

Effect of Electronic Payment System on Marketing Performance of SMEs in Akwa Ibom State, Nigeria

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Abstract

Although the electronic payment system is regulated, in some instances, most SME owners tend to perceive the new system as a threat due to the high rate of cybercrime, network issues, hanging of transactions, and poor description of payer identity, among others. This study examined the effect of the e-payment system on the marketing performance of selected small and medium-scale enterprises in Akwa Ibom State, Nigeria. primary data were gathered through a questionnaire administered to owners/managers of SMEs in Akwa Ibom State. The independent variables were the e-payment system (proxied via bank mobile app, POS and digital mobile app) and the dependent variable was performance (proxied via customer patronage). Data obtained for the study were analyzed with descriptive and inferential statistics. Findings showed that POS, Bank mobile app and Automated Teller Machine (ATM) were mostly used which ranked 1st, 2nd and 3rd respectively. Digital wallets, credit card online transactions and the use of crypto-currency for business were ranked 4th, 5th and 6th respectively. The study revealed that the Bank mobile app, use of point of sales (POS) machine, and Digital wallet app have significant effects on customer patronage of small and medium-scale enterprises. The study concluded that the introduction of the e-payment system (cashless policy) has a significant influence on the operation, performance and customer patronage of small and medium-scale businesses in Akwa Ibom State. It was recommended, among others, that SME operators should be trained on how to use electronic payment systems such as electronic fund transfer, mobile banking, internet banking and online remittance.

Keywords: Electronic system payment, bank mobile app, point of purchase (pos), automated teller machine (ATM), digital wallet app, marketing performance

Introduction

In both developing and developed economies, business enterprises, be they large, medium or small, contribute meaningfully to the economic growth and development of nations, as such, businesses are regarded as economic engines that sustain worldwide economic advancement. Although business enterprises operate in environments that are swiftly changing and embodied with continuous advancement in technology, globalization, changes in customer demand, and ever-increasing internet user friendliness and deployment among business operators and customers, its contribution to economic growth and development cannot be overemphasized (Ayodele, 2017). In effect, there is a

need for small and medium-scale enterprises to continually develop technology-oriented marketing strategies needed to improve both financial and non-financial performance in such a dynamic environment.

However, the technology application among SMEs in Nigeria and beyond has started acting as a catalyst to liberate some businesses from brick-and-mortar menace through the use of e-marketing tools such as e-payment systems (POS, ATM, Bank mobile app, digital wallet) and social media with the help of internet facilities (Igudia, 2016). In recent times, the application of e-payment systems by SMEs has facilitated two signs of change: advancement in technological communication culture, and changes in the organization and management of business online. With the development of the World Wide Web (www) in the mid-1990s, the e-payment system has created new business opportunities for selling products and services and offered new ways of spreading information quickly in digital form around the globe. This has led to an explosion in the number of small and medium businesses that focus on the use of new information communication technological (ICT) tools for business which is predominantly conducted through the Internet.

More so, people's need for electronic payment services appears to be increasing and most customers have adopted a cashless policy in business transactions to avoid moving around with large amounts of money (Igudia, 2016). The quest for faster online financial transactions appears to have influenced the marketing performance of small and medium-scale enterprises across the globe. In contrast to traditional financial transactions, what we may call the bricks-and-mortar transaction, payment through online self-service has been recognized as a mass phenomenon with an extensive demographic appeal (AlBar & Hoque, 2019). Although the number of firm-created e-payments is increasing, it is still a relatively new practice among small and medium-scale businesses (Igudia, 2016).

Statement of the Problem

As stated by Sanghita & Indrajit (2017), e-payment is known as a collection of components and processes that enables two or more parties to transact and exchange monetary value via electronic means. Even though SMEs play pivotal roles in national development, there is little evidence in the literature on the marketing performance and the use of e-payment systems by SMEs in Nigeria, as a result, it is difficult to determine whether or not the adoption of e-payment systems SMEs in Nigeria affects marketing performance.

The principal categories of factors which tend to discourage the universal adoption of electronic payment systems are mainly regulatory, infrastructure and being glued to the use of naira notes for payments (traditional perceptions). Although electronic payment systems are regulated, in some instances, most SME owners tend to perceive the new system as a threat due to the high rate of cybercrime (Obasi, 2020). Electronic payment is expected to affect the operations and performance of small and medium-scale enterprises in the form of transactional convenience, saving of time, quick transaction alert and cost saving. Despite the acclaimed benefits of electronic payment, the issues of online theft and fraud, non-availability of financial services, payment hidden costs of electronic payment like Short Message Services (SMS) for sending alerts, non-acceptability of Nigerian cards for international transactions, malfunctioning Automated Teller Machine (ATM) and network downtime has been raised by many users, especially small and medium scale enterprises in Nigeria. It is against these backdrops that this study examines how the use of electronic payment systems affects the marketing performance of SMEs in Akwa Ibom State, Nigeria.

Objectives of the Study

The broad objective of the study was to examine the effect of electronic payment system on marketing performance of SMEs in Akwa Ibom State, Nigeria. The specific objectives were to:

1. determine the effect of bank app transfer on customer patronage of SMEs;
2. examine the effect of use of point of sales (POS) machine on customer patronage of SMEs;
3. examine the effect of digital wallet app on customer patronage of SMEs.

Research Questions

The study provided answers to the following research questions:

1. To what extent does bank app for transfer affect customer patronage of SMEs?
2. How does the use of point of sales (POS) machine affect customer patronage of SMEs?
3. What are the effects of digital wallet app on customer patronage of SMEs?

Research Hypotheses

The following null hypotheses stated in null form were tested:

H0₁: Bank app transfer has no significant effect on customer patronage of SMEs

H0₂: Use of point of sales (POS) machine has no significant effect on customer patronage.

H0₃: Digital wallet app has no significant effect on customer patronage of SMEs

Literature Review

Electronic Payments

Different definitions have been given to what is called electronic payment. According to Mishra (2017), electronic payment is an important part of a business or an organization. It is a form of inter-organizational information system for monetary exchange, linking many organizations and individual users. This may require complex interactions between the stakeholders, the technology and the environment. Electronic payment is also referred to as a financial exchange that takes place online between buyers and sellers (Worku, 2010). The content of this exchange is usually some form of digital financial instrument (such as encrypted credit card numbers, electronic cheques or digital cash) that is backed up by a bank or an intermediary, or by a legal tender. Technology innovation happens across sectors and industries, as well as in the finance sector; the digital payment system is considered the newest form in many developing countries.

Sanghita & Indrajit (2017) defined it as a “collection of components and processes that enables two or more parties to transact and exchange monetary value via electronic means.” There are increasing issues related to the traditional (paper-based) form of the payment system, such as the significant cost involved in printing cash, risk of theft and robbery, increasing cost of employment, the establishment of branches to handle cash, mutilated notes (Xena & Rahadi, 2019). The digital payment system provides several advantages such as transparent transactions, cost savings, faster payouts, decreased time use, better tracking, increased trust, user-friendly, expense control and so on (Fatonah et al., 2018). The advancement in technology encourages payment paradigms from paper-based payment systems to digital payment systems.

Marketing Performance

Babatunde & Laoye (2011) defined marketing performance as “the effectiveness and efficiency of an organization’s marketing activities about market-related goals, such as revenues, growth, and market share”. Marketing Performance, most often, is considered in two dimensions: marketing effectiveness and marketing efficiency. Marketing effectiveness is the extent to which marketing actions have helped the company achieve its business goals, while marketing efficiency, on the other hand, is the minimum condition for survival after success has been achieved. Hence efficiency is concerned with the outcome of business programs concerning the resources invested in implementing them. Efficiency specifically deals with the relationship between marketing input (efforts and resources put into marketing) and marketing output (results of marketing) aimed at maximizing output relative to input. Generally, market performance is measured using market share, total sales, customer satisfaction, and customer acquisition.

i. Consumer Patronage: Consumer patronage means a person or thing that eats or uses something or a person who buys goods and services for personal consumption or use. Attih (2020) & Attih (2019) describe consumer patronage as ‘the act of individual regularly buying a particular product/brand’. Customer patronage is the compulsion, want and thought inside the customers which incorporate the acquisition of merchandise and services from an outlet. It is a mix of mentality, regularizing convictions and inspiration that will impact buying conduct. Customer patronage of an organization offer depends on a mix of variables which is designed by the organisation to attract consumers. Davis et al., (1989) opine that patronage is born out of the desire to be committed to an organization either based on its service quality or perceived service qualities. Client patronage is characterized as a profoundly held responsibility to repurchase an association's items to the detriment of the contender's contributions. Patronage is characterized as how much a buyer shows rehash buy conduct from a specialist organization, also patronage is the recurrent buy conduct at a specific store for either similar items or some other product.

Electronic Payments Adoption among Small and Medium-Scale Businesses

Wyllie (2013) found that Governments in developing countries are pushing mobile payments to increase bank reach in rural areas. In Nigeria, regulators have introduced regulations for mobile phone transactions, which aim to lower the cost of payment operations, raise competition among merchant service providers, and deepen banking penetration. In Africa as a whole, mobile money is gaining prominence via solutions such as POS, USSD code, and mobile app transfer, among others. According to Brown (2013), report on World Payments Report found that the use of cards (debit and credit) further accelerated during 2011, with debit card volumes rising 15.8% to a total of 124 billion transactions, and credit cards climbing 12.3% to a total of 57 billion. These two payment instruments lead the non-cash arena, with debit cards as the most popular non-cash payment instrument globally. Three forces are helping drive growth in mobile and electronic payment transactions - increased penetration of smartphones and internet usage, advances in technology, and innovative products and services. This growth is making the area an attractive one for banks and non-banks.

Economic Benefits of Electronic Payment System in Nigeria

Delali (2010) in Fiallos & Wu (2005) noted that the arrival of the Internet has taken electronic payments and transactions to an exponential growth level. Consumers could purchase goods from the internet and send unencrypted credit card numbers across the network, which did not provide much security and privacy. However, a wide variety of new secure network payment schemes have been developed as consumers become more aware of their privacy and security (Ayodele, 2017). Digital money has significant benefits for financial institutions, banks and merchants (Fiallos & Wu, 2005). Digital Money is an electronic payment technology, which can provide anonymous flexible electronic payment, like paper cash, but with added security requirements needed for Internet transactions. In a related work by Lee et al., (2013), a secure electronic cash system can guarantee the anonymity of legitimate users but also provide traceability about illegally issued cash or laundered money. If the illegal activity does take place, it can cancel the anonymity of the digital cash to protect the bank. Lee, Oh & Lee (2014) added that since digital money can trace double spending, and double spending protects content by exposing the double spender’s identity, digital cash is a foolproof way of guarding against illegal redistribution of intellectual property and materials. Digital money can also be used to deter illegal content copying and distribution by inserting tracing content factors into the digital cash payment scheme that prevents users from individual replication activity (Lee, Oh & Lee, 2014).

Theoretical Framework

The study was anchored on Technology-Organization-Environment which deals with internal and external factors affecting e-marketing and payment adoption by SMEs as stated by Giovanis (2010) say that adopting new technology requires e-readiness. In other words, the firm must be able internally and externally to adopt, implement and make profit from technology.

Technology Acceptance Model (TAM) Propounded by Fred Davis (1989)

Technology Acceptance Model (TAM) is an information system theory propounded by Fred Davis in 1989. The theory describes how users come to accept and use a technology. The model suggests that when users are presented with a new technology, a number of factors influence their decision about how and when to use it. The factors are: perceived usefulness (PU) and perceived ease of use (PEOU). Perceived usefulness is the degree to which a person believes that using a particular system would enhance his or her performance while Perceived ease of use is the degree to which a person believes that using a particular system would be free from effort. Business organizations who perceive the use of e marketing tools as a strategy to enhancing performance will not hesitate in its adoption. E marketing tools such as company website, social media and others enable firms to interact directly and exchange opinions with their consumers as it relates to their products and services. This theory is related to this study because it reveals the acceptability of electronic payment system by SME's in Uyo, Akwa Ibom State and its importance to the growth of business in general.

Review of Empirical Studies

Jean (2018) examined the role of the electronic payment system on the financial performance of financial institutions in Rwanda: A case study of Equity Bank Ltd. from 2012 to 2016. Both primary and secondary data were collected from 253 total populations from which a sample of 155 was drawn. A questionnaire was used in data collection. Data collected was analyzed using descriptive statistics and linear multiple regression analysis and presented in statistical tables. The results showed that the factor influencing access to electronic payment was simple application procedures for loans with 33.5 per cent. The results confirm the hypothesis because the linear regression F-test results ($F = 8.741$; and 5df) are significant at $p < 0.05$. The study conducted a multiple regression analysis to determine the regression coefficients (β) which showed that $\beta_{\beta 00} = 11.138$ which means that all the independent variables have a significant contribution to Equity Bank Ltd. The study revealed that the education and experience of the clients were found to significantly impact on electronic payment. It is recommended that Equity Bank Ltd should train the clients on how to assess electronic payment to increase financial performance.

Rysman (2007) examined the determinants of consumers' using payment cards, and established a correlation between consumer usage and merchant acceptance by applying two main theories in the payment industry: two-sided markets and network effect theories. Using secondary panel data from 1998 to 2001, the findings of the study showed that consumers were concentrating their spending on a single payment network (single-homing), although many maintained unused cards that allowed them to use multiple networks (multi-homing).

Kwabena et. al. (2019) investigated the effects of the digital payment system on SMES performance in Ghana. This study used a technology-organizational-environmental framework to investigate the effects of the digital payment system. This study used a closed-ended self-administered questionnaire to collect data. Data was collected from September 2019 to November 2019. The respondents of the study were executives and owners of SMEs. The partial least squares structural equation modelling approach was utilized to analyze the data. The findings of the study include significant effects of technology, organizational, environmental, and use of digital payment systems on SME's performance. The study recommends the use of digital payment in all their transactions.

Research Methodology

This study adopted the descriptive survey design approach. The population of the study comprised small and medium-scale businesses registered with the Corporate Affairs Commission operating in the Akwa Ibom State, Nigeria. Based on the data from ‘National Survey of Micro, Small and Medium Scale Enterprises (MSMEs) 2019’ and Corporate Affairs Commission (2020), Uyo division, the population of registered SMEs in Uyo is 1,971, Ikot Ekpene = 1,295 and Eket = 1056. Thus, the population of the study comprised 4,322 owners or managers of SMEs in Uyo, Ikot Ekpene and Eket metropolis. Since the population of the study is known and was very unrealistic for the researcher to study the entire population, the researcher used Taro Yamane's (1967) formula to determine a sample size of 366 for the study. The researcher adopts multistage, proportionate and purposive sampling techniques. To obtain an adequate representative sample of respondents required for the study, three (3) local government areas were selected out of the 31 local government areas in the State. To avoid bias in allocating numbers of instruments (questionnaire) to the target respondents, Bowley's proportional formula was used to allocate the appropriate copies of the questionnaire to the respondents: Uyo metropolis SMEs: $\frac{1971}{4322} \times \frac{366}{1} = 167$,

Ikot Ekpene metropolis SMEs: $\frac{1295}{4322} \times \frac{366}{1} = 110$ Eket metropolis SMEs: $\frac{1056}{4322} \times \frac{366}{1} = 89$

The demographic data of the respondents and objective questions of the study were analyzed using descriptive statistics such as simple percentage, frequency and mean. Hypotheses (i), (ii) (iii) and (vi) were tested with a simple linear regression analysis model, while hypotheses (v) were tested with a multiple linear regression analysis model. Regression was best fitted for the work as it is designed to ascertain the causes and effects between dependent variables and independent variables. Data in sections B and C as stated in 3.7 were analysed descriptively with the mean and standard deviations calculated and thereafter used for hypothesis-by-hypothesis analysis at 0.05 level of significance. Regression analysis was used to show the following: first, the average change in the dependent variables as a result of a unit change in the independent variables; second, the degree of the dependent variables that could be explained by the influence of the independent variables; and third, the proportion of the variation in the dependent variables which was caused by extraneous variables. Statistical Package for Social Sciences (SPSS version 22) was used as the tool to enhance data analysis.

Questionnaire Administration

Table 4.1: Questionnaire administration

LGAs	<u>Small Scale</u>			States	<u>Medium scale</u>		
	Copies administered	Copies returned	%		Copies administered	copies returned	%
Uyo	133	127	40.4	Uyo	34	33	10.5
Ikot Ekpene	98	91	29.0	Ikot Ekpene	12	12	3.8
Eket	83	78	24.8	Eket	6	5	1.6
Total	314	296	94.2		52	50	96.1

Source: Field Survey (2023).

The questionnaire administration details as explained in Table 4.1 revealed that a total of 366 copies of the questionnaire were administered to managers of small and medium-scale enterprises in Akwa Ibom State, to examine the effect of the e-payment system on marketing performance. However, from 314 copies administered to small-scale businesses, 296 copies were properly filled and retrieved by the researcher and assistants, implying that 18 copies of the questionnaire were lost in the process. From 52 copies administered to medium-scale businesses, 50 copies were properly filled and retrieved by the researcher and assistants, implying that 2 copies of the questionnaire were lost in the process. However,

since it is unethical and highly prohibited for researchers to manipulate data for a particular study to avoid uncertain, porous and unreliable results, 346 (296 + 50) respondents became the valid sample size of the study.

Respondents' Sector of Operation

Table 4.2: Dispersal of Respondents Based on Sector of Business Operation

Sector of operation	Frequency	Percentage	Rank
Manufacturing	76	15.4	2 nd
Hospitality / food services	63	12.8	4 th
Agriculture	50	10.1	8 th
Wholesale / retail	79	16.0	1 st
Transport	54	10.9	7 th
Education	68	13.7	3 rd
Information and communication	55	11.1	6 th
Health	62	12.6	5 th
Others	33	6.7	9 th

Source: Field Survey (2023). multiple responses recorded

The respondents' sector of business operation was examined in Table 4.2, and the result showed that wholesalers and retailers, manufacturing and education business owners were mostly ranked as 1st, 2nd and 3rd respectively. Hospitality/food services, health care business and information and technology business were ranked 4th, 5th and 6th respectively. More so, the 7th and 8th sectors were transport agriculture and education, respectively, while others ranked 9th. Table 4.2 revealed that the researcher tried to sample SMEs from different areas of specialization to ascertain the level of e-payment orientation. The high number of respondents recorded from wholesalers, retailers and manufacturing shows that these lines of business dominate Akwa Ibom State, Nigeria.

Respondents' Level of E-Payment Usage

Table 4.3: Dispersal of Respondents Based on Level of E-Payment Usage

Sector of Operation	Frequency	Percentage	Rank
Bank mobile app	76	15.4	2 nd
Digital wallet	63	12.8	4 th
POS	79	16.0	1 st
ATM	68	13.7	3 rd
Use of cryptocurrency	55	11.1	6 th
Credit card online transaction	62	12.6	5 th
Others	33	6.7	7 th

Source: Field Survey (2023). multiple responses recorded

The respondents' level of e-payment usage in business operations was examined in Table 4.3, and the result showed that POS, Bank mobile app and ATM were mostly used as ranked 1st, 2nd and 3rd respectively. Digital wallets, credit card online transactions and the use of crypto-currency for business were ranked 4th, 5th and 6th respectively.

Data Presentation

In this section, the objective statements defining the e-payment system and marketing performance were analyzed using descriptive statistics such as a four-point Likert scale, frequency, percentage and mean.

Effect of Bank App Transfer on Customer Patronage of SMEs

The effect of bank app transfer on customer patronage of SMEs was presented in table 4.10.

Table 4.4: Distribution of respondents based on bank app transfer and customer patronage

Statements	SA	A	D	SD	Total	\bar{x}
1. Use of mobile app for financial transactions affects customer patronage and sales turnover in my business	133 38.4%	105 30.3%	66 19.1%	42 12.2%	346 100	2.95
2. Acceptance of electronic payment system facilitates my business performance in terms of sales volume	214 61.8%	117 33.8%	11 3.2%	4 1.2%	346 100	3.56
3. Use of electronic app transfer for payment of goods and services by customer encourages re-purchase intentions and sales volume	206 59.5%	96 27.8%	30 8.7%	14 4.0%	346 100	3.42

Source: Field Survey (2023). Decision rule: mean > 2.5 adopted, mean < 2.5 not adopted.

Table 4.4 indicated that the majority of the respondents 61.8% strongly agreed that acceptance of electronic payment system facilitates business performance in terms of sales volume; 59.5% of the respondents strongly agreed that the use of electronic app transfer for payment of goods and services by customer encourage re-purchase intentions and sales volume. More so, 38.4% of the respondents strongly agreed that the use of mobile apps for financial transactions affects customer patronage and sales turnover in my business. From the result, all the entrepreneurial bank apps have a mean value above 3.0, signifying that SMEs in the study area have a very

The use of Point of Sales (POS) Machine on Customer Patronage

Table 4.5: The use of Point of Sales (POS) Machine by SMEs

Statements	SA	A	D	SD	Total	\bar{x}
1. Availability of POS in my business outlet encourages customer patronage	206 59.6%	124 35.8%	10 2.9%	6 1.7%	346 100	3.53
2. Adoption of cashless policy through the use of POS promotes high level of patronage	170 49.1%	119 34.4%	27 7.8%	30 8.7%	346 100	3.23
3. Assurance of security, convenience, and affordability of the payment system through adoption of point of sales machine impel customer to patronize me	140 40.5%	72 20.8%	65 18.8%	69 19.9	346 100	2.81

Source: Field Survey (2023). Decision rule: mean > 2.5 accepted, mean < 2.5 not accepted.

The use of point of sales (POS) machines by SMEs was examined in Table 4.5. From the result, 59.6% of the respondents strongly agreed that the availability of POS in their business outlet encourages customer patronage. 49.1% of the respondents strongly agreed that the adoption of a cashless policy through the use of POS promotes a high level of patronage in their firms. In the same vein, 40.5% of the respondents agreed that assurance of security, convenience, and affordability of the payment system through the adoption of point-of-sales machines impel customers to patronize their firm. The precision through the mean value decision rule was that a mean value > 2.5 was accepted while a mean < 2.5 was rejected. Since all the research statements on POS usage by SMEs are above the 2.5 decision rule, the researcher affirmed that small and medium-scale enterprises in Akwa Ibom State adopt the point of sales machine innovation in business operations.

The Effect of Digital Wallet on Customer Patronage of SMEs**Table 4.6: The Effect of Digital Wallet on Customer Patronage of SMEs**

Statements	SA	A	D	SD	Total	\bar{x}
1. We accept payment for products electronically through Debit Cards and others	118 34.1%	107 30.9%	80 23.1%	41 11.9%	346 100	2.87
2. Our company has established e-payment platforms for receiving payment from our customers.	190 54.9%	147 42.5%	6 1.7%	3 0.9%	346 100	3.51
3. Our online customers make payment for purchases through our e-payment platforms.	238 68.8%	102 29.5%	4 11.6%	2 0.6%	346 100	3.66
4. Our customers find it more convenient making payment electronically.	145 41.9%	126 24.9%	63 18.2%	56 15.0%	346 100	2.93
5. We receive more payments electronically than traditionally.	77 22.3%	73 21.1%	91 26.3%	105 30.3%	346 100	2.35

Source: Field Survey (2023). Decision rule: mean > 2.5 accepted, mean < 2.5 not accepted

Table 4.6 examined the effect of digital wallets on customer patronage of SMEs in Akwa Ibom, Nigeria. The result revealed that 68.8% of the respondents strongly agreed that their online customers like making payments for their purchases through e-payment platforms. Followed by 54.9% of the respondents who strongly agreed that their company has established e-payment platforms for receiving payment from customers. 41.9% of the respondents strongly agreed that their customers find it more convenient to make payments electronically. 34.1% of the respondents strongly agreed that they accept payment for our products electronically through Debit Cards and others. Against the backdrop, 30.3% of the respondents strongly disagreed that their firms receive more payments electronically than traditionally. The mean rule declared that a mean value > 2.5 is accepted while a mean < 2.5 is rejected. From the result, four (4) out of five statements had a mean value greater than 2.5, and one of the items had a mean value less than 2.5. Since 80.0% of the research statement has a mean value above 2.5, the researcher concluded that there is a high level of digital wallet usage among small and medium-scale enterprise operators.

Marketing Performance Variable**Table 4.7: Marketing Performance variable**

Statements	SA	A	D	SD	Total	\bar{x}
1. We record a consistent increase in the volume of products/services sold by our company through the use of bank mobile app	141 40.8%	123 35.5%	40 11.6%	42 12.1%	346 100	3.04
2. We receive orders for our products/services from different parts of our country/world with the help of bank mobile app.	85 24.6%	64 18.5%	124 35.8%	73 21.1%	346 100	2.46
3. Our production and service capacity has increased as a result of increase in electronic payment system of the company.	175 61.7%	120 30.4%	32 6.1%	19 5.5%	346 100	3.30
4. Our business firm fulfills goods and services orders promptly because of the modern payment system.	156 45.1%	104 30.1%	55 15.9%	31 8.9%	346 100	3.11
5. Our customers frequently patronize our products/services through digital wallet app.	103 29.8%	98 28.3%	90 26.0%	55 15.9%	346 100	2.71
6. Most of the customers patronize our company's products because of assess to payment using digital wallet app	136 39.3%	79 22.8%	56 16.2%	75 21.7%	346 100	2.79

Source: Field Survey (2023). Decision rule: mean > 2.5 accepted, mean < 2.5 not accepted

Table 4.7 examined the marketing performance variables by small and medium-scale enterprises as used in this study. The descriptive result shows that 61.7% of the respondents strongly agreed that their production and service capacity has increased as a result of an increase in the electronic payment system of the company. Followed by 45.1% who also strongly agreed that their business firm fulfils goods and services orders promptly because of the modern payment system. 40.8% of the managers strongly agreed that their firms record a consistent increase in the volume of products/services through the use of bank mobile apps. Supported by 39.3% who strongly agreed that most of their customers patronize their company's products because of assess to payment using digital wallet apps. From the mean value, five (5) out of the six (6) research statements about marketing performance and e-payment system were all up to 2.5 and above, signifying that marketing performance is an increasing function of e-payment system adoption among SMEs in Akwa Ibom State, Nigeria.

Test of Hypotheses

Test of hypothesis 1

H₀₁: bank app transfer has no significant effect on customer patronage of SMEs.

Analysis of Simple linear regression analysis result for hypothesis 1.

Table 4.8: Simple Linear Regression Analysis Result of Bank App on Customer Patronage

Variable	Parameters	Coefficient	Std error	Tcal – value
Constant	β_0	735.498	57.929	12.696***
Bank app (X)	β_1	0.315	0.068	4.648***
R-Square (R ²)		0.234		
Adjusted R – Square (R ⁻²)		0.231		
F – Statistics		21.604		
F – Probability		0.000		
Durbin-Watson stat		1.844		

Decision Rule: If $F_{cal} > F_{tab}$ accept the alternate and reject Null hypothesis. Otherwise accept the null hypothesis.

(*** = 1%), (** = 5%), and (* = 10%) denotes significance of coefficient at level respectively, t-tab value = 1.968 df = 344, Dependent Variable: customer patronage (Y), Predictors: (Constant), Bank app (X)

Source: Field Survey (2023). (SPSS Version 22)

Simple linear regression analysis was used to test hypothesis 1 and the result is as follows: the coefficient of bank app (X) was statistically significant and positively related to customer patronage among SMEs in Akwa Ibom State, Nigeria at 1% level. This implies that the use of a bank app, holding other variables constant, will lead to an increase in customer patronage of SMEs by 0.315 units. From the result, the t-calculated value of the bank app was 4.648; and the t-tabulated value of 1.968. Since the t-calculated value is greater than the t-tabulated value in absolute terms, the null hypothesis is rejected in favour of the alternative. Bank app has a significant effect on customer patronage of small and medium-scale enterprises.

The coefficient of multiple determination (R²) was 0.234, which implies that 23.4% of changes in the dependent variable were explained by changes in the independent variable, while 76.6% was unexplained by stochastic terms in the model. Thus, the independent variable (bank app) can only explain 23.4 per cent of changes in customer patronage of SMEs, leaving 76.6% unexplained. The R² adjusted 23.1% indicates a goodness of fit of the regression model adopted in this study which is statistically significant at a 5% probability level. The Durbin-Watson statistical value of 1.844 was observed which falls within 1.8 to 2.5, implying that there is no evidence of autocorrelation in the data analysis. More so, the f-statistical (calculated) value of 21.604 was observed in the analysis which is greater than the 1.968 t-table value; and the f-probability value of 0.000 was observed in the analysis which is less than 0.05 (95% of freedom), indicating that estimated regression model adopted in this study is statistically significant at 5% level. With this, the researcher rejected the null hypothesis and accepted the alternative hypothesis hence, bank app has a significant effect on customer patronage of small and medium-scale enterprises in the Akwa Ibom State, Nigeria.

Test of Hypothesis 2

H₀₂: Use of point of sales (POS) machine has no significant effect on customer patronage.

Table 4.8: Simple Linear Regression Analysis Result of the Effect of Use of Point of Sales on Customer Patronage of SMEs

Variable	Parameters	Coefficient	Std error	Tcal – value
Constant	β_0	1.145	0.224	5.105***
Use of point of sales (X)	β_1	0.629	0.044	14.414***
R-Square (R²)		0.377		
Adjusted R – Square (R⁻²)		0.375		
F – Statistics		207.761		
F – Probability		0.000		
Durbin-Watson stat		1.968		

Decision Rule: If $F_{cal} > F_{tab}$ accept the alternate and reject Null hypothesis. Otherwise accept the null hypothesis.

(*** = 1%), (** = 5%), and (* = 10%) denotes significance of coefficient at level respectively, t-tab value = 1.968 df = 344, Dependent Variable: customerpatronage (Y), Predictors: (Constant), POS (X)

Source: Field Survey (2023). (SPSS Version 22)

The estimated value of the use of point of sales (X) was statistically significant and positively related to customer patronage at a 1% level. The coefficient of use of point of sales (POS) is 0.629, indicating that a unit increase in the use of POS integrated into business operations will lead to a 0.629 increase in customer patronage of the firm. Statistically, the calculated value of the use of point of sales is 14.414 and the tabulated value of 1.968, since the calculated value is greater than the tabular value in absolute terms, the null hypothesis was rejected in favour of the alternative hypothesis thus, the use of point of sales (POS) machine has a significant effect on customer patronage of SMEs.

The result of the coefficient of multiple determination (R²) value was 0.377 which indicates that 37.7% variation in the dependent variable was explained by changes in the independent variable, while 62.3% was unexplained by the stochastic variables in the model. Thus, a 37.7% increase change in customer patronage of SMEs in Akwa Ibom State can be attributed to the use of point of sales. The Durbin-Watson stat value was 1.968 which is close to 2.5, implying that there is no evidence of autocorrelation. F-stat value of 207.761 which is higher than 1.968; and an F-prob value of 0.000 was observed from the analysis which is less than 0.05 (95% degree of freedom), indicating that, the estimated regression model adopted in this study was statistically significant at 5% significant level. With this, the researcher rejected the null hypothesis and accepted the alternative hypothesis which states that the use of point of sales (POS) machines has a significant effect on customer patronage of SMEs in Akwa Ibom State.

Test of Hypothesis 3

H₀₄: Digital wallet app has no significant effect on customer patronage of SMEs.

Table 4.9 Simple Linear Regression Analysis Result of the effect of Digital Wallet App on Customer Patronage of SMEs

Variable	Parameters	Coefficient	Std error	Tcal – value
Constant	β_0	2.906	0.255	11.391 ^{***}
Digital wallet app (X)	β_1	0.153	0.067	2.292 ^{**}
R-Square (R ²)		0.154		
Adjusted R – Square (R ⁻²)		0.151		
F – Statistics		5.253		
F – Probability		0.023		
Durbin-Watson stat		1.803		

Decision Rule: If $F_{cal} > F_{tab}$ accept the alternate and reject Null hypothesis. Otherwise accept the null hypothesis.

(*** = 1%), (** = 5%), and (* = 10%) denotes significance of coefficient at level respectively, t-tab value = 1.968 df = 344, Dependent Variable: customer patronage (Y), Predictors: (Constant), digital wallet (X)

Source: Field Survey (2023). (SPSS Version 22)

From the empirical analysis of the effect of digital wallet app on customer patronage of SMEs, the result shows that the coefficient of digital wallet app (X) was statistically significant at a 1% level with a positive sign. This implies that an increase in the use of digital wallet app will lead to a 0.153 increase in customer patronage of SMEs. More so, the calculated value of 2.292 was observed and the tabulated value of 1.968 was observed. In effect, since the calculated value is higher than the tabulated value, the null hypothesis was rejected and the alternative hypothesis was accepted. Thus, digital wallet app has a significant effect on customer patronage of SMEs in the Akwa Ibom State, Nigeria. The coefficient of multiple determination (R²) value was 0.154 which signifies that 15.4% of changes in customer patronage of SMEs were explained by the independent variable included in the model, while 84.3% were explained by the stochastic variables. The f-stat value of (5.253) was observed from the analysis and it is greater than the tabulated value of 1.968; an f-prob value of 0.000 was observed from the analysis which is less than 0.05 (95% degree of freedom) in absolute terms, indicating that the estimated regression model adopted in this study is statistically significant at 5% significant level. Hence, since the calculated value is greater than the tabulated value in absolute terms, the researcher concluded that the digital wallet app has a significant effect on customer patronage of SMEs in the Akwa Ibom State, Nigeria.

Summary

This study examined the effect of the e-payment system on the marketing performance of selected small and medium-scale enterprises in Akwa Ibom State, Nigeria. To achieve this, primary data was gathered through the use of a questionnaire administered to owners/managers of SMEs. The independent variable was the e-payment system (proxied via bank mobile app, POS and digital mobile app) and the dependent variable was performance (proxied via customer patronage). Data obtained for the study were analyzed using both descriptive (simple percentages, mean, and others) and inferential (regression) statistics. Based on the analysis of data the following findings emerged:

The respondents' sector of business operation was examined in Table 4.4, and the result showed that wholesalers and retailers, manufacturing and education business owners were mostly ranked as 1st, 2nd and 3rd respectively. Hospitality/food services, health care business and information and technology business were ranked 4th, 5th and 6th respectively. The respondents' level of e-payment usage in business operations was examined in Table 4.5, and the result showed that POS, Bank mobile app and ATM were mostly used as ranked 1st, 2nd and 3rd respectively. Digital wallets, credit card online transactions and the use of crypto-currency for business were ranked 4th, 5th and 6th respectively. Bank mobile app has a significant effect on customer patronage of small and medium-

scale enterprises; the use of point of sales (POS) machines has a significant effect on customer patronage of SMEs; and digital wallet app has a significant effect on customer patronage of SMEs in the Akwa Ibom State, Nigeria.

Conclusion

From the findings, the study concludes that the introduction of the e-payment system (cashless policy) has a significant influence on the operation, performance and customer patronage of small and medium-scale businesses in Akwa Ibom State. The results of the study revealed that the characteristic of small and medium-scale businesses is a strong indicator for measuring the level of adoption of e-payment systems was statistically moderate. Generally, the characteristics of small-scale businesses in Akwa Ibom State support the adoption of an e-payment system. This study therefore opines that SMEs do not rely on heavy capital, hence, the introduction of an e-payment system could be used to enhance its operations and growth. More so, the development of modern technology-based operations has brought unprecedented development in innovative approaches to carrying out business and transactions; these have affected different aspects of lives and professions including marketing performance since e-payment revolves around the use of the internet and other digital technologies to conduct entrepreneurship activities. New synchronous, internet-based financial transactions introduce flexibility, speed of time and cost-effectiveness in the conduct of business activities over the internet.

Recommendations

Concerning the result/findings drawn in this research, the following recommendations were made:

1. SME operators should be trained on how to use electronic payment systems such as electronic fund transfer, mobile banking, internet banking and online remittance. The managers need to design short courses in the area of using electronic payment systems to save time and money, particularly for those with lower educational backgrounds as education is an important factor in accessing electronic payment systems.
2. There is a need to build synergy between formal/informal financial institutions, and operators of small-scale businesses. This will consolidate a more effective working relationship which could boost rural small-scale businesses' rate of e-payment usage and as well as address the challenge of lack of trust to utilize Internet banking transactions.
3. Government and private organizations should systematically expand the necessary infrastructure by promoting the development of necessary technologies, recruiting experts and expanding high-speed information networks as this will foster a strong foundation for e-payment.

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