Effect of Cashless Policy, Saving and Bank Credit on Deregulated Economy in North Central Nigeria

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Abstract

The study aimed at finding out Effect of Cashless Policy, Saving And Bank Credit on Deregulated Economy in North Central Nigeria. Two research questions guided the study, while two null hypotheses were formulated. Adescriptiveresearch design as well as an explanatory research design was used for the study; the target population was 100 staff of the commercial banks in the study area. Sample size of 80 using Taro Yamane formula was used for the study. Data were collected for the study using a 11- item validated questionnaire which was made up of two clusters. The questionnaire was structured on a 4-point rating scale.The respondents of the study were the staff of the listed commercial banks. Dataanalysis were done using SPSS statistical software version 21. Descriptive statistics(Frequencies, Means and Standard deviation) and inferential statistics (Correlations andregression)were usedinanalysis.A multiplelinearregression modelwas usedforanalysis and all tests were conducted at 0.05 level of significance. The study findingsindicated thatAutomated Teller Machines (ATM), and Point of Sale (POS), positively and significantly has effect on Deregulated Economy in the North Central Nigeria. Based on the findings of the study, the following recommendations were made; that CBN should as a matter of urgency review the Cashless policy strategies ofpayment/Receiptinstrumentsmoreaffordabletobanking publics. AlsoTroublesinimplementingconnectionsduetorepeatednetworkinterruptionandinsufficientfundsshouldbeaddress edpermanently by the Commercial banks in the north central Nigeria.

Keywords: *Cashless Policy, Automated Teller Machine (ATM), Point Of Sales (POS)*

I. Introduction

Over the years, there has been a paradigm shift from cash-economy to cashless economyas a developmental experience to the monetary system of adeveloping nation like Nigeria. The quest to improve themonetary system towards bridging the gap between Nigeriaas a developing economy and the advanced economiestofacilitatetheaccomplishmentoftheglobaleconomictargetof2020visionmakesthecashlesspolicyimperativeinonehand.Ontheotherhand,acarefulconsiderationofthethreekeyobjectivesofthepolicy by CBN, (2012): development and modernization of the paymentsystem;reductioninthecostofbankingservicesandtodrivethefinancial inclusion bytheprovision ofefficienttransaction options and greater reach make the monetarypolicy more efficacious.

Cashlesspolicydoesnotmeanatotaleliminationofcash,asmoneywillcontinuetobeameansofexchangeforgoodsandservicesintheforeseeablefuture CBNPresentationJuly(2012).Itisafinancialenvironmentthatminimizestheuseofphysical cash by providing alternative channels for making payments. Itisan economic setting in which many goods and services are bought and paid for through electronic media (Ewa & Inah, 2016). OsazevbaruandYomere(2015)definedcashlesspolicyasthesystemwhichaimsatreducing,butnoteliminatingthevolumeofthephysicalcashcirculatingintheeconomywhileencouragingmoreelectronicbasedtransactions.Inotherwords,it isacombinationofe-bankingand cash-based system.

According to Woodford (2003), Cashless economy is defined as "one in which there are assumedtobenotransactionsfrictionsthatcanbereducedthroughtheuseofmoneybalances,andthataccordingly provide a reason for holding such balances even when they earn rate of return". BaselCommittee (1998) expressed the difficult in rightly defining the electronic money but agree that it blendstechnologicalandeconomiccharacteristics.Otherrenownedinstitutionsandexpertshavetriedtodefine conceptofelectronicmoneywhichtheyallbelieveisthebackboneofthecashlesseconomy.ForEuropean Central Bank (1998) broadly defined electronic money as an electronic store of money valueon a technical device that maybe widely used for making payments to undertakings other than the issuerwithout necessarily involving bank

accounts in the transactions, but acting as a prepaid bearer instrument through Automated Teller Machine (ATM) and point-of-sale (POS).

The concept of Automated Teller Machine (ATM) as known today first began in 1968. According to Muia (1999), an ATM card allows a customer to withdraw cash from his bank accountby entering a personal identification number (PIN) and having the amount of the withdrawal immediatelydebited to his account. The ATM‟s were introduced in the retail banks with object of reducing personal costsassociated with the traditional "teller window" customer service transaction. Transactions in ATM‟s rely on anextensive communication system that includes network that can interact with one another.

Apoint-of-sale(POS)terminalcanbeviewedasa cybernetic substitution for a cash record. It hasthe ability to record and data trail client purchaseorder,marchcreditanddebitcards,linktoother systems in a network, and handle stocktaking.Fundamentally, the e-POS enriches electron-ic monetary fund transmissions at the point ofsales (POS terminal, Brimah, &Akanni, 2013). According to Adebayo, Osayinlusi,and Adekeye (2017), e-POS supports the operatives to oversee outflows by a client in an unassuming fashion. POS Terminal: Point of Sale terminals allow merchantsaccess to cardpayments for saleof products and services e.g recharge cards, bill payments, lottery ticketsetcandfinallythereiselectronicfundtransferthroughwhichonecantransfermoneyelectronically from his account to other account. Some banks also offer an instant electronicfund transfer service. However, most of these e-payment channels require you to have anATM/Debit card.

The cashless policy was aimed at curbing some of the negative consequences associated with theusage of physical cash in the economy, including high cost of cash, high risk of using cash, highsubsidy,armedrobbery,inefficiencyaswellascorruption(CBN,2011).Someanalysts(Austin, 2016; Muhammed (2012), Klee (2004); Swartz (2016) suggested that the increased use of cashlesspayment systemhas led to the predictions of acashlesssociety.

However, before the introduction of cashless policy by the CBN in 2012, our financial institutionshavebeencharacterizedbysomanyhiccupsrangingfrompoorhandlingofphysicalcash,highcostof banking operation, leakages, money laundering and other financial related offences (Ademola,2014).

Meanwhile, it is probable that most North Central State arestill unbanked as the cashless policy has as well slowed down the inculcation ofsavings habit necessary to encourage investment and boost economic activities and development oftheaggregate economy(Nonor, 2011). It is against this backdrop that this study seeks to assess the effect of cashless policy, saving and bank credit on deregulated economy in north central Nigeria.

The study objective is to examine effect of Automated Teller Machines (ATM) and Point of Sale (POS) on deregulated economy in north central Nigeria. This raised questions of what are the effects of automated teller machines (ATM) andPoint of Sale (POS) on deregulated economy in north central Nigeria.

However, it is also assumed thatthere is no significant relationship between the two variables (ATM, POS) and deregulated economy in north central Nigeria. The study is restricted to north central Nigeria. To ensure proper representation, it would have been preferable to cover additional South West, unwillingness to respond by some of therespondentsalsoposedachallengeinundertakingthestudy.

II.   Methodology

The research design was descriptive and causal (explanatory).The research was carried out in North Central Nigeria With a populationten (10) commercial banks in operation with 10 staff each making a total of 100 in north central Nigeria.Sample size was determined using Taro Yamane formula which stood at 80.Thedatacollectedwasanalyzedusingmeanandstandarddeviation.Thedatawasfirstgroupedintotwoclusterswithea chclustermeanttoansweroneresearchquestion. A fourpointscaleresponsepatternofstronglyagree(SA),Agree, (A) Disagree (D) and Strongly Disagree (SD) with 4, 3, 2 and 1pointsrespectivelywas usedinansweringtheitemstatements. Any response below 2.50 was taken as having rankednegative and rejected while responses up to 2.50 or above wasaccepted and taken as positive.

Amultiplelinear regression model was used to test the significance of the effect of cashless policy, saving and bank credit on deregulated economy in north central Nigeria.
Aregression model was used because enables the researcher to test the significance of thecoefficients of the study variables hence is able to test the hypotheses.Themultiplelinearregressionmodelsareaslaidbelow.
$$Y=\alpha+\beta_1X_1+\beta_2X_2+\beta_3X_3+\beta_4X_4+\beta_5X_5+e$$

Where:

Y=Deregulated
    Economy

X_1=Automated
Teller Machines
(ATM),

X_2= Point of Sale (POS)
e=Error term and α= constantβ=coefficientofindependentvariables
Y=a+B$_1$X+B$_2$Z+e .... (1)

Where a = is the estimate of the intercept, B_1 = the estimate of the population regressioncoefficient for X, B_2 = the estimate of the population regression coefficient for Z, and e =a residualterm.
Thesecond step consistsofaddingtheinteractiontermtotheequation(1)as:

Y= a+B$_1$X+B$_2$Z+X*Z+ e .... (2)

B_3 = is the estimate of the population regression coefficient for the product term (X*Z). To evaluate the role of the moderator (Z), the procedure outlined in theanalyticalsectionis applied.

Table1: S u m m a r y o f Administered questionnaire

	Commercial Banks	Percentage	Banks' CustomersServiceOfficers	Percentage
Administeredquestionnaires	80	100	80	100
InvalidReturns	5	6.25	0	0
ValidQuestionnaires	75	93.75	75	100

Source: Field Survey, 2022.

III. Discussion of Findings

Table 2 shows how cashlesspolicyhasappreciablyincreasedawarenessofelectronicchannelstothebanking public thus led to deregulated economy in north central Nigeria. All the respondents agreed to the fact thatautomated teller machines (ATM) has positive effect on the economy in north central Nigeria with a grand mean of 3.37. This finding is in line with Ngugi (2001) who posited that ATM has revolutionized the money transferbusiness and has created further innovations thathave lowered the transaction costsforboth thebanks andcustomers.

**Table2: Mean responses on effects of automated teller machines
(ATM) on deregulated economy in north central Nigeria** N = 75

Item statement	Mean	Std.Dev.	Response
Cashless policy have appreciably madepayment/Receipt instruments more available and affordable to customers	4.03	0.98	StronglyAgree
The cost of obtaining ATM cards is relatively lower and affordableconsideringtheeconomicstatusofcustomers	3.07	1.20	Agree
Cashless apparatus like ATM are accessible at cheaper charges customers	3.16	1.17	Agree
The technical error inherent in the utilization of cashless apparatusATMlike systemmalfunction,issuerinoperativeis limitedandinsignificant.	3.11	1.19	Agree
The cashless policy infrastructures deployed by the banks arereliableand trusted bythecustomers	3.50	0.92	StronglyAgree
The charge for the use of online banking tools like token,Master/Visacardsarereasonable.	3.37	0.98	Agree
Grand Mean	**3.37**		**Agree**

Source: Field Survey, 2022

Table 3 show how cashlesspolicythrough the use of Point of Sale (POS)hasappreciablytaken FinancialServices closerto thecustomers. All the respondents agreed to this fact with the grand mean of 3.41. Commercial banks intheaimofincreasingrevenueandutilizingcustomerunuseddepositsthereisincreased financial trading especially in Bonds and foreign exchange the

precedingbeingariskfreeinvestmentandhasanassuredreturnisbecomingquitecommonin Banksduetoincreasingcompetitioninthelocalbankingsector.Busch and Kick (2009) argue that POS is becoming a significant source of income in recent years to commercial banks.

Table3: Mean responses on effects of Point of Sale (POS) on deregulated economy in north central Nigeria N = 75

Item statement	Mean	Std.Dev.	Response
Cashless policy have appreciably taken FinancialServices closerto thecustomers through POS.	3.46	0.94	Strongly Agree
Morebankingunits(POS)havebeenprovidedbycommercialbanksintheremoteareasbytheaut horityof the CBN.	3.37	1.04	Agree
Cashless apparatus like Point of Sales (POS) are accessible andavailabletocustomers' in ruralsettings.	3.26	1.12	Agree
ATMandCashDepositMachine(CDM)havebeendeployedtothereachof micro entrepreneurswidely.	3.50	0.92	Agree
The facilities required to employ these apparatus like electricity,internet are available and accessible to this Subsector of theeconomy.	3.46	0.94	StronglyAgree
Grand Mean	**3.41**		**Agree**

Source: Field Survey, 2022

Fromthearegressionmodel,thestudyfoundoutthattherewereeffect of cashless policy, saving and bank credits on deregulated economy of the north central Nigeria, which are Automated Teller Machines (ATM) and Point of Sale (POS.Thestudyfoundoutthattheinterceptwas 4.312forall the variables.

Thetwoindependentvariablesthatwerestudiedexplainasubstantial 77.8 %ofasrepresentedbyadjustedR^2(0.778).Thisthereforemeansthatthetwoindependentvariablescontributes 77.8 % of the Deregulated Economy in the north central Nigeria whileother factors and random variations not studied in this research contributes a measly22.2%ofDeregulated Economy in the north central Nigeria.

The study established that the coefficient for ATM was 0.537,meaning that ATM positively and significantly has effect on Deregulated Economy in the north central Nigeria This correlates with Muia (2013)who posited that transactions from ATM which is aform of cashless revenue source has a high margin that contributes positively to bankannual profitability and from the findings he established that there is a weaker linearrelationship between return on assets (ROA)and Margins fromtheBank Cards.

The study further revealed that the coefficient for point of sale POS was 0.395,meaning that POS has positively andsignificantly has effect on Deregulated Economy in the north central Nigeria although the effect is very high. Thisconcurs with Rhyne (2002) who argues that commercial banks charge a price for theintermediation services offered by POS. The charges add to economy and it has positiverelationshipbetween ATM and POS

RegressionAnalysisbeforeModeration

A regression analysiswas then usedto test the researchobjectives with the equationbeing $Y = \alpha + \beta_1X_1 + \beta_2X_{2} + e$. The results for model summary, fitness andcoefficientsarepresented.

Table4:ModelSummary

R	0.778
RSquare	0.605
Adjusted RSquare	0.552

Source: Field survey,2022.

The regression results show that R was 0.778 which shows that the correlation cashless policy, saving and bank credit on deregulated economy is positive. R squared is the fractionof the variation in dependentvariable (deregulated economy) thatcan beaccounted for by independent variables (Automated Teller Machines and Point of Sale).

Table 5 ANOVA

Model		Sum of Squares	Df	MeanSquare	F	Sig.
1	Regression	7.184	2	1.637	4.771	.013
	Residual	9.11	73	.345		
	Total	16.294	75			

Source: Field Survey, 2022

From the ANOVA statistics in table 5, the processed data, which are the populationparameters, had a significance level of 0. 013 which shows that the data was ideal formaking a conclusion on the population's parameter. The F calculated at 5% Level ofsignificance was 4.771. Since F calculated is greater than the F critical (value = 2.47),this shows that the overall model was significant i.e. there is a significant relationshipbetween Automated Teller Machines (ATM), and Point of Sale (POS).

Table 6: RegressioncoefficientsoftheRelationshipbetweenderegulated economy andthetwo PredictiveVariables

Model		UnstandardizedCoefficients		StandardizedCoefficients		
		B	Std.Error	Beta	T	Sig.
1	Constant	4.312	0.974		4.427	.00815
	Automated Teller Machines (ATM)	0.537	0.24	0.006	2.238	.0314
	Point of Sale (POS)	0.395	0.172	0.092	2.297	.0274
Dependentvariable:Deregulated Economy						

Source: Field Survey, 2022

The coefficient of regression in table 10 was used in coming up with the modelbelow:

DE=4.312+0.537 ATM+0.395POS

WhereDEisDeregulated Economy,ATMis   Automated Teller Machines,POS is point of sale are bank credit the model, taking all factors (Automated Teller Machines (ATM) and Point of Sale (POS))constantatzero,Deregulated Economy was 4.312. The data findings analyzed also shows thattaking all other independent variables at zero, a unit increase in ATM transactionswill lead to a 0.537 increase in Deregulated Economy in the north central Nigeria; a unit increase in POSwill lead to a 0.395 increase in Deregulated Economy in the north central Nigeria. According to the model, all the variables were significant as their significance valuewas less than 0.05. However, ATM, and POS were positively correlated with Deregulated Economy in the north central Nigeria.

IV.   Conclusion and Recommendations

From the findings the study concludes thatCashless policy has been the major policy instrument being adopted in correctingdeficiencies inthe financialsector as wellas accelerating therateof growthinthesector. Also that cashless policy stems fromtheneed to resolveproblems of financial distressinordertoavoidsystematiccrises in commercial banks in north central Nigeria.

However, The CBN should as a matter of urgency review the Cashless policy strategies ofpayment/Receiptinstrumentsmoreaffordabletobanking   publics.   And troublesinimplementingconnectionsduetorepeatednetworkinterruptionandinsufficientfundsshouldbeaddressedper manently so that the banking public can enjoy the cashless policy.

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