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Cashless Policy And Small And Medium Scale Enterprises Output In Nigeria

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Abstract: *The study examined the effect of cashless policy on small and medium scale enterprises output (SMSEO) in Nigeria from the period of 2000 to 2022 (23years). The study made use of aggregate secondary data from CBN Statistical Bulletin and CBN Annual Report, for the duration of the study. Cashless policy measures; Automated Teller Machine (ATM), Point of Sale (POS), Internet Banking (INTB) and Mobile Banking (MB) was analyzed in relation small and medium scale enterprises output (SMSEO) in Nigeria. The data set was described using descriptive statistics and the unit root test was conducted to ascertain if the data are stationary in order to have accurate regression result. The correlation analysis was used to ascertain the co-movement of the independent variables in relation to the dependent variable while the Multiple Regression analysis was employed with the aid of E-VIEW version 9.0 for the purpose of testing the research hypotheses raised. The findings revealed that ATM, POS and INTB transactions have significant effect on SMSEO; while MOB transactions have an insignificant effect on SMSEO in Nigeria. Hence, the study concluded that cashless policy has significant influence on small and medium scale enterprises output in Nigeria. The study recommends among others that all the DMBs operating in Nigeria should keep adopting and using cashless payment instruments in their operations to continually enhance the quality of their products and services thereby increasing their performance, thus, enhancing small and medium scale enterprises output in Nigeria.*

Keywords: Cashless, Policy, Instruments, Small and Medium Scale Enterprises and Output

Introduction

In recent years, the Nigerian government has made significant efforts to promote a cashless economy in the country. The implementation of various cashless policies, such as the introduction of mobile banking services, POS machines, and online payment platforms, has been aimed at reducing the reliance on physical cash transactions (CBN, 2018). These policies have been touted as a means to enhance transparency, efficiency, and financial inclusion. The cashless policy in Nigeria was introduced in 2012 by the Central Bank of Nigeria (CBN) to modernize the country's payment system and become one of the top 20 economies by 2020. The policy started with a pilot phase in Lagos State, where cash handling charges were imposed on daily cash withdrawals and deposits that exceeded certain thresholds to discourage the use of cash. The pilot phase was successful, and in 2013, the CBN announced the nationwide rollout of the policy (Heman & Anna, 2023).

Nigeria, Africa's largest economy, has made significant strides in implementing cashless policies aimed at promoting a more efficient and inclusive financial system (Chen, 2020). The CBN has introduced several measures, such as the cashless policy and the use of mobile money, aimed at reducing the country's reliance on cash-based transactions and driving financial inclusion. While these policies have yielded some positive results, there are concerns about their potential impact on small and medium scale enterprises (SMEs) in the country. SMEs form a critical segment of Nigeria's business landscape, contributing significantly to economic growth, job creation, and poverty reduction. According to a 2020 report by the National Bureau of Statistics (NBS), SMEs in Nigeria account for over 90% of the country's businesses, providing employment for over 60 million people and contributing over 40% to the country's GDP. However, SMEs in Nigeria face several challenges such as limited access to credit, poor infrastructure, and an unfavorable business environment, which hinder their growth (Nwankwo & Eze, 2018).

Over the past decade, the Nigerian government has made efforts towards promoting a cashless economy to address some of these challenges. The cashless policy was introduced in 2012 as a means of reducing the volume of physical cash transactions in the economy and encouraging the adoption of electronic payment systems. The policy aimed to improve transaction security, promote transparency, and reduce the cost of cash management in the financial system. In 2019, the CBN introduced a revised cashless policy that imposed cash handling charges on both individuals and corporate (Ali-Momoh, 2023). The policy seeks to encourage the use of electronic payment channels and reduce cash in circulation. While the use of cashless payments is expected to bring several benefits such as improved efficiency, reduced transactional costs, and increased transparency, it may also present challenges for SMEs. SMEs may struggle to adopt cashless payment systems due to insufficient infrastructure, limited access to finance, and lack of awareness of the benefits of digital payments. These challenges can limit the ability of small businesses to compete in the market and take advantage of the benefits of a cashless economy. Furthermore, SMEs may also face additional costs associated with the adoption of

cashless payment systems, including installation and maintenance of POS machines and the transaction charges imposed by banks (Ali-Momoh, 2023).

The cashless policy has been implemented in all states of Nigeria. The policy has been met with resistance from SMEs who rely heavily on cash to carry out their activities. The reduced cash flow resulting from the cashless policy has made it harder for SMEs to survive, especially in rural areas. The impact of the cashless policy on SMEs in Nigeria has not been extensively studied, few studies on it are based on primary data, and hence, this study is timing by study cashless policy on SMEs from secondary data perspective. Therefore, it is necessary to conduct a study to evaluate the impact of the cashless policy on SMEs in Nigeria. The study will provide insights into the challenges faced by small businesses in adopting cashless payment systems and identify strategies to support small businesses in the transition. By addressing the challenges faced by SMEs, policymakers can enhance the effectiveness of the cashless policy and support the growth and development of SMEs in the country.

Statement of problem

Although there is no denying that the cashless policy has improved Nigeria's economy in some ways, there are worries about how it may affect SMEs. SMEs constitute a substantial segment of Nigeria's business environment and are essential for promoting economic expansion, creating jobs, and reducing poverty. In order to make sure that the cashless policy does not impede the growth and sustainability of this crucial industry, it is imperative that its effects be evaluated. The cost of compliance is one of the biggest obstacles SMEs encounter when implementing the cashless policy. Small businesses frequently have limited funding, making it difficult for them to invest in the infrastructure that they need, including online payment processors or point-of-sale systems. These technologies' upfront costs and ongoing fees might put SMEs under more strain and have an adverse effect on their bottom line. This may discourage a lot of small business owners from adopting a cashless policy and limit their capacity to compete.

The ignorance of SMEs regarding cashless payment methods is another problem they face. It's possible that many small company owners are unaware of the advantages and features of cashless transactions, particularly those who operate in rural or less developed locations. Because of this, they might keep using conventional cash-based transactions, losing out on the effectiveness and security that come with digital payment platforms. SMEs may find it more difficult to expand their customer base and realise their full potential if they lack the necessary expertise and training to exploit these technologies. Furthermore, SMEs find it extremely difficult to implement cashless payment systems due to worries about fraud and cybersecurity. Cybercrimes and fraudulent activities targeting online payment platforms have increased in Nigeria. Due to their potential lack of resources and experience, small enterprises may be especially susceptible to these kinds of attacks. SMEs may be reluctant to adopt cashless transactions due to concerns about financial loss from cyber-fraud, which would prevent them from taking advantage of the conveniences that come with digital payments. The impact of the cashless policy on SMEs in Nigeria has not been extensively studied; therefore, the problem of this study is to investigate if the introduction of the cashless policy has any impact on SMEs in Nigeria.

LITERATURE REVIEW

Conceptual Review

Cashless Policy

The idea behind a cashless policy is to drastically reduce the amount of cash that is handled during transactions. However, in order to pay and receive money on one's behalf during an exchange, the policy mainly depends on sending electronic signals to banks (Yusuf, Adedina, and Egbekube, 2015). A policy that does not involve the actual exchange of currency for financial activities is known as a cashless policy (Nelson, 2015). A cashless policy is thought to refer to a scenario in which nations—particularly poor nations—move from cash-based to cashless economies. Stated differently, a cashless policy combines electronic payment methods with cash-based systems, with the latter being more widely used than the former (Ajayi, 2014). There must be electronic systems that can monitor a user's deposits and withdrawals. Cashless policy entails an economic system with reduced circulation of physical cash in circulation. Some studies have found that cashless policies have a number of benefits, including as lower transfer and processing costs, quicker processing and transactions, a larger range of payment options, and immediate notification of all account activities (Osazevbaru & Yomere, 2015). The policy benefits both banks and companies in a number of ways, according to the Central Bank of Nigeria (2015). For instance, it increases their ability to reach a wider range of clients, makes it easier for their goods and services to be marketed and branded internationally, increases client pleasure by providing a more individualized experience, and streamlines transaction tracking and paperwork.

Online Banking

Online banking, sometimes referred to as virtual banking, web banking, Internet banking, or home banking, is a system that lets clients of banks and other financial institutions use their website or mobile app to do a variety of financial operations. Another definition of online banking is an internet site that allows users to access various banking services, such as online bill payment and

investment management. According to Simon and Thomas (2016), it also refers to systems that allow small and medium-sized businesses to access their accounts and general information about bank products and services via the bank's website, saving them the trouble of having to send letters, faxes, original signatures, or phone confirmations. It's regarded as one of the least expensive ways to conduct financial transactions.

Automated Teller Machine (ATM)

Automated Teller Machine is referred to by the acronym ATM. An automated teller machine (ATM) is a computerised communications equipment that allows financial institution customers to do financial transactions in a public area without the assistance of a human clerk or bank teller, according to Awoniyi (2022). It's a cash point where you may make transfers and withdraw money. Cash is taken out of the machine using a debit or credit card. To access cash, a credit or debit card and the personal identification number (PIN) must be input. Bill payments and cash deposits are accepted at certain ATMs. ATMs are practical because they enable speedy self-service tasks like cash withdrawals, deposits, account transfers, and bill payment.

Point of Sale (POS) Terminals

A retail transaction's location and time are referred to as the "Point of Sale (POS)" or "Point of Purchase (POP)" (Okeke, Nwatu & Ezeh, 2017). Instantaneous payment for products and services is facilitated by the POS terminal, also referred to as a POP terminal, which is easy to use, multifunctional, and user-friendly (Mohammed, Ibrahim & Muritala, 2022). With the use of debit or credit cards, POS terminals enable users to access their associated bank accounts instantly (Iwedi, 2017). Awoniyi (2022) views them as a virtual cashless alternative to transactions using cash. According to Ikpefan, Akpan, Godswill, Evbuomwan, and Ndigwe (2018), the terminal maintains a record of all purchases and deposits made by consumers, enabling them to check their balance, make payments, and transfer money without requiring physical cash. Put differently, as stated by Adebayo, Osanyinlusi, and Adekeye (2017), the point-of-sale terminal (POS) enables the virtual transfer of payments to assist retailers in tracking the behaviours of their customers. Instead of using cash to make purchases, customers can utilise POS terminals, which are placed in merchant locations, to swipe their electronic cards (Williams, Olalekan & Timothy, 2018). Since POS technology enables cardholders to make payments at sales or purchase outlets without the need for actual currency, the number of cash-based transactions has been considerably reduced as a result of the implementation of POS terminals by Osang (2017). According to Morufu (2016), the terminal has numerous benefits, such as convenience, security, and ease of payments.

Mobile Banking

Financial transactions on a mobile device—a tablet, smartphone, etc.—are referred to as mobile banking. According to James Chen (2020), this activity can range from something as basic as a bank texting a client's phone about fraud or usage to something more complicated like a client paying bills or sending money overseas. With so many banks offering excellent apps, mobile banking is incredibly easy in the modern digital age. Mobile banking is preferred by users since it offers features like check deposit, payment for goods, friend money transfers, and fast ATM location. In order to avoid the possibility of having personal information compromised, it is crucial for customers to establish a secure connection prior to login into a mobile banking app. Worku, Tilahun, and Tafa (2016) claim that SMS banking—a type of mobile banking—was one of the first services to be made available. Especially in isolated rural locations, mobile banking is utilised in many underdeveloped or undeveloped regions of the world.

Small and Medium Scale Enterprise (SMEs) Output

Businesses that maintain income, assets, or employee count below a specific threshold are classified as SMEs. According to Faniran and Odumeru (2015), the characteristics of a SME's stated size are determined by the nation in which the business works. Several factors may be taken into consideration when classifying or sizing a business as a SME, depending on the nation. According to Humphrey (2017), the characteristics include market capitalization, the number of employees, the amount of assets the company has, and annual sales. The volume of products or services produced in a given amount of time, such as a year, is known as the output. The production of goods and services, whether by a specific company or the industrial sector of a country as a whole or of a global economy, is measured by output, according to Alan Deardorff (2013). Output can be calculated in a number of ways, and the larger the entity whose output is being measured, the less accurate the measurement is generally.

Theoretical Review

Technology Acceptance Model (TAM)

Fred Davis' (1989) technology acceptance model theory serves as the theoretical foundation for this investigation. With the aid of this idea, we can better comprehend how technology will be used and embraced in order to promote economic growth. It is currently a well-known hypothesis used in information systems research to model technology acceptance and adoption (Okereke, 2016). The TAM is an information systems theory that models how users come to accept and utilize new technology that will promote economic growth (Nelson, 2015). According to the model, when people are exposed to new technology, a variety of factors have a role in how

and when they will use it. Perceived usefulness is one of the elements. According to TAM, a user's actual use of a technological system is determined either directly or indirectly by their behavioral intentions, attitude, perception of the system's utility, and perception of its simplicity.

Diffusion of Innovation Theory (DIT)

A theory called DIT aims to explain how, why, and how quickly new concepts and technological advancements spread culturally (Ajayi, 2014). With the 1962 publication of his book Diffusion of Innovations, Everett Rogers popularised the thesis. Diffusion, according to Rogers, is the process through which an innovation spreads over time among members of a social system. The origin of the DIT is varied and spans multiple disciplines. Rogers explained the process of Innovation diffusion as one which is dictated by uncertainty reduction behavior amongst potential adopters during the introduction of technological innovations. He also singled out the following five characteristics of innovations that consistently influence the adoption of new technologies: innovation characteristics, individual user characteristics, adopter distribution over time, diffusion networks, and innovativeness and adopter categories (Ajayi, 2014). This process relies heavily on social capital. The DIT theory was applied by Olatokun and Igbinedion (2009) to study ATM uptake in Nigeria. The results demonstrated that attitudes on the use of ATM cards in Nigeria were positively correlated with constraints such as relative advantage, complexity, observability, compatibility, and trialability. Adopter distribution over time, diffusion networks, innovativeness and adopter categories, individual adoption process, and innovation characteristics make up the six main components of DIT. Out of the six components of DIT, the invention itself and its attributes are arguably the most well-liked.

Empirical Review

Nwankwo and Eze (2018) using a descriptive study approach. This is required since a disproportionate amount of Nigeria's GDP growth is attributable to informal traders and SMEs. According to the study, for Nigeria to transition to a cashless economy, our payments system would need to be improved. Additionally, there would need to be significant effort and public education, especially among low-income individuals who have grown accustomed to using cash and view it as a practical and appropriate method of receiving and making payments.

Okeke (2017) looked into how the development of SMEs in Anambra State was impacted by the cashless policy. The research employed a descriptive survey methodology. Two of the most important statistical analysis tools were multiple regression analysis and Pearson correlation. Analysis results indicated that mobile banking, point-of-sale, and ATMs all significantly and favourably impact the growth of SMEs in Anambra State. SMEs will perform better, according to the study's conclusion, if more people are made aware of the benefits of cashless practises..

The effect of automated payment on Nigeria's cashless economy was evaluated by Okereke (2016) conducted a study on the impact of ATM transaction values, point of sales terminal, internet banking and mobile banking transaction value on economic growth of Nigeria. The study used descriptive survey design and the result indicates that only POS terminal was significant to economic growth. The study concludes that ignorance, on the part of the users was responsible for insignificant contributions of other instruments as well as inability of the banks to distribute the instruments to user across the country.

Finally, Famiran and Odumeru (2015) investigated the determinants of mobile banking adoption in Nigeria, using a modified version of Technology Acceptance Model (TAM). The study used survey method and found from the analysis of data that perceived usefulness, ease of use, risks, facilitating conditions, age, education and income were significant determinants of mobile banking adoption.

Research Methodology

The type of research design adopted in this study is the Ex-post facto. The ex-post facto research design is used because this type of research is one that takes place after the event or the fact had taken place. This means secondary data were used to evaluate effect of cashless policy on performance of small and medium enterprises in Nigeria.

The method of data collection used in this study was the secondary source of data, CBN Statistical Bulletin for the period 2000-2022. Secondary source of data was used in this study because it will enable us to obtain data for the different measure of cashless policy because these are report generated by banks. The sample period covered the period of 2000-2022 based on the convenient and systematic sampling techniques. This period is adopted because it is consider appropriate as it help to have robust finding.

The regression statistical technique of data analysis was adopted in this study. The descriptive statistics which comprises of the measures of central tendency, namely; mean, minimum, maximum and standard deviation in order to assess the spread of the variables under study, followed by correlation matrix to ascertain the extent of multicolinearity in the data set. In view of the

hypothesis formulated for this research, the method of data analysis chosen was the multiple regression analysis was used through the Regression model, using the computer software, E-VIEW 9.0.

The Model which specifies that Small and Medium Scale Enterprises Output (SMSEO) is significantly influenced by the measures of Cashless Policy namely; Automated Teller Machine (ATM), Point of Sale (POS), Internet Banking (INTB) and Mobile Banking (MB) is formulated as follows,

SMSEO= f (ATM, POS, INTB, MB)
LogSMSEO = β_0+ β_1LogATM+ β_2LogPOS +β_3LogINTB + β_4LogMB +U
Where;
SMSEO = Small and Medium Scale Enterprises Output,
β_0 = Constant Term,
ATM= Automated Teller Machine (ATM),
B_2 = Coefficient of Automated Teller Machine (ATM),
POS = Point of Sale (POS),
B_3 = Coefficient of Point of Sale (POS),
INTB = Internet Banking,
B_4 = Coefficient of Internet Banking,
MB = Mobile Banking,
B_5 = Coefficient of Mobile Banking,
U = Disturbance Term,
β = Intercept and
β_1 - β_4 = Coefficient of the Independent Variables.
Apriori expectation is β_1, β_2, β_3, β_4> 0

Table 3.1: Measurement of Variables

Variables	Types of Variable	Measurements	Expected Sign
Small and Medium Scale Enterprises Output (SMSEO)	Dependent Variable	As calculated in CBN Statistical Bulletin for duration of the study.	
Automated Teller Machine (ATM)	Independent Variable	As calculated in CBN Statistical Bulletin, CBN Annual Report for duration of the study.	+/-
Point of Sale (POS)	Independent Variable	As calculated in CBN Statistical Bulletin, CBN Annual Report for duration of the study.	+/-
Internet Banking (INTB)	Independent Variable	As calculated in CBN Statistical Bulletin, CBN Annual Report for duration of the study.	+/-
Mobile Banking (MB)	Independent Variable	As calculated in CBN Statistical Bulletin, CBN Annual Report for duration of the study.	+/-

Source: Researcher Basis of Measurements, 2023.

Results and Discussion

The descriptive statistics are summarized on Table 4.1 below;

Table 4.1: Descriptive Statistics

	LOGSMSEO	LOGATM	LOGPOS	LOGINTB	LOGMOB
Mean	0.361162	3.179453	2.120348	1.837947	1.664129
Median	0.361728	3.297686	2.206880	1.925312	2.154728
Maximum	0.967548	3.813755	3.505794	2.829895	3.705946
Minimum	-0.467246	1.800717	0.806180	0.477121	-1.000000
Std. Dev.	0.297805	0.625278	0.933118	0.592468	1.581363
Skewness	-0.925368	-0.922129	0.058483	-0.529879	-0.490140
Kurtosis	5.972286	2.822192	1.498644	3.372971	1.885893
Jarque-Bera	7.662316	2.145564	1.417345	0.788871	1.376366

Probability	0.021684	0.042056	0.022297	0.014060	0.0302488
Sum	5.417430	47.69179	31.80523	27.56920	24.96193
Sum Sq. Dev.	1.241629	5.473611	12.18994	4.914265	35.00993
Observations	23	23	23	23	23

Source: E-VIEW 9.0 Output, 2023.

The result in Table 4.1 above provided some insight into the nature of the independent variables namely; ATM, POS, INTB, MOB, and the dependent variable [SMSEO] used in this study. ATM transactions had a mean of 3.179, with a maximum and minimum of 3.8138 and 1.8007 respectively while the Std. Dev. is 0.6253. This shows that ATM volatility is about 62.53%. POS transactions had a mean of 2.1203, with a maximum and minimum of 3.5058 and 0.8062 respectively while the Std. Dev. is 0.9331. This shows that POS transactions volatility is about 93.31%. INTB transactions had a mean of 1.8379, with a maximum and minimum of 2.8299 and 0.4771 respectively while Std. Dev. is 0.5925. This shows that INTB transactions volatility is about 59.25%. MOB transactions had a mean of 1.6641, with a maximum and minimum of 3.7059 and -1.0000 respectively while the Std. Dev. is 1.5814. This shows that MOB transactions volatility is about 158.14%. SMSEO had a mean of 0.3612, with a maximum and minimum of 0.9675 and -0.4672 respectively while the Std. Dev. is 0.2978. This shows that SMSEO volatility is about 29.78%. Finally, the Std. Dev. shows that MOB transactions is the most volatile variable and follows by POS transactions. The kurtosis that measures the peakness of the distribution reveals that SMSEO and INTB transactions are leptokurtic indicating that the distributions are peaked relative to normal distribution, while ATM, POS and MOB transactions are platykurtic, which implies that the distribution of the variables are flat relative to normal distribution. Lastly, the Jarque-Bera statistics reveals that the variables are normally distributed at 5% significant level.

Table 4.2: Correlation Matrix

	SMSEO	ATM	POS	INTB	MOB
LogSMSEO	1.000000				
LogATM	0.538131	1.000000			
LogPOS	0.637624	0.964329	1.000000		
LogINTB	0.381176	0.717883	0.699484	1.000000	
LogMOB	0.082045	-0.597062	-0.568044	-0.681641	1.000000

Source: Computed from E-Views 9.0 (2023)

The Pearson correlation test is presented in Table 4.2 and it shows the absence of multi-co linearity among the variables since the correlation values are less than 0.7. Furthermore, the result shows the explanatory variables (ATM, POS, INTB and MOB) as well as data relating with Small and Medium Scale Enterprises Output (SMSEO) have positive correlation with the dependent variable [Small and Medium Scale Enterprises Output (SMSEO)].

Table 4.3: Multi-collinearity Test

Variables	Variance Inflation Factor	Tolerance Value
LogATM	0.071864	5.134434
LogPOS	0.064113	3.134645
LogINTB	0.005139	2.606470
LogMOB	0.171400	1.962570

Source: Econometric Views Version 9.0 Output (2023)

In Table 4.3, the tolerance level of ATM is 0.071864 that of POS is 0.0641; INTB is 0.0051, MOB for 0.1714; which indicates that about 7.19%, 6.41%, 0.51% and 17.14% variance in the predictor variables is not predicted by other predictors' variable. This is because their tolerance values are higher than 0.10 meanwhile the Variance inflation factor are less than 10. This shows the absence of multi-collinearity problem.

Data Validity Test

Since the data are time series data, spanning for 2000-2022 (23years), the validity test was carried out using the LM test, Heteroskedasticity Test and Normality Test in order to ascertain the validity of the data for the analysis. This is presented in Table 4.4 below;

Table 4.4a: Data Validity Test

Table 4.5.1a:Breusch-Godfrey Serial Correlation LM Test:

F-statistic	0.771717	Prob. F(2,28)	0.4718

Obs*R-squared	1.828501	Prob. Chi-Square(2)	0.4008

Source: E-VIEW, 9.0 Outputs, 2023.

Prior to estimating the models, residuals of the variables were ascertained to check for the presence of serial correlation. This was done using the serial correlation LM test. The serial correlation LM test in Table 4.4a details that there is no element of serial correlation in the models owing to the fact that the p-values of the f-statistics are insignificant at 5% level of significance.

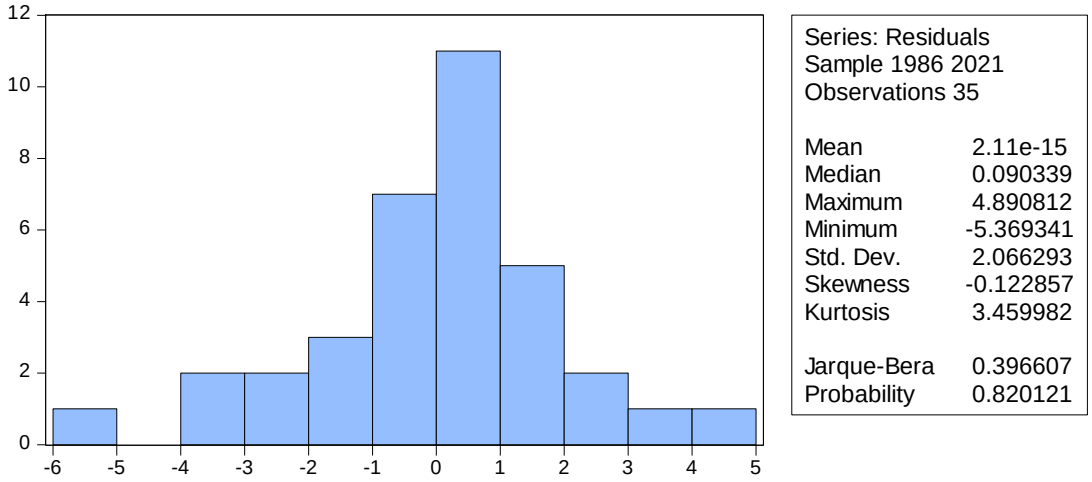
Table 4.4b:Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	1.003537	Prob. F(4,30)	0.4212
Obs*R-squared	4.130493	Prob. Chi-Square(4)	0.3886
Scaled explained SS	3.732589	Prob. Chi-Square(4)	0.4434

Source: E-VIEW, 9.0 Outputs, 2023.

The situation in which the variability of a variable is unequal across the range of values of a second variable that predicts it leads to problem of heteroskedasticity. To ensure that there is homoscedasticity in the model estimation, the heteroskedasticity test via the Breusch-Pagan-Godfrey was performed. With the result there is no problem of heteroskedasticity in the models as the p-values of the f-statistics are insignificant at 5% significance level.

Table 4.4c: Jarque-Bera Normality Test



Source: E-VIEW, 9.0 Outputs, 2023

From the Table 4.4c above, it confirms that the Jarque-Bera Normality Test for the data set is normally distributed since the Jarque-Bera of 0.8201 is greater than 0.05 acceptable level, it then indicated that the variables for the study is normally distributed.

Augmented Dickey-Fuller (ADF) Unit Root Test

The study performed the ADF test as it is the most commonly used and accepted strategy for testing time series stationary property. The rationale behind this test is to avoid the problem of spurious regression which is commonly associated with time series data. The presence of a unit root implies that the time-series data under investigation is non-stationary; while the absence of a unit root shows that the stochastic process is stationary.

Table 4.5 Summary of ADF Test

ADF TEST @ LEVEL					
Test Variables	**ADF Test Statistic Value**	**Mackinnon Critical Value @ 5%**	**Order of Integration**	**P-Value**	**Decision**
LogSMSEO	-2.664547	-2.960411	1(0)	0.0916	**Non Stationary**
LogATM	-0.773235	-2.948404	1(0)	0.8143	**Non Stationary**
LogPOS	-0.759231	-2.954021	1(0)	0.8174	**Non Stationary**

LogINTB	-1.686636	-2.948404	1(0)	0.4290	**Non Stationary**
LogMOB	-1.289402	-2.948404	1(0)	0.6235	**Non Stationary**
ADF TEST @ 1ST DIFFERENCE					
Test Variables	**ADF Test Statistic Value**	**Mackinnon Critical Value @ 5%**	**Order of Integration**	**P-Value**	**Decision**
LogSMSEO	-7.278091	-2.960411	1(1)	0.0000	**Stationary**
LogATM	-5.389382	-2.951125	1(1)	0.0001	**Stationary**
LogPOS	-5.409932	-2.954021	1(1)	0.0001	**Stationary**
LogINTB	-6.611665	-2.951125	1(1)	0.0000	**Stationary**
LogMOB	-3.043937	-2.951125	1(1)	0.0408	**Stationary**

Source: E-VIEW 9.0 Arranged Result, (2023).

According to the summary of the ADF unit root test output in Table 4.6.1, all of the variables under examination contained unit root tests at their first difference 1(1), implying that the series are non-stationary at level but stationary at first difference. The value of their respective ADF statistics, which is more than the threshold value of 5%, is evidence of this. Furthermore, the p-value for all variables, which is less than 5% level of significance greater than 95 percent confidence level, provides additional proof of stationary series. At the first difference, i.e. at order one, they all achieved stationarity. We can use the Johansen cointegration test because all of the variables are integrated at order one.

Table 4.6: Johansen Cointegration Test

Series: LogSMSEO LogATM LogPOS LogINTB LogMOB

Hypothesized No. of CE(s)	Eigenvalue	**Trace** Statistic	**0.05 Critical Value**	Prob.**	**Max-Eigen** Statistic	**0.05 Critical Value**	**Prob.****
None *	0.817586	79.21762	69.81889	0.0074	52.74573	33.87687	0.0001
At most 1	0.331080	56.47188	47.85613	0.0085	32.46483	27.58434	0.0124
At most 2	0.253484	34.00705	29.79707	0.0402	29.62470	21.13162	0.0274
At most 3	0.091553	24.44580	15.49471	0.0147	20.76569	14.26460	0.0483

Source: E-VIEW 9.0 Arranged Result, 2023.

The results of the multivariate cointegration test by Johansen and Juselius cointegration technique show that both the trace statistic and the Maximum Eigenvalue statistic show evidence of two cointegration relationships (at None and at most 1), where the values of the trace statistic and the Maximum Eigenvalue statistic are greater than their respective critical values at the 5% level of significance. This finding supports the presence of a long-term association between cashless policy and SMSEO in Nigeria.

Table 4.7: Multiple Regression Result

Dependent Variable: LOGSMSEO
Method: Least Squares
Date: 09/18/23 Time: 16:45
Sample: 2000 2022
Included observations: 23

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.321832	0.156931	2.050783	0.0499
LOGATM	0.182059	0.076246	2.387784	0.0085
LOGPOS	0.152796	0.053378	2.862522	0.0007
LOGINTB	0.063517	0.312312	0.203378	0.8429
LOGMOB	-0.202255	0.350425	-0.577171	0.5766

R-squared	0.550536	Mean dependent var	0.361162
Adjusted R-squared	0.529250	S.D. dependent var	0.297805
S.E. of regression	0.343349	Akaike info criterion	0.961060

Sum squared resid	1.178882	Schwarz criterion	1.197077
Log likelihood	-1.207951	Hannan-Quinn criter.	0.958546
F-statistic	0.133064	Durbin-Watson stat	1.981616
Prob(F-statistic)	0.001269		

Source: E-VIEW 9.0 Arranged Result, 2023

ATM transaction coefficient is 0.1821 with t-value of 2.3878 and corresponding p-value (Sig. value) of 0.0085 according to the multiple regression results shown in Table 4.7. It would appear from this that ATMs benefit SMSEO. The p-value of 0.0085 is less than the 0.05 (5%) level of significance, indicating that the effect is substantial. Furthermore, the confidence interval (degree of confidence) is 99.15% greater than the 95% acceptable threshold. Because of this, we reject the null hypothesis (H01), which claims that there is no meaningful association between ATM and SMSEO in Nigeria, and support the alternative hypothesis. ATM transactions appear to have a favourable tendency when paired with SMSEO, as indicated by the coefficient of 0.1821. There would be an 18.21% rise in SMSEO for every 1% movement in ATM transactions. For SMSEO in Nigeria, ATM transactions are quite important. Although it conflicts with Okeke's (2016) conclusion, the findings are in line with those of Nwankwo and Eze (2018) and Okeke (2017).

Additionally, the results of the multiple regressions are shown in Table 4.5a above, where the t-value of 2.8625, the corresponding p-value (Sig. value), and the coefficient of POS transactions are 0.1528 and 0.0005, respectively. It can be inferred from this that POS transactions really benefit SMSEO. Considering that the p-value of 0.0007 is less than 0.05 (5%) level significance, this association is significantly significant. Furthermore, the confidence interval (degree of confidence) is 99.93% greater than the 95% acceptable threshold. Given that there is no meaningful correlation between POS transactions and SMSEO in Nigeria, we thus accept the alternative hypothesis and reject the null hypothesis (H02). The amount of significant impact that POS transactions have on SMSEO is indicated by the p-value of POS transactions, which is 0.0007, which is less than the significance value of 0.05 and the t-ratio value of 2.8625 > 2. Given that POS transactions have a coefficient of 0.1528, it can be concluded that POS transactions benefit SMSEO. One percent (1%) more POS transactions will therefore result in 15.28% more SMSEO, according to the inference. Okeke (2017) and Nwankwo and Eze (2018) have reached similar conclusions, while Okereke (2016)'s result is at odds with this one.

According to Table 4.5a's multiple regression results, the coefficient of INTB transactions is 0.0635, corresponding to a t-value of 0.2034 and a p-value (sig. value) of 0.8429. This implies the beneficial impact of INTB transactions on SMSEO. Because of the p-value of 0.8429, which is higher than the 0.05 (5%) level significance, this association is not significant. In addition, it indicates that the confidence interval (level of confidence) is 15.71% below the 95% acceptable limit. As a result, we declare that there is no meaningful correlation between INTB transactions and SMSEO in Nigeria, rejecting the alternative hypothesis and accepting the null hypothesis (H03). Indicating how little INTB transactions impact SMSEO, the p-value for INTB is 0.8429, higher than the significance value of 0.05, while the t-ratio value is 0.2034, less than 2. Since INTB transactions have a coefficient of 0.0635, it can be concluded that INTB transactions benefit SMSEO. 6.35% more SMSEO would result from a 1% increase in INTB transactions, according to the consequence. Okeke (2017) and Nwankwo and Eze (2018) have reached similar conclusions, while Okereke (2016)'s result is at odds with this one.

Ultimately, based on the multiple regression outcomes presented in Table 4.5a, the coefficient for MOB transactions is -0.2023, corresponding with a t-value of -0.5772 and a p-value (sig. value) of 0.5766. This shows that SMSEO is negatively and negligibly impacted by MOB transactions. As the p-value of 0.5766 is higher than the 0.05 (5%) of significance, this association is not significant. In addition, it indicates that the confidence interval (degree of confidence) is 42.34% below the 95% acceptable limit. Consequently, we conclude that there is no meaningful correlation between MOB transactions and SMSEO in Nigeria, and we reject the alternative hypothesis and accept the null hypothesis (H04). MOB transactions have a negative effect on SMSEO, as indicated by the coefficient of MOB transactions, which is -0.2023; the p-value of MOB transactions is 0.5766, which is greater than the significance value of 0.05 and the t-ratio value of -0.5772 is less than 2. According to the implication, there would be a 20.23% drop in SMSEO for every 1% rise in MOB transactions. Okereke (2016) and Nwankwo and Eze (2018) are in conflict with this conclusion, which concurs with Okereke's (2016) findings.

Summary of Findings

Consequent upon the empirical review, regression result and data analysis and discussion, the summary of findings are as follows;
1. ATM transactions have a significant effect on SMSEO in Nigeria.
2. POS transactions have a significant effect on SMSEO in Nigeria.
3. INTB transactions have no significant effect on SMSEO in Nigeria.
4. MOB transactions have no significant effect on SMSEO in Nigeria.

Conclusion

The study examined the effect of cashless policy on small and medium scale enterprises output (SMSEO) in Nigeria from the period of 2000 to 2022 (23years). The study made use of aggregate secondary data from CBN Statistical Bulletin and CBN Annual Report, for the duration of the study. Cashless policy measures; Automated Teller Machine (ATM), Point of Sale (POS), Internet Banking (INTB) and Mobile Banking (MB) was analyzed in relation small and medium scale enterprises output (SMSEO) in Nigeria. The data set was described using descriptive statistics and the unit root test was conducted to ascertain if the data are stationary in order to have accurate regression result. The correlation analysis was used to ascertain the co-movement of the independent variables in relation to the dependent variable while the Multiple Regression analysis was employed with the aid of E-VIEW version 9.0 for the purpose of testing the research hypotheses raised. The findings revealed that ATM, POS and INTB transactions have significant effect on SMSEO; while MOB transactions have an insignificant effect on SMSEO in Nigeria. Hence, the study concluded that cashless policy has significant influence on small and medium scale enterprises output in Nigeria.

Recommendations

On the basis of the findings and conclusions of the study, the study recommends among others that:

1. All the DMBs operating in Nigeria should keep adopting and using cashless payment instruments in their operations to continually enhance the quality of their products and services thereby increasing their performance, thus, enhancing small and medium scale enterprises output in Nigeria.
2 Measures should not just be put in place to encourage customers to use these channels but should be inclusive of how to educate them on how they are operated, which in turn enhances the small and medium scale enterprises output in Nigeria.
3 Monetary authorities and commercial banks should enlighten their customer on the benefits and importance of using mobile and internet banking just as they seem to have embraced the use of point of sale POS and automatic teller machines ATM for their transactions, which will go a long way in boosting small and medium scale enterprises output in Nigeria.
4 Banks should design long-term strategic planning for better implementation and elimination of obstacles for development of cashless policy instruments.

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