

EFFECT OF CASHLESS POLICY, SAVING AND BANK CREDIT ON NIGERIAN DEREGULATED ECONOMY

UMAR, Habiba Mohammed Bello

Department of Economics
Ibrahim Badamasi Babangida University, Lapai
Niger State, Nigeria
e-mail : habibambumar@gmail.com
Phone: +2347063983267

Abstract

This study examines the implications of cashless banking, with a view to exposing the possible challenges and prospects it poses to the Nigerian economy as well as employing aggregated approach. This study is important to Nigeria, where the idea of carrying raw cash is normal, money laundering and illiteracy is on increase. It explicitly sought to find out how cashless policy can mobilize and increase total domestic saving by increasing bank credit of deposit money banks injected into the Nigerian economy, and their effect on the country's economic growth as proxies by Gross Domestic Product. The Autoregressive Distributed Lag model of econometric technique was used to analyze the data. Our findings show that there exists a long run relationship among the variables which simply suggest that cashless policy, savings and bank credit will influence economic growth in Nigeria. bank credit and money supply to the domestic economy is positive and significant. increased bank credit will increase considerably, supply of loanable funds available through the banking system, thereby causing interest rate to fall. With lower interest rate, total expenditure on investment usually increase, causing an increase in employment rate and promoting the real GDP. The implication is that banks credit impacted on the productive sectors sufficiently and significantly on the Nigerian economy.

Keywords: cashless policy, bank credit, deregulated economy, savings

Introduction

A cashless society is a culture where no one uses cash, all purchases being made are by credit cards, charge cards, cheques, or direct transfers from one account to another through mobile banking. Ndifon and Okpa (2014), opine that the aim of cashless policy is to eliminate the unhealthy consequences associated with the high usage of physical cash which consists of corruption, robbery, leakages and money laundering and other cash-related fraudulent activities. The cashless Nigerian society, when fully implemented, has many benefits. Some of these benefits include: Reduction in money laundering, Check on terrorist financing, Effectiveness of the monetary policy, Creation of more employment opportunities in the financial sector, Provision of evidence against bribe givers and takers, especially the civil servants and politicians (Afonja 2017). The idea of a cash-less economy policy initiative by the Central Bank of Nigeria (CBN) is a move to improve the financial terrain (Humphrey, 2014). The

question to be asked is that how will Nigerian politics be in a cash light or cash less economy where carrying of raw cash in 'Ghana must-go' bags is the order of the day? How will the Nigerian socialite spray his money at parties? How can a big family cope with money for its domestic needs on weekends? How will the average trader in Alaba market or Main Market, Onitsha, who deals in millions of cash every day, cope with the policy when he has to make huge cash available to respond to quick businesses? How will the illiterate cow seller in the far North buy and sell his cow with the new policy as a cow costs more than the limit set by the Central Bank of Nigeria (CBN, Afonja 2017). Growth in the real sector of the economy increase saving mobilizations; this is because credit will be available for investors (Suberu, 2015). One of the importance of cashless policy in Nigerian deregulated economy is the role of credit in economic development (Akande 2017). It has been recognized that credits are obtained by various economic agents to enable them meet operating expenses. For instance, business firms obtain credit to buy machinery and equipment; farmers obtain credit to purchase seeds, fertilizers, erect various kinds of farm buildings. In the same vein, governmental bodies obtain credits to meet various kinds of recurrent and capital expenditures. Furthermore, individuals and families also take credit to buy and pay for goods and services. (Adeniyi, 2006). According to Ademu (2006), the provision of credit with sufficient consideration for the sector's volume and price system is a way to generate self -employment opportunities. This is because credit helps to create and maintain a reasonable business size as it is used to establish and/or expand the business, to take advantage of economic of scale. It can also be used to improve informal activity and increase its efficiency. This is achievable through resource substitution, which is facilitated by the availability of credit. While highlighting the role of credit, Ademu (2006), further, explained that credit can be used to prevent an economic activity from total collapse in the event of natural disaster, such as flood, drought, disease, or fire e.t.c.

According to Keynesian economics, defined savings as the amount left over when the cost of a person's consumer expenditure is subtracted from the amount of disposable income that he or she earns in a given period of time. Savings is also the portion of disposable income not spent on consumption of consumer goods but accumulated or invested directly in capital equipment or in paying off a home mortgage, or indirectly through purchase of securities. Abu (2010) stated that increases in savings results to increase in capital formation and investment and thereby raising the growth of the nation's economy Muyiwa, Sunday Tunmibi, and John-Dewole (2016). they all argue that cashless policy, savings and bank credit will increase employment; reduce cash related robbery thereby reducing risk of carrying cash; cashless policy will also reduce cash related corruption and attract more foreign investors to the country.

Despite the introduction of cashless policy in Nigeria in 2012, people are still spending several hours in banks to withdraw cash as opposed to cashless transactions policy which according to Mathew and Mike (2016), will bring about increased convenience, more service option, reduced risks of cash related crimes, cheaper access to banking services among others. The e-payment system is said by many who have tried to use it to be filled with hitches. Sometimes money is being transferred but

not delivered. While sometimes it takes some few days before reversal of this failed transaction. Therefore, there is fear of possible loss of money through fraud. However, Central Bank of Nigeria (CBN) has directed banks to pay Ten thousand naira (#10,000) for each failed transaction based on customer's complaints not reversed within 24 hours.

Meanwhile, information security experts have confirmed that the infrastructure supporting the cashless system in Nigeria may be 60% vulnerable to fraud (Omotund, 2013). This, according to them, is because the system is only 40% protected as only 1% of the operators involved have attained the Payment Card Industry Data Security Standard certification (PCI DSS) (muyiwa, 2015). This makes it imperative for operators do the Payment Card Industry Data Security Standard (PCI DSS) certification because by so doing, they will be giving the public the assurance that transactions via their networks are safe. Major factor behind this policy is the problem of money laundering in Nigeria and the need for the authorities to "follow the money". If this prediction is accurate then the benefits will be tremendous by saving and retaining money in the country, this money is then used for additional developments. It also will reduce the pressure on the Naira. However, in view of the aforementioned benefits of cashless policy more need to be done in achieving it success in Nigerian deregulated economy. From aforementioned this research work focused on how the policy can mobilize saving, and there by create bank credits that enhances economic growth. The research work is tending to examine the effects of cashless policy on Nigerian deregulated economy. To assess the problems that hampers the success of cashless policy in Nigeria deregulated economy.

Literature Review

There have been various studies carried out on the idea of cashless policy in an economic, some of these studies showing how significant such policy can help tackle some financial problems like money laundering etc. and other studies gave a non-significant impact of this policy to the economic. A study by Adeniyi and Olutayo (2015) over the nexus between cash less policy and financial inclusion reveals that the respondents in the study were more satisfied in the use of cash less policy; and that it enables them access financial services easily. Akhalumeh and Ohiokha (2012) through empirical research observed some challenges with the introduction of cashless policy. Some of the findings from the empirical analysis reveal that 34% of the respondents cited problems of internet fraud, 15.5% cited problem of limited point of sales (POS) and automated teller machine (ATM), 18.69% of the respondents cited problem of illiteracy and 30.99%, stayed neutral; i.e. the respondent not being sure of problem expected or experienced under the cashless policy. Most especially they submit that the effect of the cashless policy is not well felt in rural centers in Nigeria due to pockets of challenges like network, frauds and armed robbery attacks. Intuitively this necessarily engenders the ability of people to continually prefer cash less policy and thus promote financial inclusion directly or indirectly. Alao and Sorinola (2015) presented an empirical investigation for the relationship between the cashless policy and customers' satisfaction on commercial banks in Ogun State, Nigeria. The findings

of the study disclosed that cashless policy could contribute to customers' satisfaction and its policy could add significantly to customers' satisfaction through electronic channels. Okoye and Ezejiogor (2013) investigated the significant benefits and essential elements of cashless policy in Nigeria, and also examined the extent to which it could enhance the growth of financial stability in the country. They recommended that the government should adopt different plans to educate the non-literate Nigerians about the cashless economy. Alao and Sorinola (2015) presented an empirical investigation for the relationship between the cashless policy and customers' satisfaction on commercial banks in Ogun State, Nigeria. The findings of the study disclosed that cashless policy could contribute to customers' satisfaction and its policy could add significantly to customers' satisfaction through electronic channels. Adewoye (2013) empirically studied the impact of cashless policy and mobile banking on service delivery in the Nigerian Commercial Banks through the use of questionnaire. He found out that the introduction of cashless policy and e-banking services has improved banking efficiency in rendering services to customer. His findings show that mobile banking improve banks service delivery in a form of transactional convenience, savings of time, quick transaction alert. In the same vain Ejiobin (2019) also examine the challenges of cashless policy implementation in Nigeria using partial least square (PLS) method, the result shows that e-banking system has a direct positive influence on the behavioral intention to adopt the cashless policy. The result from the hypothesis testing suggesting that the performance expectancy; meaning the ease and time saving effect e-banking gives to accessing banking services positively affects the behavioral intent of the user to adopt the cashless policy. Other studies like, Ogbeide (2018), examined the effects of cashless policy on financial inclusion in Nigeria economy using data collected from central Bank of Nigerian, statistics Bulletin and the ordinary least square method was applied to analyze the data. The findings reveal that the cashless policy maintains a non-significant relationship with economic growth in Nigeria.

Savings and economic growth

Various authors differ on the idea of savings and its impact on economic growth, for that various studies have been conducted on the idea of how savings increases investment and then increases economic growth. Verma and Wilson (2005) examined the relationship between savings, investment, foreign inflows and economic growth in Indian using ordinary least square method and annual time series data from 1950 to 2001. The study revealed that savings and investment affect GDP in the long run while GDP has significant but small effects on household savings and investment in the short run. This means that the feedbacks to GDP are absent in the long run and only small in the short run. However, their results and findings did not support the Solow and endogenous growth theory which states that there is need to increase household savings and investment so as to encourage economic growth. Verma (2007) investigated the relationship between savings, investment and economic growth in India from 1951 to 2004 using Autoregressive Distributed Lag (ARDL) Bounds Testing technique to test for Cointegration. The result of ARDL co-integration revealed that GDP, GDS and GDI have long-run relationship except when GDP is the dependent

variable. The study also examines the long-run and short-run elasticities of the correlation between GDS, GDI and GDP growth. The result shows that savings do not cause growth, but growth causes savings, savings drive investment both in the short-run and in long-run and that investment is the driver of economic growth in India during the period.

In addition, Ramesh (2011) used granger causality test, Johansen co-integration test and vector error correction model to examine the direction of relationship between saving, investment and economic growth in India at both aggregate level and sectoral level for the period 1951 to 2008. The co-integration test result suggests that there exists co-integration relationship among all series with GDP except private corporate savings. The study also found that the direction of causality runs from savings and investment to economic growth collectively as well as individually and there is no causality from economic growth to savings and (or) investment. Corroborating the above, Turan and Olesia (2014) investigated the impact of savings on economic growth in Albania over the period of 1992 to 2012 using Johansen co-integration test and error correction model. The result revealed that savings and economic growth are co-integrated, therefore showing the existence of a stable long-run equilibrium relationship.

Bank credit and economic growth

According to the study conducted by Levin (2005) on the relationship between bank credit and economic growth, bank credit issued divided into two: credit to the private sector and credit to the public sector. The credit to the public sector has been empirically proven to have weak effect on the economic growth because they are prone to waste and politically motivated programmed which may not deliver the best result to the populace. Levin (2005) examined economic growth as a positive change in the national income or the level of production of goods and services by a country over a certain period of time. It can be measured in terms of the level of production of goods and services by a country over a certain period of time. Other measures of economic growth include real per capital GDP, the rate of physical capital accumulation etc., (King and Levin 1993). Demircuc-Kunt and Levine (2008) emphasized the importance of allocating credit to the private sector as opposed to all bank intermediation.

Similarly, Crowley (2008) also observes that private credit serves as good predictor of economic growth. In the study of Onuorah (2011), some factors were identified as a driver of credit growth which are largely but not researched hence the contribution of the well acclaimed private sector credit to the growth of the economy may not be easily measured. An entrepreneur who owns the capital invested in the business uses it to employ labor in order to produce goods. Bayoumi and Melander, (2008) state that 2½% reduction in overall credit causes a reduction in the level of GDP by around 1½%. Similarly, findings have shown that economic growth can also be a causal factor for financial development. This occurs when the level of development within the economy is responsible for prompting the growth of the financial system.

Theoretical Framework

Endogenous growth theory:

Endogenous growth theory or new growth theory was developed in the 1980s by Romer (1986), Lucas (1988), and Rebelo (1991), among other economists as a response to criticism of the neo-classical growth model. Endogenous growth theory is an economic theory which argues that economic growth is generated from within a system as a direct result of internal processes. More specifically, the theory notes that the enhancement of a nation's human capital will lead to economic growth by means of the development of new forms of technology and efficient and effective means of production.

The theory captures the potential effects of savings and investment on economic growth as a linear function of capital accumulation. The theory assumes that efficient financial sector might affect economic growth through three channels namely: reduction in transaction costs and channeling of increased savings to firms for productive investments, improving the allocation of capital and rate of savings. Jhingan (2006) explained that the endogenous growth model emphasizes technical progress resulting from the rate of investment, the size of the capital stock and the stock of human capital. In an endogenous growth model, Nnanna, Englama, and Odoko (2004) observed that financial development can affect growth in three ways, which are: raising the efficiency of financial intermediation; increasing the social marginal productivity of capital and influencing the private savings rate. This means that with technological advancement and innovations, new government policies such as cashless policy, financial institution can effect economic growth by efficiently carrying out its functions, among which is the provision of credit. This function can be given, thus

$$\Delta X_t = \mu + \Delta_{\Delta-1} + \frac{\Delta}{\Delta-1} \beta \Delta X_{t-1} + \varepsilon_t \quad (3.1)$$

$$\Delta X_t = \mu + \Delta_{\Delta-1} + \frac{\Delta}{\Delta-1} \beta \Delta X_{t-1} + \varepsilon_t \quad (3.2)$$

$$\Delta X_t = \mu + \Delta_{\Delta-1} + \frac{\Delta}{\Delta-1} \beta \Delta X_{t-1} + \varepsilon_t \quad (3.3)$$

Where;

Δ denote the first different operator, X_t is the variable under consideration, μ is the constant term, t is the time trend, X_{t-1} is the lag of the series being tested, k denotes lag length, ΔX_{t-1} is the first difference lagged series usually taken to eliminate the problem of serial correlation (Dickey and Fuller, 1979) and ε is the white noise process with ε_t with ε_t iid ($N(0, \sigma^2)$). The term k in this test is automatically determined by Schwarz Information Criterion (SIC) or Akaike Information Criterion (AIC) to get the optimal lag length and ensure white noise process of the residuals.

The null hypothesis of the ADF test states that the series is associated with a unit root, that is, $\alpha = 0$ while the alternative is that the series is stationary, $\alpha < 0$. Therefore, if the F-statistics is less than the critical values at the appropriate level, the series is considered to be stationary.

$$\text{LRGDP} = \beta_0 + \beta_1 \text{LNDC} + \beta_2 \text{LMS} + \text{ert}$$

LRGDP = log of real gross domestic product

LNDC = log of net domestic credit

LMS = log of money supply

ert = disturbance term (error term) which captured others factors that were not incorporated in the model, although they can affect the model

β_0 = parameter intercept/constant

β_1, β_2 = coefficient of the independent (exogenous) variables

Furthermore, LRGDP is regarded as dependent variable (DV) in the model, while log of net domestic credit and log of money supply are independent variable (IV). Dependent variables are variables that are determined by the model (or endogenously). In the other hand, independent variables are those variables that are exogenously determine or variable that may take on any value in a relationship

The ARDL is abbreviated from autoregressive distributed lagged model. It is a common model employed when working with a time series data. Perasan and Shin (1995) and perasan (1996) developed ARDL approach to co-integration or bound procedure for a long run relationship regardless of whether the fundamental variables are 1(0), 1(1) or are both combine. ARDL does not consider the problem arising from the different order of co integration of the variables. We use variables in natural logarithm form to analyze the implication of the relationship among the macroeconomic variables. The use of ARDL approach to co-integration will give realistic and efficient estimates. The ARDL approach helps to identify the co integrating vectors. That is, each of the identifying variable stands as a single long-run relation equation. If one co-integrating vector is identified, the ARDL model of the co-integration vector is reparametrized in to Error Correction Model (ECM). The reparametrized result gives short-run dynamics and long-run of the variable of a single model. The reparametrized is possible because the ARDL is a dynamic single model equation and of the same form with the ECM. Distributed lag model simply means inclusion of unrestricted lag of regressors in a regression function.

Data Presentation, Analysis and Discussion Of Result

Unit Root Test

Table 1 Unit Root Test (ADF)

Variable	Constant without trend		Constant with trend	
	Level	1 st Difference	Level	1 st Difference
LRAL GDP	-	-6,780***	-2.434	-6.675***
LCR	0.811	-4.108***	-	-1.838
LMONS	-	-5.386***	5.956***	-5.866***
	1.546		-1.934	
	-			
	2.110			

Note, ***,** and* denote significant values at 1%, 5% and 10% respectively

Following the result of the ABOVE TABLE, it can be seen that all the variables passes the unit root test of ADF either at 1st difference or at LEVEL with co integration order of 1(0) and 1(1). Such that Real GDP is not stationary at level of intercept and intercept with trend with the prob values of 0.8030 and 0.3563 respectively but is stationary at 1% level at first difference of intercept and intercept with trend with the prob values of 0.0000 and 0.0000 respectively. Credit is also not stationary at level and first

difference of both intercept and intercept with trend with prob values of 0.4981 and 0.6627 respectively but is stationary at first different and level of intercept and intercept with trend with prob values of 0.0007 5% level and 0.0000 1% level. Lastly Money supply is not stationary at levels of both intercept and intercept with trend with prob values of 0.2418 and 0.6150 respectively but is stationary at first difference of intercept and intercept with trend with prob values of 0.0001 1%level and 0.0002 1%level. Thus, the null hypothesis of non-stationary is rejected at 1st difference and accepts the alternative hypothesis of stationary.

ARDL co integration

Table: 2 *The result of ARDL co integration test*

Bound Test to Co integration			
F (LMONS, LCR)			
	Optimal lag structure	ARDL (1, 1, 2,)	
F-statistic	6.872907		
Significant level critical value {Lower bound 1(0)}		critical value {upper bound 1(1)}	
10%	2.63		3.35
5%	3.1		3.87
2.5%	3.55		4.38
1%	4.13		5

The value of F-statistic figures tests for null hypothesis that there is no co integration among the variables used. The result of the F-test for co integration test is = 6.872907 which is higher than the critical values at 10% 2.63 lower bound and 3.35 upper bound, at 5% 3,1 lower bound and 3.87 upper bound, at 2.5% 3.55 lower bound and 4.38 upper bound, at 1% 4.13 lower bound and 5 upper bound of ARDL co integration.

ARDL Long Run and Short Run Result

The long run ARDL test analyze The Effect of Cashless Policy, Saving and Bank Credit on Nigerian through it signs and the p-value of the model. There will long run effect and significant of the variables through the value of the model coefficient and the p-value

Table: 3 *ARDL long Run Analysis*

Dependent variable (LREAL GDP)				
EC= LREAL GDP-(3.4047*LCR-3.4713*LMONS-2.2098)				
Variable	Coefficient	standard error	t-statistic	(p-value)
LCR	3.404704	3.829724	0.889021	(0.0021)
LMONS -	3.471329	5.511350	-0.629851	(0.5343)
C	-2.209844	7.800578	-0.283292	(0.0000)

Note: *, **, *** represent 10% 5% and 1% significant level respectively.

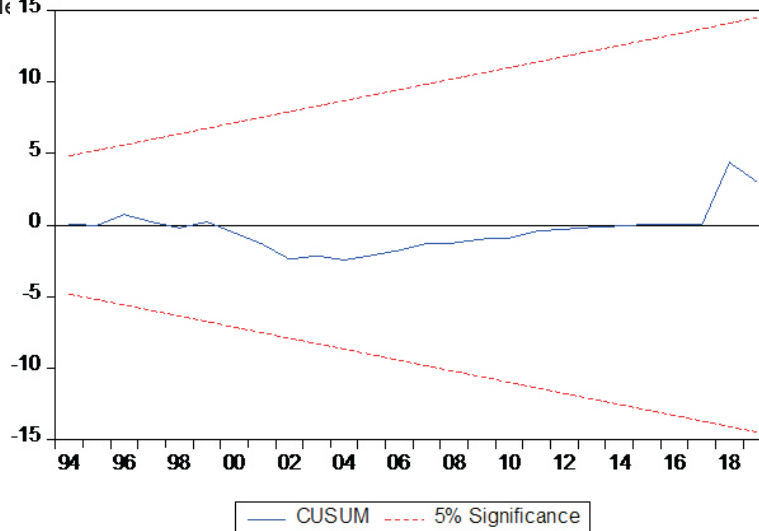
Table:4 *ARDL Short Run Analysis*

Variable	coefficient	standard error	t-statistic	(p-value)
Δ(LCR)	0.062943	0.026763	2.351845	0.0065
Δ(MONS)	0.164625	0.101965	1.614521	0.0085
Cointeq(-1)*	0.067373	0.012167	5.537485	0.0000

From table 3, the long run result shows that credit (LCR) is positive and significant at 1% which implies that an increase in bank credit will increase economic growth by 0.06% and also positive and significant in the short run; money supply is negative and insignificant in the long run which shows that an increase in the supply of money will affect the economy negatively while in the short run money supply is positive and significant at 1% level of significance.

Stability Test

The stability test is used through cumulative sum of recursive plot to check for the stability of the model coefficient. The stability of CUSUM test through the plot of residual will be stable if the line of the residual lies within the boundary of the graph at 0.05 level.



The result of stability test revealed that the model is stable through its CUSUM analysis. As indicated by the CUSUM analysis, the blue line is within the boundary which implies that at 5% level of significant the model is stable in investigating the relationship between fiscal policies and balance of payments in Nigeria within the period of study.

Discussion of the Result

The ARDL result presented above, the long run and short run of the effect of cashless policy, savings and bank credit on Nigeria economy. The result shows that there exist a long-run relationship among the variables which simply suggested that cashless policy, savings and bank credit will influence economic growth in Nigeria in the long run through the ARDL cointegrating bound test. The result of long run relationship suggest that bank credit will increase economic growth in the long run and this outcome is consistent with the Keynesians idea that increased bank credit will increase

considerably, supply of loanable funds available through the banking system, thereby causing interest rate to fall. With lower interest rate, total expenditure on investment usually increase, causing an increase in employment rate and promoting the real GDP, but money supply is negative and insignificant as revealed by the model which implies that too much money in circulation is harmful to the growth of the economy. This is in line with findings of Alexius and Holmlund (2007) who investigated the relationship between expansionary monetary policy and economic growth in Sweden using the VAR model and quarterly data of domestic output gap, unemployment and monetary conditions index for the period of 1980-2005. The result submits that expansionary monetary policy decreases economic output.

Conclusion and Recommendations

Many attempts have been made to investigate the relationship between cashless policy, savings, bank credit and economic growth in Nigeria, by using the relevant econometrics methods. It has shown that cashless policy: savings and bank credit has contributed positively to economic growth. The increasing impact of cashless policy has strengthened the need to study the effect of cashless policy, savings and bank credit performances on economic growth. The present research is an attempt to examine the impact of cashless policy, savings and bank credit on economic growth in Nigeria by coercing log of Net domestic credit (LNDC) as independent variables along with log of money supply (LMS) as controlled variables in Nigeria. The effect of cashless policy, savings and bank credit on Nigerian deregulated economy is empirically tested on log of real GDP as a dependent variable of economic growth spanning from 1985 to 2019 using Autoregressive Distributed Lag (ARDL) model and the empirical analysis of this research follows the endogenous Growth Model, which emphasized on development of new forms of technology (innovation) to increase investment capital resulting to economy's growth; the methodology used for this research is based on ADF unit root test, Johansen co integration test, Autoregressive distributed Lag, Jargue-Bera and Heteroskedasticity serial correlation to examine the effect of cashless policy, savings and bank credit on Nigerian deregulated economy.

Policy Implication of Findings and Recommendations

From the empirical outcomes obtained above, this study has a number of policy implications for both the monetary authorities and the national governments. It was observed that bank credit has not impacted significantly on the growth of the Nigerian economy. This is attributed to the fact that banks exhibit apathy in lending to the private sector for productive purposes e.g. agricultural sector, as they prefer to lend to the short-term end of the market, e.g. commerce, which attracts quick and high rate of turnover. As a result of this, the volume of loan actually given to investors is insignificant. Furthermore, World Bank (2007) as cited by Dalis (2010) observed that the Nigerian Banks are burdened with excess liquidity but simultaneously very cautious in providing credit to private sector. Excess liquidity exists because financial intermediaries lack investment opportunities with sufficient returns or perceive the risk in intermediating funds to be too great. Weak financial intermediation capacity has limited access to finance for investment. Firms have been forced to rely to a high

degree on self-financing large proportion of the total credits of deposit money banks that goes to the government are usually not for productive purposes due to the level corruption and looting of government treasury and most government expenditures are on transfers' payment with little impact on productivity. The oil sector, which dominates the Nigerian economy, has contributed immensely to the GDP of Nigeria, thus banks aggregate credit has little or no significance on the growth of the economy. In view of these, it is recommended that the cashless policy be enforce so as to: educative programmed should be embarked on to orientate both literates and non-literates on infrastructures utilizations.

Suggestion for further research

The research span from 1985 to 2019; it is recommended/suggested for other researchers to expand the time period of study to see the effect of cashless policy, savings and bank credit on Nigerian deregulated economy. It is also recommended that other government financial policies can be employ to evaluate the impact of cashless policy, savings and bank credit on economic growth in Nigeria through other econometric approaches. The examination of stock and economic growth in Nigeria has been positive, however, it should be judge against with other nations to see if such relationship also exists between them. The problems associated with cashless policy in Nigeria should also be investigated for more improvement and to ensure utmost utilization of the policy for greater impact on the country economy.

References:

- Abiodun, E. & Chima, O. (2012). "Cashless Policy: A Burden or Relief? This day Live. Retrieved from <http://www.thisdaylive.com/articles/114483/> on April 25th 2012.
- Abu, A. B. (2010). the Causal Relationship between Savings and economic Growth: Some Evidence from MENA Countries. Paper Presented at the 30th MEEA Meeting in Atlanta.
- Abu, N. (2010). Savings and Economic Growth Nexus in Nigeria: Granger Causality and Co-Integration Analysis. *Review of Economic and Business Studies*, 3(1): 93-104.
- Adegbaju, A. A., Olokoyo F. D., (2008). Recapitalization and Banks Performance: A case study of Nigerian Banks, *African Economic and Business Review*, Vol. 6, No. 1, 2008.
- Adekanye, F. (1986). Elements of Banking in Nigeria. F & A Publishers Ltd in Association with Graham Bum 3rd Edition, Lagos.
- Adeyemi, K. S. (2006). Banking Sector Consolidation: Issues and Challenges, a paper presented by an Executive Director, Union Bank of Nigeria PLC.
- Agrawal, P. (2001). The relationship between savings and growth in South Asia. Co-integration and causality evidence from Asia. *Applied Economics*, 33: 499-513

- Ajayi, M. (2006). Banking Sector Reforms and Banking Consolidation: Conceptual Framework, *Bullion*, Vol. 29, No. 2.
- Ajayi, S. I. and Ojo, O. (2016). Money and Banking: Analysis and Policy in the Nigerian Context, Second Edition. *University of Ibadan Daily Graphics Nigeria Ltd.*
- Aliero, H. M., Abdullahi, Y. Z., & Adamu, N. (2013). Private sector credit and economic growth nexus in Nigeria: An Autoregressive Distributed Lag Bound Approach. *Mediterranean Journal of Social Sciences*, 4 (1.1). <http://dx.doi.org/10.5901/mjss.2013.v4n1p83>
- Azeez, K. (2011). Cyber Insecurity Threatens Nigeria Cashless Economy Drive.
- Azeez, K. (2006). Fresh Hurdles for CBN Cashless Economy Plan, *National Mirror*, October, 2011.
- Bencivenga, V. R. & Smith, B. D. (1991). Financial intermediation and endogenous growth. *Review of Economic Studies*, 58 (1), 195-209.
- Berger, A. N. (2003). The economic effects of technological progress: Evidence from the banking industry. *Journal of Money, Credit, Banking*, 35 (2): 141-176.
- Central Bank of Nigeria (2011). "Money Market Indicators & Money and Credit Statistics, *CBN Statistical Bulletin*, CBN Publications.
- Central Bank of Nigeria (2011). New Cash Policy presentation for the interactive engagement session with stakeholders on Cashless Lagos., *CBN Website*.
- Central Bank of Nigeria (2012). *Bankers Committees Resolution on the use of ATM and other issue*
- Central Bank of Nigerias statistical Bulletin (Various issues) CBN (2011). Towards a Cashless Nigeria: Tools & Strategies, *Nigerian Journal of Economy*. 3 (2,) 244-350.
- Dada, P., Oronsaye, S. (2011). As Lagosians Gear up for Cashless Economy, [Online] Available:http://www.leadership.ng/.../lagosians_gear_cash.
- Daniel, D.G., Swartz, W., & Fermar A. (2004). Economics of a cashless society: An analysis of costs and benefits of payment instruments, *AEI Brookings Joint Centre*.
- Denison, Edward F. (1962). "The Sources of Economic Growth in the United States and Alternatives Before Us." *CED Supplementary Paper, No 13*.
- Dickey, D. and Fuller, W. (1979). "Distribution of the Estimators for Autoregressive Time Series with a Unit Root," *Journal of the American Statistical Association*, 74, 427-431
- Ekezie, E. S. (1997). The Elements of Banking: Money Financial Institutions and Markets. Onitsha. *Africana First Publishers Limited*

- Ezumba S. (2011). The Transition to a Cashless Nigeria, Reinventing Rebuilding LLC, 2011. Chronicle, [Online] Available: <http://www.allAfrica.com>.
- Folarin, F. (2014). Cashless Policy and Online Shopping: Matter Arising Sundaata Post www.google.com retrieved 20/2/2015.
- Humphrey, D. B. (2014). Replacement of Cash by Cards in U.S. Consumer payments. *Journal of Economic and Business*, 56:211-225.
- Humphrey, P. B. M. (2012). Implication of Cash-Dominated Transactions for Money laundering. *Institute for Security Studies Situation Report*.
- Ibrahim, K. (2013). X-raying Cashless policy. *Business and Economy Magazine (March 25)*: pp3840.
- Jhingan, M. L. (2006). The Economic of Development and Planning. 38th Edn., *Virnda Publication (P) Ltd., Delhi*.
- Jinchan, Charles I. (1995b). "R&D-Based Models of Economic Growth," *Journal of Political Economy*, 103: 759-784.
- Lucas, R. E. (1988). "On the mechanics of economic Development". *Journal of monetary economics*. 22:3-42.
- Mahmood, F. (2013). Impact of Information Technology Usage by Banks on Customer Satisfaction in Banking Sector of Pakistan. *Management and Administrative Sciences Review*. 2(2), 221-232.
- McKinnon, I. (1973). Money and Capital in Economic Development. *Washington D.C.: Brookings Institution*.
- Morufu, O. and Taibat, A. (2015). Bankers perceptions of electronic banking in Nigeria: A review of post consolidation experience. *Research Journal of Finance and Accounting*, 3(2): 5-6.
- Muyiwa, O., Tunmibi, S., & John-Dewole, A. T. (2017). The Impact of Cashless Economy in Nigeria. *Greener Journal of Internet, Information & Communication Systems*, 1(2), 40-43.
- Ndifon, E. and Okpa, I. (2014). Challenges and benefits of the cash-less policy implementation in the Nigerian economy. *European Journal of Business and Management*, 6(26): 24-32.
- Nwanyanwu, O. J. (2010). An Analysis of Banks Credit on the Nigerian Economic Growth; *Jos Journal of Economics*, Vol.4, No.1
- Omotunde, M., Tunmibi, S., & John-Dewole, A.T. (2013). Impact of cashless economy in Nigeria. *Greener Journal of Internet Information and Communication Systems* 1(2): 040-043.
- Onoh, J. K. (2017). Dimensions of Nigeria's monetary and fiscal policies: Domestic and external. *Astral Meridian Publishers: Aba*.

- Osazevbaru, H. O. and Yomere, G. O. (2015). Benefits and challenges of Nigeria's cashless policy. *Kuwait Chapter of Arabian Journal of Business and Management Review*, 4(9): 1-10.
- Pandey, I. M. (2006). *Financial management:Credit policy*. (9thEdition). New Delhi: Vikas Publishing House PVT LTD.
- Pearce, D. W. (1992). *Macmillan Press. Bank credit and it economic impact in Nigeria. Dictionary of Modern Economics*.
- Pesaran, M. H. and Shin, Y. (1995). An Autoregressive Distributed Lag Modeling Approach to Cointegration Analysis, In: Strom, S., Holly, A., Diamond, P. (Eds.), *Centennial Volume of Rangar Frisch, Cambridge University Press, Cambridge, (1999)*.
- Schumpeter, J. A. (1934). *The theory of economic development. Cambridge:*
- Shaw, E. S. (1973). *Financial Deepening in Economic Development New York:Oxford University Press*.