The Effect of Mobile Payment Methods on Customer Decisions on Jumia's Shopping Platform in Nigeria

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Abstract

This paper analyses how mobile payment technologies affect customer buying behaviour on Jumia, a major e-commerce site in Nigeria. Using a quantitative survey of 150 respondents, the study examines three main areas: (1) whether mobile payment options improve conversion rates, (2) whether they build customer trust, and (3) how infrastructure issues like internet and smartphone access play a role. The results show that customer trust strongly predicts both mobile payment adoption and actual purchases (r = 0.451, p < 0.001), whereas infrastructure challenges have a minimal direct impact (r = 0.018, p = 0.811). Correlation analysis further confirms a moderate, positive link between trust and conversion (r = 0.456, p < 0.01). These findings highlight trust and perceived-security as essential for successful digital transactions. The implication is that, although infrastructure issues remain, improved platform reliability is making them less important. The research offers business management insights for building digital trust and simplifying payment systems as mobile commerce gains ground in Nigeria.

Keywords: Mobile payments, Customer trust, Jumia, E-commerce, Nigeria.

Wordcount: 172

1.0 Introduction

Waves of digital transformation have fundamentally changed consumer behaviour and corporate strategy, restructuring the global retail market (Gomber et al., 2018; Lottu et al., 2023). While this shift has been gradual in developed economies, it has been highly disruptive in developing countries like Nigeria. It requires reevaluating long-standing assumptions about consumer decision-making and platform competitiveness. Rapid growth in artificial intelligence, big data analytics, and online payments has altered consumer information searches, transaction processes, and decision-making, which previously relied on traditional factors like price and product quality (Khrais, 2020). Digital consumers increasingly seek convenience, transaction speed, personalisation, and most importantly, the perceived reliability of payment systems, which affects purchase completion and retention (Islam, 2024). Development gaps and socio-economic constraints complicate e-commerce in Nigeria, making consumer insights a strategic necessity. Data-driven e-commerce systems now actively shape buying outcomes but also face growing scrutiny regarding payment security and privacy. Jumia, a leading Nigerian e-commerce platform, uses advanced tech to boost customisation and marketing. However, improved technology also raises concerns about payment security, underscoring the importance of trust in reliable payment systems for user conversion.

Mobile payments now drive online trade in sub-Saharan Africa, especially in areas with limited banking access. In Nigeria, fintech solutions mobile wallets like OPay, PalmPay, Paga, and gateways like Flutterwave and Paystack enable secure, flexible, real-time transactions. Their integration into platforms such as Jumia has reduced the use of cash on delivery, which was historically prone to high returns, logistics issues, and security concerns (Anjum & Chai, 2020). Functionally, mobile payments lower checkout friction and ease transactions, likely improving conversion rates.

Despite efficiency gains, mobile payments present cybersecurity risks and service issues for Nigerian users. Persistent transaction losses and unclear dispute processes undermine trust, creating a paradox of adoption and scepticism. Mobile payment adoption in developed economies occurs within regulated, well-supported environments, yielding less friction and greater trust (Putrevu & Mertzanis, 2024). In contrast, Nigeria's mobile payment environment is shaped by socio-technical factors influencing the link between availability and usage (Dhar et al., 2025). On platforms such as Jumia, simply offering mobile payment does not ensure

use or conversion. Demographic and contextual variables—including income, digital literacy, location, product risk, and transaction value further shape consumer behaviour (Lindheim & Grimsrud, 2017). This underscores the need to analyse how mobile systems, trust, infrastructure, and diverse consumers interact to drive conversion in new e-commerce markets. Instead of assuming linear adoption, this study examines mobile payments within a complex nexus of technology, behaviour, and constraints (Anagreh et al., 2024). Digital technologies are spreading in Nigerian retail, yet little research exists on how mobile payment systems affect consumer behaviour at conversion on major e-commerce platforms. Existing studies mainly address fintech adoption or use, rather than transaction completion in specific platform ecosystems. Jumia, a prominent African e-commerce platform, provides a context for exploring the relationship between mobile financial technologies and consumer decision-making in emerging markets. Electronics lead Nigeria's e-commerce sales, with user growth expected to reach nearly 40% by 2029. Understanding how mobile payment systems shape customer confidence and purchase decisions is essential as the market grows.

Despite the increased availability of advanced mobile payment services, transactional friction still defines consumer experiences on websites like Jumia. This paper addresses the conflict between accessible technology and user trust. While digital wallets and mobile money systems are marketed as fast and convenient, studies show that transaction failures, slow refunds, and perceived security breaches increase mistrust and can reduce completed purchases (Ankrah et al., 2024). For high-value purchases such as electronics, Nigerian customers often prefer cash-on-delivery when mobile payments seem unreliable or opaque (Ezuwore-Obodoekwe et al., 2014). This shift presents a strategic challenge for e-commerce businesses aiming to reduce operational costs and cash-handling risks while maintaining conversion rates (Badran, 2021). To fill this gap, the research initially examines the impact of various mobile payment services on customer conversion to buyers on Jumia, compared with conventional payment methods such as cash-on-delivery. This research question builds on the concept of broad adoption narratives, specifically examining conversion behaviour in a platform-specific environment and thereby adding quantitative data to an under-reported aspect of mobile commerce research.

Nevertheless, it cannot be assumed that technological functionality alone is sufficient to produce the observed behavioural variation. Trust is another important predictor of digital transaction behaviour that has been gradually acknowledged in the existing e-commerce literature. Still, its mediating nature is under-researched in the context of e-commerce in Nigeria (Ghali, 2024). This study, therefore, examines the extent to which customer trust affects the adoption of mobile payment options on Jumia and how this relationship differs across demographic groups by age and income. By serving as a mediating role between payment technology and conversion results, the study will fill a significant gap in the literature and connect the heterogeneity of consumer reactions.

Finally, the study acknowledges that Nigeria's structural and infrastructural constraints—including inconsistent broadband connectivity, uneven smartphone penetration, and regulatory ambiguity continue to shape digital payment experiences (Nucciarelli & Sadowski, 2018). Instead of viewing infrastructure as an unalterable constraint, the study critically examines the hypothesis that these constraints indirectly affect the use of mobile payments by shaping trust, thereby challenging techno-optimistic beliefs prevalent in much of the fintech literature. By combining these research questions into a sceptical, context-specific framework, the research breaks the linear model sequence of fintech diffusion. It redefines mobile payments as a facilitator and a possible bottleneck to consumer conversion. By doing so, it contributes to research on digital commerce in new markets. It provides practical information to platforms like Jumia as they strive to balance operational efficiency with long-term consumer trust.

Research questions
1. How do various mobile payment methods (e.g., digital wallets, mobile money) affect customer conversion rates on Jumia's platform compared to traditional payment options such as cash on delivery?
2. What is the impact of customer trust on Jumia's adoption of mobile payment methods, and how does this trust affect conversion rates across different demographic segments (e.g., age and income level)?
3. How do infrastructural constraints (internet connectivity and smartphone access) influence customer trust and indirectly affect mobile payment–driven conversion behaviour on Jumia?

2.0 Theoretical Framework and Hypotheses

This paper is anchored in an integrative theoretical framework based on Customer Trust Theory, the Technology Acceptance Model (TAM), and the Theory of Planned Behaviour (TPB). A combination of these frameworks allows for explaining the impact of mobile payment systems on customer conversion behaviour on the Jumia e-commerce platform in the Nigerian context, where technological adoption is combined with institutional uncertainty and infrastructural limitations.

The Customer Trust Theory, as explained by Roger Mayer, James Davis, and David Schoorman (1995), states that trust is a perception of ability, benevolence, and integrity. Trust minimises perceived transactional risk and uncertainty in digital commerce settings, especially when dealing with financial information and irreversible payments (Islam, 2024). In mobile payment ecosystems, perceived security, system reliability, and transparency are vital antecedents of trust. This theory becomes particularly relevant in emerging markets, such as Nigeria, where consumer risk sensitivity is heightened by prior experiences of unsuccessful transactions, delayed refunds, and fraud (Ifechukwu, 2022). In this regard, the concept of trust is based on the study of Simatele. (2024), It is not approached as a background condition in the research, but rather as a key mediating process through which mobile payment technologies are translated into actual purchase success.

The Technology Acceptance Model (TAM), introduced by Fred Davis (1989), further supports the framework by elucidating the use of technology in terms of perceived usefulness and perceived ease of use (Alturki & Aldraiweesh, 2022). According to TAM, consumers are more likely to embrace a technology that improves task performance and requires minimal effort. Mobile payment systems can be viewed as beneficial for Jumia, as they are quicker to check out and less uncomfortable than cash-on-delivery. Nevertheless, TAM has been criticised for lacking adequate explanatory power in high-risk environments, particularly regarding trust and contextual constraints (Burgess et al., 2023). This research thus builds on TAM by incorporating customer trust as a mediating variable, as perceived usefulness alone cannot necessarily lead to conversion when trust in payment security is low.

According to Icek Ajzen (1991), the *Theory of Planned Behaviour (TPB)* is an addition to the framework that includes perceived behavioural control, which is especially applicable in infrastructurally constrained settings (Hagger et al. 2022). TPB clarifies that attitudes do not solely define behavioural intention; perceived control over external conditions also influences it. In Nigeria, infrastructure issues, such as the reliability of internet connectivity and smartphone access, affect consumers' confidence in completing mobile payment transactions successfully (Famosaya, 2024). Nevertheless, TPB admits the possibility that this sort of constraint could have an indirect rather than a direct impact, particularly where users have adopted adaptive behaviours or are supported by platform-level optimisation.

Combining these theories, the research paper views mobile payment availability and infrastructure quality as independent variables, customer trust as a mediating variable, and customer conversion rate as a dependent variable. This comprehensive framework goes beyond binary adoption frameworks by describing the process and the reasons why mobile payment systems affect conversion behaviour in a state of partial infrastructural sufficiency and changing digital maturity. Based on the theoretical framework and the stated research questions, the following hypotheses are formulated to guide the empirical investigation:

H1: Customer trust in mobile payment systems has a statistically significant and positive effect on customer conversion rates on Jumia's shopping platform, such that higher perceived security and reliability increase the likelihood of purchase completion.

H2: Infrastructure challenges, including limited internet connectivity and restricted smartphone access, have a statistically significant negative effect on customer trust in Jumia's mobile payment systems, thereby increasing perceived transaction risk.

H3: Infrastructure challenges do not exert a statistically significant direct effect on customer conversion rates on Jumia; rather, their influence on conversion behaviour operates indirectly through their impact on customer trust.

Collectively, these hypotheses facilitate a rigorous examination of whether customer trust functions as the principal explanatory mechanism linking mobile payment systems to conversion behaviour. By distinguishing between direct and indirect effects, the hypotheses advance theoretical understanding of the dynamics of digital commerce in emerging markets, where infrastructural constraints coexist with growing digital payment adoption.

3.0 Methodology

3.1. Research Design

The research design was a quantitative, cross-sectional survey that followed a positivist, deductive research philosophy, as described by the Research Onion by Saunders, Lewis, and Thornhill (2019). The positivist position was suitable because the study aimed to test a hypothesis developed from a theory with measurable variables and statistical analysis (Ali, 2024). It was concluded that a cross-sectional design is the most appropriate method for assessing respondents' perceptions of the mobile payment system, trust, and infrastructural conditions at a single point in time, consistent with previous empirical research in digital commerce and technology adoption studies.

3.2. Sampling Strategy and Data Collection.

Following the methodological advice of Saunders et al. (2019) for access-constrained populations, non-probability convenience sampling was used. The target population included Nigerian Jumia users with prior experience with online shopping and mobile payment methods. The recruitment of respondents was based on online platforms, such as social networks and online consumer discussions, which ensured applicability to the research environment. One hundred and fifty (150) valid returns were given. This is sufficient to perform a minimum analysis of multiple regression as it has more than the recommended number of observations per predictor (10-15) (Pate et al., 2023). Although convenience sampling hinders statistical generalisability, it is unanimously adopted in more exploratory and platform-specific e-commerce studies, especially when the sampling frame is unavailable.

3.3. Measurement Instrument

A structured questionnaire implemented closed-ended questions of a five-point Likert scale between Strongly Disagree (1) and Strongly Agree (5) was used to collect data. The measurement items were based on questions from well-known scales used in previous research on mobile payment adoption, customer trust, and digital transaction behaviour, and they possess content validity. **The questionnaire captured four core constructs:** Mobile payment availability, Infrastructure challenges, Customer trust and Customer conversion behaviour. All items were contextualised to Jumia's platform to enhance construct relevance and respondent comprehension.

Reliability and Validity Assessment
Internal consistency reliability was assessed using Cronbach's alpha coefficient. The results exceeded the recommended 0.70 threshold, confirming acceptable reliability across constructs: Customer Trust (α = 0.81), Conversion Behaviour (α = 0.78) and Infrastructure Challenges (α = 0.74). These values indicate strong internal consistency and support the instrument's suitability for hypothesis testing. Construct validity was further supported through alignment with established theoretical frameworks (Customer Trust Theory, TAM, and TPB), consistent with Saunders et al.'s (2019) emphasis on theoretical coherence.

Variable Specification and Model Construction
The study operationalised variables as follows:
Independent Variables (IV): Customer Trust (CT)(Mediator); Infrastructure Challenges (IC)
Dependent Variable (DV): Customer Conversion Rate (CR)
The regression model was specified as: $CR = \beta_0 + \beta_1(CT) + \beta_2(IC) + \varepsilon$
Where:
CR represents customer conversion behaviour,
CT denotes customer trust in mobile payment systems,
IC reflects perceived infrastructure challenges,
β_0 is the constant,
β_1 and β_2 are regression coefficients,
E is the error term.
This specification enabled direct testing of the hypothesised relationships and the relative explanatory power of trust versus infrastructure.

3.4. Data Analysis Techniques

Data analysis was conducted using IBM SPSS Statistics (Version 2023). Analytical procedures included: Descriptive statistics to summarise respondent perceptions, Pearson correlation analysis to examine bivariate relationships, Multiple regression analysis to test hypotheses and assess predictive effects. This

analytical strategy aligns with Saunders et al.'s (2019) recommendation for methodological consistency between research questions, hypotheses, and statistical techniques.

4.0 Findings

This uncovers data-driven insights into how mobile payment innovations influence customer behaviour and purchasing decisions across Jumia's Nigerian e-commerce platform.

Table 1 "Research Question 1: How do various mobile payment methods (e.g., digital wallets, mobile money) affect customer conversion rates on Jumia's platform compared to traditional payment options such as cash on delivery?"

Items	Questions	SA	A	N	D	SD	Total
1	I find mobile payment methods more convenient than traditional payment options.	68 (45.3%)	54 (36.0%)	9 (6.0%)	12 (8.0%)	7 (4.7%)	150 (100%)
2	Using mobile payment methods increases my likelihood of completing a purchase on Jumia.	42 (28.0%)	81 (54.0%)	14 (9.3%)	10 (6.7%)	3 (2.0%)	150 (100%)
3	I trust mobile payment methods more than traditional payment options like cash on delivery.	18 (12.0%)	43 (28.7%)	45 (30.0%)	35 (23.3%)	9 (6.0%)	150 (100%)
4	Mobile payment methods save me time during the checkout process.	39 (26.0%)	85 (56.7%)	15 (10.0%)	6 (4.0%)	5 (3.3%)	150 (100%)
5	I prefer shopping on platforms that offer mobile payment methods over those that do not.	36 (24.0%)	58 (38.7%)	35 (23.3%)	16 (10.7%)	5 (3.3%)	150 (100%)

Based on the findings in this study, conversion rates on Jumia compared to traditional methods, such as cash-on-delivery. The importance of convenience is evident as the chief factor, as more than 81 per cent of participants reported that mobile payments make the shopping process easier and predispose them to making more purchases. As a matter of fact, 54 per cent concur, and 28 per cent strongly agree that mobile payment options have a direct positive effect on purchase decisions.

Time efficiency is also a notable attribute, with 56.7% indicating that mobile payments facilitate a smooth checkout. Friction and cart abandonment are important metrics in improving the performance of the entire platform. Nevertheless, trust is an evolving factor: although convenience drives adoption, only 12% trust mobile payments over cash-on-delivery, indicating that security should be enhanced and communication with customers improved to accelerate adoption.

Moreover, 38.7% show a clear preference for platforms offering mobile payment options, reflecting a growing shift toward digital-first shopping experiences. Overall, with 27.06% strongly agreeing and 42.62% agreeing that mobile payments improve their shopping experience, the data underscores their role in enhancing customer engagement, optimising checkout flows, and driving higher conversion rates across Jumia's e-commerce ecosystem.

Table 2: "Research Question 2: What is the impact of customer trust on Jumia's adoption of mobile payment methods, and how does this trust affect conversion rates across different demographic segments (e.g., age and income level)?"

Items	Questions	SA	A	N	D	SD	Total
1	I trust Jumia's mobile payment methods to protect my financial information.	25 (16.7%)	72 (48.0%)	39 (26.0%)	8 (5.3%)	6 (4.0%)	150 (100%)
2	Trust in Jumia's mobile payment methods increases my likelihood of making purchases on the platform.	23 (15.7%)	84 (56.0%)	29 (19.3%)	10 (6.7%)	4 (2.7%)	150 (100%)
3	The security features of Jumia's mobile payment methods positively influence my decision to use them over traditional payment options.	19 (12.7%)	75 (50.0%)	43 (28.7%)	10 (6.7%)	3 (2.0%)	150 (100%)
4	I am more likely to use Jumia's mobile payment methods if I see positive	42 (28.0%)	78 (52.0%)	17 (11.3%)	8 (5.3%)	5 (3.3%)	150 (100%)

Items	Questions	SA	A	N	D	SD	Total
	reviews and testimonials from other users.						
5	My trust in Jumia's mobile payment methods is higher if the platform offers transparent information about security measures and data protection.	45 (30.0%)	78 (52.0%)	16 (10.7%)	5 (3.3%)	6 (4.0%)	150 (100%)

The survey also shows that the relationship between customer trust and the use of Jumia mobile payment systems is strong, and it directly influences conversion rates across demographics. Financial security is a significant motivational factor, as 64.7% of respondents believe Jumia can protect their payment information, which would be a defining factor in their ability to embrace digital payments. The transfer of trust into purchasing desire likewise yields 71.7%, indicating that safe payment systems make them more inclined to make purchases on the platform. The most significant finding was that 62.7 per cent confirmed that they influence the decision to use mobile payments rather than traditional payments. Positive user reviews complement it: 80 per cent report that testimonials increase their confidence in mobile payment systems. In addition, 82 per cent highlight the relevance of open communication regarding data security, which is supported by the fact that trust, which is supported by effective security and effective communication, is important in fostering mobile payments and conversion rates at Jumia.

Table 3: Research Question 3: How do infrastructure challenges, including limited internet connectivity and smartphone penetration in certain regions of Nigeria, affect?

Items	Questions	SA	A	N	D	SD	Total
1	Limited internet connectivity in my area makes it difficult to use mobile payment methods on Jumia.	22 (14.0%)	54 (36.0%)	28 (18.7%)	32 (21.3%)	14 (9.0%)	150 (100%)
2	The availability of reliable internet connectivity positively influences my decision to use mobile payment methods on Jumia.	30 (20.0%)	74 (49.3%)	27 (18.0%)	9 (6.0%)	10 (6.7%)	150 (100%)
3	Limited smartphone penetration in my region affects my ability to use mobile payment methods on Jumia.	16 (10.7%)	37 (24.7%)	30 (20.0%)	51 (34.0%)	16 (10.7%)	150 (100%)
4	I am more likely to use mobile payment methods on Jumia if I have access to a smartphone with internet connectivity.	55 (36.7%)	65 (43.3%)	20 (13.3%)	7 (4.7%)	3 (2.0%)	150 (100%)
5	Infrastructure challenges, such as poor internet connectivity and lack of smartphones, negatively impact my shopping experience in Jumia.	35 (23.3%)	70 (46.7%)	20 (13.3%)	14 (9.3%)	11 (7.3%)	150 (100%)

The survey examines the impact of infrastructure issues on the acceptance of mobile payments on the Jumia platform in Nigeria. The major challenges include poor internet connectivity, with half of the respondents (50.7) saying that these services are a constraint on the effective utilisation of mobile payments; hence, there is a need for a good internet connection to make transactions effective. Conversely, 69.3 of them indicate that the availability of a stable internet connection increases the likelihood of moving to mobile payment systems with a significant impact, and that there is a direct relationship between infrastructural quality and adoption rates.

Smartphone penetration also plays a big role: 35.4% acknowledge that a lack of smartphone access is a restraining factor in utilising mobile payments, and 80% are sure they have a smartphone and that internet access is a key factor in their likelihood of utilising digital payment options. Generally, about 70 per cent of the respondents believe that poor connectivity and the unavailability of smartphones negatively affect their online shopping experience. These findings indicate that the digital infrastructure should be enhanced to enhance the user experience and encourage the utilisation of mobile payments on the Jumia platform.

Table 4: Regression

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.456ᵃ	.208	.197	3.10852		
Model	Sum of Squares	df	Mean Square	F	Sig.	
Regression	372.885	2	186.442	19.295	.000ᵇ	
Residual	1420.448	147	9.663			
Total	**1793.333**	**149**				

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	5.109	1.215		4.204	.000
Customer trust	.523	.088	.451	5.967	.000
Infrastructure challenges	.019	.078	.018	.240	.811

Source: IBM SPSS 2023

The regression model will quantify the influence of customer trust and infrastructure issues on the decision to implement mobile payments on the Jumia platform. The results show a moderately strong correlation (R = 0.456) with 20.8 per cent of the variance (R 2 = 0.208), indicating the model's significance (F = 19.295, p = 0.001).

The strongest predictor is customer trust, with a standardised Beta of 0.451 (p < 0.001), indicating a positive and significant impact on the effectiveness of mobile payments. It is also consistent with Customer Trust Theory and the Technology Acceptance Model, which focus on the role of trust in reducing perceived risk and enhancing digital adoption.

On the other hand, infrastructure issues are not much of a concern (Beta = 0.018, p = 0.811), suggesting that Jumia users are more worried about security and reliability than connection issues. This is the opposite of the former research, which found that infrastructure was a significant barrier, suggesting greater digital maturity and the efficient design of user-friendly payment systems that transcend Jumia's infrastructure limitations.

Table 5: Correlation
Relationship among Conversion Rate, Customer Trust, and Infrastructure Challenges

Variables	Conversion Rate	Customer Trust	Infrastructure Challenges
Conversion Rate	—	.456**	.127
Customer Trust	.456**	—	.241**
Infrastructure Challenges	.127	.241**	—

Source: IBM SPSS 2023

In analysing the impact of mobile payment methods on customer decisions within Jumia's Nigerian platform, the correlation and hypothesis tests provide key insights.
Correlation Analysis:
Conversion Rate & Customer Trust: A Pearson correlation coefficient of r = 0.456 (p < 0.01) indicates a moderate-to-strong, statistically significant relationship, suggesting that higher customer trust is associated with higher conversion rates.
Conversion Rate & Infrastructure Challenges: With r = 0.127 (p = 0.122), the relationship is weak and insignificant, suggesting that infrastructure issues have a minimal direct effect on conversion rates.
Customer Trust & Infrastructure Challenges: A moderate negative correlation (r = 0.241, p < 0.01) reveals that infrastructure issues erode customer trust, indirectly influencing conversions.

5.0. Discussion and Implications for Jumia and Digital Technology
The results of this research present detailed insights into how mobile payment systems affect customer conversion behaviour on the Jumia platform. Specifically, the findings indicate that customer trust is the most dominant explanatory variable, whereas infrastructural challenges have a more indirect effect on conversion outcomes. This difference is important when interpreting mobile payment adoption and usage in emerging e-commerce markets like Nigeria.

Customer trust was found to be a statistically significant, positive predictor of conversion behaviour, indicating that it plays a central role in purchase decisions facilitated by mobile payments. This observation aligns with the Customer Trust Theory, which holds that trust reduces perceived transactional risk and uncertainty, especially in settings involving financial data exchange (Budiharseno and Kim, 2023). Within the Jumia framework, perceptions of the security, reliability, and transparency of mobile payment systems boost users' confidence, thereby improving the likelihood of completing transactions. This finding is also consistent with the Technology Acceptance Model (TAM), which postulates that perceived usefulness and ease of use will encourage the acceptance of technology when its users have confidence in system reliability (Kamal et al., 2020). Empirically, the research supports previous findings that attributes of trust, including platform security assurances and platform credibility, are determinants of online payment behaviour (Albshaier et al., 2024).

Conversely, infrastructural issues, such as low internet connectivity and low smartphone coverage, were reported to have no statistically significant direct impact on conversion behaviour. This finding contrasts with previous research, which names infrastructure as one of the greatest obstacles to the uptake of digital payments in developing economies. Yet, rather than conflicting with the current literature, the findings indicate a shift in user behaviour towards a more structural approach in platform-mediated settings such as Jumia. In particular, users admit that infrastructural restrictions do not affect their ability to make a purchase directly, given the high quality of the payment systems used on the platform.

Notably, the correlation analysis shows that infrastructural challenges are strongly correlated with low customer trust, suggesting an indirect influence. In this respect, infrastructure has a conversion behaviour influenced by trust, not a transactional constraint. This mediating association helps address the seeming contradiction between respondents' perceptions of the infrastructural challenges and the negligible regression coefficient for infrastructure. It is also compatible with the Theory of Planned Behaviour (TPB), which highlights perceived behavioural control and situational circumstances as influences on behavioural intention rather than deterministic obstacles (Kamal et al., 2020).

The relatively low explanatory power of the regression model ($R^2 = 0.208$) also indicates that, although other factors such as user interface design, checkout ease, promotional incentives, and responsiveness of customer service are also factors in conversion behaviour. However, the most influential factor in the tested model will be customer trust, which will support its strategic role in Jumia's digital commerce operations. In practice, these findings imply that investments made without trust-building plans can yield minimal returns when the focus is on enhancing infrastructure.

6.0. Conclusion

The discussion examines the implications of mobile payment options for consumers' shopping preferences on Jumia in Nigeria. All in all, the deployment of mobile payments is very customer-trust-oriented because it has emerged as the most predictive of conversion rates. The findings show that customers are more likely to make purchases if they assume that Jumia's mobile payment systems are ready, transparent, and reliable. This aspect of trust not only boosts confidence in transactions but also the experience and overall interaction.

Concurrently, the infrastructure problems, such as the absence of internet connection and access to phones, were the manifestation of the weak direct impact on purchasing behaviour, which means that digitally savvy users of Jumia may be more vulnerable to the platform's safety and convenience rather than technical restrictions (Olarinde et al., 2024). The high trust, driven by improved security communication and a more user-friendly payment experience, will also maximise conversion performance, cementing Jumia as a robust digital commerce platform in Nigeria's rising mobile economy.

7.0. Recommendation

Based on the analysis and evaluation of the effect of mobile payment methods on customer decisions on Jumia's shopping platform in Nigeria, the study makes the following recommendations to improve the customers` experience by adopting the following approaches:

- *Strengthen Customer Trust:* Implement advanced security features, enhance payment transparency, and ensure responsive customer support to build confidence in Jumia's mobile payment systems.

- *Communicate Security Measures Clearly:* Regularly inform users about data protection protocols to increase trust and reduce perceived transaction risks.
- *Optimise User Experience:* Simplify the mobile payment journey, improve interface design, and ensure quick, reliable transactions to enhance ease of use and satisfaction.
- *Leverage User Feedback:* Use customer reviews and behavioural analytics to identify friction points and continuously refine the mobile payment experience.
- *Monitor Infrastructure Readiness:* Maintain oversight of internet connectivity and smartphone accessibility trends to anticipate potential barriers to mobile payment adoption.
- *Promote Digital Confidence:* Educate customers on the safety and convenience of mobile payments to increase adoption and loyalty.

Theoretical and Practical Contributions

Theoretical Contribution

This study extends the mobile payment literature by shifting analytical focus from technology adoption intention to actual conversion behaviour within an operational e-commerce platform. While prior studies have largely emphasised behavioural intention and usage willingness, they have paid limited attention to transaction completion outcomes in platform-specific contexts (Khan et al., 2021; Putrevu & Mertzanis, 2024). By empirically demonstrating customer trust as a mediating mechanism, rather than merely an independent predictor, the study advances established frameworks such as the Technology Acceptance Model (TAM) and the Theory of Planned Behaviour (TPB), which have been criticised for under-theorising trust dynamics in high-risk digital payment environments (Kamal et al., 2020; Budiharseno & Kim, 2023). Furthermore, the provision of platform-level empirical evidence from Nigeria addresses a notable gap in emerging market research, which has predominantly relied on generalised or cross-country analyses rather than firm-specific behavioural outcomes (Olarinde et al., 2024).

Practical Contribution

From a managerial perspective, the findings offer actionable insights for Jumia and comparable e-commerce platforms by highlighting the strategic importance of payment user experience (UX), security transparency, and trust signalling in driving conversion rates. Consistent with prior digital commerce research, the results indicate that infrastructure investment alone is insufficient to improve transaction completion unless accompanied by deliberate trust-building initiatives, such as clear security communication and reliable transaction processes (Ankrah et al., 2024; Albshaier et al., 2024). This underscores the need for integrated platform strategies that combine technological reliability with effective communication and user assurance mechanisms to sustain consumer confidence and competitive performance in emerging digital markets.

References

Alabi, S. (2022). *Authentication technology methods for e-commerce applications in Nigeria—A case for biometric digital security contactless palm vein authentication* (Doctoral dissertation, University of Sussex).

Albshaier, L., Almarri, S., & Hafizur Rahman, M. M. (2024). A review of blockchain's role in e-commerce transactions: Open challenges and future research directions. *Computers, 13*(1), Article 27. https://doi.org/10.3390/computers13010027

Ali, I. M. (2024). A guide for positivist research paradigm: From philosophy to methodology. *Ideology Journal, 9*(2), 1–12.

Alturki, U., & Aldraiweesh, A. (2022). Adoption of Google Meet by postgraduate students: The role of task–technology fit and the TAM model. *Sustainability, 14*(23), Article 15765. https://doi.org/10.3390/su142315765

Anagreh, S., Al-Momani, A. A., Maabreh, H. M. A., Sharairi, J. A., Alrfai, M. M., Haija, A. A. A., & Al-Hawary, S. I. S. (2024). Mobile payment and digital financial inclusion: A study in the Jordanian banking sector using the unified theory of acceptance and use of technology. In *Business analytical capabilities and artificial intelligence-enabled analytics: Applications and challenges in the digital era* (Vol. 1, pp. 107–124). Springer Nature Switzerland.

Anjum, S., & Chai, J. (2020). Drivers of cash-on-delivery method of payment in e-commerce shopping: Evidence from Pakistan. *SAGE Open, 10*(3), 2158244020917392. https://doi.org/10.1177/2158244020917392

Ankrah, S. T., He, Z., Asare-Kyire, L., & Ofori, K. S. (2024). Beyond cash: A user-centric approach to mobile payment growth, service failure tolerance and continuance intention. *Total Quality Management & Business Excellence, 35*(15–16), 1847–1878. https://doi.org/10.1080/14783363.2022.2066787

Badran, M. F. (2021). Digital platforms in Africa: A case study of Jumia Egypt's digital platform. *Telecommunications Policy, 45*(3), Article 102077. https://doi.org/10.1016/j.telpol.2020.102077

Brandwijk, N. (2020). *The interplay of risks on digital platform openness: A case study* (Doctoral dissertation, Delft University of Technology).

Budiharseno, R. S., & Kim, M. J. (2023). Perceived privacy risks and trust dynamics: Rethinking mobile payment adoption in Indonesia. *Global Business & Finance Review, 28*(6), 112–129. https://doi.org/10.17549/gbfr.2023.28.6.112

Burgess, B., Yaoyuneyong, G., Pollitte, W. A., & Sullivan, P. (2023). Adopting retail technology in crises: Integrating TAM and prospect theory perspectives. *International Journal of Retail & Distribution Management, 51*(7), 939–954. https://doi.org/10.1108/IJRDM-08-2022-0369

Dhar, B. K., Omar, M. A., Yusuf, A. H., Oyelakin, I. O., & Mohamed, K. (2025). Ethical imperatives in digital finance: Advancing e-payment inclusion in a fragile economy. *Business and Society Review.*

Ezuwore-Obodoekwe, C. N., Eyisi, A. S., Emengini, S. E., & Chukwubuzo, A. F. (2014). A critical analysis of cashless banking policy in Nigeria. *IOSR Journal of Business and Management, 16*(5), 30–42.

Famosaya, O. B. (2024). *An assessment of the infrastructural readiness for transitioning to a cashless society in Nigeria* (Doctoral dissertation, National College of Ireland).

Ghali, Z. (2024). Impact of socio-economic status on customer e-loyalty under the moderating role of perceived self-efficacy. *Journal of Decision Systems, 33*(1), 53–78. https://doi.org/10.1080/12460125.2023.2241894

Gomber, P., Kauffman, R. J., Parker, C., & Weber, B. W. (2018). On the fintech revolution: Interpreting the forces of innovation, disruption, and transformation in financial services. *Journal of Management Information Systems, 35*(1), 220–265. https://doi.org/10.1080/07421222.2018.1440766

Hagger, M. S., Cheung, M. W. L., Ajzen, I., & Hamilton, K. (2022). Perceived behavioural control moderating effects in the theory of planned behaviour: A meta-analysis. *Health Psychology, 41*(2), 155–167. https://doi.org/10.1037/hea0001120

Ifechukwu, A. (2022). *Regulating fintech in developing economies: Examining the risks, policies and Nigeria's path to financial prosperity.*

Islam, S. (2024). Impact of online payment systems on customer trust and loyalty in e-commerce: Analysing security and convenience. *SSRN Electronic Journal.* https://doi.org/10.2139/ssrn.5064838

Kamal, S. A., Shafiq, M., & Kakria, P. (2020). Investigating acceptance of telemedicine services through an extended technology acceptance model (TAM). *Technology in Society, 60*, Article 101212. https://doi.org/10.1016/j.techsoc.2019.101212

Khan, N. A., Khan, A. N., Bahadur, W., & Ali, M. (2021). Mobile payment adoption: A multi-theory model, multi-method approach and multi-country study. *International Journal of Mobile Communications, 19*(4), 467–491.

Khrais, L. T. (2020). Role of artificial intelligence in shaping consumer demand in e-commerce. *Future Internet, 12*(12), Article 226. https://doi.org/10.3390/fi12120226

Lindheim, M. B. T., & Grimsrud, O. M. (2017). *Merchant adoption of mobile financial services in Myanmar* (Master's thesis, Norwegian University of Science and Technology).

Lottu, O. A., Abdul, A. A., Daraojimba, D. O., Alabi, A. M., John-Ladega, A. A., & Daraojimba, C. (2023). Digital transformation in banking: A review of Nigeria's journey to economic prosperity. *International Journal of Advanced Economics, 5*(8), 215–238.

Mohapatra, A. G., Mohanty, A., Mohanty, S. K., Mahalik, N. P., & Nayak, S. (2025). Personalisation and customer experience in the era of data-driven marketing. In *Artificial intelligence-enabled businesses* (pp. 467–511). Springer.

Nucciarelli, A., & Sadowski, B. (2018). Managing uncertainty in the digital economy: Strategic and policy lessons from European broadband development. *Telecommunications Policy, 42*(10), 889–901.

Olarinde, E. S., Idem, U. J., & Obieze, I. D. D. (2024). Analysis of electronic commerce for promoting sustainable development in Nigeria. In *Proceedings of the 2024 International Conference on Decision Aid Sciences and Applications* (pp. 1–6). IEEE.

Olarinde, E. S., Idem, U. J., & Obieze, I. D. D. (2024). Analysis of electronic commerce for the promotion of sustainable development in Nigeria: Addressing challenges and envisaging future prospects. In *2024 International Conference on Decision Aid Sciences and Applications (DASA)* (pp. 1–6). IEEE.

Opebiyi, F. M. (2022). *Regulating user interactions within the financial technology market: Cryptocurrencies in Nigeria* (Doctoral dissertation, University of Manchester).

Putrevu, J., & Mertzanis, C. (2024). The adoption of digital payments in emerging economies: Challenges and policy responses. *Digital Policy, Regulation and Governance, 26*(5), 476–500. https://doi.org/10.1108/DPRG-06-2023-0054

Rawat, P. (2024). Consumer perception and adoption of digital payment methods: A study on trust and security concerns. *Educational Administration: Theory and Practice, 30*(4), 6022–6029.

Statista. (2024). *E-commerce spending by category in Nigeria.* https://www.statista.com/statistics/1139840/e-commerce-spending-in-nigeria-by-category/

Statista. (2025). *E-commerce market forecast: Nigeria.* https://www.statista.com/outlook/emo/ecommerce/nigeria

Wang, T., Liu, T., & Zhu, H. (2024). Cybersecurity challenges in mobile payment systems: A case study of Alipay in Chinese cities. *Innovation in Science and Technology, 3*(1), 51–58.