Europ. J. Econ. Bus. DOI: http://dx.doi.org/10.20936/EJEB/160202

ORIGINAL ARTICLE

Cashless Policy and Financial Development in Nigeria

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ABSTRACT

This research systematically assesses the existent relationship between cashless policy and financial development in Nigeria, utilising post consolidated secondary data over a period from 2006 to 2014. It also employed the use of analytical techniques such as ordinary least square (OLS), pairwise Granger causality test, correlogram, and correlation matrix. The research discovered that all employed predictor variables exhibited adverse and insubstantial association with the predictor variable over the research period, it was along these lines that it prescribes that the money related industry ought to adjust to full and effective sending of data innovation as an upshot to its knowledge since the innovation is hopeless with virtual gathered increase; Nigerian banks ought to acknowledge reasonable danger level with respect to its general key and strategies for success. Banks ought to convey sufficient physical and electronica security both to square the occurrence of electronic stealing.

KEYWORDS: cashless policy, post consolidation, automated teller machine, POS, web transaction

INTRODUCTION

The twenty-first century has seen mind boggling innovative headway in all circles of human, societal and financial try. The most purported is the arrangement of data and correspondence innovation which has perplexed PC and took the world on a quick strip transforming it into a worldwide town where individuals of various nationalities, races, and social foundation can proficiently cooperate (Mieseigha & Ogbodo, 2013).

All around, economic policy drift and/or a shift in policy paradigm is normally required by a need to address certain apparent peculiarities in the financial scene. Arrangement switch is an element of winning condition which specialists accept that it can possibly drive the whole procedure of financial change or change. It should likewise impact optimistically on human advancement markers (OdiorandBanuso, 2012; Nweke, 2012). Some monetary approaches are either totally eliminated or changed generally because of intrinsic issues connected with their usual way of doing things. In worldwide setting, instalment framework is one of such approaches that have experienced generous change. Through the span of history, distinctive types of installment frameworks have been in presence. At first, exchange by bargain was basic. Late improvement in innovation for budgetary exchange has progressively fuelled the utilisation of electronic-based installment instruments all around now known as cashless arrangement (Achor & Robert, 2013).

In accordance with Ovat (2012), the cashless arrangement which took impact from April 1, 2012 in Lagos as a pilot venture pegs day by day money exchanges over the counter for people and corporate bodies at one hundred and fifty thousand naira (N150,000) and one million naira (N1,000,000) separately. Nonetheless, these sums were later evaluated upward to five hundred thousand naira (N500,000) and three million (N3,000,000) for people and corporate associations separately. Any over the counter (OTC) money exchanges over the previously stated sum for people and corporate associations pull in a charge.

The significance of these strategies is to move the economy from a money-based economy to a cashless one. In this manner it is outfitted towards inducing a productive instalment framework secured on electronic-based exchanges. Electronic-based exchange tries to drive the improvement and modernisation of Nigeria's installment framework in accordance with her vision 20:20, 20 objective of being among the main 20 economies of the world by the year 2020 (Central Bank of Nigeria, 2011). It is a cliché that a productive and cutting edge instalment framework is a key empowering agent and a sine qua non for driving development and advancement. The arrangement likewise goes

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Received: 10 August 2016 – Accepted: 25 September 2016 – Published: 10 October 2016

for enhancing the proficiency of money related strategy in overseeing swelling in the economy.

The execution of these approaches which have experienced different test runs and adjustment in the country are still existent. In any case, as opposed to the underlying arrangement to acquaint the strategy with all conditions of the league by January 1, 2013, the summit bank has now chosen to seek after the execution procedure in stages, starting from five extra states and the Federal Capital Territory. These states are Kano, Ogun, Anambra, Rivers, a state in the North Eastern zone of the nation and the Federal Capital Territory (Oketola, 2012).

Despite the advantages set by cashless economy from the previous, these option installment channels are still confronted with colossal difficulties. As per Wales (2013), test is a general term alluding to things that are pervaded with trouble and triumph. Consequently, there are numerous challenges connected with the realisation of the cashless monetary arrangement among the Nigerian families particularly the unskilled relatives; those living generally in rustic regions and the unemployed.

Aside from the physical difficulties, monetary information and pointers are not completely accessible and dependable. There is an incredible test in endeavouring to break down the genuine impact of the cashless strategy on the economy of Nigeria as just couple of fiscal and macroeconomic pointers can be followed with connection to the topic. A few researchers have endeavoured to break down the cashless framework or e-saving money. Nonetheless, it turns out to be clear that few studies exhibit an extensive assessment of tradeless saving money suggestions out creating nations. Most overlook its financial advantages of the condition while some do inadequate examination of its unfriendly ramifications. This is regularly because of temperamental board information for fiscal and macroeconomic markers. In spite of the fact that, this exploration concentrates on Nigeria, it is hard to decipher cashless studies starting with one nation then onto the next. Indeed, even installment instruments that seem to be comparable crosswise over nations at first glance might be distinctive because of authentic and lawful varieties (Daniel et al., 2004).

The significant target of this paper is the assessment of the cashless arrangement and monetary advancement in the country, utilizing key cashless policy variables such as Automated Teller Machine (ATM), Point of Sale (POS), Web Transactions (WBT), and Mobile Payment (MBP) on one of the financial development indicators largely known an financial deepening and for the research the ratio of money supply to gross domestic product was reviewed. This research will be structured as follows: the second part of the research evaluates underlying related literature. Section 3 presents the employed model of the research. Section 4 mull over the empirical output acquired in the assessment of the formulated model. Section 5 abridges the main findings, recommendations, and then conclusions.

THEORETICAL FRAMEWORK AND LITERATURE REVIEW

This segment surveys the exact and hypothetical supporting of the topic.

Theoretical Framework

The following are the speculations on which this exploration is predicated on:

Diffusion of Innovation (DOI) Theory

The theory is inferred in pondering of the "Development Diffusion Theory (IDT) that discloses people's goal to embrace an innovation as a methodology to play out a customary movement. The theory is created by Roger's (1983). The basic elements that decide the reception of a development at the general level are the accompanying: relative increase, similarity, multifaceted nature, trialability and recognisability (Rogers, 1995). Scientists Tan and Teo (2000), Gerrard and Cunningham (2003), and MdNor and Pearson (2008) had tried the Theory on the e-managing an account appropriation. The nominalized variables are many-sided quality, triability and discernibleness" (Moga, 2008).

Theory of Reasoned Action (TRA): Major innovation appropriation research thinks about have used Theory. As indicated by this theory, an individual's expectation to embrace an advancement is affected by his state of mind toward the spectrum is controlled by demeanor toward conduct (A), subjective conduct, and subjective standard. Along these lines, a man's conduct is dictated by his goal to play out the attitudes toward conduct mirror one's positive or conduct. The state of mind toward playing out the conduct is an individual's idealistic or antagonistic conviction about the one's view of others' pertinent assessments on whether playing out the particular conduct. Truth be told, dispositions are included in the convictions a man collects over his lifetime. These convictions are made from encounters, outside data, or from inside the self. Just a couple of these convictions, be that as it may, really impact state of mind. Subjective standard is convictions about what others will think about the conduct; at the end of the day, the apparent impacts of social weight on a person to perform or not play out the conduct. The individual's conviction that particular individual or gatherings think he ought to or ought not to play out the conduct and his inspiration to conform to the particular referents (Tooraj and Sahel, 2011).

The Decomposed Theory of Planned Behavior: The following evaluated theory is the Decayed Theory of Planned Behaviour (DTPB). This theory was created by Taylor and Todd (1995). The theory proposes that the aim to utilise a specific innovation is impacted by demeanour, subjective standard, and saw behavioural control. Beginning from the exploration directed by MdNor and Pearson (2008), certain impacting variables

were chosen: the demean or toward conduct and the perceived behavioral control.

Empirical Literature

The following are a portion of the related studies carried out by other researchers:

Berger (2003) assessed mechanical advancement and its impacts in the money-related industry utilising information gathered from the monetary business in the joined states over the period from 1967 to 2001. The creator utilised various relapse model, and the discoveries uncovered that changes in expenses of loaning limit because of enhancements in "back office advances, and in addition buyer profits by enhanced "front office" innovations proposes considerable general profitability increments as far as enhanced quality and assortment of managing an account administrations.

Agboola (2001) explored the impact of PC robotisation on the saving money administrations in Lagos and found that electronic saving money has hugely enhanced the administrations of a few banks to their clients in Lagos. The examination was however confined to the business operational hub of Nigeria and focused on just six banks. He made a similar investigation between the old and new era banks and found variety in the rate of selection of the computerized gadgets.

Aragba-Akpore (1998) explored on the utilisation of data innovation in the Nigerian banks and brought up that IT is turning into the foundation of banks' administrations recovery in Nigeria. He referred to the Diamond Integrated Banking Services (DIBS) of the Diamond Bank Limited and electronic brilliant card accounts (ESCA) of All States Bank Limited as endeavors outfitted towards making refinement in the managing an account division. Ovia (2000) found that keeping money in Nigeria has progressively relied on upon the sending of data innovation and that the IT spending plan for managing an account is by a long shot bigger than that of whatever other industry in Nigeria. He fought that the on-line framework has encouraged web managing an account in Nigeria as proved in some of the propelling sites. He discovered likewise that banks now offer clients the adaptability of working a record in any branch regardless of which branch the record is domiciled.

Malhotra and Singh (2009) assessed the ramifications of web counts on the Indian money-related industry utilising data drawn from a review of 85 planned business banks' sites, amid the period June 2007, by applying different direct relapse model. Results uncovered in any case, that productivity in the budgetary business while offering web managing an account does not have any generous relationship with their general execution.

Mohammed et al. (2009) explored the impact of innovation on relationship showcasing introduction (RMO) and business execution (BP) of the Nigerian banks utilising quantitative and subjective information created from 123 diverse bank offices in Port Harcourt, with 565 focused on respondents. The creators utilised different relapse model to investigate the information, and the discoveries uncovered that the innovation exists as a directing variable in the RMO-BP connections of the Nigerian banks. The examination additionally prescribed that banks ought to be mechanically agreeable keeping in mind the end goal to have superior and enduring client relationship. Britain et al., assessed the quantity of US banks offering web managing an account and examined the structure and execution attributes of these banks. They in any case, found no confirmation of significant contrasts in the execution of the gathering of bank offering web keeping money exercises contrasted with those that do not offer such administrations regarding gainfulness, proficiency, or credit quality.

Dos Santos and Peffers (1993) logically concentrated on the impacts of early reception of computerised teller machine (ATM) innovation by banks on representative proficiency utilizing a specimen of 3,838 banks covering the period from 1970 to 1979 by applying different relapse models. The finding uncovered that the presentation of ATM innovation enhances the bank's execution. Akram and Hamdan (2010) assessed the impacts of data and correspondence innovation (ICT) on Jordanian money-related industry for the time of 2003–2007. The creators embraced a specimen of 15 banks to investigate the information got by applying different relapse model and diagnostics test to check the typicality and multicollinearity issues. The aftereffects of the examination demonstrated that there is a significant impact on the utilisation of ICT in the Jordanian banks available worth included money variance average (MVA) procuring per offer (EPS), return on assets (ROA), and net profit margin (NPM).

Kagan et al. (2005) assessed the impact of internet keeping money applications on group bank execution in the United States utilising the information gathered from 1183 banks working in Iowa, Minnesota, Montana, North Dakota, and South Dakota. The creators utilised an econometric model (structural equation model) for the information examination. The discoveries of the examination uncovered that internet keeping money helps group banks enhance their procuring capacity.

Concentrates on the impacts of ATMs on benefit give confirmation of cost funds and better administrations for clients. Study of banks led by Abdullah (1985) in Malaysia, Katagiri (1989) in Japan, and Shawkey (1995) in the United States, uncovered that putting resources into ATMs decreases managing an account exchange costs, the quantity of staff, and the quantity of branches. In this manner, putting resources into ATMs builds the estimation of store records, which are less expensive as far as expenses of assets than different sources, for example, obtaining cash from different organisations, thus decreasing the general expense of assets. This proposes there is a part for IT interest in the clarification of bank productivity.

Kozak (2005) examining the estimations of profit for resource (ROA) and over the time of 1992–2003 discovered that the estimation of the arrival on resources for the United States, managing an account area has expanded by 51%. This outcome proposes that IT enhancements, connected with broad office systems and scope of offered administrations have produced extra incomes for banks. For the same time frame much littler diminishment of the non-interest costs has been accomplished. It implies the estimation of cost productivity fell by 13%. This implies an enormous number of assorted operations require higher IT speculations and extra non-interest charges. Keeping in mind the end goal to evaluate connections between the level of the IT progress, and the productivity (ROA) and cost proficiency, the relapse investigation was received to accomplish more exact measurable results, in light of quarterly values got from the FDIC.

Egland et al. (1998) was the primary critical examination, which assessed the quantity of US banks offering Web keeping money and investigated the structure and execution qualities of these banks. It found no confirmation of real contrasts in the execution of the gathering of banks offering Internet managing an account exercises contrasted with those that do not offer such administrations as far as productivity, effectiveness, or credit quality. Be that as it may, value-based Internet banks contrasted from different banks fundamentally by size.

As opposed to the consequences of Egland et al. (1998), Furst et al. (2000a, b, and 2002a, b) found that banks in all size classifications offering Web saving money were for the most part more gainful and had a tendency to depend less vigorously on customary managing an account exercises in contrast with non-Internet banks. A special case to the unrivalled execution of Internet banks was the once more (new businesses) Internet banks, which were less gainful and less effective than non-Internet de novo. The creators reasoned that Internet saving money was too little a variable to have influenced banks' gainfulness. Sullivan (2000) found that snap and mortar banks in the tenth Federal Reserve District brought about fairly higher working costs however counterbalance these costs with to some degree higher charge wage. Considering the above facts, this exploration found no deliberate proof that banks were either helped or hurt by offering the Internet conveyance channel. Like the consequences of Furst et al., this examination likewise found that once more snap and mortar banks performed considerably more regrettable than again block and mortar banks.

Hernando and Nieto (2005) assessed the execution of multichannel banks in Spain somewhere around 1994 and 2002. The examination discovered higher benefit for multichannel banks through expanded commission wage, expanded financier expenses, and (consequent) diminishments in staffing levels and reasoned that the Internet channel was a supplement to physical managing the account channels. As opposed to before studies, the multichannel banks in Spain depended more on run of the mill saving money business (loaning, store taking, and securities exchanging). The appropriation of the Internet as a conveyance channel affected banks' benefit following one and a half years of reception. It was clarified by the lower overhead costs and specifically, staff and IT costs after the same time frame.

Sathye (2005) researched the impact of the presentation of value-based Internet betting on execution and danger profile of real credit unions in Australia. Like the aftereffects of Sullivan (2000), the Internet keeping money variable divot demonstrate a generous relationship with the execution and also with working danger variable. Hence, Internet keeping money did not turn out to be an execution improving device with regard to significant credit unions in Australia. It neither lessened nor improved danger profile. DeYoung et al. (2006) watched the change in money-related execution of Web people group banks in the United States amid 1999–2001. The outcomes found that Internet selection enhanced group banks' gainfulness, especially by means of expanded incomes from store administration charges. Web appropriation was additionally connected with developments of stores from financial records to currency market store accounts, expanded utilisation of handled stores and higher normal compensation rates for bank workers. It discovered little confirmation of changes in advance portfolio blend. The discoveries recommended that Internet selection was connected with a financially and measurably considerable change in bank benefit.

Malhortra and Singh(2009) assessed the impact of Web putting money on banks' execution and danger. Utilising data drawn from the review of 85 booked business bank's sites, amid the time of June 2007, the outcomes demonstrate that about 57% of the Indian business banks are giving value-based Internet managing the account administrations. The univariate examination shows that Internet banks are bigger banks and have better working effectiveness proportions and productivity when contrasted with non-Internet banks.

MATERIALS AND METHODS

The method of data analysis employed in this research is both descriptive and analytical. The distinct instruments incorporate the utilisation of charts and tables. The analytical tool adopted is the ordinary least square (OLS) regression technique. In the realisation of the research's specified objectives, annual panel data were utilised on the following variables which includes financial deepening (FDP), ATM, POS, WBT, and mobile payment (MBP) over the period from2009 to 2014.The employed data are presented in Tables 1 and 2.

Table 1 Automated teller machine (ATM), point of sale (POS), web transactions (WBT), and mobile payment (MBP), quarterly data, 2009–2014.

Period	ATM (N' Billion)	POS (N' Billion)	WBT (N' Billion)	MBP (N' Billion)
2009	109,161,646	918,256	2,703,516	1,809,251
Q1	26,103,483	251,785	302,491	484,175
Q2	29,947,212	238,387	338,676	1,093,426
Q3	25,725,223	210,017	1,142,722	110,400
Q4	27,385,728	218,067	919,627	121,250
2010	60,133,610	1,072,426	1,601,086	1,156,533
Q1	7,762,869	253,484	331,787	170,458
Q2	11,192,073	237,435	353,120	243,381
Q3	18,449,864	256,637	414,390	306,739
Q4	22,728,804	324,870	501,789	435,955
2011	347,569,999	2,100,673	1,932,355	3,649,374
Q1	79,612,004	383,541	670,187	517,694
Q2	85,143,051	425,574	532,849	677,765
Q3	87,537,528	590,646	289,326	1,142,533
Q4	95,277,416	700,912	439,993	1,311,382
2012	375,487,756	2,555,045	2,276,464	2,297,688
Q1	86,689,804	118,620	374,409	212,195
Q2	91,802,445	485,173	723,755	417,380
Q3	94,995,190	767,858	456,286	608,574
Q4	102,000,317	1,183,394	722,014	1,059,539
2013	295,292,940	9,402,255	2,900,473	15,812,435
Q1	64,818,941	1,435,005	533,142	2,092,982
Q2	71,844,072	1,772,783	575,343	3,889,243
Q3	76,702,510	2,509,913	810,699	5,309,067
Q4	81,927,417	3,684,554	981,289	4,521,143
2014	400,102,507	20,817,423	5,587,081	29,156,406
Q1	82,803,301	4,359,237	1,122,046	4,878,633
Q2	92,703,631	4,612,264	1,108,307	8,227,939
Q3	112,195,321	5,129,326	1,597,394	8,184,003
Q4	112,400,254	6,716,596	1,759,334	7,865,831

Source: CBN Statistical Bulletin (2014).

Table 2 Financial deepening (FDP), automated teller machine (ATM), point of sale (POS), web transactions (WBT) and mobile payment (MBP), longitudinal data, 2009–2014.Longitudinal data from 2006 to 2014.

Year	FDP: (M2/GDP) (%)	ATM (N' Billion)	POS (N' Billion)	WBT (N' Billion)	MBP (N' Billion)
2006	20.5	12.10	0.80	0.20	0.04
2007	24.8	15.70	0.40	0.90	0.70
2008	33	60.10	1.20	1.60	3.20
2009	38	109.16	0.92	2.70	1.81
2010	20.2	60.13	1.07	1.60	1.16
2011	19.3	347.57	2.10	1.93	3.65
2012	19.4	375.49	2.56	2.28	2.30
2013	18.9	295.29	9.40	2.90	15.81
2014	19.9	400.10	20.82	5.59	29.16

Source: CBN Statistical Bulletin (2011–2014).

Model Specification

This research employed the following model in the operationalisation of the underlying relationship:

$$FDP = f(ATM, POS, WBT, MBP) \quad (1)$$

The mathematical form of the model is written by introducing estimation parameters in the model below:

$$FDP = \alpha_0 + \alpha_1 POS + \alpha_2 ATM + \alpha_3 WBT + \alpha_4 MBP \quad (2)$$

In econometrics, equations 1 and 2 are not sufficient in specification due to the absence of error term. Therefore, we introduce the error terms as follows:

$$FDP = \alpha_0 + \alpha_1 POS + \alpha_2 ATM + \alpha_3 WBT + \alpha_4 MBP + \mu_1 \quad (3)$$

Where

FDP = Financial Deepening (M2/GDP)
ATM = Automated Teller Machine
POS = Point of Sales
WBT = Web Transactions
MBP = Mobile Payment
α_0 = Constant Parameters
$\alpha_1, \alpha_2, \alpha_3, \alpha_4$ = Estimation parameters
μ_1 = Error term

Apriori Expectation:

On a priori $a_1, a_2, \alpha_3, \alpha_4 > 0$

An optimistic theoretical relationship is expected among employed variables of the research.

TECHNIQUES OF DATA ANALYSIS

Multiple Regression (Ordinary Least Square)

The standard regression outputs are estimated in two sections which includes the coefficient results and the summary statistics.

Standard Error of the Regression (S.E. of Regression)

The standard error is a precipitate measure in light of the anticipated change of the error term.

Durbin-Watson Statistic

The Durbin-Watson statistic accesses the auto correlation in the error term. In line with a rule of thumb, if the Durbin-Watson is less than 2, there is an evidence of optimistic auto or serial correlation".

F-Statistic

The F-statisticis a general test of an examination hidden speculations of the coefficients slop inalienable a relapse to figure out whether it likens to zero. On the off chance that the F-measurement is more prominent or higher than the basic level, this connotes the likelihood of the coefficients to be non-zero.

Decision Rule 1: If p-value(s) < α, reject H_o. If p-value(s) > α, do not reject H_o.

Decision Rule 2 (instructions): Peruse a basic quality (F*) and connection it to your test measurement. Basic qualities (F*) are the F scores tabulated in connection with the level of criticalness" **(α).**

Unit Root Test

The stationarity of series utilised for this research was resolved with the estimation of unit root. Dickey Fuller (DF) unit root test may be assessed from the accompanying types of conditions. In view of the accompanying relapse condition:

$$\Delta\Psi_t = \alpha + \beta T + \delta Y_{t-1} + \gamma_i \Delta\Psi_{t-i} + \varepsilon_t$$

Theory:

*"H*0 :ϕ> 0 (there is unit root in the series)

*H*1 : ϕ< 0 (the series are stationary)

Decision rule: Reject H_0if test measurement is not exactly basic qualities, generally do not dismiss" (Haris & Sollis, 2004) and Elliott et al. (1996).

Co-integration

This research applied Johansen co-integration rank test in finding out and deciding the co-coordination rank of variables as an essential or as a condition to show with vector error correction model is that there must exist a co-mix relationship (Adbullahi et al., 2012). Co-integration test is used "to learn the nearness of potential long run harmony relationship between two variables" (Awe, 2012) and communicated as:

$$Yt = \mu + T\,Yt - 1 + \varepsilon t$$

$$\Delta xt = k\,X{-}1\ i{=}1\ \Gamma i\Delta xt{-}i + \prod xt{-}1 + \mu 0 + \Psi Dt + \varepsilon t.$$

Decision rule: Accept H_0: (there is no considerable co-integration relationship) if t-measurement is more prominent than asymptotic basic - esteem or if the p-worth is beneath the centrality level, generally acknowledge H1: (there is generous co-integration relationship) if test measurement is not exactly the asymptotic basic qualities or if the p-quality is more prominent than the level of significance.

Parsimonious Dynamic Error Correction Model

This seeks to correct the mistake in the model. Mistake correction models (ECMs) involves a progression of longitudinal models which looks to evaluate the alteration speed at which a basis variable comes back to balance after an adjustment in a predictor variable.

Estimation of ECMs of the form:

$DZ = \Phi(B)\ DZ_{\tau\text{-}1} + \mu + \beta\ et\ 1 + vt$ (Banerjee et al., 1993; Hamilton, 1994; Johansen, 1995)

ECMs are helpful for assessing the long and fleeting impacts of one longitudinal on another. This exploration will use vector error revision model.

Granger Causality

This is a measurable and experimental theory assessment test for looking at the estimating capacity of one variable

Table 3 The Multiple Regression Estimation Output:

Dependent Variable: FDP				
Method: Least Squares				
Sample: 2006 2014				
Included observations: 9				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
C	18.99086	3.656352	5.193938	0.0065
ATM	-0.036036	0.014394	-2.503514	0.0665
POS	-2.927874	1.969763	-1.486409	0.2114
WBT	7.962992	2.688878	2.961455	0.0415
MBP	1.064527	1.359620	0.782959	0.4774
R-squared	0.782140	Mean dependent var		23.77778
Amended R-squared	0.564279	S.D. dependent var		6.981722
S.E. of regression	4.608575	Akaike info criterion		6.193896
Sum squared resid	84.95587	Schwarz criterion		6.303465
Log likelihood	-22.87253	Hannan-Quinn criter.		5.957446
F-statistic	3.590096	Durbin-Watson stat		2.189813
Prob(F-statistic)	0.121709			

Source: E-view 9 Output (Authors Computation).

against another i.e., how they bolster or advance each other (Engle &Granger, 1987; Granger, 1981).

Decision Rule: If p-value(s) < α, reject H_o. If p-value(s) > α, do not reject H_o.

PRESENTATION OF RESULTS

To assess the short-run relationship between the variables as hampered by the quantity of perception as adopted by the late consciousness of the cashless approach after the union period of banks that occurred in 2005.

Judging by the output from Table 3, it can be seen that the coefficient of determination i.e., the R-squared (R2), shows that 78.21%, as determined by the output of 0.782140 showing that the predictor variables account for about 78% of variation in the criterion variable (financial development as proxied by financial deepening), the amended R-square slightly commemorate with this as it sustains a 56.43%, although the least square output shows only the statistical significance of WBT, while the Durbin-Watson score shows the presence of auto correlation.

Granger Causality Test

To estimate the level of support and promotion between employed variables, the research undertook the pairwise granger causality test.

Judging by the output from Table 4, it can be deduced that there exists an absence of bi-directional causal relationship between employed variables of the research, also lacking is the unidirectional causal influence amongst variables, which shows a high endogenous

Table 4 The Pairwise Granger Causality Test

Pairwise Granger Causality Tests			
Sample: 2006–2014			
Lags: 2			
Null Theory:	**Obs**	**F-statistic**	**Prob.**
ATM does not Granger Cause FDP	7	3.08102	0.2450
FDP does not Granger Cause ATM		3.31628	0.2317
POS does not Granger Cause FDP	7	1.72530	0.3669
FDP does not Granger Cause POS		0.14271	0.8751
WBT does not Granger Cause FDP	7	3.28709	0.2333
FDP does not Granger Cause WBT		0.90717	0.5243
MBP does not Granger Cause FDP	7	2.12122	0.3204
FDP does not Granger Cause MBP		1.04932	0.4880
POS does not Granger Cause ATM	7	0.35723	0.7368
ATM does not Granger Cause POS		2.07452	0.3253
WBT does not Granger Cause ATM	7	2.60753	0.2772
ATM does not Granger Cause WBT		0.84085	0.5432
MBP does not Granger Cause ATM	7	0.15829	0.8633
ATM does not Granger Cause MBP		20.5874	0.0463
WBT does not Granger Cause POS	7	0.98341	0.5042
POS does not Granger Cause WBT		12.1884	0.0758
MBP does not Granger Cause POS	7	0.59983	0.6251
POS does not Granger Cause MBP		3.70354	0.2126
MBP does not Granger Cause WBT	7	16.5777	0.0569
WBT does not Granger Cause MBP		33.6728	0.0288

Source: E-view 9 Output (Authors Computation).

set of variables as variables seen to be moving by own shocks and independent causes.

Correlogram

To test for the visual level of association between variables, the research employed the correlogram, which seeks to determine the long and short run association between employed variables.

The output from Table 5 based on its long (8) and shortrun (1) probability level shows the absence of autocorrelation and partial correlation amongst the research variables which goes a long way to show that each electronic mobile system is adopted based on its inherent advocacy and not to promote or stimulate the other, which can also be seen indirectly not correlate with financial development in Nigeria.

Correlation

To further ascertain the direction and strength of the negligible correlation as seen from Table 5, the research further carries out the correlationas in Table 6.

From Table 6, it can be seen that all predictor variables exhibit an adverse and inverse movement in line with the criterion variable (financial development as proxied by the financial deepening ratio of money supply to gross domestic product in the nation), and they all possess insubstantial association to financial development in Nigeria, showing further that there are other factors influencing and promoting the financial development level of the nation apart from the cashless policy as employed by the country after the consolidation exercise.

CONCLUSION AND RECOMMENDATION

Conclusion

The research evaluated the influence of cashless policy on the financial development of Nigeria over the period from2006 to 2014 being the post consolidation period, utilising descriptive and analytical techniques such as ordinary least square (OLS), pairwise Granger causality test, correlogram, and correlation matrix. It was discovered that all employed predictor variables exhibited adverse and insubstantial association with the predictor variable over the research period.

Table 5 Correlogram output.

Sample: 2006 2014

Included observations: 9

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
. |*** . |	. |*** . |	1	0.416	0.416	2.1422	0.143
. *| . |	. ***| . |	2	-0.148	-0.389	2.4539	0.293
. **| . |	. *| . |	3	-0.305	-0.082	3.9908	0.262
. **| . |	. *| . |	4	-0.228	-0.111	5.0158	0.286
. **| . |	. **| . |	5	-0.231	-0.263	6.3321	0.275
. *| . |	. | . |	6	-0.068	0.060	6.4834	0.371
. | . |	. *| . |	7	0.031	-0.159	6.5304	0.479
. | . |	. *| . |	8	0.033	-0.081	6.6356	0.576

Source:E-view 9 Output (Authors Computation).

Table 6 Correlation matrix output.

	FDP	ATM	POS	WBT	MBP
FDP	1.000000	-0.470450	-0.341908	-0.078341	-0.302395
ATM	-0.470450	1.000000	0.644633	0.722583	0.635754
POS	-0.341908	0.644633	1.000000	0.896608	0.992268
WBT	-0.078341	0.722583	0.896608	1.000000	0.895772
MBP	-0.302395	0.635754	0.992268	0.895772	1.000000

Source:E-view 9 Output (Authors Computation).

Judging by the above, it was therefore recommend that

- The financial institutions should amend to full and efficient deployment of information technology due to its sophistication since the technology is irreversible with relative perceived gain.
- The nation's banking institutions should be able to accept the level of risk that they can cope with in electronic banking system, measurable to the bank's overall strategic and business plans. Though there is inherent risk for not adopting e-banking.
- The financial institutions should be able to provide adequate security both physically and electronically to check the incidence of hacking by fraudsters. Network hackers successfully dupe banks of billions of naira at a strike and can send banks into liquidation.
- That shareholders of financial institutions should exercise patience with the banks management in the payment of dividend as perceived future dividends will be omnibus after some lag period of cost recovery.
- The financial institutions should see to proper enlightenment and education of customers as to the importance and convenience of electronic banking, in the nation and worldwide.
- Other studies should extend the time frame of data as to monitor other long ranged trends which could entail waiting for a more rounded and compounded data series

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Article citation: Monogbe Tunde G, Akinpelumi Omotayo F, Achugbu Austin, Nduka Joseph Afamefuna. Cashless policy and financial development in Nigeria. *European Journal of Economic and Business* 2016;01(02):24–35.

Statement of originality of work: The manuscript has been read and approved by all the authors, the requirements for authorship have been met, and that each author believes that the manuscript represents honest and original work.

Source of funding: None

Competing interest / Conflict of interest: The author(s) have no competing interests for financial support, publication of this research, patents, and royalties through this collaborative research. All authors were equally involved in discussed research work. There is no financial conflict with the subject matter discussed in the manuscript.

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