a close close-to-positive relationship between adoption of digital lending platforms and business performance, but less strong than that between mobile payment systems. The correlation value ($R = 0.826$) and R-square ($R^2 = 0.682$) have shown that the digital lending platforms are critical in improving the performance outcomes of SMEs. This finding supports theoretical expectations about the relationship between access to finance and business performance, while highlighting the particular effectiveness of digital lending channels for SMEs. The impact of digital lending platforms on business performance operates through multiple pathways. Access to capital is also enhanced, which allows SMEs to invest in growth opportunities, ensure sufficient inventory, and better access to meeting the market requirements. The faster approval processes characteristic of digital lending platforms also enable SMEs to capitalize on time-sensitive opportunities that might be missed with traditional lending channels. The relative lack of explanatory power of mobile payment systems might indicate that performance of business is affected by a variety of factors, rather than solely access to finance, such as market, management, and rivalry factors. However, the substantial effect size ($\beta = 0.826$) still indicates that digital lending platforms have a major impact on business outcomes for adopting SMEs. The results are also of great importance considering the past difficulties experienced by SMEs in formal credit accessibility in Nigeria. Digital lending platforms appear to be successfully addressing many of the barriers that have prevented traditional financial institutions from serving this market segment effectively, including high transaction costs, inadequate credit assessment mechanisms, and lengthy approval processes.

The comparative strength of the relationships reveals interesting insights about the differential impacts of various FinTech solutions. Mobile payment systems show stronger effects on financial management efficiency than digital lending platforms show on business performance. This can capture the more immediate and observable consequences of payment system enhancements in contrast to less immediate and more complex links between financing and performance outcomes. In both relations, the effect sizes are large enough to meet traditional criteria of what a practical effect would be, meaning that the adoption of FinTech will produce meaningful, but not just statistical, impact on SMEs. The results validate the arguments about the increased adoption of FinTech among the Nigerian SMEs faster and indicate that the policy intervention addressing the digital financial inclusion may have a profound socio-economic developmental effect. The study adds to the recently expanding body of research that shows that FinTech is an effective instrument of economic empowerment and financial inclusion in less-developed markets. This particular targeting of a secondary city such as Ilorin makes the geographical area of FinTech research expand beyond big urban centers and offers some insights applicable to other commercial hubs across Nigeria and other emerging economies.

Conclusion

This study examined the adoption of FinTech solutions by SMEs in Ilorin and their impacts on financial management and business performance. The research found exceptionally strong positive relationships between mobile payment systems adoption and financial management efficiency and between digital lending platforms adoption and business performance. The results of both relationships were both large and statistically significant, which highlights that the adoption of FinTech produces significant gains on the adoption of SMEs. The findings reveal that mobile payment systems serve as powerful tools for enhancing financial management capabilities among SMEs, addressing traditional challenges with transaction processing, record-keeping, and cash flow management. The automatic documentation and real-time processing capabilities of these systems enable SMEs to operate more efficiently and make better-informed financial decisions. Digital lending platforms prove to be highly promising in enhancing the performance of business, as they deal with a capital constraint that has in the past limited the growth of the SME. The faster approval processes and more accessible qualification criteria of these platforms enable SMEs to access capital when needed for growth opportunities and operational improvements. The paper finds that FinTech solutions are groundbreaking technologies that can be used to develop SMEs in Nigeria and provide viable solutions to the enduring issues of financial management and capital accessibility. High adoption rates of mobile payment systems, and lower adoption rates of digital lending platforms, respectively, provide evidence of increasing acceptance of digital financial solutions among the SMEs and room to expand on the same segment, respectively. The study has been useful in the comprehension of FinTech adoption in secondary cities and evidence to support the policy efforts that should promote digital financial inclusion. The findings have implications for multiple stakeholders, including SME owners seeking to improve their operations, FinTech providers developing products for this market segment, and policymakers designing interventions to support SME development.

Recommendations

Based on the findings of this study, the following recommendations are proposed:

For SMEs:

1. **Accelerate Mobile Payment Adoption:** SMEs should prioritize the adoption of mobile payment systems as a foundational FinTech solution, given their strong impact on financial management efficiency and relatively high adoption rates among peers.

2. **Explore Digital Lending Opportunities:** SMEs should actively investigate digital lending platforms as alternatives to traditional financing sources, particularly for working capital and growth investments where speed of access is crucial.

3. **Invest in Digital Literacy:** SME owners and employees should develop digital literacy skills to maximize the benefits of FinTech solutions and enable effective adoption of more sophisticated technologies.

4. **Integrate Multiple FinTech Solutions:** Rather than adopting individual solutions in isolation, SMEs should consider integrated FinTech strategies that combine

payment systems, lending platforms, and financial management tools for maximum impact.

For FinTech Service Providers:

1. **Emphasis on User Experience:** The enthusiasm of the providers should be on user-friendliness and usability to overcome adoption challenges and promote the utilization of the technology by a larger market, especially by technologically less advanced users.
2. **Develop SME-Specific Features:** FinTech solutions should be tailored to address the specific needs and challenges of SMEs, including sector-specific requirements and local market conditions.
3. **Enhance Financial Education:** Providers should offer comprehensive training and support programs to help SMEs understand and maximize the benefits of their solutions.

For Policymakers:

1. **Support Digital Infrastructure:** Government should continue investing in digital infrastructure development to support FinTech adoption, particularly in secondary cities like Ilorin.
2. **Support Digital Financial Literacy:** Educations should be created to make SME owners and operators more technologically and digitally financially literate.
3. **Sustain Favourable Regulatory Conditions:** Regulators ought to proceed with creating a framework that favours innovation promotion and consumer protection and financial stability.

Limitations and Future Research

This study focused specifically on Ilorin, which may limit the generalizability of findings to other contexts. Future research should examine FinTech adoption patterns in other secondary cities and rural areas to provide broader insights into adoption dynamics across different geographical contexts.

The cross-sectional design captured FinTech adoption and impacts at a single point in time. Longitudinal studies would provide insights into adoption trajectories and long-term impacts of FinTech solutions on SME performance.

Future research should also investigate the moderating effects of factors such as business sector, owner characteristics, and technological infrastructure on FinTech adoption and impacts. Additionally, qualitative research approaches could provide deeper insights into the mechanisms through which FinTech solutions create value for SMEs.

References

Adegboye, A., Ojeka, S., Adegboye, K., Ebuzor, E., & Samson, D. (2020). Firm performance and condensed corporate governance mechanism: Evidence of Nigerian financial institutions. *Business: Theory and Practice, 21*(1), 334-344.

Alli, N. (2025). *Customer-Centric Innovation and Competitive Advantage in the Insurance Sector*.

Alli, N. G., & Ganiyu, K. (2021). Knowledge, attitude and perception of artificial intelligence and its application in the key operations of insurance in Nigeria. *Nigerian Journal of Risk and Insurance*, *11*(1), 1-19.

Alli, N. G., & Ganiyu, K. (2025). Empowering insurance consumers in Nigeria: exploring the interplay between financial literacy, trust, and decision-making. *The Journal of Risk Management and Insurance*, *29*(1), 17-46.

Asongu, S. A., & Odhiambo, N. M. (2019). Challenges of doing business in Africa: A systematic review. *Journal of African Business, 20*(2), 259-268.

Ayandibu, A. O., & Houghton, J. (2017). The role of Small and Medium Scale Enterprise in local economic development (LED). *Journal of Business and Retail Management Research, 11*(2), 133-139.

Central Bank of Nigeria. (2020). *Guidelines for mobile money services in Nigeria*. Abuja: CBN.

Cochran, W. G. (1963). *Sampling techniques* (2nd ed.). New York, NY: John Wiley & Sons.

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Lawrence Erlbaum Associates.

Dahlberg, T., Guo, J., & Ondrus, J. (2015). A critical review of mobile payment research. *Electronic Commerce Research and Applications, 14*(5), 265-284.

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly, 13*(3), 319-340.

Field, A. (2018). *Discovering statistics using IBM SPSS Statistics* (5th ed.). London: SAGE Publications.

Gbenga, A. N. (2024). Business risk management ideology and entrepreneurial development of students in tertiary institutions in Southwestern, Nigeria. *Journal of Technology Management and Business*, *11*(1), 32-48.

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). *Multivariate data analysis* (8th ed.). Boston, MA: Cengage Learning.

Iman, N. (2020). The rise and rise of financial technology: The good, the bad, and the verdict. *Cogent Business & Management, 7*(1), 1725309.

Kwara State Government. (2022). *Kwara State economic development strategy 2019-2023*. Ilorin: Ministry of Planning and Economic Development.

National Bureau of Statistics. (2021). *Micro, Small and Medium Enterprises Survey Report*. Abuja: NBS.

National Population Commission. (2021). *Population estimates by state and local government area*. Abuja: NPC.

Okpara, J. O. (2011). Factors constraining the growth and survival of SMEs in Nigeria. *Management Research Review, 34*(2), 156-171.

Oshodin, O., Molla, A., Karanasios, S., & Hartley, K. (2021). How should we theorise smart city learning? A meta-synthesis of the literature. *Technological Forecasting and Social Change, 164*, 120521.

Ouma, S. A., Odongo, T. M., & Were, M. (2021). Mobile financial services and financial inclusion: Is it a boon for savings mobilization? *Review of Development Finance, 7*(1), 29-35.

Ozili, P. K. (2018). Impact of digital finance on financial inclusion and stability. *Borsa Istanbul Review, 18*(4), 329-340.

Ozili, P. K. (2020). Financial inclusion research around the world: A review. *Forum for Social Economics, 50*(4), 457-479.

Puschmann, T. (2017). Fintech. *Business & Information Systems Engineering, 59*(1), 69-76.

PwC. (2020). *Nigeria FinTech Census 2020*. Lagos: PricewaterhouseCoopers.

Saunders, M., Lewis, P., & Thornhill, A. (2019). *Research methods for business students* (8th ed.). London: Pearson Education.

Sawilowsky, S. S. (2009). New effect size rules of thumb. *Journal of Modern Applied Statistical Methods, 8*(2), 597-599.

Senyo, P. K., & Osabutey, E. L. (2020). Unearthing antecedents to financial inclusion through FinTech innovations. *Technovation, 98*, 102155.

SMEDAN. (2022). *National survey of micro, small and medium enterprises*. Abuja: Small and Medium Enterprises Development Agency of Nigeria.