



## THE EFFECT OF FINANCIAL TECHNOLOGY (FIN-TECH) ON THE PERFORMANCE OF WOMEN ENTREPRENEURS IN KANO METROPOLIS, NIGERIA

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### Abstract

*Financial Technology (FinTech) holds significant potential for enhancing entrepreneurial performance. However, empirical evidence on the effect of its specific dimensions on women entrepreneurs in emerging economies remains limited. This study investigated the effect of five FinTech dimensions (Technological Innovation, Payment and Settlement Systems, Access to Financial Information, Risk Control Mechanisms, and Lending and Financing Platforms) on the performance of women entrepreneurs in Kano Metropolis, Nigeria. A cross-sectional survey design was employed, and data were collected from a sample of 371 women entrepreneurs selected via a multi-stage sampling technique. A structured questionnaire was used for data collection, and hypotheses were tested using Multiple Linear Regression analysis. The results revealed a statistically significant model ( $F$ -statistic = 58.34,  $p < .001$ ) that explained 50.7% of the variance in business performance. All five FinTech dimensions had significant positive effects, but their impacts varied. Lending and Financing Platforms ( $\beta = .315$ ,  $p < .001$ ) exerted the strongest effect, followed by Payment and Settlement Systems ( $\beta = .257$ ,  $p < .001$ ), Technological Innovation ( $\beta = .216$ ,  $p < .001$ ), Risk Control Mechanisms ( $\beta = .171$ ,  $p = .001$ ), and Access to Financial Information ( $\beta = .118$ ,  $p = .021$ ). A critical "access-impact gap" was identified, where the most potent performance driver (lending) had the lowest adoption rate. The study concludes that a hierarchical relationship exists among FinTech dimensions, with capital access being the most critical lever for growth. It is recommended that policymakers and financial institutions prioritize dismantling barriers to digital credit while bolstering payment infrastructure and trust mechanisms to fully harness FinTech's potential for inclusive*



*development.*

**Keywords:** *Financial Technology, Women Entrepreneurs, Business Performance, SMEs, Nigeria.*

## **Introduction**

### **Background of the Study**

The global financial landscape has been transformed by digitalization, with Financial Technology (FinTech) emerging as a disruptive force. FinTech, broadly defined as technology-driven innovation in financial services, creates new business models, applications, and products (Arner, Barberis, & Buckley, 2016). It enhances the accessibility, efficiency, and inclusivity of financial services by leveraging innovations like mobile banking, digital payments, and peer-to-peer lending (Gomber, Koch, & Siering, 2017). This is particularly impactful in developing economies, where it bridges gaps in formal financial access, empowering individuals and small businesses historically excluded from the system (Demirgüç-Kunt, Klapper, & Singer, 2017).

In Nigeria, Africa's largest economy, entrepreneurship is vital for job creation and poverty reduction. Women entrepreneurs are a crucial yet constrained segment within this context. Despite their growing numbers and contributions to the GDP, women-owned businesses face disproportionate challenges, including limited access to formal credit, restrictive cultural norms, and financial literacy gaps (Adebayo, 2019; Efobi et al., 2018; IFC, 2019). The traditional banking sector, with its rigid collateral requirements, often disadvantages women who may lack formal title deeds or credit history (Oluwatobi, Olurinola, & Alege, 2020).

Kano Metropolis, the commercial hub of Northern Nigeria, presents a unique case study. It is a center of vibrant entrepreneurial activity, with a significant portion led by women in sectors like trade, fashion, and food processing (Akinyemi & Adejumo, 2018). However, the socio-cultural environment, influenced by conservative norms, can impose additional constraints on women's mobility and their interaction with formal financial institutions (Mijinyawa, 2018). This creates a paradox where women are central to the local economy yet peripheral to its formal financial structures.

FinTech solutions offer a potential pathway to circumvent these barriers. Platforms like mobile money services (e.g., Paga, Quickteller) and USSD banking codes provide low-cost, accessible alternatives for transactions and savings. Digital lending platforms (e.g., Branch, Carbon) offer quicker access to capital with less stringent collateral requirements than conventional banks (Suri & Jack, 2016). For women entrepreneurs in Kano, these tools promise enhanced financial autonomy, streamlined operations, and market expansion.

### **Statement of the Problem**

Financial Technology (FinTech) presents a transformative opportunity for women entrepreneurs in Kano Metropolis, who face significant barriers to growth. While FinTech adoption is increasing, a critical knowledge gap exists regarding which specific dimensions such as technological innovation, payment systems, financial information access, risk control, or lending platforms most significantly drive business performance. This lack of granular understanding hinders the development of targeted strategies by entrepreneurs, policymakers, and FinTech providers. Without empirical evidence identifying the most impactful dimensions, efforts to leverage FinTech for women's economic empowerment may be inefficient. Therefore, a detailed investigation into the effect of these five core FinTech dimensions on the performance of women entrepreneurs in Kano Metropolis is imperative.



## Research Objectives

The general Objective of the study is to examine the effect of specific dimensions of Financial Technology (Fin-Tech) on the performance of women entrepreneurs in Kano Metropolis, Nigeria.

The Specific Objectives are:

1. To determine the effect of Technological Innovation on the performance of women entrepreneurs.
2. To analyze the effect of Payment and Settlement Systems on their performance.
3. To evaluate the effect of access to Financial Information on their performance.
4. To investigate the effect of Risk Control Mechanisms on their performance.
5. To ascertain the effect of Lending and Financing Platforms on their performance.

## Research Questions

1. To what extent does Technological Innovation affect the performance of women entrepreneurs in Kano metropolis?
2. How do Payment and Settlement Systems affect their performance?
3. What is the effect of Access to Financial Information on their performance?
4. How do Risk Control Mechanisms affect their performance?
5. To what extent do Lending and Financing Platforms affect their performance?

## Research Hypotheses

H<sub>1</sub>: Technological Innovation has no significant effect on the performance of women entrepreneurs.

H<sub>2</sub>: Payment and Settlement systems have no significant effect on their performance.

H<sub>3</sub>: Access to Financial Information has no significant effect on their performance.

H<sub>4</sub>: Risk Control mechanisms have no significant effect on their performance.

H<sub>5</sub>: Lending and Financing platforms have no significant effect on their performance.

## Significance of the Study

**Women Entrepreneurs** Will gain evidence-based insights to make strategic decisions on which FinTech tools best suit their business needs.

**FinTech Companies & Financial Institutions:** Will receive market intelligence to tailor product development and marketing strategies for this demographic.

**Policymakers & Regulators (e.g., CBN, Kano State Government)** will obtain an evidence base for designing targeted interventions and policies to foster an inclusive digital economy.

**NGOs & Development Partners** Can design more effective economic empowerment programs by pinpointing the most impactful areas for support.

**Academic Community:** Contributes to literature by offering a nuanced, dimension-level analysis of FinTech in an emerging economy context, providing a framework for future research.

## Scope and Limitations of the Study

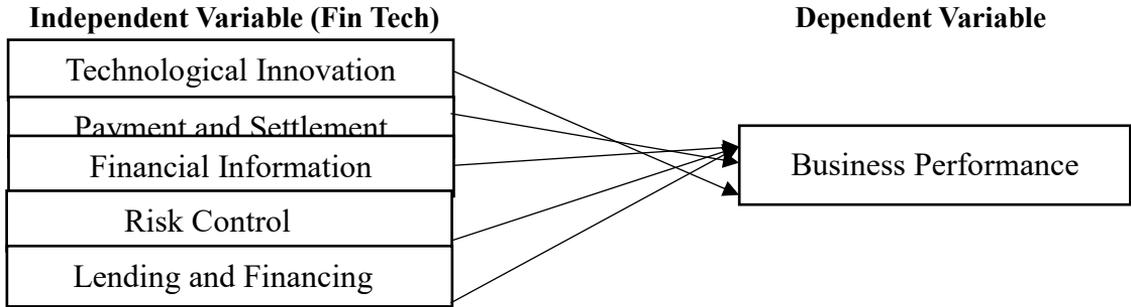
The Geographical Scope is the Kano Metropolis, comprising eight Local Government Areas (LGAs): Dala, Fagge, Gwale, Kano Municipal, Nassarawa, Tarauni, Kumbotso, and Ungogo.

The Subject Scope are Women who own and actively manage established SMEs operational for at least one year in sectors like trade, fashion, and food processing.

The Content Scope is the effect of five pre-defined FinTech dimensions (Technological Innovation, Payment and Settlement, Financial Information, Risk Control, and Lending and Financing) on business performance, measured by financial (profitability, sales growth) and operational (efficiency, customer base) indicators.

## Literature Review

### Conceptual Framework



This framework visually represents the core idea that is being tested in the research. It posits that Financial Technology (FinTech), acting as the Independent Variable, has a direct effect on Business Performance, which is the Dependent Variable.

In simple terms, the framework suggests: A change in the use or adoption of FinTech will cause a change in the performance of the business.

#### **The Independent Variable: Financial Technology (FinTech)**

This is the factor that the researcher believes is the cause of change. It is the influencing factor that is being manipulated or measured to see its effect. In this study, FinTech is not treated as a single, vague concept but is broken down into five specific dimensions (as detailed in the paper):

**Technological Innovation:** The usability and reliability of the apps and platforms themselves.  
**Payment and Settlement Systems:** Digital tools for transactions (e.g., mobile money, POS).  
**Access to Financial Information:** Data and insights provided by the platforms (e.g., transaction history, analytics).

**Risk Control Mechanisms:** Security features (e.g., 2FA, encryption) that build trust.

**Lending and Financing Platforms:** Digital access to credit and capital.

These five dimensions together constitute the independent variable "FinTech."

#### **Dependent Variable: Business Performance**

This is the outcome that the research is trying to explain or predict. It is the variable that is expected to change as a result of the independent variable.

#### **The Implied Relationship (The Arrow)**

The framework shows a direct line of influence from the Independent Variable to the Dependent Variable. This implies a hypothesized causal relationship that the study aims to test statistically. The research question embedded in this framework is to what extent do changes in the five dimensions of FinTech cause changes in the business performance of women entrepreneurs?

### Conceptual Review

#### **Financial Technology (FinTech)**

FinTech is a dynamic field that integrates technology to innovate financial services, disrupt traditional models, and enhance accessibility (Schueffel, 2016). It is not a single innovation but an ecosystem of technological applications that improve financial activities (Gomber, Koch, & Siering, 2017). For this study, FinTech is operationalized through five dimensions adapted from Tong and Yang (2025): Technological Innovation, Payment and Settlement, Financial Information, Risk Control, and Lending and Financing.



### **Technological Innovation**

These refers to the core digital solutions like mobile apps, USSD codes, and APIs that underpin FinTech service delivery. It focuses on the usability, accessibility, speed, and reliability of the platform (Gomber, Koch, & Siering, 2017).

### **Payment and Settlement Systems**

The infrastructure for transferring monetary value, revolutionized by digital systems like mobile money and POS terminals. These systems reduce cash reliance and streamline business operations (Arner, Barberis, & Buckley, 2016).

### **Financial Information**

Encompasses the data driven insights (e.g., transaction histories, spending analytics) provided by FinTech platforms, which aid in personalized services and improved financial decision-making (Chen & Huang, 2020).

### **Risk Control**

Involves the mechanisms (e.g., two-factor authentication, encryption) embedded in FinTech platforms to mitigate risks like fraud and theft, thereby building user trust (Drasch, Schweizer, & Urbach, 2018).

### **Lending and Financing (CreditTech)**

The use of digital platforms to provide access to capital (e.g., P2P lending, micro-loans) using alternative data for credit scoring, often with minimal collateral (Thakor, 2020).

### **Business Performance**

Business performance is a multidimensional construct. This study adopts a comprehensive definition, viewing it as the outcomes of a woman-owned enterprise, measured by its efficiency in utilizing resources and its effectiveness in achieving key financial (e.g., profitability, sales growth) and operational (e.g., market reach, customer satisfaction) goals (Richard et al., 2009; Venkatraman & Ramanujam, 1986).

### **Theoretical Framework**

This study is anchored on the Technology Organization Environment (TOE) Framework (Tornatzky & Fleischer, 1990) and the Task-Technology Fit (TTF) Model (Goodhue & Thompson, 1995).

The TOE Framework posits that technology adoption is influenced by the Technology context (the FinTech dimensions), the Organization context (the women-owned SME), and the Environment context (Kano Metropolis). This provides a holistic lens for the study.

The TTF Model argues that for a technology to improve performance, it must be a good fit for the user's tasks. Here, the "tasks" are the entrepreneurs' financial management needs, and the "technology" is the FinTech dimensions.

### **Combined Framework**

The TOE framework sets the stage for adoption, while the TTF model explains the mechanism of impact: performance improves when the adopted FinTech fits the entrepreneur's specific tasks.  
TOE Contexts → Task-Technology Fit → Business Performance

### **Empirical Review**

A growing body of literature establishes a connection between FinTech and business performance, yet it often treats FinTech as a singular entity. This approach overlooks the nuanced ways in which its specific functional components operate distinctly across different contexts and



for diverse entrepreneurial groups. This review synthesizes key studies to underscore the established general links and, more importantly, to highlight the critical gap regarding a dimensional analysis of FinTech's impact on women entrepreneurs in developing regions.

Phan et al. (2020) provided empirical evidence from Indonesia showing that the growth of FinTech as a sector significantly undermined the performance of traditional banks, indicating a competitive relationship. Conversely, Sheng (2021), analyzing data from China, found that FinTech complemented banks by substantially increasing the supply of credit to small and medium-sized enterprises (SMEs). This contradiction suggests that the aggregate effect of FinTech is not uniform but is likely shaped by contextual factors and the specific business functions it enables.

Carè et al. (2025), through a bibliometric analysis, empirically mapped the research landscape and identified specific, well-researched linkages, such as the significant role of mobile money and blockchain in enhancing financial access in developing countries. Similarly, Roopa et al. (2025) focused on a single payment dimension, empirically demonstrating that the Unified Payments Interface (UPI) is the preferred digital payment method among Indian retailers due to its distinct advantages in convenience and efficiency. These studies point toward the importance of investigating discrete FinTech solutions rather than the aggregate category.

Sangboon and Schjoedt (2025) showed that an entrepreneur's resilience has a stronger positive effect on business performance in hostile environments. Furthermore, organizational capacity is critical; Depino-Besada et al. (2025) found that organizational slack and digital transformation capabilities are key drivers of performance, while Gyimah and Bonzo (2025) presented a counterintuitive finding that FinTech's impact on renewable energy in West Africa was negative, underscoring that regional economic structures can critically shape outcomes. This highlights the need to study FinTech within specific socio-economic contexts.

### **Gap in Literature**

While the above studies establish that FinTech's impact is multifaceted and context dependent, a significant void remains. Current research often lacks a granular, dimension level analysis, particularly concerning vulnerable entrepreneurial subgroups. As noted by Carè et al. (2025), gender disparities are an emerging area requiring attention. The unique combination of a developing economy, a specific geographic locale (Northern Nigeria), and a focus on women entrepreneurs remains unaddressed. This study fills this void by deconstructing FinTech into its core functional dimensions to empirically investigate their individual effects on the performance of women entrepreneurs in the Kano Metropolis, providing a nuanced analysis that moves beyond treating FinTech as a monolithic construct.

### **Methodology**

#### **Research Design**

This study employed a quantitative research design using a cross-sectional survey strategy. This was appropriate for systematically collecting numerical data at a single point in time to test the hypothesized relationships between the independent variables (FinTech dimensions) and the dependent variable (business performance).



## Population and Sampling

### Population

The target population was 2,862 registered women entrepreneurs operating SMEs within the eight LGAs of Kano Metropolis. (Note: The initial mention of 18,500 was for the entire state; the corrected, relevant population figure for the Metropolis is 2,862).

### Sampling Technique and Sample Size

A multi-stage sampling technique was used.

**Sample Size Determination:** The sample size was determined to be 341 using Krejcie and Morgan's (1970) table for a population of 2,862.

**Oversampling:** To account for non-response and invalid responses, the sample was increased by 40%. Therefore, 477 questionnaires were distributed.

**Sampling Allocation:** The Probability Proportional to Size (PPS) technique was used to allocate the 477 questionnaires across the eight LGAs based on their population, as shown in Table 1.

The Probability Proportional to Size (PPS) allocation sampling technique will be used to ensure adequate representation from different LGAs as shown in the table below:

**Table 1: Probability Proportional to Size (PPS) distribution of the 477 samples:**

S/N	Local Government Area (LGA)	Population (2006)	% of Metropolis Population	Sample Size Allocation (n)
1	Nasarawa	596,669	21.09%	101
2	Dala	418,777	14.80%	71
3	Ungogo	369,657	13.07%	62
4	Kano Municipal	365,525	12.92%	61
5	Gwale	362,059	12.80%	61
6	Kumbotso	295,979	10.46%	50



S/N	Local Government Area (LGA)	Population (2006)	% of Metropolis Population	Sample Size Allocation (n)
7	Tarauni	221,367	7.82%	37
8	Fagge	198,828	7.03%	34
	<b>TOTAL</b>	<b>2,828,861</b>	<b>100.00%</b>	<b>477</b>

**Source:** The Researcher, 2025

### Data Collection and Analysis

A structured questionnaire was used for data collection. Of the 477 distributed, 371 were completed and returned, yielding a 77.78% response rate, which is above the minimum required sample of 341. Data were analyzed using Multiple Linear Regression in SPSS (Version 26) to test the hypotheses.

## Results and Discussion

### Descriptive Statistics

Table 2: Descriptive Statistics of Variables (N=371)

Variable	Mean	Standard Deviation	Interpretation
<b>Business Performance</b>	3.45	0.89	Moderate to high performance levels.
<b>Technological Innovation</b>	3.12	1.05	Moderate adoption and use.
<b>Payment &amp; Settlement Systems</b>	4.25	0.76	Very high adoption and satisfaction.
<b>Access to Financial Information</b>	2.98	1.11	Relatively low access and usage.



Variable	Mean	Standard Deviation	Interpretation
<b>Risk Control Mechanisms</b>	3.56	0.94	Moderately high perception of security.
<b>Lending &amp; Financing Platforms</b>	2.75	1.20	Low accessibility and usage.

**Source: SPSS Result 2025**

The data suggests that Payment and Settlement Systems (e.g., mobile money, POS) are the most entrenched and valued FinTech dimension among women entrepreneurs (Mean=4.25). Conversely, Lending and Financing Platforms and Access to Financial Information have the lowest mean scores, indicating significant barriers in these areas.

**Reliability and Validity**

The internal consistency of the measurement scales was assessed using Cronbach's Alpha. A value above 0.7 is generally considered acceptable.

**Table 3: Reliability Statistics**

Construct	Cronbach's Alpha	Number of Items
Technological Innovation	0.891	5
Payment & Settlement Systems	0.927	5
Access to Financial Information	0.845	5
Risk Control Mechanisms	0.882	5
Lending & Financing Platforms	0.818	5
Business Performance	0.901	6
<b>Overall</b>	<b>0.936</b>	<b>31</b>

**Source: SPSS 2025**



All constructs demonstrated high internal consistency, with Cronbach's Alpha values well above the 0.70 threshold, confirming the reliability of the measurement instrument.

### **Multiple Linear Regression Analysis**

A multiple linear regression was performed to test the hypotheses. The model examined the impact of the five FinTech dimensions on Business Performance.

#### **Model Summary**

$$R = 0.712$$

$$R^2 = 0.507$$

$$\text{Adjusted } R^2 = 0.499$$

$$F\text{-statistic} = 58.34, p < 0.001$$

The regression model is statistically significant ( $p < 0.001$ ). The independent variables collectively explain **50.7%** of the variance in the performance of women entrepreneurs ( $R^2 = 0.507$ ), indicating a strong model fit.



**Table 4: Regression Coefficients and Hypothesis Testing**

Hypothesis	Independent Variable	Unstandardized Beta (B)	Standard Error	Standardized Beta ( $\beta$ )	t-value	p-value	Decision
<b>H1</b>	Technological Innovation	0.183	0.045	0.216	4.067	<b>0.000</b>	<b>Rejected</b>
<b>H2</b>	Payment & Settlement Systems	0.301	0.062	0.257	4.855	<b>0.000</b>	<b>Rejected</b>
<b>H3</b>	Access to Financial Information	0.095	0.041	0.118	2.317	<b>0.021</b>	<b>Rejected</b>
<b>H4</b>	Risk Control Mechanisms	0.162	0.050	0.171	3.240	<b>0.001</b>	<b>Rejected</b>
<b>H5</b>	Lending & Financing Platforms	0.234	0.037	0.315	6.324	<b>0.000</b>	<b>Rejected</b>

*Dependent Variable: Business Performance. Significance level:  $p < 0.05$ .*



## Discussion of Findings

The present study sought to determine the effect of specific Financial Technology (FinTech) dimensions on the performance of women entrepreneurs in Kano Metropolis, Nigeria. The empirical results lead to the rejection of all five null hypotheses, confirming that Technological Innovation, Payment and Settlement Systems, Access to Financial Information, Risk Control Mechanisms, and Lending and Financing Platforms each exert a statistically significant influence. However, the varying magnitude and context of these effects reveal a nuanced narrative about the hierarchical and interconnected roles these technologies play in entrepreneurial ecosystems within emerging economies.

The most profound finding of this research is the powerful effect of ‘Lending and Financing Platforms’ (H5), which emerged as the strongest predictor of business performance ( $\beta = .315$ ,  $p < .001$ ). This result aligns with foundational theories of entrepreneurship, which posit access to capital as a critical determinant of venture growth and survival (Hisrich & Peters, 2002). For women entrepreneurs in Kano, who often face significant barriers to traditional credit such as a lack of collateral or patriarchal banking norms, digital lending platforms represent a transformative channel for capital acquisition. The potency of this effect suggests that capital constraint is the single most binding operational limitation for these businesses; its alleviation through FinTech yields the highest marginal returns on performance. Paradoxically, this dimension also reported the lowest mean adoption rate ( $M = 2.75$ ), creating a critical "access-impact gap." This disparity points to significant barriers, potentially including digital illiteracy, unaffordable data costs, a trust deficit, or algorithmic biases that inadvertently exclude informal sector operators (Demirgüç-Kunt et al., 2018). This finding underscores a substantial untapped market and presents a clear imperative for policymakers and financial institutions to develop inclusive digital credit products, supported by financial literacy programs and gender-sensitive regulatory frameworks.

The analysis also confirmed that “Payment and Settlement Systems” (H2) exert a strong and significant influence on performance ( $\beta = .257$ ,  $p < .001$ ). Coupled with its high adoption rate ( $M = 4.25$ ), this dimension functions as the foundational infrastructure of the digital entrepreneurship ecosystem. This finding corroborates global research, such as that by Roopa et al. (2025), which identified unified payment interfaces as the preferred method for retail transactions due to their convenience and efficiency. For the women entrepreneurs in this study, mobile money and digital transfers directly enhance performance by mitigating the inefficiencies and risks of a cash-based economy reducing theft, lowering transaction costs, accelerating payment cycles, and improving cash flow management. The widespread adoption of these systems demonstrates that when a FinTech solution directly and tangibly solves a pervasive pain point, it rapidly becomes embedded in daily business operations, setting the stage for the adoption of more advanced services.

Furthermore, the significant effect of Technological Innovation (H1;  $\beta = .216$ ,  $p < .001$ ) indicates a transition from using FinTech for basic utility to leveraging it for strategic advantage. This dimension, encompassing tools like data analytics and automated accounting, moves beyond transactional efficiency to enhance decision-making and operational intelligence. This finding extends the theoretical propositions of Kou and Lu (2025) by providing empirical evidence that the application of advanced technologies directly correlates with improved entrepreneurial outcomes. Entrepreneurs utilizing these tools are likely better equipped to identify market trends, optimize inventory, and allocate resources efficiently,



thereby building a sustainable competitive edge. This suggests a readiness among this demographic for value-added services that facilitate business growth beyond mere survival.

The role of Risk Control Mechanisms (H4) was also confirmed as significant ( $\beta = .171$ ,  $p = .001$ ). This result underscores that technology adoption is not merely a functional process but a psychological one, heavily dependent on trust. Features such as fraud detection and secure transaction protocols may not directly generate revenue, but they create a critical "psychology of safety" that enables deeper engagement with the digital financial ecosystem. This finding aligns with the emphasis on security in the blockchain literature and confirms that user confidence is a non-negotiable prerequisite for the widespread use of other FinTech services (Tan et al., 2022). Without perceived security, entrepreneurs may hesitate to conduct large transactions or store sensitive business data digitally, thereby limiting their growth potential.

Finally, while the effect of Access to Financial Information (H3) was statistically significant, it was the weakest among the dimensions ( $\beta = .118$ ,  $p = .021$ ). This result is highly instructive, as it suggests a hierarchy of entrepreneurial needs (c.f., Maslow, 1943). For entrepreneurs grappling with immediate challenges of capital and cash flow, access to macroeconomic data or complex investment news is a secondary concern. The primary utility of information is likely more immediate and practical, such as checking local commodity prices. Therefore, its impact on overall performance is more indirect and supportive, aiding in better decision-making within existing constraints rather than directly lifting those constraints. This does not diminish its value but clarifies its role as a supplementary tool whose importance may increase as a business matures.

### **Theoretical and Practical Implications**

Theoretically, these findings contribute to the literature by moving beyond establishing a general link between FinTech and performance to delineating the specific, hierarchical mechanisms through which this relationship operates. The results demonstrate that the impact of FinTech is not monolithic but is instead structured, with foundational elements (payments, trust) enabling engagement, while advanced capabilities (lending, analytics) drive transformative growth.

Practically, the findings offer clear guidance. For policymakers and financial service providers, the priority should be to dismantle barriers to digital lending (H5) through targeted interventions, as this holds the greatest potential for impact. Concurrently, maintaining and enhancing the robust payment infrastructure (H2) and ensuring transparent security measures (H4) are essential for sustaining trust and adoption. Finally, developing simplified, context-relevant analytical tools (H1) and information services (H3) can help entrepreneurs transition from subsistence to strategic growth.

### **Conclusion**

#### **Summary**

The primary objective of this study was to examine the effect of specific dimensions of Financial Technology (FinTech) on the performance of women entrepreneurs in Kano Metropolis, Nigeria. The research was guided by five specific objectives, which led to the formulation and testing of five null hypotheses. The investigated FinTech dimensions were



## Technological Innovation, Payment and Settlement Systems, Access to Financial Information, Risk Control Mechanisms, and Lending and Financing Platforms.

The study adopted a quantitative research design, utilizing a cross-sectional survey strategy. A sample of 371 women entrepreneurs was selected using a multi-stage sampling technique. Data were collected through a structured questionnaire, and the hypotheses were tested using Multiple Linear Regression analysis in SPSS.

The key findings revealed that all five FinTech dimensions had a statistically significant positive effect on the performance of women entrepreneurs. The regression model was significant ( $p < .001$ ) and explained 50.7% of the variance in business performance. The order of impact, from strongest to weakest, was as follows: Lending and Financing Platforms ( $\beta = .315$ ,  $p < .001$ ), Payment and Settlement Systems ( $\beta = .257$ ,  $p < .001$ ), Technological Innovation ( $\beta = .216$ ,  $p < .001$ ), Risk Control Mechanisms ( $\beta = .171$ ,  $p = .001$ ), and Access to Financial Information ( $\beta = .118$ ,  $p = .021$ ). A critical finding was the paradox surrounding Lending and Financing Platforms, which demonstrated the strongest effect on performance yet had the lowest mean adoption rate, indicating a significant access barrier.

### **Conclusion**

In conclusion, the rejection of all five null hypotheses confirms that FinTech is a multifaceted catalyst for the performance of women entrepreneurs in Kano Metropolis. The findings reveal a dynamic ecosystem where payment systems provide the foundation, trust enables participation, and access to capital serves as the most powerful engine for growth. A holistic strategy that addresses this entire spectrum of needs is essential for fully harnessing the transformative potential of financial technology to empower women entrepreneurs and foster inclusive economic development.

### **Recommendations**

Derived from the findings and conclusion of this study, the following recommendations are proposed for various stakeholders:

#### **For Policymakers and Regulatory Bodies:**

1. Develop and implement policies specifically aimed at increasing women's access to digital credit. This could include supporting the development of alternative credit scoring models that use non-traditional data and creating a regulatory sandbox to encourage innovation in peer-to-peer (P2P) and crowd funding platforms tailored to SMEs.
2. Launch public-private partnership programs focused on improving digital financial literacy among women entrepreneurs. These programs should demystify digital lending processes, educate on interest rates and responsible borrowing, and build skills to use other FinTech tools like digital accounting and analytics.



3. Bolster regulations and oversight for FinTech companies to ensure transparency, data privacy, and robust consumer protection. This will build the foundational trust necessary for entrepreneurs to confidently adopt a wider range of FinTech services.

#### **For Financial Institutions and FinTech Companies:**

1. Design lending products that address the specific barriers faced by women entrepreneurs, such as offering smaller, short-term loans with simplified application processes and requiring flexible or non-traditional collateral.
2. Create bundled platforms that seamlessly integrate popular payment services with emerging lending, savings, and business management tools. This can increase the visibility and accessibility of lending platforms for users who are already comfortable with digital payments.
3. Proactively communicate security features and invest in user-friendly interfaces and customer support in local languages. Transparent communication about fees, terms, and conditions is crucial for building trust and driving the adoption of all FinTech services, especially lending.

#### **For Future Research**

1. Future research should employ qualitative methods (in-depth interviews, focus groups) to deeply explore the specific reasons behind the low adoption of lending platforms, uncovering nuanced social, cultural, and structural barriers not captured by quantitative surveys.
2. This study should be replicated in other regions of Nigeria and across different demographics of entrepreneurs to assess the generalizability of the findings and identify context-specific variations.
3. A longitudinal study is recommended to track how the relationship between FinTech adoption and business performance evolves, establishing causality and understanding the long-term impact on business growth and sustainability.

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