



Cashless Policy and Patronage in Stanbic IBTC Bank Plc, Katsina-Nigeria

Olukorede Olukotun¹, Oladejo Lukman Golagade², & Ahmadu Abubakar

¹Stanbic IBTC Bank Plc, Katsina Branch- Nigeria

^{2 & 3}Federal University Dutsin-Ma, Katsina State-Nigeria

Corresponding Author: aabubakar@fudutsinma.edu.ng, ahmedabubakartamed@yahoo.com,

Olukorede.olukotun@stanbicibtc.com

loladejo@fudutsinma.edu.ng

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Abstract

Existing empirical literature on cashless banking is one that is quite scanty in the developing countries including Nigeria. Reviews of empirical studies on cashless policy indicate that a lot of prior studies focused on the adoption, prospects and benefits and challenges of cashless policy. This study on the other hand is aimed at investigating the effect of cashless policy on patronage using responses obtained from 410 customers of Stanbic IBTC Plc branch domiciled at Katsina town-Nigeria. To achieve the stated objective, authors used descriptive statistics and multiple regression techniques. The major findings reveal that ATM transaction has significant negative effect on patronage; POS transaction has no significant effect on patronage; web transaction has positive and significant effect on patronage and mobile banking has negative but significant effect on patronage in Stanbic IBTC bank Plc, Katsina. Authors conclude that if deposit money banks in Nigeria can make cashless policy channels well functional and secured, it will enhance and improved bank patronage. It is recommended by the authors that the management of Stanbic IBTC Plc, Katsina needs to ensure that the ATMs are functional 24/7, and loaded with mints to attract patronage. Author also recommends that DMBs should deploy information technology (IT) solutions that will make transactions on POS and other cashless channels more safe and secured. It is also recommended that banks especially Stanbic IBTC Plc should provide incentive for using internet banking platform for transactions; and should deploy mobile banking solution that is all phone enabled.

Keywords: Bank, Cashless, Katsina, Patronage, Stanbic

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1. Introduction

The world has witnessed an upsurge of electronic payment instruments meant to facilitate trade and simplify payments before the introduction of electronic payment into Nigerian banking system; customers had to walk into the banking hall to do transactions of all kind. They had to queue up and spend more hours to talk to a teller to make their transactions (Abubakar, 2014a;



Siyanbola, 2013). Inconveniences caused by these long queues discourage most customers who sometimes renegade from the queues in annoyance. For many years, bankers, IT experts, entrepreneurs and others have advocated for the replacement of physical cash and the introduction of more flexible, efficient and cost effective retail payment solutions (Siyanbola, 2013).

Nigeria's desire to migrate from cash to cashless economy has been at the fore for quite some time (James & Eloho, 2020). Prior to the introduction of cashless policy in Nigeria, different analysts from the field of economics and finance had opined that it would be difficult to attain the status of a leading economy by 2020 without entirely embracing the electronic payment system (Alagh & Emeka, 2014). Based on the foregoing and other argument in favour of cashless economy, the central bank of Nigeria (CBN) ushered in the cashless policy to check-mate growing dominance of cash in the banking sector and in turn, enhances e-payment system in the economy (Alagh & Emeka, 2014).

The frequent and soaring practice of the traditional habit of using physical cash in an economy has negative implications. This practice usually leads to increased cost of cash, high risk, high subsidy, promotion of inefficient and corrupt practices, and results to informal economy (CBN, 2011). In support of this assertion, Osazevbaru and Yomere (2015) document that the cost of printing new notes to replace the torn or worn out notes due to frequent handling continue to be high. The CBN according Osazevbaru and Yomere (2015) put the direct cost of cash to the Nigerian financial system as at 2009 at ₦114.5 billion. The main objective of introducing cashless policy is to address the problems associated with frequent handling of physical cash.

The CBN on April 28, 2011 announced its intent to implement a cashless policy in Nigeria. It started in Lagos state in January 1, 2013 and later extended to six other states, and then to the remaining part of the country after monitoring its success in Lagos state and the six other pilot states. The policy stipulates a cash handling charge on daily cash withdrawals that exceeds ₦500,000 for individuals and ₦3,000,000 for corporate bodies. The new policy on cash-based transactions (deposits and withdrawals) in banks, aims at reducing not eliminating the amount of physical (notes and coins) circulating in the economy, and encouraging more electronic based transactions (payments for goods, services, requesting for account information, transfers, etc.). The introduction of this policy by CBN has compelled banks to develop and utilize alternative delivery channels. The most recently delivery channel introduced is online or electronic banking also known as e-banking (Abubakar, 2014b; CBN, 2011).

Existing empirical literature on cashless banking is one that is quite scanty in the developing countries including Nigeria. This according to Ezuwore-Obodoekwe et al. (2014) may not be unconnected to the heavy presence of the informal sector in most dual developing economies and the poor banking culture in the same. Hence, there is need for additional empirical investigation in this area. Review of empirical studies indicate that a lot of prior studies focused on the adoption, prospects, benefits and challenges of cashless policy, while some others investigated the association between cashless policy and performance.

This study addresses this variable gap by adopting patronage as the dependent variable instead of the widely used performance. This study also fills a contextual gap by using Stanbic IBTC bank Plc, Katsina branch as a case study. To the best of our knowledge, no author has carried out investigation in this area using banks in Katsina state.



Additionally, a number of theories including bank focused theory; bank-led theory; non-bank-led theory, technology acceptance model (TAM) and diffusion of innovation (DOI) have been adopted by many authors in the study of cashless banking. However, these theories did not clearly spell out or shows whether or not; the adoption of cashless policy will enhance customers' patronage of banking services. Therefore, there is need for more empirical investigation to uncover the relationship between cashless policy and patronage of banking services. This study will fill the identified gaps by investigating the effect of cashless policy on the patronage in Stanbic IBTC bank Plc, Katsina branch.

2. Literature Review

2.1. Concept of Cashless Policy

Cashless policy aims to minimize the use of physical cash as much as possible, and at the same time, provide alternative channels for making payments (James & Eloho, 2020). In support of James and Eloho (2020), Ikpefan et al. (2015) posit that cashless economy is an economy where the physical cash circulating in the economy is minimized while other forms of payment, especially electronic based payments are utilized.

The following enhance the functioning of cashless economy; e-finance, e-banking, e-money, e-broking, e-exchanges among others (Acha et al., 2017). Cashless policy aims to curb some of the negative consequences associated with the high usage of physical cash in the economy, including high cost of cash, high risk of using cash, high subsidy, informal economy, inefficiency and corruption (CBN, 2011). Ikeji (2011) defines cashless economy as a payment system where large chunks of financial transactions are carried out with little or no cash.

There are various channels of carrying out cashless transactions. However, only channels relevant to this present study are discussed here.

2.1.1 Automated Teller Machine (ATM)

The ATM is a machine that dispenses cash and basically performs all other functions of a teller in a banking hall like balance inquiry, giving mini statements; bills payment, cash transfers; airtime top up among others. A personal identification number (PIN) has to be entered along with credit or debit card to access the ATM. Some special ATMs allow for cash deposits, but are very limitation in circulation in Nigeria (Muotolu & Nwadiolor, 2019). The introduction of ATMs has greatly reduced the physical carriage of cash and frequent visits to the banks. With ATM, cash is dispensed at any time of the day and it must not necessarily be located within the banking premises. It could be located even in stores, shopping malls, and fuel stations etc. (James & Eloho, 2020). ATMs are used for making variety of online payments such as utility bills, T.V subscriptions; mobile phone recharges (Ezeokoli et al., 2016).

2.1.2 Point of Sale (POS)

Point of sale machine or terminal is an electronic device used in payment for goods and services. It can be found in supermarkets, hotels, filling stations, shops etc. (Muotolu & Nwadiolor, 2019). A charge known as merchant service charge (MSC) is charged on all transactions done on POS terminals, and it is borne by the merchant. Point of Sale can be referred to as the location at which a payment of a card transaction occurs, usually by way of a device such as a credit card terminal or cash register (Muotolu & Nwadiolor, 2019). POS terminals are deployed to merchant locations where users slot their electronic cards through POS in order to make payments for purchases or services instead of using raw cash. As the POS terminals are online



real-time, the customer's bank account is debited immediately for value of purchases made or services enjoyed (Adu, 2016; Ezeokoli et al., 2016).

2.1.3 Internet Banking

This is an electronic payment system that enables bank customers or other financial institutions to conduct a range of financial transactions through the financial institution's website via electronic devices like mobile phones, Ipads, laptops, desktops etc. right at the comfort of their homes, offices and other places of convenience (Muotolu & Nwadiolor, 2019). Siyanbola (2013) described internet banking as a channel for using electronic card infrastructure for executing payment instructions and final settlement of goods and services over the internet between the merchant and the customers). Siyanbola (2013) also documents that internet banking involves carrying out banking transactions using the internet (www) by means of electronic tools. Internet banking involves the use of internet and telecommunication networks to deliver a wide range of value added products and services to bank customers (Uchenna, 2015).

2.1.4 Mobile Banking

This involves the use of mobile phone for settlement of financial transactions. Mobile banking can therefore be defined as the provision of banking and financial services through the help of mobile telecommunication devices. Services covered by this product include account enquiry; funds transfer; recharge phones; changing passwords, bill payments (Siyanbola, 2013). It enables transactions to be done anywhere in the world and at the customer's (Aileman et al., 2018; Ayodele, 2015).

2.2 Concept of Patronage

The term patronage refers to a system in which access to goods, positions, or services is enjoyed by means of personal relationships and the exchanging of "favours" rather than by impersonal and impartial systems of distribution (de Silva, 1999). Adiele et al. (2015) view customer patronage as a rise in sales volume, profit margin and customer retention level. The supports enjoyed by firms' from its customers can be termed as customer patronage (Adebisi & Akinruwa, 2019).

2.3 Review of Empirical Studies

This section provides a review of empirical studies on cashless policy in Nigeria and other countries around the globe. In this respect, James and Eloho (2020) assess the effect of cashless policy on the performance of deposit money banks in Nigeria from 2009- 2018, using descriptive Statistics, Augmented Dicker Fuller and Philip Perron tests for Unit Roots and the Autoregressive Distributed Lags (ARDL) for co-integration and coefficient analysis. Results indicate that ATM and internet banking on individual basis has a positive and significant effect on return on equity (ROE); POS has no significant effect on ROE; and mobile banking has a negative but significant effect on the ROE.

Muotolu and Nwadiolor (2019) investigate the effect of cashless policy on the financial performance using panel data of 14 deposit money banks (DMBs) in Nigeria from 2012- 2017. The authors utilized the value of ATM transactions; POS; internet banking; NIP and NEFT as proxies for cashless policy, while return on asset (ROA) was used to represent financial performance. Findings reveal that value of ATM transactions has positive and significant effect



on the ROA, while other proxies for cashless did not have any significant effect on the ROA as an indicator of financial performance.

Ogutu and Fatoki (2019) determine the effect of electronic banking on the financial performance of 11 listed commercial banks in Kenya using descriptive and inferential statistics. Findings reveal that proxies of electronic banking as mobile banking, agency banking, ATM banking and online banking have positive effect on the financial performance of listed commercial banks in Kenya. Hussein and Elyjoy (2018) assess the effect of internet banking on operational performance of commercial banks in Nakuru County, Kenya using cross-sectional research design, correlation and regression analysis. Authors establish positive significant association between internet banking and operational performance of commercial banks.

Aileman et al. (2018) study the impact of electronic banking tools on cashless policy in Nigeria, applying ordinary least squares (OLS) technique on ten year data from 2006- 2015, collected from central bank of Nigeria (CBN) annual reports and NIBSS website. Results reveal that there is no significant association between electronic banking tools and the currency in circulation. Uchechukwu et al. (2017) evaluate the effect of cashless policy on the performance of banking industry in Nigeria over an eight year period from 2008 to 2015, using pooled variance/paired sample t-test method. Findings indicate that the cashless policy has not improved ROA and ROE of DMBs in Nigeria, but has enhanced their earnings per share (EPS) over the period of study.

Obiekwe and Anyanwaokoro (2017) examine the effect of electronic payment methods on the profitability of five DMBs in Nigeria over the period 2009- 2015, using panel data framework. Findings indicate ATM and mobile phone payment have a significant positive effect on the profitability, whereas POS has no significant effect on profitability of banks' in Nigeria.

Adedokun (2017) explores the effect of cashless banking on the financial performance of small and medium scale enterprises in Zaria Metropolis using self-administered questionnaire on 120 respondents and multiple regression technique. Results reveal that mobile banking and POS have significant and positive effect on the financial performance of SMEs.

Acha et al. (2017) examines *modus operandi*, benefits and problems of cashless policy in Nigeria using secondary data from CBN statistical bulletins and primary data based on the result of a survey of 170 customers of seven commercial banks in Uyo, Akwa Ibom State and Owerri, Imo State. Results from the descriptive statistics show increasing adoption of cashless options by Nigerians. Findings also reveal that despite several identified benefits associating with cashless policy, there still exists many factors militating against the success of the policy, which include lack of enabling environment especially power infrastructure.

Using t-test, Matthew and Mike (2016) appraise the performance of Nigerian banking industry given the adoption of the cashless economic policy in Nigeria vis-à-vis the cash based period with a view to x-raying the possible challenges and benefits which it poses to the Nigerian economy. Authors report that though the cashless policy is not a policy designed to enhance bank profitability; it has a lot of benefits associated with it which include; increased convenience; reduced risk of cash related crimes; reduced cash handling cost, reduced revenue leakages among others. In addition, the authors also document that the cashless policy is beset with challenges which include; infrastructural deficits, erratic power supply, prevalence of e-fraud, high illiteracy level among others.



Amu and Nathaniel (2016) examine the nexus between electronic banking measured by the value of POS transactions and the performance of DMBs in Nigeria proxy by customers' deposits commercial banks applying Engle-Granger co-integration. Results show POS is not co-integrated with both the savings and time deposits but is co-integrated with demand deposits.

Morufu (2016) carried out a study the impact of four e-payments platforms (ATM, POS, web/Internet and mobile) and banks specific variables on the profitability of DMBs in Nigeria, over the period 2005- 2012. Results from the panel logistic regression reveal that the four e-payments platforms adopted by the author have positive link on the profitability measures (ROA, gross margin and profits after tax) of the sampled banks.

Latifat and Alhassan (2015) investigate the pre-and post-implementation period of cashless policy tools in Nigeria focusing on the association between cashless policy tools and currency outside DMBs in the Nigerian economy between 2009 and 2012. Results of the ordinary least squares (OLS) show that there is no significant relationship between proxies of cashless policy and currency in circulation.

Musa (2015) assesses the effect of cashless economy policy on financial inclusion in Nigeria using correlation analysis. Results show that awareness, consumer/user value proposition, and infrastructure have strong significant relationship with financial inclusion, while business model of financial service providers has no significant relationship with financial inclusion. Tijani and Ilugbemi (2015) analyze the impact of electronic payments channels on national development using chi-square. The authors report that electronic payment channels have contributed positively to national development.

Ikpefan et al. (2015) investigate if cashless economy will reduce fraud and unemployment in Nigeria using pair sample t-test, and discover that cashless economy would increase the rate of fraud and unemployment in Nigeria. Osazevaru and Yomere (2015) evaluate the benefits and challenges of Nigeria's cashless policy using obtained from secondary source and content analysis, and found that banks' income is higher in cashless setting than in the cash-based regime. Abubakar et al. (2015) investigate the association between electronic banking and liquidity of deposit money banks in Nigeria, using time series data for the period 2006- 2014. The data was analyzed using both descriptive and correlation analysis to describe the data set, and to identify the relationship between electronic banking, proxies by internet banking, mobile banking and POS, and liquidity, proxy by current ratio respectively. Results from the correlation analysis reveal that mobile banking and POS had no significant relationship with liquidity, while there is significant and negative relationship between internet banking and liquidity.

Itah and Ene (2014) investigate the impact of cashless banking on the profitability of banks in Nigeria using quarterly data from 2006- 2013, applying OLS as a method of estimation. The authors adopt ATM, POS and web transaction as proxies for cashless banking, while ROE was used to measure profitability of banks. Results show that ATM and POS have positive effect on the ROE, while web transaction is negatively related to the ROE. Using time series data for the period 2006- 2012, Abubakar (2014a) examines the effect of electronic banking on growth of DMBs in Nigeria. Data were collected from secondary sources through annual reports and statistical bulletin of Central Bank of Nigeria. Electronic banking was measured using the total value of internet and mobile banking while growth was measured using the value of total deposits and total assets of deposit money banks in Nigeria. The study revealed that positive relationships exist between mobile banking and total deposits, and between internet banking



and total asset while on the other hand, no significant relationships between internet banking and total deposits, and between mobile banking and total asset.

Abubakar (2014b) investigates the effect of electronic payment channels on the growth of DMBs in Nigeria using times series data for the period 2005- 2012, and applying multiple regression technique. Results suggest that ATM has positive effect on total deposit, while POS has no significant effect on total deposit of banks in Nigeria during the study period.

Osazevbaru et al. (2014) evaluate the impact of cashless policy on the profitability of banks in Nigeria using secondary data collected from the sampled banks. Results reveal that cashless economic policy has positive impact on banks' profitability.

Abaenewe et al. (2013) analyze the performance of four DMBs in Nigeria following the full adoption of the electronic banking system, and discovers that the adoption of electronic banking has significant and positive impact on the ROE and no significant impact on the ROA of the four chosen banks.

Using a sample size of 120 respondents, Ejoh and Okpa (2014) investigate the cashless economic system in Nigeria in order to assess its feasibility and practicability vis-à-vis; timeless, preparedness and adequacy against the backdrop of technological and educational development. Results indicate that majority of Nigerians are already aware of the policy and adequate payment facilities in the banking sector have been developed to enhance the sustainability of the policy in Nigeria.

Ejoh et al. (2014) evaluate the relationship between information and communication technology (ICT) and implementation of cashless policy in Nigeria, using 120 administered and chi-square technique. The results reveal that there exists a significant positive relationship between ICT and cashless policy implementation in the Nigerian financial environment.

In addition, Nwankwo and Eze (2013) carried out a study to investigate the extent to which electronic payment affect the cashless economy in Nigeria, and the results show that the electronic payment has a great implication on cashless economy of Nigeria, but it will lead to a significant decrease in deposit mobilization and credit extension by DMBs.

Ogbuji et al (2012) study the negative effects of the ATM as a channel for delivering banking services in Nigeria, and found that the ATM system of delivering banking services not only contribute to the increasing rate of bank fraud but equally lures Nigerians into extravagant speeding.

Morufu and Taibat (2012) used qualitative survey to ascertain banker's perceptions of electronic banking in Nigeria. The results indicate that bankers in Nigeria perceive electronic banking as a tool for minimizing inconvenience, reducing transaction costs, altering customers queuing pattern and saving customers banking time.

Following the review of empirical investigations, the following hypotheses are formulated and tested:

H₀₁: ATM transaction has no significant effect on the patronage.

H₀₂: POS transaction has no significant effect on the patronage.

H₀₃: Web transaction has no significant effect on the patronage.

H₀₄: Mobile transaction has no significant effect on the patronage.



2.4 Theoretical Framework

This research adopts the bank focused theory as its theoretical framework. This theory was founded by Kapoor (2010) and it contends that banks use non-traditional but conventional low-cost delivery channels to provide services to its different customers. Such channels according to (Muotolu & Nwadiolor, 2019) include the ATMs, internet banking, POS among several others. Muotolu and Nwadiolor (2019) further maintain that by using these channels, banks offer a wide range of services to its customers not minding the location and branch where the customer is located. This theory lends credence to this study because of it places emphasizes on delivering banking services to customers through various cashless means.

3. Research Methods

This study adopts the cross sectional descriptive survey design because data collection was done at a single point in time. Descriptive survey design according to (Swain, 2008) provides data about the universe and it is used when the objective is to provide systematic description that is factual and accurate as possible. Additionally, the researcher's sentiment for this type of design is because there is no intention to subject the sample from the population to manipulation and control.

The population of study was made up of the 17,000 customers of Stanbic IBTC bank Plc, Katsina branch as obtained from the operations unit of the branch. In determining the sample size, the Yamane (1976) formula for sample size determination was utilized. The formula is given as follows:

$$n = \frac{N}{1+N(e^2)} \quad (1)$$

Where:

n = Minimum Sample Size

N= Population

1 = constant

E = margin of error (0.05)

Thus, substituting the population and the margin of error into the formula gives:

$$n = \frac{17000}{1+17000(0.05^2)} = 391 \text{ Persons}$$

Hence, the minimum sample size for the study is 391 as suggested by the Yamane's formula above. In selecting the respondents for the study, the convenience and purposive sampling techniques were used. Convenience sampling technique was used in the sense that only customers of Stanbic IBTC Plc, Katsina branch within the bank premises and inside the banking hall was utilized for the study. Purposive sampling technique was adopted because deliberate attempt was made to ensure that only customers of the chosen bank were administered with the data collection instruments. The simple random sampling technique could not be adopted due to the difficulty in assessing the sample frame. It is practically impossible for 17000 customers of the bank to be available in a single location for the purpose of sampling. Hence, our choice of non-probability sampling techniques despite its limitation was justified.

Data collection was done using primary source of data collection. The primary source utilized by the study was the structured questionnaire. This method was chosen because of its



popularity, effectiveness and efficiency in allowing respondents to provide answers to questionnaire instruments at their convenience.

The questionnaire was organized into six sections. The first section was designed to elicit information on demographic characteristics of the respondents while the remaining sections was used to collect information on each of the five study variables i.e. four independent variables and one dependent variable. Multiple choice questions were used to elicit information on respondents' demographic features such as sex, age group and the number of years patronizing banking services. In addition, a 5-point Likert scale having the ratings of "Strongly disagree" (1) and "Strongly agree" (5) was used to ask respondents to evaluate a set of attitudinal statements regarding key variables under study.

A total of 500 structured questionnaires was administered as opposed to 391 recommended by the formula for sample size determination in order to deal with the cases of non-return and invalid cases. This procedure has been adopted by many authors including Mamman et al. (2017).

This study utilized both descriptive and inferential statistics in the analysis of data collected. Descriptive statistics in the form of frequency table and percentages was used in data presentation; while inferential statistics in the form of multiple regressions was used to assess the effect of cashless policy on the patronage in Stanbic IBTC bank Plc, Katsina branch.

The dependent variable (patronage) is regressed on the independent variables: ATM, POS, web transaction and mobile banking using multiple regression model specified as follows:

$$PA = b_0 + b_1ATM + b_2POS + b_3WEB + b_4MOB + \varepsilon \quad (2)$$

Where: PA = patronage

b_0 = intercept,

b_1, b_2, b_3, b_4 = Parameters or coefficient of the regression model

ATM = Automated teller machine

POS = Point of sale

WEB = Web (internet) transaction

MOB = Mobile banking

ε = error term

Validity of the research instruments was done using content and face validity in line with Mamman et al. (2020). Validity is required to ensure that the main data collection instrument i.e. the questionnaire is consistent with the construct associated with it. Validity was achieved through comprehensive review of literature, as well as engagement of experts from academic and professional world to guide in the selection of items included in the questionnaire schedule. On the other hand, the popular and widely adopted method of Cronbach alpha was used in ascertaining the reliability of the research instruments. A Cronbach alpha not below 0.60 was adjudged as adequate by Hair et al. (2006).

4. Results and Discussion

From the 500 structured questionnaires administered, 423 were returned, of which 410 constituting 82 per cent response rate were found to be valid. This 82 per cent is higher than the minimum sample size of 391 recommended by the Yamane's formula for sample size determination. Hence, the 410 valid responses are suitable for analysis and discussions.



4.1 Diagnostic Tests

Diagnostics tests are conducted to ensure that the results are not bias and also to prevent the violations of the main assumptions of regression model. In this respect, reliability test, normality test, collinearity test and autocorrelation test are diagnostic tests presented and discussed in this sub-section. In order to ensure that the study scales have internal consistency, reliability test in the form of Cronbach's alpha is conducted. Table 1 presents the results of the Cronbach alpha used for the reliability test.

Table 1: Reliability Test

Variable	Cronbach's Alpha	Number of Items
ATM	.914	6
POS	.753	5
WEB	.674	7
MOB	.723	7
PAT	.911	7

Source: Authors' Computation (2021) using SPSS

The results of the reliability test in table 1 reveal that the variables except web transaction (WEB) have Cronbach's alpha coefficients above the minimum acceptable level of .70 in line with Gliem and Gliem (2003), Hair et al. (2010), Sekaran (2003), Sekaran and Bougie (2010) and Uhegbu (2010). However, WEB has a Cronbach's alpha coefficient of .674 which is above the minimum acceptable standard of .60 in accordance with Hair et al. (2006). Following the reliability test results, it can be inferred that the questionnaire instruments are adequate as a measure of internal consistency.

To ensure that normality assumption of regression model is not violated, we conducted normality using Skewness and Kurtosis. In table 2 the results of the normality test is shown.

Table 2: Normality Test

	N	Skewness		Kurtosis	
		Statistic	Std. Error	Statistic	Std. Error
ATM	410	-1.784	.121	1.442	.240
POS	410	1.294	.121	.124	.240
WEB	410	.648	.121	.557	.240
MB	410	.457	.121	-1.089	.240
PAT	410	-.414	.121	1.074	.240

Source: Authors' Computation (2021)

In table 2, none of the values of skewness and kurtosis exceed two and seven respectively. The fulfilment of these conditions according to West et al. (1995) implies that the variables are normal and no violation of normality assumption in the regression model.

In addition to normality test, autocorrelation test is also conducted and measured using Durbin-Watson (D-W) statistic. The D-W statistics for this study is 1.574 which is close to 2, and it means that there is no serial autocorrelation problem as observed by Field (2009).



After the autocorrelation test, collinearity test is carried out to ensure that there is no collinearity among the explanatory variables. The presence of multicollinearity in a model is capable of biasing the regression results. High correlation among the explanatory variables is termed as multicollinearity, and its presence a model is a violation of regression assumption. In this present investigation, two popular methods of detecting multicollinearity i.e. correlation matrix and variance inflation factor are used. Table 3 presents the results of the correlation among the explanatory variables.

Table 3: Correlation

		ATM	POS	IB	MB
ATM	Pearson	1	.316**	.464**	.538**
	Correlation				
	Sig. (2-tailed)		.000	.000	.000
	N	410	410	410	410
POS	Pearson	.316**	1	.572**	.634**
	Correlation				
	Sig. (2-tailed)	.000		.000	.000
	N	410	410	410	410
WEB	Pearson	.464**	.572**	1	.368**
	Correlation				
	Sig. (2-tailed)	.000	.000		.000
	N	410	410	410	410
MOB	Pearson	.538**	.634**	.368**	1
	Correlation				
	Sig. (2-tailed)	.000	.000	.000	
	N	410	410	410	410

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Authors' Computation (2021)

From the correlation results in table 3, it can be observed that the highest correlation is between mobile banking and point of sale which is .634 at 1 per cent level of significance. Since no two independent variables have correlation coefficient up to .70, it follows from Wooldridge (2015) that multicollinearity is not present in our model. To corroborate the results of the correlation, VIF is computed and presented in table 4.

Table 4: Collinearity Statistics

Variable	Tolerance	Variance Inflation Factor
ATM	.539	1.687
POS	.439	2.280
WEB	.563	1.778
MOB	.453	2.207

Source: Authors' Computation (2021)

It can be seen from Table 4 above that the tolerance statistics for each of the independent variable is above 0.1 and their associated VIFs are far below 10. These two conditions according to Hair et al. (2014), Harun (2020), Marzuki et al. (2020) and Pallant (2005) imply absence of



multicollinearity. This implies that the position of the correlation on the absence of multicollinearity has been confirmed and justified by the VIF results.

4.2. Descriptive Analysis

This section deals with the descriptive analysis of the demographic characteristics of the respondents. Table 5 displays the descriptive results.

Table 5: Descriptive Results

Gender of the Respondents		
	Frequency	Percentage
Male	287	70
Female	123	30
Total	410	100
Age Group of the Respondents		
	Frequency	Percentage
15- 25	82	20
26- 35	123	30
36- 45	144	35
Above 45	61	15
Total	410	100
Patronage of Banking Services in Years		
	Frequency	Percentage
Less than 5	61	15
5- 10	144	35
Above 10	205	50
Total	410	100

Source: Field Survey, 2021

The descriptive results in Table 5 show that majority of the respondents i.e. 287 or (70%) are male. This is not surprising given the cultural and religious beliefs of the study area for which the male gender are more disposed as compares to their female counterparts. The descriptive results for the age distribution further show that majority of the respondents are within the 36-45 years age bracket. The implication is that most of the respondents are matured, and maturity is expected to transcend or reflects in the quality of response. It is often believed that people that are mature in age tends to possess or display high sense of responsibility.

In terms of experience with bank, the descriptive results in table 5 shows that majority of the respondents i.e. 205 or 50% have been banking for the past 10 years. This has also improved the quality of responses as majority of the respondents have adequate knowledge on cashless policy based on their years of experience with bank.

4.2. Regression Analysis

As pointed out in the methodology, regression technique is used in the investigation of the effect of cashless policy on the patronage in Stanbic IBTC bank Plc, Katsina. Table 6 displays the regression results of the study showing the coefficients of the constant and variables, as well as the t-values and p-values among others.

Table 6: Summary of Regression Results



Variables/constant	Coefficients	t-values	p-values
Constant	11.964	11.661	.000
ATM	-.182	-4.683	.000
POS	.002	.027	.978
WEB	1.366	30.113	.000
MOB	-.569	-13.543	.000
R-square	.771		
Adjusted R-square	.769		
f-stats	341.121		
f-sig.			.000
D-W	1.57		

Source: Author's Computation (2021)

The regression results in table 4.6 reveal that automated teller machine (ATM) transaction has a significant negative effect on patronage as confirmed by the t-value of -4.683, which is significant at 1 per cent level of significance. Similarly, the regression results also show that point of sale (POS) transaction has no significant effect on patronage as indicated by the t-value of .027, which is too low to make any significant impact on patronage. Conversely, the regression results in table 4.6 indicate that web transaction (WEB) has positive and significant effect on patronage as indicated by the high t-value of 30.113, which is also significant at 1 per cent level.

In contrast to the results of POS and WEB, the regression result of mobile banking (MOB) shows significant but negative effect on patronage as evidenced by the negative t-value of -13.543 which is also significant at 1 per cent level.

4.3. Discussion of Findings

The discussion on findings is based on the regression results and the results hypotheses testing. The null hypothesis one was rejected because ATM transaction was found to be negatively and significantly associated with patronage at 1 per cent level of significance. This implies that we are 99 per cent confidence about our decision to reject the null hypothesis one.

The coefficient of ATM which is -.182 implies that a 1 per cent increase in the volume of ATM transaction is associated with about 0.18 per cent reduction in the level of patronage. This result is contrary to a priori expectation given that with the features of ATM transaction such as access to mini statement; balance enquiry; cash withdrawal; cash transfer; reduction in cash handling among others; one would expect that ATM transaction will enhance patronage. However, the result may not be too surprising given that the above captioned benefits or features of ATM can only be reaped if ATMs are functional 24/7. Evidence from observation has shown that most ATMs in the study area are overcrowded, having network and technical challenges; worst still, having cash outs. In addition, unnecessary delays in handling cash related dispense errors can discourage customers from using ATM and by extension, reduce the level of patronage.

The null hypothesis two that reads that POS transaction has no significant effect on patronage in the Stanbic IBTC bank Plc, Katsina could not be rejected due to its non-significant t-value. The coefficient of POS of .00 indicates that a 1 per cent increase in the volume of POS transaction will not make any meaningful contribution to the level of patronage. This testimony did not only stem from the non-significant t-value of the variable under consideration, but also



because of its null coefficient. This result is not too surprising considering the results of ATM which offers more service features than the POS. POS transactions are mostly limited to cash deposits, cash withdrawal and cash transfer of smaller value. More so, the charges on POS transaction are higher than ATM transaction, and may demotivate customers from patronizing the service. POS transaction sometimes failed and also takes some time to resolve. Security of transactions on POS are sometimes in doubt as there have been informal reports of claims by some customers that their money have been stolen after transaction on POS terminal. These and other reasons account for its non-impact on patronage.

Contrastively, only web transaction has the highest coefficient and positive significant t-value among the variables under review. The highest coefficient suggests that only web transaction has the greatest effect on patronage. The coefficient of WEB is an indication that a 1 per cent increase in the volume of web transaction is associated with about 1.37 per cent increase in the level of patronage. The result is in line with a priori expectation and not surprising at all. This is so because with web transaction also known as internet banking platform, a subscriber of the service can carry out virtually all services that can be accessed in the banking hall. With internet banking, a customer can initiate a high volume or high value transaction from the comfort of his bed room. Internet banking is highly convenient, secured, safe, reduce cash handling, enhances ease of payment, request for cheque, request for card; hotlist a card among several others. However, the major challenge is network availability.

Additionally, the coefficient of MOB suggests that 1 per cent increase in the volume of mobile transaction will result in about .55 per cent fall or decline in the level of patronage. This result is contrary to expectation; just like the web transaction (internet banking), one would expect mobile banking to impact positively on patronage. However, the fact that not all mobile phones are mobile banking platform compliant could also be responsible for its negative effect on patronage. Another possible reason for the adverse effect on patronage is the security of mobile phones transactions. Some users of mobile banking platforms have had bad experience where their accounts were hacked by fraudsters and their savings stolen. This kind of unpleasant experience would deter customers from utilizing the platform, and this can cause negative effect on patronage. Additionally, as rightly pointed out with ATM and POS, if failed or unsuccessful transactions are not resolved in timely manner, it will further discourage customers from patronizing the platform and by implication, impact negatively on the level of its patronage.

Furthermore, the adjusted R-square of .769 connotes that about 77 per cent of the variation in patronage is jointly accounted for by ATM transaction, POS transaction, web transaction and mobile banking, while the remaining 23 per cent is due to other factors or variables not covered or captured by the study. The f-statistics of 341.121 which is significant at 1 per cent level is a confirmation of the joint significance of the independent variables on the dependent variable. This implies that our model is fit and the findings, discussion, conclusion and recommendations are valid.

5. Conclusion

This study investigated the effect of cashless policy on patronage in Stanbic IBTC bank Plc, Katsina. Four proxies of cashless policy such ATM transaction; POS transaction, web transaction (internet banking) and mobile banking were used as independent variables. The dependent variable is patronage and was measured using seven item scale having Cronbach's alpha coefficient of .911 which was adjudged as very reliable. The major findings reveal that ATM transaction has significant negative effect on patronage; POS transaction has no



significant effect on patronage; web transaction has positive and significant effect on patronage and mobile banking has negative but significant effect on patronage in Stanbic IBTC bank Plc, Katsina.

Based on the main findings, the study concludes that if deposit money banks in Nigeria can make cashless policy channels well functional and secured, it will enhance and improved bank patronage. Web transaction through internet banking is the most important determinant of bank patronage while POS is the least determinant and for it to make the needed impact and improve bank patronage, its area of service coverage needs to be expanded, and transaction limits increased, provided the security of transaction can be guaranteed.

As a consequence of the main findings and conclusion, the following recommendations are provided for policy implications:

1. ATM transaction was found to have negative effect on patronage. To reverse this trend, the management of Stanbic IBTC Plc, Katsina needs to ensure that the ATMs are functional 24/7, and loaded with mints to attract patronage.
2. ATM dispense errors especially “Us on us” should be resolved at most 24 hours. ATM dispense errors not treated in timely manner can discourage or dissuade customers from patronizing ATMs, and that could be responsible for the negative effect of ATM on patronage discovered in the present study.
3. The management of Stanbic IBTC bank Plc, Katsina should deploys cash deposit ATMs, as doing so will increase the level of patronage.
4. The charges on POS transaction should be harmonized with those of ATM transaction, and if this is not possible due to involvement of agents, the charges should be reduced to attract more patronage.
5. Banks should deploy information technology (IT) solutions that will make transactions on POS and other cashless channels more safe and secured.
6. The transaction limits for POS should be reviewed upwards to compete with internet and mobile banking platforms if security of such transactions can be guaranteed.
7. Just like with SMS alert charges, banks should liaise with network providers and negotiate lower rates for data used for internet banking transactions. This is because it was discovered from this study that web transaction has the greatest effect on patronage; hence, the need to encourage customers to continuing using the platform.
8. Banks especially Stanbic IBTC Plc should provide incentive for using internet banking platform for transactions. This could be in form of cash prize and data bonus for completing certain number of transactions on the platform.
9. The management of Stanbic Plc should deploys mobile banking solution that is all phone enabled. This will afford opportunity to the poor or low income earners that cannot afford smart phones, iPhones and other Java enabled phones used for mobile banking to also subscribe to mobile banking.
10. Mobile banking platform should be highly secured to prevent hackers and phishers from unauthorized access to customers’ accounts.

This study is only limited to Stanbic IBTC Plc, Katsina and confined to four proxies of cashless policy such as ATM transaction, POS transaction, web transaction (internet banking) and mobile banking. Other surrogates of cashless policy in the form of telephone banking, Nigeria interbank settlement system electronic funds transfer (NEFT), Nigeria interbank settlement system instant payment (NIP) and real time gross settlement (RTGS) are not utilized in the



present study. Future studies should consider using more banks and incorporating these variables in their studies.

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