

Point of Sale Payment System Adoption and Customer Satisfaction

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Abstract

This study examined point of sale payment system adoption and customer satisfaction. Demographic variables such as gender, age, educational qualification, occupation and income were examined to find out their relationship with customer satisfaction. The objective was to find out the influence of innovative attributes of POS on customer satisfaction. The study sample consists of two hundred and fifty (250) respondents drawn from across Benin City. Questionnaire was used to gather the needed information. Analytical techniques employed include simple percentage, and multiple regression. Tests were performed at 0.05 level of statistical significance. The result shows that the multitude of customers have adopted the use POS for their daily payment/business transactions with 78.2% of the total respondents indicating that they have used it for business transaction. The study also revealed that there is a significant and positive relationship between reversibility, susceptibility, commitment, and gatewayability and customer satisfaction. But, no relationship was found between terminality, ego involvement and public and private and customer satisfaction. Furthermore, all the variables were found to have no relationship with rate of POS adoption except susceptibility. The outcome of the demographic variables indicates that there is no significant relationship between the adoption of POS and age, educational qualification and occupation. Only income was found to have a positive relationship with the adoption of POS. Based on the findings, it is recommended that concerted effort should be made by POS operators and money deposit banks who are the key players in the system to ameliorate the difficulties experience by customers when using POS, especially weekends.

Keywords: customer satisfaction, determinants, innovation, rate of adoption, point of sale,

Introduction

The significance of effective and efficient payment systems has been closely examined by researcher and is largely promoted by monetary authorities in many countries (Adeoti, 2013). However, the Nigerian payment system that is cash-driven cannot and has not assured the much needed efficient and effective transactions necessary for a sustainable economic growth. Methods of payment are a very important aspect of any economy all over the world. Encouraging a payment structure that is safe, handy and reasonably priced is one of the fundamentals for the progress of any economy (Ajayi & Ojo, 2006). Dependence on the

economy that is money driven is said to be dangerous the reason being that money not with the bank cannot be subjected to regulatory and operational procedures, and the capability of financial policy to realize set objectives in the presence of sizeable currency out of Bank is limited (Adeoti & Oshotimehin, 2012). Ayo (2009) noted that the multitude of problems encountered by the economies of nearly all developing countries including Nigeria is traceable to the cash carrying nature of their economy. This cash carrying character of the economy is also responsible for large pool of money in the hands of the unbanked citizens (Adeoti & Osotimehin, 2012).

With the advent of Internet, means of payment system has assumed a different dimension, as cashless economy is progressively replacing paper money and coins (Ayeni & Agbo, 2016). According to Bonugli (2006), bank notes and coins are gradually giving way as a satisfactory form of payment for business as more suitable systems are feasible and perceived as better alternatives across the world. The need for Nigeria to migrate from cash to cashless economy has been canvassed by many experts (Nwankwo & Eze, 2013). The reason is because for Nigeria to be counted among the world top economies in the world, electronic payment systems should be embraced in its totality.

In order to cut the quantity of cash in circulation and reduce the risk of going about with cash, the Central Bank of Nigeria (CBN) introduced electronic payment system such as payment cards (smart card) and paper-based instrument in the country in 2007. This has encouraged e-payment initiatives such as the establishment of switching companies that facilitate interconnectivity, introduction of payment instruments like Point of Sale (POS) terminal and automated teller machine (ATM) which gave rise to significant growth in the use of electronic payment systems in the Nigerian economy

The adoption of POS as a mode of payment by some consumers has enhanced buyer's payment landscape. The level of adoption by the consumers has continued to increase significantly and accounted for billions worth of transactions (Adesina, Daramola & Ayo, 2010). However, despite the general increase in adoption of e-payment instruments, the rate of adoption and use of POS in the Nigerian economy is relatively low when compared to other of e-payment systems (Adeoti & Osotimehin, 2012). Therefore, the main focus of this study is to examine the extent of adoption Point of Sale payment system by buyers in Nigeria. Other objectives are:

1. To determine the influence of innovative attributes of POS on customer satisfaction.
2. To ascertain the influence of innovative attributes of POS on its rate of adoption.
3. To investigate the influence of demographic attributes on the adoption of POS.

In the course of the study, the under listed hypotheses were formulated and tested:

1. Innovative attributes of POS is positively related to customer satisfaction
2. Innovative attributes of POS has a significant influence on the rate of adoption
3. There is a positive relationship between demographic attributes and the adoption of POS

Literature Review

Point of Sale Payment System

POS is an electronic machine which has the capacity of processing credit or debit cards normally given by deposit money banks (Akintola, Akinyede & Agbonifoh, 2011). According to Ming (2019), POS is a device used in a merchant location where a user swipes their electronic cards in order to make payment for purchases or services as against the use of cash. Gilaninia, Fattahiand Mousavian (2011) defined POS as a gadget that is installed in the center of the sale of goods and services as a replacement for paying cash by physical transportation of money, the transaction amount from an account holder. This payment system is user friendly simple multi-functional apparatus with many possibilities of use (Ayoade, & Yusuf, 2019). Okechi and Kepeghom (2013) depict POS as an electronic tool that is used for verifying and processing credit transactions normally linked through highly reliable performance. Apart from payment, POS machines performs other functions including account balance, account billing, postponing a purchase and daily reports which has benefits of a small bank branch for its owners (Ayoade & Yusuf, 2019).

POS adoption is defined as the acquisition and use of POS to make payment for goods and services in an organization (Olasojumi, Ugwuchi, & Partrick, 2018). Rogers (2003) defined the rate of adoption as the relative pace with which an innovation is accepted by the public. The number of persons who adopted the innovation for a given period of time can be measured as the rate of adoption of the innovation.

Ubani (2015) stated that the problems in utilization of point of sales (POS) machines by business owners are as follows:

1. Lack of power supply
2. Outrageous bank charges
3. Applicability skills and
4. Poor network services

Ubani (2015) further observed that the outrageous bank charges affect the effective utilization of point of sales (POS) machines by small scale business operators because the charge for payment of an item may not be commensurate with the target profit of the business operator.

Gains of POS

The CBN had revealed that N150 billion is used to produce, store, transport and protect the Naira, annually (CBN, 2009). First, Cash costs money to produce. To print cash, there is the need to invest in machineries and infrastructures, money inks, security features on cash, and personnel. Everything cost money. Cash costs money to handle or carry, from the point of printing by the CBN to banks and vice versa, from one bank to another bank, from bank to customer and vice versa, from customer to customer, and at different storages (Vaults, Boxes, and wallets) there is a constant risk of loss or damage, and for that, provision is made for securing cash at different levels, both by the Government, banks, and individuals. Since it is easier to monitor electronic transfers than cash transactions, electronic alternatives to cash helps the authorities keep an eye on the movement of money. Specific benefits of using POS however, includes: Improved efficiency minimizes cash handling and aids reconciliation, increase in sales as Merchant have access to both cash and card-carrying customers, instant

confirmation of payment for goods, reduces cost of personnel and equipment for handling cash receipts, reduces exposure to loss due to armed robbery or pilferage by employees, eliminates the inconvenience of cheque confirmation and clearing period (Akintunde, 2016).

Customer Satisfaction

Customer satisfaction is the overall assessment and outcome of a firm's products by customers (Kim, Vogt, & Knutson, 2015). Taghizadeh (2012) defined customer satisfaction as the result of a comparison between customer purchases of the expected performance with actual performance. The goal of every organization is to ensure that customers are satisfied. Their level of satisfaction can trigger behaviour such as loyalty to the organization's products and positive word of mouth publicity which enhances increased patronage (Abdul-Mauhmin, 2002).

Customer satisfaction has a positive effect on an organization's profitability as well as repeat purchases, loyalty and customer retention (Zairi, 2000). Satisfied customers are more likely to repeat buying a good or service. They may also say good things and to recommend the goods or services to others. On the other hand, dissatisfied customers respond in a different ways. Dissatisfied customers are likely to return the product and they are also not likely to purchase the product next time and spread negative word of mount about the products (Kotler, 2000).

Cook (2002) stated that the challenge for contemporary day business is to move from product focused to customer focused. It poses a challenge for businesses to follow this course because of how sophisticated, educated and well-informed customers have become. There is high expectation among customers for the service they desire to receive. They are dynamic that they demand greater choices and cannot be manipulated. Therefore, customers are willing to be given preferential treatment. They want to be treated with care and respect. In this regard organizations that render services increasingly strive for the higher level of customer services.

Determinants of Point of Sale (POS) Adoption

The determinants of POS adoption considered in this study are terminality, reversibility, commitment, public versus private, susceptibility to successive modifications, gatewayability and ego involvement.

Terminality: This is the extent to which there is a point or a series of point, outside which it is unbeneficial to accept an innovation. The higher the terminality, the speedier the adoption of POS for purchase of goods and payment of services will tend to be (Agbonifoh, Ogwo, Nnolim, & Nkamnebe, 2007).

Reversibility: This concept is related to trainability recognized by Rogers as a feature affecting rate of adoption. This is the ease with which the adopter can return to the status quo ante following dissatisfaction with the adopted innovation. Thus, the faster the reversibility of an innovation such as POS, the quicker the adoption rate by adopters (Agbonifoh *et al.*, 2007).

Commitment: Commitment is connected to reversibility but differs in being concerned with the attitudinal and behavioral aspects of adoption of the prospective adopter. The higher the level of commitment, the faster the adoption of POS usage will tend to be.

Public versus private: This refers to the level to which an innovation is easily reached to the members of a social system. A public good for instance, would more or less be automatically available to all members of a community. It is implied here that those who remain opposed to POS adoption and other similar innovations have little or no choice in the matter and duty bound to finally come around to accept it

Susceptibility to successive modifications: This attribute is related somewhat to that of compatibility identified by Rogers. If a fundamental innovation like POS is widely adopted, it is likely that later modifications of it will receive wide acceptance; that is to say, the innovation paves the way for later variations on the same theme (Agbonifoh *et al.*, 2007).

Gatewayability: This is the degree to which the adoption of one innovation clears the way for the adoption of other innovations. It is suggested that an innovation like POS, that is seen as opening the way to other things, material or psychological, will be more readily adopted than otherwise.

Ego involvement: Ego involvement is the extent to which a person's beliefs and values are affected by an innovation should also influence his decision to adopt or reject the innovation. This characteristic relates to that of compatibility.

Methodology

A descriptive research design was adopted for this study. It involves the design of a well-structured questionnaire, which was administered to a sample of selected POS users. The population of the study comprised users of POS in Benin City, Edo State. We used a sample size of 250 respondents. A non-probability convenience sampling method was used to distribute questionnaires to the respondents. According to Starmass International (2007), the benefits of convenience sampling are low cost and time saving, which is most comfortable for study with homogeneous population.

A self-design structured questionnaire was used for collection of data. Self-administered questionnaire was adopted in this study because it ensures respondents privacy which may encourage them to objectively disclose their true feelings and perceptions (Cooper & Schindler, 2011). Furthermore, this instrument of data collection is acknowledged to be cost effective (Struwig & Stead, 2001). The research instrument was designed to capture respondents' demographics including age, gender, educational qualification, occupation and income. Sections B of the questionnaire consisted of closed-ended questions focused on POS adoption and customer satisfaction. POS adoption was measured using the following variables: terminality, reversibility, susceptibility, ego involvement, commitment, gateway ability and public and private.

The data collected were analyzed using descriptive statistics which includes frequency distribution and mean. Regression analysis was used to validate the stated hypotheses using SPSS. All tests were carried out at 5% level of statistical significance.

Reliability of Instrument

The instrument for data collection was subjected to Cronbach Alpha reliability test. The result of the Cronbach test showed that internal consistency exists among the items measuring the key variables. The alpha coefficients for all the variables are well above the questionable value of 0.6 (George & Mallery, 2003). Table 1 shows the reliability coefficients for the constructs.

Table 1: Reliability coefficients for key variables

S/N	Variable	Number of Items	Alpha Coefficient
1	Rate of POS Adoption	5	0.679
2	Terminality	4	0.681
3	Reversibility	4	0.733
4	Susceptibility	4	0.588
5	Ego involvement	3	0.712
6	Commitment	4	0.667
7	Gateway ability	6	0.659
8	Public and private	3	0.832

Source: Authors' field work (2022)

Data Analyses and Result

Distribution of the Respondents

In total, 40.4% of the respondents were male while 59.2% were female. The age distribution showed that majority of the respondents 118 (49.2 %) were between 21-30 years old. 20.8% of the respondents were 31-40 years old. Only 18.8% and 11.2% of the respondents were 15-20 years and above 41 years respectively. In addition, 34.1% of the respondents have B.Sc./HND qualification; 57 (24.6%) of the respondents have OND/NCE; and 40 (17.2%) of the respondents have first school leaving certificate. Only 5.2% of the respondents have postgraduate qualifications. Majority of the respondents were students 107 (45.3) while only 11.4% were civil servant. Lastly, 84 (38.4%) respondents earned monthly income of ₦10,000- ₦ 50,000 while 72 (32.9%) respondents earned less than ₦10,000 per month.

Table 2: Profile of the Respondents

Demographic Variables	Categories	Frequency	Percentage
Gender	Male	97	40.4
	Female	142	59.2
	Total	239	100
Age	15- 20	45	18.8
	21-30	118	49.2
	31-40	50	20.8
	41 and above	27	11.2
	Total	240	100

Educational Qualification	First School Leaving Certificate	40	17.2
	SSCE/NECO	34	14.7
	OND/NCE	57	24.6
	B.Sc./ HND	79	34.1
	POST GRADUATE	22	9.5
	Total	232	100
Occupation of Respondent	Students	107	45.3
	Civil/public servant	27	11.4
	Employees in the private sector	38	16.1
	Self-employed	51	21.6
	Total	232	100
Income Per Month	Less than ₦ 10,000	72	32.9
	₦10,000- ₦ 50,000	84	38.4
	₦ 50,001- ₦200,000	62	28.3
Total		218	100

Source: Authors' field work (2022)

Rate of Usage of POS

Table 3 shows that the majority of the respondents 213 (90.6%) had an ATM cards while only (8.1%) do not possess an ATM cards. The preponderance of the respondents 186 (78.2%) use POS for business transaction. Only 20.6% respondents do not use POS for their business transactions. Many of the respondents had used POS between 1-2 years (38.0%), while only 15.8% had used POS above 4 years. 28.9 % rarely use POS; 25.0 % of the respondents always used POS while only 4.8% had never used POS for business transactions. The majority of the respondents 155 (68.3%) spent less than 5 minutes before a transaction is completed; this is followed by “6-10 minutes” (29.1%). No transactions with POS exceed 20 minutes (0%) to complete. Only 10.5% of the respondents experienced difficulty when using POS while 12.3% never experience difficulty when using POS. This difficulty is mostly experience weekend (60.6%) while only 38.3% of the respondents experience this difficulty weekdays

Table 3: Rate of Usage of POS

S/N	Questions	Categories	Frequency	Percentage
1	DO have an ATM card?	Yes	213	90.6
		No	19	8.1
		Total	235	98.7
2	Do you use POS for your business transactions?	Yes	186	78.2
		No	49	20.6
		Total	238	98.8

S/N	Questions	Categories	Frequency	Percentage
3	How long have you been using POS?	Less than 1 year	71	30.3
		1-2 years	89	38.0
		3-4years	30	12.8
		4 years and above	37	15.8
		Non-users	7	3.0
		Total	234	100
4	How often do you use POS for your business/purchase transaction?	Always	57	25.0
		Very often	45	19.7
		Often	49	21.5
		Rarely	66	28.9
		Never	11	4.8
		Total	228	100
5	Do you consider POS a waste of time?	Yes	33	14.7
		No	186	83.0
		Total	224	97.7
6	How many minutes do you spend before a transaction with POS is complete?	0-5minutes	155	68.3
		6-10 minutes	66	29.1
		11-15 minutes	5	2.2
		16-20 minutes	1	0.4
		Above 20 minutes	0	0
		Total	227	100
7	How often do you experience difficulty when using the POS?	Always	24	10.5
		Frequently	38	16.7
		Sometimes	82	36.0
		Rarely	56	24.6
		Never	26	12.3
		Total	228	100
8	When do you normally experience this difficulty?	Weekdays	69	38.3
		Weekend	109	60.6
		Total	180	98.9

Source: Authors' field work (2022)

Mean Scores of POS Usage and Customer Satisfaction

Table 4 shows the data on POS adoption and customer satisfaction among POS users in Benin City who were included in the study. For the parameters of POS adoption, respondents were satisfied with all the variables except terminality which had a mean score of 2.88.

Table 4: Mean Scores of POS Usage and Customer Satisfaction

S/N	Parameters	Mean
	Terminality	
1	I adopted the use of POS because in no distance time, it will be impossible to make any financial transaction without it	2.66
2	I adopted the use of POS early because of the benefits it offers	2.58

S/N	Parameters	Mean
3	I adopted the use of POS because it might be impractical to adopt in time to come	3.07
4	I adopted the use of POS because it might be the only means of transaction in time to come	3.19
	Grand Mean of Terminality	2.88
	Reversibility	
5	I was encouraged in the first place to use POS because I could easily stop its usage if I am not satisfied with its services	3.44
6	I adopted the use of POS service because it can be discontinued if I am not satisfied with it	3.31
7	I am willing to adopt POS because it is easy to use	3.50
8	I am willing to use the POS as often as possible	3.64
	Grand Mean of Reversibility	3.47
	Susceptibility	
9	I accepted the use of POS because it accepts different types of ATM cards	3.98
10	I accepted the use of POS because I am used to making payment through ATM machine	3.89
11	I use POS because with it service I can use it to transfer money to a third party or obtain cash when stranded	3.80
12	I adopted POS usage because it means my financial safety/security	3.42
13	I adopted POS because it helps me avoid impulse purchases	3.89
14	I adopted POS because I do not need to visit ATM machine always	3.92
15	I use POS service because with it I am never stranded for cash	4.07
	Grand mean of susceptibility	3.85
	Ego Involvement	
16	I adopted POS service because it is a good innovation	3.75
17	I do not like the use of POS because network usually disappoint	3.28
18	Using POS in transaction makes me engage in impulse buying	3.45
19	The use of POS make me look sociable	3.29
20	Using POS makes me have a feeling of self-esteemed	3.40
	Grand Mean of Ego Involvement	3.43
	Commitment	
21	I accepted payment through POS to attract more customers	3.40
22	I accepted POS service because am already used to making cashless transactions through e-payment	3.57
23	I adopted POS because I found it difficult to carry cash about	3.55
24	I accepted the use of POS to avoid carrying huge sum of money about	3.83
	Grand Mean of Commitment	3.59
	Gatewayability	
25	I adopted POS because it makes the use of e-payment possible	3.81
26	I adopted POS because it facilitates the printing out of receipts as evidence of payment	3.81
27	I adopted POS because it authorizes the transfer of funds between both buyer and seller	3.97

S/N	Parameters	Mean
	Grand mean of gateway ability	3.86
	Public and private	
28	I adopted the use of POS facility because they are easily accessible	3.57
29	I would like to use POS if sellers made it use compulsory for payment of transactions	3.47
30	Since POS has been in public use, I am willing to use it for financial transaction	3.59
31	I decided to use POS because I saw my friends and colleagues using it	3.24
	Grand mean of public and private	3.47
	Overall mean of independent variables (innovative attribute of POS)	3.51
S/N	Problem Of POS Usage	
1	The use of POS is usually limited by poor network at times	3.56
2	I fear the use of POS sometimes because my card pin code might end up in wrong hands	3.19
3	Information about my transaction may be tempered with by fraudsters when using POS	3.03
4	POS system is sometimes out of printing receipt	3.03
5	Cards often get stocked or rejected on the POS system	2.76
6	Some POS machines are difficult to operate and use	2.65
	Grand mean of problem of POS usage	3.04
	Customer Satisfaction	3.51
1	So far I am satisfied with POS in making payment transaction	3.91
2	I am willing to continue with the usage of POS	3.93
3	I am willing to continue to recommend the use of POS to others	4.05
	Grand Mean of Customer Satisfaction	3.96

Source: Authors' field work (2022)

Innovative Attributes of POS and Customer Satisfaction

Table 5 shows that there is no significant relationship between terminality, ego involvement public and private and customer satisfaction. The p-values of (0.502), (0.379) and (0.751) for terminality, ego involvement and public and private respectively show that they have no significant relationship with customer satisfaction. On the other hand, there is a significant relationship between reversibility, susceptibility, commitment and gateway ability and customer satisfaction. The p-value for reversibility which is (0.002); p-value for susceptibility (0.001); p-value for commitment (0.011) and p-value for gatewayability (0.020) show that they are significant at the 0.05 level of significance.

The value of R-Square which is 0.264 indicates that the independent variables (terminality, reversibility, susceptibility, ego involvement commitment gatewayability and public and private) together explain only 26.4 % of the variation in customer satisfaction. The F-statistic of 11.736 and p-value of 0.000 is significant at 1%.

Table 5: Innovative Attributes of POS and Customer Satisfaction

Variable	Coefficients	T-test	P-value	Decision
Constant	1.472	4.724	0.000	
Terminality	-0.032	-0.672	0.502	Not Significant
Reversibility	0.203	3.176	0.002	Significant
Susceptibility	0.183	3.380	0.001	Significant
Ego involvement	0.024	0.881	0.379	Not Significant
Commitment	0.116	2.567	0.011	Significant
Gateway ability	0.158	2.340	0.020	Significant
Public and private	0.020	0.020	0.317	Not Significant
R-Square = 0.264		Adj. R-Square =0.242		
F-Stat =11.736		Prob. (F-Stat) = 0.000		

Source: Authors' field work (2022)

Innovative Attributes of POS and Rate of POS Adoption

The result in Table 6 shows that there is no significant relationship between terminality, reversibility, ego involvement, commitment, gateway ability, public and private and rate of POS adoption. The p-values of (0.276), (0.779), (0.188), (0.506), (0.863) and (0.087) for terminality, reversibility, ego involvement, commitment, gateway ability and public and private respectively show that terminality, reversibility, ego involvement, commitment, gateway ability and public and private do not have a significant relationship with rate of POS adoption. Only susceptibility had a significant relationship with rate of POS adoption. The p-value for susceptibility which is (0.043) shows that susceptibility is significant at the 0.05 level of significance.

The value of R-Square which is 0.084 indicates that the independent variables (terminality, reversibility, susceptibility, ego involvement, commitment, gateway ability and public and private) together explain only 8.4 % of the variation in rate of POS adoption. The F-statistic of 2.988 and p-value of 0.005 is significant at 1%.

Table 6: Innovative Attributes of POS and Rate of POS Adoption

Variable	Coefficients	T-test	P-value	Decision
Constant	2.648	13.016	0.000	
Terminality	-0.034	-1.093	0.276	Not Significant
Reversibility	-0.012	-0.281	0.779	Not Significant
Susceptibility	-0.072	-2.034	0.043	Significant
Ego involvement	-0.024	-1.319	0.188	Not Significant
Commitment	-0.020	-0.665	0.506	Not Significant
Gateway ability	-0.008	-0.013	0.863	Not Significant
Public and private	-0.069	-0.122	0.087	Not Significant
R-Square = 0.084		Adj. R-Square =0.056		
F-Stat = 2.988		Prob. (F-Stat) = 0.005		

Source: Authors' field work (2022)

Gender, Age, Educational Qualification, Occupation, Income and Adoption of POS

The demographic influences of the respondents such as gender, educational qualification, occupation and income on adoption of POS are presented in Table 7 and 8.

Regression Analysis of Relationship between Gender and Demographic Attributes

The result presented in Table 7 shows that gender { $t=0.134$; $p=0.894$ } does not significantly influence the adoption of POS at 5% level of significance. This means that the male respondents' are not significantly different from their female counterpart in the adoption of POS.

Table 7: Regression Analysis of Relationship between Gender Demographic Attributes

	Gender	N	Mean	Std. Deviation	t-statistics	p-value
Rate of Adoption	Male	96	1.809	0.505	-0.134	0.894
	Female	141	1.818	0.459		

Source: Authors' field work (2022)

Relationship between Age, Education, Occupation and Income and Adoption of POS

The results presented in Table 8 shows that there is no significant relationship between age, education and occupation and adoption of POS. The F-value and p-value { $F= 1.486$; $p=0.088$ }; { $F= 1.370$; $p=0.140$ } and { $F= 0.901$; $p=0.586$ } for age, education and occupation separately do not have a significant relationship with adoption of POS. On the other hand, there is a significant relationship between income and adoption of POS. The F-value (2.054) and p-value (0.007) show that income is significant at the 0.05 level of significance.

Table 8: Regression Analysis of Relationship between Adoption of POS and Demographic Attributes

		Sum of Square	Df	Mean Square	F	Sig
Age	Between groups	22.688	20	1.134	1.486	0.088
	Within groups	165.686	217	0.764		
	Total	188.374	237			
Education	Between groups	47.153	20	2.358	1.370	0.140
	Within groups	361.445	210	1.721		
	Total	408.597	230			
Occupation	Between groups	31.283	20	1.564	0.901	0.586
	Within groups	373.225	215	1.736		
	Total	404.508	235			
Income	Between groups	23.66	20	1.183	2.054	0.007
	Within groups	114.048	198	0.576		
	Total	137.708	218			

Source: Authors' field work (2022)

Discussion of Findings

This study found that the rate of adoption of POS is high with 78.2% of the total respondents indicating that they have used POS for business transaction. The result of the present study appears to contradict the finding by Ayeni and Agbo (2016) who reported a low rate of adoption of POS device by hotels in Jos. Also, network failure was rated as the greatest problem militating against POS adoption and usage. Our result appears to support the finding

by Adeoti (2013) who reported that the challenge to the efficient use of POS terminals in Nigeria was network failure. The study found that there is a significant relationship between some elements of innovative attributes of POS (reversibility, susceptibility, commitment and gatewayability) and customer satisfaction except terminality, ego involvement and public and private. The result of the study appears to partially confirm the findings by Kiaria (2012) that there is a correlation between service innovation practices (POS) and customer satisfaction. This study also found that there is no significant relationship between innovative attributes of POS and rate of POS adoption except susceptibility that was found to have a significant relationship out of the seven variables. The result from this study contradicts the finding by Plomp, Huiden and Batenburg (2011) who found that innovativeness is significantly related to POS adoption.

We found that demographic variables (gender, age, education and occupation) do not have a significant relationship with adoption of POS except income. More specifically, gender had no significant relationship with adoption of POS. The possible reason for this is because both males and females go through related processes when using POS. This study contradicts Devanarayana and Thelijjagoda (2016) finding that gender had a significant impact on adoption of POS. Similarly, age had no significant relationship with adoption of POS. This study contradicts Devanarayana and Thelijjagoda (2016) finding that age had a significant relationship with adoption of POS. This study also found that education and occupation do not have significant relationship with adoption of POS. This result is supported by Omotayo and Dahunsi (2015); Adeoti and Oshotimehin (2012) who found that there is no significant relationship between education and occupation and adoption of POS. However, their study contradicts our result with regards to income which found that income had a significant relationship with the adoption of POS.

Conclusion

The objective of this study was to investigate the determinants of POS adoption and customer satisfaction. The result shows that the preponderance of customers have adopted the use POS for their daily payment/business transactions with 78.2% of the total respondents indicating that they have used POS for business transaction at one time or the other. The study also revealed that there is a significant relationship between innovative attributes of POS and customer satisfaction. But, no relationship was found between innovative attributes of POS and rate of POS adoption. The outcome of the demographic variables indicates that there is no significant relationship between the adoption of POS and age, education and occupation. Only income was found to have a positive relationship with the adoption of POS. Since demographic variables do not appear to explain variation in the determinant of POS adoption, researchers should look elsewhere in the search for such determinants.

Recommendations

This study recommends that the difficulty experience by customers when using POS, especially weekends should be of serious concern to POS operators and money deposit banks who are the key players in the system. If concerted effort is made to reduce or ameliorate this challenge, more people may adopt the innovation and use it for their daily purchase/business transactions. This will also help the government to achieve its newly introduced policy of cashless economy.

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