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**AGENCY BANKING STRATEGIES AND FINANCIAL INCLUSION OF  
RURAL AREAS IN KWARA STATE, NIGERIA**

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***Abstract***

*The nexus between agency banking strategies and financial inclusion have been a debatable paradox for a long period of time due to the important role play by deposit money banks in finance inclusive economy functions. However, the goal of financial inclusion has not been achieved due to geographical distance of banks to rural area, poor bank innovation and technological advancement to rural settlement. The study investigates the effect of agency banking strategies (bank innovation strategy, geographical coverage strategy, and technological advancement strategy) on financial inclusion in rural areas in Kwara State, Nigeria. The study employed primary data obtained from respondents through administration of questionnaire within the period of 2019 and 2020. The data obtained were subjected to reliability and validity tests as well as Tobit Regression method of analysis. Findings revealed that agency banking strategies such as bank innovation strategy, geographical coverage strategy and technological advancement strategy have positive and significant effect on financial inclusion of rural areas in Kwara State, Nigeria. The study concludes that agency banking strategies enhance financial inclusion of rural areas in Kwara State, Nigeria. The study recommends that deposit money banks management should extend bank innovative products or services and enlighten the rural segment entrepreneurs on bank inclusion strategies so as to increase inclusive financial services and economic activities for the rural segments.*

**Keywords:** *Bank Agency, Bank Innovation Strategy, Geographical Coverage Strategy, Technological Advancement Strategy and Financial Inclusion*

## **1. Introduction**

Globally, it is believed that sound agency banking structure contribute a foremost part in the expansion of bank financial service and economic activities of stakeholder in the rural areas of any economy. Through this agency banking model, commercial banks have inclusively extended their conventional financial services in enhancing rural areas' economic activities without a financial capacity for a formal branch, though increasing economic activities performance (Muthoka, Oluoch, & Muiruri, 2018).

The major concern of authorities in the financial system across the globe is the high rate of financially excluded adults especially in the rural communities in Africa economies; where in average of 24% of adults in sub-Saharan Africa, 11% in central Africa to about 51% in southern Africa have accounts in formal banks (World Bank Report, 2018). This high level of financial exclusion has prompted stakeholders such as policy makers and regulators to give the agency model attention even though banking regulations still stifles its growth. Likewise in Nigeria, the level of financial inclusion have raised concerns among regulatory stakeholders; as World Bank Report (2019) indicated that 73.2 million adults representing 41.6% of the adult population in Nigeria are financially excluded.

Financial inclusion symbolizes distribution of financial facilities at an affordable cost to the deprived sections and low-income groups (Nyota & Muturi, 2019).

These financial facilities form the basic function of financial institutions; for transferring resources from surplus to deficit units. This insinuates that the agency banking structure is critical in providing financial services to the unbanked segment in the rural areas especially in the developing economies (World Bank Report, 2018). Dzombo, Kilika and Maingi (2017) emphasized that majority of developing economies lack sound agency banking strategies such as innovation strategy, geographical coverage strategy, and technological advancement strategy to cater for unbanked segment in the rural areas.

Akamavi (2018) pointed that without agency banking, extension of financial service to the rural segment cannot be achieved. Nyota and Muturi (2019) and Nkiru, Ofobruku and Sidi (2018) asserted that the level of larger percentage of financial inclusion targeted by financial system regulators cannot be achieve by agency banking models; as most developing economies including Nigeria were faced with the problem of uneconomically banking incomes, dispersed

population, distance lack of financial products and service knowledge, geographical distance of banks to rural areas and ignorance on issues relating to banking.

Furthermore, in Nigeria the level of financial exclusion has not been accomplished due to geographical distance of banks to rural area, poor bank innovation and technological advancement to rural segment (National Financial Inclusion Strategy (NFIS) Report, 2019). Similarly, Enhancing Financial Innovation and Access (EFINA) Report (2020) asserted that large number of people and households in Nigeria were domiciled in the rural areas where infrastructure is either non-existent or in a sorry state and it is difficult for deposit money banks to bring them under conventional banking structure since most of the banks find it difficult to maintain presence in remote parts of the country owing to the problem of geographical remoteness, poor bank innovation, technological dilapidation, logistics and high cost of operations; these problems led to poor agency banking model in the rural segments, thus reduced level of financial inclusion in Nigeria. Despite past studies reviewed within and outside Nigeria, no studies have investigated the problem of financial exclusion through unsound agency banking strategies (bank innovation strategy, geographical coverage strategy and technological advancement strategy) among rural area of Kwara State, Nigeria. Therefore, this gap informed this current study on “effect of agency banking strategies on financial inclusion in rural area communities in Kwara State, Nigeria”.

## **2. Literature Review**

This sub-section focuses on the empirical review of relevant studies and underpinning theory to enable this study establish research gaps.

### **2.1 Empirical Review**

The studies of Kemoli (2012), Ngumi (2013), Basu and Ghosh (2016), Nkiru, Ofobruku and Sidi (2018) examined the link between bank agency through information technology and bank performance. These studies found that bank agency strategy via information technology significantly improve bank performance. Nyangosi, Nyangau, Nyariki, and Nyangau, (2014), Khadka and Maharjan (2017), Naseem (2017), Ortstad and Sonono (2017) examined banking agency through digital and innovation banking strategies on bank performance. These studies found that banking agency through digital and innovation banking strategies significantly enhance bank performance. Similarly, Aini (2014),

Mbugua (2015), Lotto (2016), Munoru (2016), and Dzombo, Kilika and Maingi (2017) investigated the link between agent banking services and financial inclusion. Findings of these studies indicated that customers were inclined to forego the extra charge to procure banking facilities through agent banking outlets.

In addition, further studies such as Jayo, Eduardo, Felipe, and Christopoulos (2012), Okiro and Ndungu (2013), Dzombo, Kilika and Maingi (2017), Muthoka, Oluoch and Muiruri (2018), Chipeta and Muthinja (2018), Muoria and Moronge (2018), among others examined the link between bank agency, bank innovation, customer retention and commercial bank performance. Their studies found that bank agency and innovation positively affect bank performance and customer retention of banks. Most of these past studies employed Ordinary Least Square (OLS) regression method of analysis to investigate the effect of bank agency and innovation on bank performance. This OLS regression method of analysis employed was considered inappropriate for survey research design study. This study employed Tobit Regression method of analysis as the appropriate method to determine effect of agency banking strategies on financial inclusion among rural areas in Kwara State, Nigeria.

Similarly, Ajide (2017), Ndegwa (2017), Tinevimbo, Mawanza and Muredzi (2017) and Ojwang and Otinga (2019) evaluate the link between financial inclusion and agency banking. Their findings revealed that agency banking significantly expand bank geographic coverage which enhances increase in the bank customer base and positively affected financial performance of Equity agency banking business. However, studies on the effect of agency banking strategies measured by bank innovation strategy, geographical coverage strategy and technology advancement strategy on financial inclusion among rural area segment in Kwara State, Nigeria are close to non-existence. Based on these gaps, this study developed hypotheses in null form that;

**H<sub>01</sub>:** There is no significant effect of bank innovation strategy on financial inclusion of rural segments in Kwara State, Nigeria

**H<sub>02</sub>:** There is no significant effect of geographical coverage strategy on financial inclusion of rural segments in Kwara State, Nigeria; and

**H<sub>03</sub>:** There is no significant effect of technological advancement strategy on financial inclusion of rural segments in Kwara State, Nigeria

## **2.2 Underpinned Theory**

The anchored theory for this study was Technology Acceptance Model Theory which was explained below.

### **2.2.1 Technology Acceptance Model Theory**

The Technology Acceptance Model (TAM) theory was developed by Davis (1989). The theory clarifies bank customer recognize and exploit bank rural development innovation and technology. The TAM proclaims that bank customers were offered an alternative technological innovation which determined bank customer choices on the means of banking facilities used by the customers; as TAM enhances technology accessibility and effectiveness to both banks and bank customers in their dealings and functions (Davis, Toxall & Pallister, 2002).

TAM focused on the individuals' customer behavioural intentions and ICT users in the bank. TAM argued that the individual or bank customer attitude towards banking technology depends on the intent and objective of bank and bank customers, thus influenced bank customer or user's attitude toward and perceived usefulness of the bank technology (Bagozzi, 2007). However, attitude and perceived usefulness are both determined by ease of use technology. Embracing the TAM theory necessitates the considerate of end-users desires vis-à-vis usefulness and user friendliness of banking technology (Pedersen, Leif, & Thorbjørnsen, 2002). From this TAM theory, utility and user friendliness affect users' attitudes towards any service (Achugamonu, Taiwo, Ikpefan, Olurinola, & Okorie, 2016). Technology acceptance model theory pointed that bank technology innovation help banks capacity functions and extension to rural areas which heighten financial function and system.

Pedersen, Leif, and Thorbjørnsen (2002) criticized TAM theory as disposition to the technological/technical aspects of the banking technology ignoring other factors such as social aspect of the users, limited ability, time, environmental or organizational limits and unconscious habits will limit the freedom to use technology (Pedersen, Leif, & Thorbjørnsen, 2002). Despite TAM theory being an anchored theory in the study of linking agency banking, financial inclusion through banking technology in rural areas, TAM has shortcoming such as purposive designing the model with thrift and generality, poor consideration for

non-organizational setting (Cicea & Hincu, 2009; Davis & Venkatesh, 2000), and ignoring the factors which moderate the adoption of ICT banking in rural areas (Achugamonu *et al.*, 2016). TAM is extensively embraced and greatly contributes to the prediction of an individual's usage of bank technological extension to rural areas (Fishbein & Ajzen, 2010). In this study, TAM will be utilized to discover how the utilization of rural banking agency through rural banking technology to enhances financial inclusion in the rural segment.

### 3. Methodology

The study employed cross-sectional survey design with population of 3,192,900 comprised of residents in the rural and semi-urban areas across the 16 local governments in Kwara State, Nigeria (National Bureau of Statistic, 2016). The study adopted Cochran's sample size formula (1977) with multi-stage sampling technique so as to get more accurate and reflection of characteristics of the population for the study than simple random or systematic random sampling. The formula is shown below:

$$n = \frac{NZ^2pq}{d^2(N-1) + Z^2pq}$$

Where:

n = sample size

N = Total population (N=3,192,900)

Z = 95% Confidence Interval (Z = 1.96),

p = 0.5

q = 1 – p

d = degree of accuracy or estimation (d = 0.04)

Therefore;

$$n = \frac{3,192,900(1.96)^2(0.5)(0.5)}{(0.04)^2(3,192,900-1) + (1.96)^2(0.5)(0.5)} = 625$$

### Model Specification

This study adapted the functional model of Afande and Mbugua (2015); as the model established the link between agency banking and financial inclusion. The model was specified below;

$$FI = \beta_0 + \beta_1GCS_i + e_i \dots\dots\dots 3.1$$

Where;

GCS= Geographical Coverage Strategy

FI= Financial Inclusion

$\beta_0$  = Constant term

$\beta_1$  = Beta coefficient of variable X.

$e_i$  = Error Term

Based on the objectives of this study, Afande and Mbugua (2015) model was modified as functional model for this study. The Afande and Mbugua (2015) model failed to include bank innovation strategy and technological advancement strategy as strategies for measuring agency banking strategy to model the link between agency banking strategy and financial inclusion. Therefore, this study adapted Afande and Mbugua (2015) model by including bank innovation strategy and technological advancement strategy to suit the objective of the study.

$$FI = f(BIS, GCS, TAS) \dots\dots\dots 3.2$$

For Agency Banking Strategies (ABS)  $ABS = (BIS, GCS, TAS)$

The econometric model for the study was stated as;

$$FI = \beta_0 + \beta_1BIS_i + \beta_2GCS_i + \beta_3TAS_i + e_i \dots\dots\dots 3.3$$

Where:

BIS = Bank Innovation Strategy

GCS= Geographical Coverage Strategy

TAS = Technological Advancement Strategy

FI = Financial Inclusion = Y

X= Agency Banking Strategies (ABS)

$x_1$  = Bank Innovation Strategy (BIS)

$x_2$  = Geographical Coverage Strategy (GCS)

$x_3$  = Technological Advancement Strategy (TAS)

$\beta_0$  = Constant term

$\beta_1 - \beta_3$  = Beta coefficient of variable X.

$e_i$  = Error Term

The *A priori* Expectations for the study was  $\beta_1 - \beta_3 > 0$

**Validity of the Research Instrument**

The validity result for the study variable was shown in Table 1.

**Table 1: KMO and Bartlet test for each variable in the research instrument**

S/N	Variables	KMO Measure of Sampling Adequacy	Bartlet test of sphericity	Average Variance Explained (AVE)	Composite Reliability (CR)	Remark
1	Bank Innovation Strategy	0.855	854.742 (0.000)	0.592	0.70	Accepted
2	Geographical Coverage Strategy	0.823	724.005 (0.000)	0.653	0.762	Accepted
3	Technological Advancement Strategy	0.812	618.756 (0.000)	0.598	0.879	Accepted
4	Financial Inclusion	0.897	642.236 (0.000)	0.501	0.71	Accepted

**Source: Authors' Compilation (2020) Using SPSS Version 24**

From Table 1, the results of Kaiser-Meyer-Olkin measures (KMO) for all the variables were found to be greater than 0.5 and not above 1, hence acceptable indices. On the other side, the Bartlett's Test of Sphericity had p-values = 0.000 for all the variables which are less than 0.05.

The results for unidimensional test revealed that all factors were unidimensional and thereafter confirmatory factor analysis proceeded. The Average Variance Extracted (AVE) for the latent variables were greater than 0.5 and composite reliability should be greater than 0.7. Both AVE and composite reliability showed that convergent and discriminant validity of the construct were acceptable, hence the instrument is valid.

#### **Reliability of the Instrument**

The research instrument is reliable since the coefficient of the cronbach Alpha is greater than 0.7. The Cronbach's Alpha reliability for the subscale is shown in Table 2.

**Table 2: Reliability Statistics**

S/N	Variables	Number of Items	Cronbach's Alpha	Remark
1	Bank Innovation Strategy	6	0.945	Reliable
2	Geographical Coverage Strategy	6	0.721	Reliable
3	Technological Advancement Strategy	6	0.854	Reliable
4	Financial Inclusion	6	0.914	Reliable
	Overall	30	0.954	Reliable

**Source: Researchers' Computation (2020) Using SPSS Version 24**

#### **4. Findings and Discussion**

**Table 3: Normality Test of the Study Variables**

Variables	N	Skewness		Kurtosis	
	Statistic	Statistic	Std. Error	Statistic	Std. Error
Financial Inclusion (FI)	592	-0.564	0.111	0.458	0.222
Bank Innovation Strategy (BIS)	592	-0.335	0.111	0.239	0.222
Geographical Coverage Strategy (GCS)	592	0.000	0.111	-0.482	0.222
Technological Advancement Strategy (TAS)	592	-0.181	0.111	-0.328	0.222

**Source: Field Survey (2020) Using SPSS Version 24**

The results of the normality test of the dependent and independent variables indicated skewness and kurtosis in the range of -1 and +1 as shown in Table 3. This implies that the assumption of normality was satisfied. Therefore, the data was found to be suitable for inferential analysis.

**Table 4: Multicollinearity Test Results**

<b>Variables</b>	<b>Tolerance</b>	<b>VIF</b>	<b>Remark</b>
Bank Innovation Strategy (BIS)	0.567	1.762	No multicollinearity
Geographical Coverage Strategy (GCS)	0.619	1.615	No multicollinearity
Technological Advancement Strategy (TAS)	0.560	1.785	No multicollinearity

**Source: Field Survey (2020) Using SPSS Version 24**

Table 4 shows that the variables have a VIF that is less than 10 and tolerance value more than 0.1 rules out the possibility of multicollinearity. All the predictor variables had a VIF of less than 10. The explanatory variables were not highly correlated since their values are more than 0.1 and therefore could not pose a serious problem. The data was thus suitable for hypotheses testing using tobit regression analysis.

### **Test of Hypotheses**

**Table 5: Tobit Regression Output**

<b>Variables</b>	<b>Coefficient</b>	<b>Std Error</b>	<b>Marginal Effect</b>	<b>Sig.</b>
<b>Constant</b>	5.290	1.724		0.082
Bank Innovation Strategy (BIS)	0.188	0.049	0.172	0.001
Geographical Coverage Strategy (GCS)	0.467	0.037	0.734	0.005
Technological Advancement Strategy (TAS)	0.562	0.051	1.743	0.000
Number of observations F (3, 589) = 76.795				
Prob > F = 0.000				
Pseudo R <sup>2</sup> = 0.683				
Log Pseudo likelihood 22.229				

**Source: Field Survey (2020) Using SPSS Version 24**

Table 5 depicts results of tobit multiple regression analysis for the effect of agency banking strategies on financial inclusion in rural areas in Kwara State, Nigeria. Table 4 presents a model fit which establishes how fit the model equation fits the data. The Pseudo R<sup>2</sup> was used to establish the predictive power of the study's model. From the results, agency banking components (Bank Innovation Strategy, Geographical Coverage Strategy and Technological Advancement Strategy) have positive and significant effect on financial inclusion of rural segment in Kwara State, Nigeria. The adjusted Pseudo R<sup>2</sup> of 0.683 indicated that 68.3% of the variation in the financial inclusion is explained by the variations in the agency banking strategies components while 31.7% was explained by error terms. The Table 4 also shown that the results of ANOVA (overall model significance) of the tobit regression test which revealed that the joint independent variables of agency banking strategies components have a significant effect on financial inclusion of rural segment areas in Kwara State, Nigeria. This can be explained by the F value (76.795) and low p-value (0.000) which is statistically significant at 5% level. This implied that agency banking components adopted by commercial banks in Kwara State was statistically significant. Hence at 95% confidence level, agency banking components influenced financial inclusion.

Furthermore, Table 5 shows the results of tobit regression coefficients through marginal effect output which reveal that a positive effect was reported for all the variables of agency banking components that is Bank Innovation Strategy ( $\beta = 0.172$ ,  $p < 0.05$ ), Geographical Coverage Strategy ( $\beta = 0.734$ ,  $p < 0.05$ ), while Technological Advancement Strategy ( $\beta = 1.743$ ,  $p < 0.05$ ) all at 0.05 level of significance. Based on the regression output from Table 5, this study therefore rejected the three null hypotheses that;

- H<sub>01</sub>:** There is no significant effect of bank innovation strategy on financial inclusion of rural segments in Kwara State, Nigeria
- H<sub>02</sub>:** There is no significant effect of geographical coverage strategy on financial inclusion of rural segments in Kwara State, Nigeria; and
- H<sub>03</sub>:** There is no significant effect of technological advancement strategy on financial inclusion of rural segments in Kwara State, Nigeria

### **Discussion of Findings**

The results of tobit regression analysis for the effect of agency banking components on financial inclusion of communities in Kwara State, Nigeria revealed that the joint independent components of agency banking have a

significant effect on financial inclusion of rural communities in Kwara State, Nigeria. The study findings were aligned with the *a priori* expectations of this study that banking agency strategies have positive and significant effect on financial inclusion especially in the rural areas. Similarly, technology acceptance model theory also supported the study findings; as technology acceptance model theory pointed that bank technology innovation increase bank capacity functions and extension to rural areas which enhance financial inclusion in rural and urban areas. In addition, past studies such as Abbasi and Weigand (2017), Gabor and Brooks (2016), Khadka and Maharjan (2017), Naseem (2017), Nyangosi, Nyangau, Nyariki, and Nyangau, (2014), Ortstad and Sonono (2017) were consistent with the study finding that agency banking enhances bank customer patronage and financial inclusion. Khadka and Maharjan (2017) also found that agency banking to rural communities through digital and innovation banking strategies significantly enhance bank activities coverage of most communities. In addition, Aini (2014), Dzombo, Kilika and Maingi (2017), Lotto (2016), Mbugua (2015), Munoru (2016), Lotto (2016) found that agent banking services enhance promotion of financial inclusion. Based on the majority support of past studies on the study finding, this study therefore rejected the three null hypotheses.

## **5. Conclusion and Recommendations**

This study concludes that agency banking strategies (Bank Innovation Strategy, Geographical Coverage Strategy and Technological Advancement Strategy) significantly affect financial inclusion among rural areas in Kwara State, Nigeria.

The following policy recommendations are suggested based on the findings of this study:

- i. The Management of Deposit Money Banks should establish training centre that will enhance bank innovative ideas in rural areas where employees working as agent bankers will educate and enlighten the rural segment entrepreneurs on bank innovative products or services so as to increase inclusive financial services and economic activities for the rural segments.
- ii. The Management of Deposit Money Banks should increase the extension of level of technological advancement access and capability to the rural communities as this will enhance the level of financial inclusion in the rural communities

- iii. The Management of Deposit Money Banks should extend the level of geographical coverage of bank activities to unbanked segments in order to increase the level of financial inclusion in Kwara state, Nigeria

### **Area of Further Study**

Further study should focus on the effect of agency banking strategies on financial inclusion of rural communities in North Central Region, Nigeria.

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