Deployment of Point of Sales and Customer Satisfaction in the Banking Sectorin Ekiti State, Nigeria

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ABSTRACT: The use of point of sale (POS) in providing banking services has become rampant in Nigerian banking sector especially in Ekiti State. This study therefore determined effects of cash withdrawal, money transfer and payment for utilities using POS terminals on customer satisfaction in the Nigerian banking sector. 320 regular customers of POS operators used for the study were selected through systematic and purposive sampling techniques. Primary data collected were analysed with the aid of Logit model. Findings from the study revealed that confidentiality, speed of transaction, friendliness of POS operator, competitive charges and convenient location were the major determinants of satisfaction when customers accessed POS to make withdrawal, money transfer and payment for utilities. The study concluded that deployment of POS significantly and positively influenced customer satisfaction in the banking sector in Nigeria and recommended more deployment of POS by banks with a view to decongesting banking halls and reduce queues at ATM terminals.

KEYWORDS: Point of sale, customer satisfaction, money transfer, payment for utility, cash withdrawal

I. INTRODUCTION

Recently, Nigerian banking sector has witnessed a massive deployment of point of sales (POS) machine by banks through individuals or agents who positioned themselves in strategic locations with a view to making sales. The point of sales machine holders or bank agents perform similar functions as regular banks by providing almost all services provided by deposit money banks in Nigeria but with a fee. The services provided by the POS operators range from cash withdrawal, cash deposit, money transfer, payment of utility bills such as telephone, water, television and electricity among others. The deployment of POS by banks is not unconnected with the aims of decongesting the banking hall, fully commercialize banking services and remain profitable. The POS holders who serve as banks' agents are found in almost all nooks and crannies of major cities in Nigeria. The service fees charged by the POS holders range from 2%-3% based on the volume of money involved in the transaction. For instance, a bank account holder who wants to withdraw ten thousand naira (N10,000) may be given nine thousand and eight hundred naira or nine thousand seven hundred naira depending on the bank that owns the POS machine and the operator. This implies N200 or N300 service fess respectively.

Point of sale is an electronic means of making payments for goods and services purchased online, in supermarkets and/or shopping malls. It makes use of smartcard that stores financial information on microchips in which monetary value is held electronically [1]. The use of POS as mobile banking became prominent and gained wider acceptability because of the long queues usually witness at the regular automated teller machines (ATM) terminals usually located at banks' premises. Though it is cheaper to make a withdrawal using ATM at the banks' premises than POS, the long queues cum high level of insecurity in Nigeria had made many bank account holders to prefer the use of POS for their banking transactions. For instance, a bank customer can make use of his or her bank's ATM for withdrawals as many times as possible for free. If the same customer makes use of another bank's ATM for withdrawal for more than three times a month, he or she will pay sixty-five naira (N65) on every other withdrawal. This arrangement is perceived to be cheaper compared to payment of 2% or 3% on every one thousand naira or N200 –N300 on every ten thousand naira. Despite the above, operators of POS still enjoy high patronage. This now raises the question of customer satisfaction in the Nigerian banking sector.

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Though several studies on POS had been conducted, it is yet to be understood what spur customer satisfaction in the banking sector in Nigeria using POS. In view of this, the study determined the possible effects cash withdrawal, cash deposit, money transfer and payment of utility bills may have on customer satisfaction in the Nigerian banking sector particularly in Ekiti State. This study specifically determined effect of cash withdrawal; examined effect of money transfer and investigated effect of payment for utility bills on customer satisfaction in the Nigerian banking sector.

II. MATERIAL AND METHODS

A. *Literature Review.*

Point of sale (POS) is an electronic means of payment for goods and services at the point at which sale was made without the use of cash. It is an electronic payment system that remotely connects to the server of the bank of the buyer to make online money transfer from the bank account of the buyer to that of the seller thereby completing a business transaction. According to Kim and Kim in [2] a point of sale system is a supply net administration system for customer management which delivers real time control of merchandise in stock and sale analysis.

It enables customer to make payments for goods and services through debit card by slotting the card into the POS terminal or machine which is linked to the merchant's bank account just as the customer's debit cards is. Payment is made immediately all necessary fields are satisfied and the secret pin (personal identification number) of the customer is inserted and confirmed. The customer's bank account is debited and that of the merchant is credited simultaneously with the value of the purchases.

Above is what POS is originally intended for. However, POS has been used by its operators especially in the southwest, Nigeria as a parallel banking. This is because a person can make cash withdrawal; deposit and transfer cash, and even make payment for utilities such as water rate, television and electricity bills through it. To pay for utility what a person needs to do is to approach the POS operator, make a negotiation and offer the operator the amount to be paid in addition to the transaction charges as agreed. The operator then transfer from his or her bank account to the bank account of the utility service provider. To make cash withdrawal, what a customer needs to do is to approach the POS operator, slot his debit card into the POS terminal of the operator and make a transfer to the operator's account the equivalent amount needed with the transaction charges.

Of recent, lots of efforts have been devoted to defining, redefining, studying and understanding customer satisfaction by researchers especially in the financial sector in Nigeria. This becomes necessary due to heavy deployment of various innovative technologies in the sector which is with a view to enhancing customer satisfaction, loyalty, retention and ultimate increase in organizational performance and profitability. Such innovative technologies include ATM, POS, mobile banking, and mobile applications among others.

Customer satisfaction is the comparison between customer expectation and actual product performance. Customer becomes satisfied if product performance exceeds customer expectation. According to [3], customer satisfaction is the outcome received by customer when the service experienced exceeds expectation. Customer satisfaction in the banking sector is largely determined by service quality, efficient service, confidentiality, speed of transaction, friendliness of bank personnel, accuracy of billing, billing timeliness, billing clarity, competitive pricing, bank's reputation, convenient location, 24/7 ATM services, availability of parking space and bank's interest rates (Hokanson in [4]. In this study customer satisfaction is measured in terms of confidentiality, speed of transaction, friendliness of POS operator, competitive charges, convenient location and availability of parking space.

1) *Theoretical Framework:* Customer satisfaction is better explained by the confirmation/disconfirmation theory which postulates that, the feeling of satisfaction by customer is a consequence of the customer's comparison of perceptions of a product's performance and expectations [5]. Expectations-confirmation theory holds that expectations, together with perceived performance, lead to post-purchase satisfaction. This effect is mediated through positive or negative disconfirmation between expectations and performance. Thus, if a product outperforms expectations (positive disconfirmation) post-purchase satisfaction will result. If a product falls short of expectations (negative disconfirmation) the consumer is likely to be dissatisfied [6]; [7]

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2). *Conceptual Framework:*

Independent Variable	Dependent Variable
Point of Sale	Customer Satisfaction

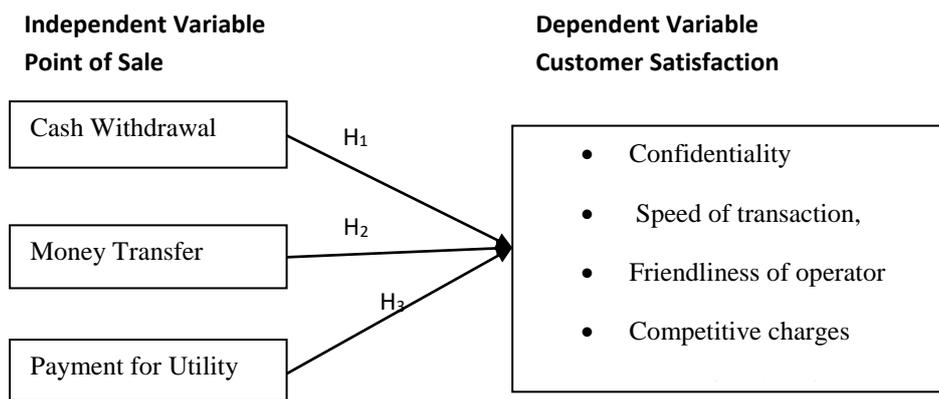| Cash Withdrawal | H₁ | |
| Money Transfer | H₂ | • Confidentiality |
| Payment for Utility | H₃ | • Speed of transaction, • Friendliness of operator • Competitive charges |

Fig. 2.1: Model showing the relationship between deployment of POS and customer satisfaction in the Nigerian Banking sector.
Source: *Authors' Conceptualization*

Fig. 2.1 presents the conceptual relationship between deployment of POS and customer satisfaction in the Nigerian Banking sector, and the direction of the hypotheses. The model shows that customer satisfaction is a function of deployment of POS which in turn is a function of cash withdrawal, money transfer and payment of utility bills while customer satisfaction is a function of confidentiality, speed of transaction, friendliness of POS operator, competitive charges, convenient location and availability of parking space.

III. METHODS

Descriptive survey research design was used for the study. Primary data used for the study were collected through a well structured questionnaire administered on the customers of POS operators in the sixteen Local Government Areas (LGAs) of Ekiti State, Nigeria. Systematic and purposive sampling techniques were used for the study. Systematic sampling technique was used to identify banks' customers included in the study while those banks' customers that patronize roadside POS operators were purposively selected as respondents of the study. The population is infinite as there is no official record of banks' customers that patronize POS operators. However, the researcher decided to select twenty (20) POS customers from the headquarters of each of the sixteen LGAs in Ekiti-State. This brings the sample size to 320 respondents. The headquarters of Local government Areas were used for the study because there is higher concentration of POS operators and their customers there. Data collected were analysed using Logit model.

Mathematically, the relationship between customer satisfaction and point of sale (POS) can be express as:

$CS = f(CW, MT, PU)$

Where CS = Customer Satisfaction; CW= Cash withdrawal; MT=Money Transfer and PU= Payment for utility

The Logit model was developed as follows:

$CS = \alpha_0 + \alpha_1 CW + \alpha_2 MT + \alpha_3 PU + \varepsilon$ ....(1)

Where:

CS=Customer Satisfaction

α_0 = Constant

$\alpha_1 - \alpha_3$ = Parameter Estimate

CW= Cash withdrawal

MT=Money Transfer

PU= Payment for utility

E = Error term

The explanation logistics function will be inform of

$$F(z) = \frac{e^{a+bx}}{1+ e^{a+bx}} ....(2)$$

Where the input is z and output is $f(z)$

e stands for exponential function

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a is the intercept

b is the parameter

x = POS

For this study the Logit model is given as:

$$F(z) = \frac{e^{\alpha + \beta_1 CW + \beta_2 MT + \beta_3 PU}}{1 + e^{\alpha + \beta_1 CW + \beta_2 MT + \beta_3 PU}} \dots\dots\dots\dots\dots(3)$$

The predicted Logit **(CS=1) = α+ β₁CW+ β₂MT+ β₃PU**

IV. RESULTS

A. Binary Logit Predicting Customer Satisfaction through Cash Withdrawal using POS

This section examines the predictors of customer satisfaction through cash withdrawal using point of sale (POS). Table I suggests that customers that attached importance to confidentiality of transaction (OR=7.1307;p=0.026) when making withdrawal were 7 times more likely than those that do not attach importance to confidentiality to be satisfied with their POS operators and banks' services.

Also customers who felt that speed of transaction is important in accessing POS operators (OR=4.5119;p=0.009) when making withdrawal were about 5 times more likely to be satisfied with their POS operators and banks' services than those who did not. This also goes to customers who considered friendliness of POS operators as important (OR=3.0530;p=0.040) were 3 times more likely to be satisfied with their POS operators and banks' services than those who did not consider that as important. There was about 9 times possibility of customers who considered competitive charges (OR=8.7217;p=0.025) as important to be satisfied with their POS operators and banks' services than those who did not put that into consideration. Furthermore, customers who considered convenient location as important (OR=2.0285; p=0.043) are 2 times more likely to be satisfied with their POS operator and banks' services than those who viewed convenient location as not important. Conversely, customers that do not attach importance to availability of parking space (OR=0.2133;p=0.081) were 0.21 times less likely to be satisfied with their POS operators and banks' services than those who attached importance to availability of parking space.

Table I: Binary Logit Predicting Customer Satisfaction through Cash Withdrawal using POS

Customer Satisfaction	Odds Ratio	P-value	Remark
Confidentiality			
Not Important	RC		
Important	7.1307	0.026**	Accept
Speed of transaction			
Not Important	RC		
Important	4.5119	0.009**	Accept
Friendliness of operator			
Not Important	RC		
Important	3.0530	0.0403**	Accept
Competitive charges			
Not Important	RC		
Important	8.7217	0.025**	Accept
Convenient location			
Not Important	RC		
Important	2.0285	0.043**	Accept
Availability of parking space			
Not Important	RC		
Important	0.2133	0.081	Reject

Source: Data analysis, 2021

Note: RC= Reference Category

** significant at 0.05 level

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B. Binary Logit Predicting Customer Satisfaction through Money Transfer using POS

Table II presents the predictors of customer satisfaction through money transfer using point of sale (POS). Table 3.2 reveals there was about 5 times more likelihood of customers that considered confidentiality of transaction as important when making money transfer (OR=4.5311;p=0.033) to be satisfied than those who attached less importance to confidentiality with their POS operators and banks' services.

When making money transfer customers who attached importance to speed of transaction (OR=6.2447;p=0.015) were 6 times more likely to be satisfied with their POS operators and banks' services than those who did not care about speed of transaction. Also customers who considered as important the friendliness of POS operators (OR=2.4232;p=0.029) were 2 times more likely to be satisfied with their banks' services than those who did not consider friendliness as important. Similarly, customers who considered competitive charges (OR=5.2837;p=0.044) as important were 5 times more likely to be satisfied with their POS operators and banks' services than those who did not consider competitive charges as an important variable. In addition, there was about 4 times likelihood of customers who considered convenient location as important (OR=3.8155; p=0.008) to be satisfied with their POS operators and banks' services than those who viewed convenient location as not important. Contrarily, there was about 0.6 times less likely for customers that do not attach importance to availability of parking space (OR=0.5517;p=0.060) to be satisfied than customers who attached importance to availability of parking space.

Table II: Binary Logit Predicting Customer Satisfaction through Money Transfer using POS

Customer Satisfaction	Odds Ratio	P-value	Remark
Confidentiality			
Not Important	RC		
Important	4.5311	0.033**	Accept
Speed of transaction			
Not Important	RC		
Important	6.2447	0.015**	Accept
Friendliness of operator			
Not Important	RC		
Important	2.4232	0.029**	Accept
Competitive charges			
Not Important	RC		
Important	5.2837	0.044**	Accept
Convenient location			
Not Important	RC		
Important	3.8155	0.008**	Accept
Availability of parking space			
Not Important	RC		
Important	0.5517	0.060	Reject

Source: Data analysis, 2021

Note: RC= Reference Category

** significant at 0.05 level

C. Binary Logit Predicting Customer Satisfaction through Payment for Utility using POS

Table III depicts the predictors of customer satisfaction through payment for utility using point of sale (POS). Table 3.3 shows that customers who considered as important the speed of transaction (OR=7.7004;p=0.008) were 7 times more likely than those who did not care about speed of transaction to be satisfied with their POS operators and banks' services. Also customers who considered as important the friendliness of POS operators (OR=2.8062;p=0.036) were about 3 times more likely to be satisfied with their banks' services than those who did not consider friendliness as important. In addition, customers who considered competitive charges (OR=6.7442;p=0.015) as important were about 7 times more likely to be satisfied with their POS operators and banks' services than those who did not consider competitive charges as an important. Furthermore, customers who considered convenient location as important (OR=2.6192;p=0.049) were about 3 times more likely to be satisfied with their POS operators and banks' services than those who did not care about convenient location. Contrarily, customers that did not consider as important confidentiality of transaction when paying for utilities (OR=2.0161;p=0.086) were 2 times less likely to be

satisfied with their POS operators and banks' services than those who attached importance to confidentiality. The same goes to customers that do not attach importance to availability of parking space (OR=0.1173;p=0.360), were about 0.1 times less likely to be satisfied than customers who attached importance to availability of parking space when paying for utilities.

Table III: Binary Logit Predicting Customer Satisfaction through Payment for Utility using POS

Customer Satisfaction	Odds Ratio	P-value	Remark
Confidentiality			
Not Important	RC		
Important	2.0161	0.086	Reject
Speed of transaction			
Not Important	RC		
Important	7.7004	0.008**	Accept
Friendliness of operator			
Not Important	RC		
Important	2.8062	0.036**	Accept
Competitive charges			
Not Important	RC		
Important	6.7442	0.015**	Accept
Convenient location			
Not Important	RC		
Important	2.6192	0.049**	Accept
Availability of parking space			
Not Important	RC		
Important	0.1173	0.360	Reject

Source: Data analysis, 2021

Note: RC= Reference Category

** Significant at 0.05 level

5. CONCLUSIONS AND MANAGERIAL IMPLICATIONS

The study highlights a number of factors that influenced customer satisfaction in the banking sector in Nigeria when making withdrawal, transferring money and paying for utilities using POS terminals. Findings from the study revealed that confidentiality, speed of transaction, friendliness of POS operator, competitive charges and convenient location were the major determinants of satisfaction when customers accessed POS to make withdrawal, money transfer and payment for utilities. These findings corroborated the study conducted by [8] which found convenience, sex, age, household size and monthly income as the factors influencing effective demand of agro-commodities using the POS. the results of this study is also in line with the works of [9] and [10] who established that speed of transaction, level of service provided by the merchants, awareness, and security were some of the variables determining customers' level of satisfaction with the use POS terminals in Nigeria.

This implies that the banks and POS operators should endeavour to improve on their level of confidentiality, speed of transaction, friendliness, competitive charges and convenient location in order to raise the level of customer satisfaction and enhance continuous patronage. The POS operators should be friendlier thereby improving their customer relationship management. At present POS operators in Nigeria are highly visible however attempt should be made to jettison arbitrary charges and charge competitively. The study concluded the increase in deployment of point of sale led to increase in customer satisfaction in the banking sector in Nigeria. The study recommended more deployment of POS by banks with a view to decongesting banking halls and reduce queues at ATM terminals; and a coordinated training for the roadside POS operators by banks with a view to acquiring appropriate skills in marketing and financial management.

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