

## Optimizing the Growth of SMES through Fintech Solutions in Nigeria: Management Imperatives

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**ABSTRACT:** Even though Fintech's rise in popularity has made it easier for SMEs to accept payments, obtain loans, and expand their businesses, many of them still face a variety of difficulties, some of which include their inability to obtain loans from traditional banks despite Fintech's existence. In order to fill in these gaps (the missing link), this study looks at how Fintech has affected the expansion of SMEs in Nigeria from a management standpoint. The survey, desk research design, and ex post facto research design were all used in the study. The Google form used to collect the main data had eighteen questions on age, gender, and Fintech solutions. The secondary data came from the Central Bank of Nigeria Statistical Bulletin for the year 2022. From 2009 to 2021, all financial banks in Nigeria provided their understudied financial technology characteristics, which were all taken into account in this study. In particular, the Automated Teller Machine (Volumes), Mobile Banking Services (Volumes), Internet Banking Services (Volumes), Point of Sale (Volumes), and SME Growth Rate as determined by SME Contribution to GDP numbers were chosen. As the study concludes, Fintech solutions give small and medium-sized enterprises (SMEs) improved tools for monitoring and organizing financial data, which helps them make better financial decisions and enhances their overall financial performance and contribution to the Nigerian economy. However, there are still issues facing the sector. Therefore, the report suggests that Nigeria should develop a policy to promote SMEs to utilize Fintech and that her agencies instruct SMEs on how to make the most of this Fintech solution.

**Keywords:** Fintech, Growth, Automated Teller Machine (Volumes), Mobile Banking Services (Volumes), Internet Banking Services (Volumes), and Point of Sales (Volumes)

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### INTRODUCTION

The increasing prevalence of new financial technologies presents a significant challenge to traditional methods of accessing financial services. With the continual expansion of human connectivity and reliance on the Internet and technology, companies are compelled to adapt their approach to providing financial services in order to meet evolving consumer demands. This necessitates offering financial services through channels beyond conventional payment systems to effectively cater to the changing expectations of the public. Without a question, financial technology, or Fintech, has emerged as a new class of businesses that leverages digital devices and technology to make financial transactions simpler for clients. Fintech, or financial technology,

enables transactions to be completed at any time and from any location. Fintech aims to draw clients by providing more automated, transparent, efficient, and user-friendly goods. Fintech keeps innovating as part of the ever-evolving Internet of Things (IoT) using quantum computing (Schulte and Liu, 2017). According to Pollari (2016), Fintech and digital platforms provide alternative solutions and business models that might help the government and other financial institutions extend their reach and offer sufficient financial services. The many services provided by Fintech companies will specifically help clients—especially SME owners—meet their needs. For example, small and medium-sized businesses may now easily provide their customers electronic payment

options. Additionally, using digital services reduces costs, streamlines operations, and expedites business procedures (Chen, 2016). According to Muzdalifa et al. (2018), Fintech adoption is essential for providing financial support to SMEs. Fintech now encompasses digital payment and financial systems in addition to funding. In a similar vein, Fintech is critical to enhancing the performance of SMEs through increased operational efficiency, according to Rahardjo et al. (2019). Once more, Fintech reduces operating costs by offering services like application-based non-cash transactions, which relieves businesses of bank administrative costs. Furthermore, business owners will have easier access to capital with the availability of non-collateral loans. According to Candraningrat et al. (2021) financial technology has a positive and significant effect on small and medium-sized enterprises (SMEs).

The Nigerian government invested approximately \$200 million in Fintech between 2011 and 2018 due to its significance for the performance of small and medium-sized enterprises in the country (Ehiedu et al. 2023). Oyelaran-Oyeyinka (2020) argued with justification that SMEs are companies with less than 300 people and/or a yearly revenue of less than N100 million. IFC research indicates that 96% of companies in Nigeria are SMEs, as opposed to 53% in the US and 65% in Europe. SMEs make up around 90% of all enterprises in the manufacturing and industrial sector. In comparison to 40% in Asia and 50% in the US and Europe, their GDP contribution is only 1%. This indicates that there is still more work to be done by Nigerian SMEs (Ojo, and Nwaokike, 2018). In contrast to developed economies, emerging economies face several obstacles in their efforts to adopt digital technology by SMEs, while focusing on the imperatives of management even with the substantial benefits that come with using Fintech. Among these difficulties include the lack of capital required to grow SMEs, network failures, and inadequate understanding of how to run Fintech channels, to name a few. Another legitimate concern that spurred the present investigation is that the majority of previous research has focused more on the banking sector than on SMEs, leaving a significant vacuum in the corpus of information already in existence. Therefore, the current study investigated the impact on the performance of SMEs in Nigeria because of these underlying assumptions.

## Literature review

### Conceptual review

The use of technology to streamline and automate the provision and consumption of financial services is known as financial technology, or Fintech. Fintech uses internet-enabled software and technologies to help businesses and their consumers extend, manage, and facilitate their financial transactions. Fintech, short for financial

technology, is essentially the application of contemporary (new) technology to improve and automate the provision of financial services as well as their consumption. Fundamentally, Fintech is utilized to help companies, entrepreneurs (owners of SMEs), and consumers manage their financial operations, processes, and lives as profitably as possible. To improve their utilization and customer delivery, it entails the employment of specialist software and algorithms. It essentially works by breaking off the goods of these companies and creating new marketplaces for them (Investopedia, 2023). It also includes the development and application of virtual currencies, like as Bitcoin. Interestingly, actual money still resides in traditional banks even if Fintech gets most of the attention.

Fintech applications encompass a wide range of services, including peer-to-peer lending apps, cryptocurrency apps, robo-advisors, payment apps, and investment apps. Currently, four main Fintech services are registered, namely peer-to-peer lending and crowd funding, market aggregators, risk management and investment, and payment/lodgment, clearing, and settlement. These services are designed to facilitate financial transactions, promote economic equality within the economy, and support the growth of SMEs. It is imperative to focus on enhancing the export potential of SMEs, which is currently modest, and to further national financial inclusion. This will contribute to the overall advancement of the economy.

Nigeria has the biggest GDP on the continent and is the most populated nation in Africa. Along with being a pioneer on the continent in terms of startups and digital products from traditional banks, it is also home to a robust and dynamic Fintech environment. Even though the majority of the businesses started off processing payments, Fintech revenues are expected to reach an estimated US\$543 million by 2022 due to rising smart phone penetration and the country's unbanked population.

### Management imperatives

1. Embrace Digital Transformation: Encourage SMEs to adopt digital technologies, such as cloud computing, data analytics, and social media, to enhance operations and reach new customers.
2. Access to Funding: Leverage FINTECH solutions like peer-to-peer lending, crowd funding, and mobile payments to provide SMEs with access to capital and payment systems.
3. Financial Inclusion: Implement FINTECH solutions that promote financial inclusion, such as mobile banking, digital wallets, and micro insurance, to reach underserved SMEs.
4. Risk Management: Utilize FINTECH solutions like data analytics and machine learning to identify and mitigate risks, ensuring SMEs make informed decisions.

5. **Regulatory Compliance:** Collaborate with regulatory bodies to create a favorable environment for FINTECH adoption, ensuring SMEs comply with regulations.
6. **Capacity Building:** Provide training and capacity-building programs for SMEs to develop digital literacy and FINTECH expertise.
7. **Ecosystem Development:** Foster a vibrant FINTECH ecosystem by supporting innovation hubs, incubators, and accelerators.
8. **Partnerships and Collaborations:** Encourage partnerships between FINTECH companies, SMEs, and traditional financial institutions to promote innovation and growth.
9. **Data-Driven Decision Making:** Encourage SMEs to leverage data analytics and insights to inform business decisions.
10. **Cybersecurity:** Ensure SMEs prioritize cybersecurity measures to protect against fraud and data breaches.

### Theoretical Direction

The Diffusion of Innovation hypothesis serves as the foundation for this investigation. This theory, which Rogers defines as "the interaction by which of development is imparted through specific channels over the long run among the individuals from a social society," is a well-known model used in data frameworks examination to make sense of client reception of new advances (Rogers, 1995). An item or concept that is regarded as novel is considered an advancement (Rogers, 1995). According to DOI, an advancement's relative advantage, complexity, similarity, trialability, and recognizability all affect how quickly it spreads. Relative advantage is defined as "the degree to which an advancement is perceived as being superior to its ancestor" (Rogers 1995). The degree to which a potential user perceives an invention as being relatively difficult to use and understand is known as its complexity, which is comparable to Hat's seeming convenience development in a global world (Kifordu and Nwankwo, 2019). Similarity refers to the degree to which a development seems to fit in with adopters' current characteristics, beliefs, experiences, and needs (Kifordu et al., 2020). Trialability is the degree to which an idea may be explored in many ways within a constrained setting. Lastly, according to Rogers (1995), recognizability is "the extent to which the consequences of advancement are noticeable." Because it provides an explanation for why banks undertake specialized advances, the dispersion hypothesis is noteworthy. The substantial benefits of specialized innovations are one reason banks use them. This suggests that banks who adopt specialized innovations profit monetarily from a somewhat preferable position compared to those that do not.

### Empirical review

Okoye et al. (2024), worked on Accelerating SME growth in the African context: Harnessing Fintech, AI, and cybersecurity for economic prosperity. Here they looked at Africa's economic environment which is changing quickly, and small and medium-sized enterprises (SMEs) are becoming more widely acknowledged as important forces behind sustainable development. This analysis investigates how utilizing cybersecurity, artificial intelligence (AI), and financial technology (Fintech) might boost SME growth in Africa and eventually lead to economic success. Fintech has been more well-known recently because to its potential to completely transform the financial services industry. Fintech offers SMEs in Africa a huge chance to get over long-standing development constraints by improving access to money, facilitating smooth transactions, and automating financial procedures. This potential is further enhanced by the integration of AI technology, which gives SMEs access to data-driven insights for operational effectiveness, well-informed decision-making, and customized consumer experiences. However, strong cybersecurity measures are required as Fintech and AI become more widely used in the African SME sector. The threat of cyberattacks increases as digital change quickens. A systematic strategy to cybersecurity that includes strong data protection, threat intelligence, and resilient infrastructure is needed to address these issues. The assessment emphasizes the significance of adopting a comprehensive strategy that leverages the convergence of Fintech, AI, and cybersecurity to drive economic growth. Together, legislators, financial institutions, and tech companies need to build an atmosphere that is conducive to innovation, promotes digital literacy, and protects digital ecosystems. African SMEs can successfully negotiate the challenges of the contemporary business environment, encourage innovation, and make a substantial contribution to economic growth and job creation by adopting this technology trifecta. The strategic use of Fintech, AI, and cybersecurity becomes apparent as a critical factor in enabling SMEs to reach their maximum potential and advancing the continent toward long-term economic development as Africa takes its place in the global economy.

The impact of financial innovation (Fintech) guidelines on shop cash bank displays in Nigeria was examined by Oyetoan and Ajiboye (2021). The social event and information analysis employed quantitative techniques. 220 employees were selected from five (5) Store Banks in Ilorin City. Afterwards, data on moral practice records in the Fintech administrative system were generated by the banks using a comprehensively prepared survey. The selected members were the chiefs and top employees of the banks. ANOVA, Pearson Second Connection, and Numerous Relapse were the factual tools employed to

assess the review's conjecture. The review uncovered that PayStack (beta = 0.705) , Branch (beta = 0.602) Piggy Vest (beta = 0.602) , Mines (beta = 0.235) NetPlus (-0.227) emphatically affect the presentation of Store Cash Banks at 5% level. Further, guideline of computerized development in the financial business have critical connection to the exhibition of banks in Nigeria at 5% level ( F = 532.13 , R = 0.96 R \* 2 = 0.922 p = 0 < 0.05 ). In their analysis of Fintech and its potential benefits for financial administration, Gerben et al. (2016) provided evidence for why Fintech could be profitable for small, medium, and—surprisingly—large-scale businesses. They also explained how the gap between the traditional financial model and Fintech adoption will close because operating bank branches is expensive, especially in remote areas. Fintech has the potential to impact the whole financial value chain, which might improve SMEs' access to capital. Fintech can also lower the cost of SMEs' capital, especially for small projects hiring up to 50 people.

**METHODOLOGY**

The study used survey methodologies, desk research, and an ex post facto research strategy to accomplish its main goal. These methods entail gathering primary data using surveys, which justifies the use of the s study design. A certain set of responders received desk copies of the questionnaire using online Google forms. There are eighteen questions, covering topics such as age, gender, and Fintech-related inquiries. The gender and age were left out of the report since they may have expanded the study's scope. Data was gathered between July 24 and August 13.

Only 87 of the 90 respondents in the sample provided a complete response to all of the questions. Ex post facto research designs, on the other hand, are seen to be suitable for data that has been collected after the fact. As a result, the Central Bank of Nigeria Statistical Bulletin, 2022 was the source of the secondary data.

From 2009 to 2022, all financial banks in Nigeria provided their understudied financial technology characteristics, which were all taken into account in this study. To be more precise, the following data were chosen: digital payments transaction counts for 2022, digital bank transaction counts for the years, digital landing and loan transaction counts for the years, and digital investments and crowd funding transaction counts for the years 2022.

The values of SMEs' Growth Rate as measured by SMEs' Contribution to GDP were also selected. A pilot survey was conducted to assess the research instrument's dependability. We measured the pilot survey using the Cronbach's Alpha technique. The results were produced using version 9.0 of the Statistical Package (Eviews).

**Estimation technique and model specification**

The model for this study is multiple linear regression method was used in the case of the secondary data. Specifically, the Robust Least square (RLS) regression model was adopted. The reason why the researcher chose the RLS is that, it addresses variable perturbation issues unlike the conventional OLS. Also, it satisfies the Best Linear Unbiased Estimator characteristics of OLS. Meanwhile, in the case of the primary data, one-way ANOVA at a 5% significant level was adopted. The expressed and adapted model beneath gives a clear cut on how the study variables were modeled:

$$SMEP = \beta_0 + \beta_1 ATM + \beta_2 MOB + \beta_3 INTB + \beta_4 POS + U_{it} \dots \dots \dots (1)$$

**Where:**

SMEP	=	SMEs' Performance i.e. their contribution to GDP
ATM	=	Automated Teller Machine (Volumes)
MOB	=	Mobile Banking Services (Volumes)
INTB	=	Internet Banking Services (Volumes)
POS	=	Point of Sales (Volumes)
U	=	Error term
$\beta_0$	=	Constant or intercept
$\beta_1 - \beta_4$	=	Regression model coefficients.

**RESULTS AND DISCUSSION**

This research adopted the mixed research approach as it combined both the primary and secondary research approach together. This is with a view to give an in-depth explanation on the degree of relationship between the dependent and independent variables.

**Findings from secondary source**

Prior to presenting the Robust regression, some preliminary analysis were considered, they are presented in (Tables 1 and 2). From the descriptive statistics in table 1, volumes of ATM, MOB, INT, POS, SMEP are ₦538,463,348, ₦139,126,892, ₦417,166,322, ₦94,372,175, and ₦14,202.12 but fluctuated by ₦298,683,167, ₦168,864,353, ₦986,900,088, ₦125,015,828, and ₦3,733.09. Furthermore, the correlation illustrates the degree of relation between the study's independent and dependent variables as described previously. For the intents of this study, the relation between ATM and SMEP, INT and SMEP, and POS & SMEP are positively related whereas the relation between MOBT and SMEP is negatively related. It may be argued that SMEs Growth has an increase proclivity to issue stock. On the overall, possibility of collinearity problem is very low.

**Regression estimate**

Table 3 gives a clear cut explanation on the regression estimate used for the study. The study clearly revealed that, when considered SMEs from its contribution to the

**Table 1:** Descriptive Statistics and Correlation Analysis.

Variables	Mean	Std. Dev.	SMEP	ATM	MOB	INT	POS
SMEP	14,202.12	3,733.09	1.000000				
ATM	538,463,348	298,683,167	0.007640	1.000000			
MOB	139,126,892	168,864,353	-0.319301	-0.038396	1.000000		
INT	417,166,322	986,900,088	0.607262	-0.209550	0.080385	1.000000	
POS	94,372,175	125,015,828	0.312431	-0.050098	0.084211	0.084591	1.000000

**Table 2:** Multi-collinearity Test

VIF	VIF	Tolerance Value	Decision
<b>ATM</b>	1.2943	0.7726	No Multicollinearity problem
<b>MOB</b>	1.5967	0.6263	No Multicollinearity problem
<b>INT</b>	1.1067	0.9036	No Multicollinearity problem
<b>POS</b>	1.9837	0.5041	No Multicollinearity problem
<b>Average</b>	1.4953	0.7017	No Multicollinearity problem

Source: Researchers' Compilation (2024)

**Table 3:** Fully Modified Least Square.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	7.369960	0.171440	42.98869	0.0000
RMD	-0.006521	0.092947	-0.070162	0.9441
AR(1)	0.861090	0.017635	48.82721	0.0000
SIGMASQ	0.283831	0.006500	43.66916	0.0000
R-squared	0.739545	Mean dependent var		7.312441
Adjusted R-squared	0.737660	S.D. dependent var		1.044537
S.E. of regression	0.535002	Akaike info criterion		1.598855
Sum squared resid	237.2825	Schwarz criterion		1.638449
Log likelihood	-661.3215	Hannan-Quinn criter.		1.614034
F-statistic	392.3161	Durbin-Watson stat		2.162658
Prob(F-statistic)	0.000000			

Dependent Variable: SMEG

Method: Least Squares Date: 08/25/23 Time: 08:10

Sample: 2009 2021

Included observations: 13

growth of the Nigerian economy, the adoption of Fintech had a high considerable. The study clearly revealed that, when considered SMEs from its contribution to the growth of Nigeria economy, the adoption of Fintech had a high considerable effect on SMES performance on the overall. Meanwhile, data from the primary sourced further affirmed that, there is significant potential for solutions to improve the operations and finances of SMES in Nigeria, but there are still several barriers that need to be addressed.

### Findings from the primary source (Questionnaire Sent Via Google Form)

The survey's results showed that the majority of SMEs are aware of the importance of Fintech. It makes sense that the majority of respondents (82.9%) are quite familiar with Fintech solutions, compared to just 17.1% who are just moderately knowledgeable. Once more, a sizable percentage of respondents in Delta State reported adopting Fintech solutions in their company operations—24% often and 10% infrequently. With 72.3% of respondents saying that adopting Fintech solutions has greatly improved their financial accessibility and 27.7%

saying that it has somewhat improved, the study further confirmed that the adoption of Fintech solutions had a positive (direct) impact on these businesses' financial accessibility.

Online banking and mobile payments are the most widely used Fintech solutions among SMEs in Delta State. These tools help companies do business and handle their money more effectively. In a similar vein, the survey confirmed that the use of Fintech solutions has improved the financial management procedures of SMEs, as reported by 84.9% of respondents. Fintech solutions have also reduced transaction costs for foreign transactions (20.7%) and enabled SMEs to reach new markets (34.5%). Fintech solutions have also made it possible for international transactions to be processed more quickly and for partners abroad to communicate with one another better.

Additionally, since using Fintech solutions, respondents stated that their SMEs' foreign exchange earnings have increased. Furthermore, 72.1% of the respondents said that Fintech solutions have aided in lowering the cost of international transactions. These results imply that Fintech solutions are significantly enhancing SMEs' financial management procedures and enabling them to

engage in global commerce. In conclusion, some significant issues and insights have been uncovered by the survey on the use of Fintech solutions by SMEs in Nigeria. The two most frequent obstacles to SME owners using Fintech solutions are the high cost of these solutions and the absence of dependable internet access. Some respondents also mentioned unwillingness to switching from old techniques, ignorance of potential Fintech alternatives, and other challenges. Of the respondents, 60.6% saw the cost of Fintech as a barrier, while other respondents think other considerations are more important. In order to promote the uptake and utilization of Fintech solutions, Section 38 clearly emphasizes the necessity for more education and training initiatives. Lastly, many Nigerians think that SMEs would most likely significantly contribute to the expansion of the Nigerian economy if the government provided them with more assistance for using Fintech solutions. This suggests even more the possible advantages of government involvement in encouraging SMEs to embrace digital solutions.

## Conclusion

The findings of the study highlight the potential benefits of Fintech solutions for small and medium-sized enterprises (SMEs) in Nigeria. These solutions offer improved tools for the monitoring and management of financial data, providing SMEs with greater insight into their financial performance. However, despite these advancements, SMEs continue to encounter obstacles in their efforts to enhance their overall financial health and contribute more effectively to the Nigerian economy. One of the key challenges facing SMEs is access to capital. While Fintech solutions can provide valuable data and insights, access to affordable financing remains a significant barrier for many SMEs. Limited access to credit and capital constrains their ability to invest in growth opportunities, expand operations, and create jobs, ultimately impacting their contribution to economic development. Furthermore, SMEs often lack the financial literacy and expertise needed to fully leverage Fintech solutions. While these tools offer powerful capabilities for financial management, SMEs may struggle to effectively interpret and utilize the data provided. This highlights the need for targeted support and education to ensure that SMEs can maximize the potential benefits of Fintech solutions.

In addition, regulatory challenges can impede the adoption and effectiveness of Fintech solutions for SMEs. Complex regulatory environments and compliance requirements can create barriers for SMEs seeking to integrate Fintech tools into their operations. Streamlining regulatory processes and providing clearer guidance can help SMEs navigate these challenges more effectively. Moreover, cybersecurity concerns present a significant obstacle to the widespread adoption of Fintech solutions

among SMEs. As digital financial tools become increasingly prevalent, SMEs face heightened risks related to data security and privacy. Addressing these concerns is crucial to building trust and confidence in Fintech solutions among SMEs, ultimately encouraging greater uptake and utilization.

Overall, while Fintech solutions offer valuable capabilities for SMEs in Nigeria, it is clear that significant challenges persist. Addressing these obstacles will be essential to unlocking the full potential of Fintech for SMEs, enabling them to improve their financial performance, contribute more effectively to the economy, and ultimately drive sustainable growth and development.

## Recommendations

1. To encourage SMEs to use Fintech, the Nigerian government should formulate policies and assign organizations to instruct SMEs on the usage of this Fintech solution.
2. Fintech adoption by SMEs in Nigeria is encouraged as it enhances their ability to develop and remain in operation.
3. SMEs should not be reluctant to apply for financial help from the appropriate quota if they need more funding to purchase more advanced Fintech hardware and software.
4. Finally, apply management imperative components in optimizing sustainable growth.

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