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## **Impact of Employment on Access to Credit of Non-Agricultural Household Enterprises in Nigeria**

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**Abstract:**

**Purpose:** *The study examines impact of employment on access to credit by non-agricultural household enterprises in Nigeria using binary logistic regression approach.*

**Design/Methodology/Approach:** *The data for the study was drawn from General Household Survey (Wave 4) published by the National Bureau of Statistics in 2019. Apart from the core variables studied, other variables considered in the study include: spending on other business costs, spending on rent, spending on transport, spending on salaries, and location of the enterprise.*

**Findings:** *The findings indicate that employment is positive and significantly influence access to credit by non-agricultural enterprises in Nigeria. Interestingly, the influence of employment on access to credit by household non-agricultural enterprises is consistent even when the estimation is disaggregated into rural and urban enterprises. When disaggregated into rural and urban enterprises also revealed that spending on other business is negative and significantly influence access to credit by urban non-agricultural household enterprises while spending on transport is positive and significantly influence access to credit by rural non-agricultural household enterprises. Other factors like location, spending on rent, and salaries exert insignificant for access to credit. The study concludes that there is need for adequate policies that will promote employment through job creation.*

**Practical Implications:**

**Originality/Value:**

**Keywords:** *Access to credit, employment, enterprises, model, Nigeria.*

**JEL Classifications:** *E51, G51, R20, C21, N17.*

**Paper type:** *Research article.*

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## 1. Introduction

The relevant role of access to credit in stimulating overall growth in an economy are well documented in the literature. (Ojonta and Ogbuabor, 2021a; Ojonta and Ogbuabor, 2021b; Ojonta *et al.*, 2021; Ugwuanyi, 2012) established that access to credit is a suitable strategy for start-up capital for investment. Another study, Nwosu *et al.* (2018) believe that access to credit by non-agricultural household enterprises encourage job creation. According to Adeyemo (1982) access to credit helps investors in investment expansion.

Some studies in extant literature have established conditions for access to credit. Nwosu and Orji (2016) revealed that access to credit is possible through provision of collateral by non-agricultural household enterprises. Essien and Arene (2014) explained that ability to pay back loan guaranteed investors an access to credit. In spite these conditions for access to credit, evidences have shown that access to credit are not equitably distributed among the seekers.

The stylised facts in Table 2 shows that more share of the enterprise have less access to credit. This suggest that access to credit is very poor and inadequate by non-agricultural household enterprises in Nigeria. Many factors are blamed for such inadequacies in access to credit. Some of these factors include: poverty Urama and Iheonu (2019), low income distribution (Nwosu *et al.*, 2018; Pradhan, 2011), some studies in the extant literature (e.g., Adeyemo 1982; Arene, 1992; Ojonta and Ogbuabor, 2021; Hassan and Olaniran, 2011) revealed that poor returns on investment, inequalities in income distribution and poor enabling environment for business transactions are factors for poor access to credit.

Nigerian government has provided some support to firms in various dimension to ensure effective participation of investors for access to credit. Such supports include free cash disbursement strategies which encourages interest free. The primary purpose is to engage unemployed especially the youths who are financially incapacitated for business establishment. Another purpose is to ensure that large population group could afford to access to credit in Nigeria.

Other supports from the government is the establishment of intervention schemes such as YOUWIN and N-Power. These schemes were established to promote investment, build capacities and expand social development through access to credit. The challenges confronting access to credit despite the emergence of these schemes appear not to have substantially support access to credit by non-agricultural enterprises in Nigeria. This scenario is becoming worrisome as majority people have diverted to menial occupation as alternative means of livelihood such as petty trade, road-side automobile repairing and motor cycling taxing (Nwosu *et al.*, 2018).

However, access to credit in this context is the ability to get loan including other risk management services associated with the loan (Ojonta and Ogbuabor, 2021). This

study measured access to credit in binary where 1=yes if the enterprises have access to credit and 0 otherwise, if the enterprises do not have access to credit.

One significant factor that can also influence access to credit is employment. The focus of this study is to investigate how employment responds to access to credit by non-agricultural household enterprises which is yet to be found in the literature. This is the knowledge gap that this study seeks to address in the literature. The important role of employment in stimulating overall growth performance cannot be overemphasised. Some studies shows that employment enhances standard of living (Adeoti and Rahji, 2010), poverty alleviation (Nwosu and Orji, 2017), reduces inequalities (Ojonta *et al.*, 2021) and environmental quality (Ojonta and Ogbuabor, 202; Cornejo and McBride, 2002).

Our core interest of this study is to ascertain how employment influences access to credit by non-agricultural household in Nigeria and how other factors influence access to credit by non-agricultural household enterprises in Nigeria. In this study, employment is conceptualised as an agreement between the employee and employer that employee (individual) will work for the employer in return to be paid for the work done (Feschijan, 2008). The study measures employment in binary where 1=yes if non-agricultural household enterprise is employed or paid job and 0 otherwise, if enterprise employment is unemployed.

Consequently, the core questions expected in this study are: how has employment influenced on the access to credit of non-agricultural household enterprises in Nigeria? Are there other factors that significantly impact the access to credit of non-agricultural household enterprises in Nigeria?

In other words, the objectives of this study are twofold, namely: (i) to ascertain the impact of employment on the access to credit of non-agricultural household enterprises in Nigeria; and (ii) to determine other factors that significantly impact the access to credit of non-agricultural household enterprises in Nigeria. These two objectives are significant because unveiling the factors influencing the access to credit of non-agricultural household enterprises in Nigeria will unveil the much needed evidence, which will in turn support policymakers in advancing the fortunes of these enterprises, thereby repositioning these enterprises for better performance in the employment.

Thus, the following hypotheses will be evaluated in this study:

***Hypothesis 1:*** *Employment has not influenced significantly on the access to credit of non-agricultural household enterprises in Nigeria.*

***Hypothesis 2:*** *Other factors have not significantly impacted the access to credit of non-agricultural household enterprises in Nigeria.*

To ensure that the foregoing objectives are achieved, this study used General Household Survey (GHS) data for 2019 compiled and documented by the National Bureau of Statistics (NBS). The study used a sample of 244 non-agricultural household enterprises, which do not have missing observations. The binary logistic regression technique was also used for the study.

The other sections to be considered in this work are presented as follows. Section 2 of this study will discuss the literature review followed by section 3 to capture theoretical framework. But section 4 provides the method and after section 4 comes results while section 5 takes care of the concluding part of the paper.

## **2. Literature Review**

### **2.1 Related Theoretical Literature**

This study underpin some theories revolving around access to credit. These theories include, Hoff and Stiglitz (1990) theory of credit rationing, Stiglitz and Weiss (1981) theory of imperfect information, and Benston and Smith (1976) theory of transaction cost.

#### ***2.1.1 Theory of credit rationing***

The credit rationing theory as propounded by Stiglitz and Weiss (1981) argued that financial institutions (banks) are ready at any point in time to issue loans to both agriculture and non-agricultural household firms. The theory argued that the purpose for the issuing of loan to investors are not because of interest rate apportioned to the loans, but the consequences and risks associated with such loans, which the lender is likely to face.

This implies that the theory also considers the willingness and ability of borrowers to pay back when the loan is provided. The theory established that market imperfection is one of the risks and such risks can limit loan availability to firms. The theory further explained the contributing factors for social discrimination among borrowers either as individuals or group of individuals even when such individuals are ready to borrow and pay back at higher interest.

According to the theory, individuals or firms prefer to borrow from the lender that is able to grant them credit provided that the rate of interest and collateral are affordable. This implies that individuals could be deprived of access to credit based on the underlying factors like interest rate and collaterals.

#### ***2.1.2 Information Asymmetry Theory***

Hoff and Stiglitz (1990) advanced the theory of information asymmetry. The theory revealed that imperfect information contributes to the problem of information asymmetry in financial market transactions. According to the theorist, the problem has the likelihood of causing moral hazard and adverse selection. Hoff and Stiglitz

(1990) further explained the consequences of information asymmetry in financial markets in three categories, namely: (i) the problem of screening the obligors, explained as extent of the default determination; (ii) the problem of incentive, described as cost conceived to ensure that credit contract is not violated; and (iii) the problem of enforcement, which refers to the cost incurred to monitor the credit beneficiaries to ensure employment.

### **2.1.3 Transaction Cost Theory**

The Benston and Smith (1976) theory of transaction cost revealed that financial intermediaries engage in market business for profit maximisation and make use of economies of scale through the aid of innovation technology. The core feature of the theory of transaction cost is the cost implication of information and processing of information that is needed for decision making during transaction processing, enforcement and policing.

## **2.2 Empirical Literature**

This section provides some factors that influence access to credit performance both in Nigeria and outside Nigeria. In outside Nigeria, for instance, (e.g., Blanchflower and Evans, 2004; Cornejo and McBride, 2002; Herkenhoff, 2019; Luan and Bauer, 2016; Mach and Wolken, 2011; Quach and Mullineux, 2006) revealed that access to credit has positive influence on firms performance using survey data. Calice *et al.* (2012) shows that ratio of firms working capital financed and overdraft facility have positive and negative influence on access to credit respectively in Vietnam.

According to Quach and Mullineux (2006) credit capacity is a determinants of access to credit in both small and medium enterprises. Another studies in the extant literature (e.g., Fatoki and Odeyemi, 2010; Nanyondo *et al.*, 2014) show that educational level and credit size are the drivers of access to credit in lower middle income countries. In Spain, Gonzalez *et al.* (2007) established that firm debt and collateral have a significant impact on access to credit on both short and long term non-bank credit.

Another study, Fatoki and Odeyemi (2010) in South Africa revealed that business size, insurance, incorporation and managerial competency exert significant and positive influence on access to credit by new SMEs. In another study in Kenya, Musamali and Tarus (2013) investigated how firm specific characteristics influence access to credit. The outcome revealed that firm specific characteristics influence access to credit. The findings from Zarook *et al.* (2013) shows that financial performance such as , ratio of liabilities to asset, presence of profit and return on capital employed are insignificant factors of access to credit in Libya.

Nanyondo *et al.* (2014) shows that information asymmetry has negative impact on access to credit while quality of firm financial statements has positive influence on access to credit in Uganda. In a panel analysis, Öztürk and Mrkaic (2014) revealed

that increase in firms' debt/asset ratio positively and significantly impacts on access to credit in European Union while the increase of financial cost in a bank has a negative impact on access to credit.

Kiplimo *et al.* (2015) used logit model to examine factors that influence smallholders' agricultures' access to finance for financial services in Kenya. The findings show that level of education, privilege to extension services and occupation has a positive and significant impact on access to credit. The study also revealed that distance to the source of credit is significant but negatively impact on access to finance for financial services.

Another study, Fufa (2016) investigated factors that influence access to finances by SMEs in Ethiopia using binary logit technique. The findings show that firm size, firm location, firms owning business plan and firm age have positive and significant influence on access to finance. Chenna *et al.* (2018) investigated the determinants of access to credit by smallholder farmers in Cameroon using multiple regression analysis. The outcome of the study shows credit cost, collateral and awareness/knowledge of financial procedures are the important driver of access to credit.

In Nigeria, Ololade and Olagunju (2013) shows that gender marital status has positive influence on access to credit while lack of guarantor and high rate of interest have negative influence on access to credit. A recent study in extant literature, Oke *et al.* (2020) shows that age, education level, household size, income size and year of schooling impact positively and significantly on access to credit in Nigeria.

At this point, our review of the extant literature shows that there is dearth of studies on the influence of employment on access to credit by household of non-agricultural enterprises.

### **3. Data and Methodology**

#### **3.1 Data Description**

This study used the survey data set of 2019 General Household Survey (wave 4) published by the National Bureau of Statistics in partnership with the Federal Ministry of Agriculture and Rural Development and the National Food Reserve Agency. The survey is nationally representative and covered five thousand households in the 36 states of Nigeria, including Abuja, the Federal Capital Territory.

The survey was conducted successfully through the use of a multi-stage stratified design. However, 244 households recorded data for access to credit by household of non-agricultural firms and these were used in our study. Thus, since the study intends to study influence of employment on access to credit by non-agricultural

household firms, we utilized the available data in this survey with a sample size of 244.

### **3.2 Theoretical Framework**

The Hoff and Stiglitz (1990) theory of information asymmetry provides the theoretical underpin for this study. The theory is established around two kinds of individuals. These individuals have equal right for access to credit, but one has imperfect information, while the other does not have such information even when such individuals are willing to pay back the loan and accrued interest.

Hence, many firms or enterprises are found to be defaulted in paying back loans as a result of imperfect information problem. The problem of not paying back loan or defaulting are blamed for some factors which include high interest rate, collateral including low employment rate. These problems have contributed huge shock of deprivation of access to credit by the investors. If an individual or group of individuals are found consistently defaulting to pay back loan as a result of unemployment, the trickledown effect is that such individual will not be guaranteed with creditworthiness as well their access to credit will not be adequately provided.

The situation in which an individual or investors employment status is not given a priority for access to credit can greatly cause a problem of moral hazard or adverse selection result. The theorist established that employment status of the borrowers should be considered as priority for access to credit.

### **3.3 Model Specification**

The binary logistic regression is mutually exclusive event estimation model. It is mutually exclusive because the dependent variable is dummy while the independent variables are either categorical or dummy variables (Verbeek, 2004). Since our dependent variable, access to credit is a mutually exclusive event, this study considered the binary logit model suitable for the estimation. Since access to credit by non-agricultural household firms represents dependent variable assigned as dummy (i.e., dichotomous), this paper followed the modelling technique of (Astari and Kismiantini, 2019; Ojonta and Ogbuabor, 2021).

In the process of using binary logit model and its variable equation, the study used  $\pi$  to denote access to credit by non-agricultural household firms, while  $X_i$  denotes a set of independent variables of different measures, which are either discrete, categorical or both. Hence, our binary logistic regression model of two-outcome model is used to estimate the welfare influence by employment.

This implies that the binary logit model measures the chance or probability that an enterprise  $i$  has one of the  $j$  mutually exclusive access to credit (0, otherwise, implies that non-agricultural household firms do not have access to credit; while 1 = yes,

means that non-agricultural household firms have access to credit). Hence, going by Justino et al. (2008) approach, model regression can be indicated as:

$$P(\pi_i = j) = \frac{1}{1 + e^{-Z}} \quad (1)$$

where:  $Z = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_p X_p$ ;  $\beta_0, \beta_1, \dots, \beta_p$  denote the regression parameters;  $X_1, X_2, \dots, X_p$  denote the explanatory variables; and  $\pi$  provides information on the probability of having access to credit by household of non-agricultural firms.

The independent variables as shown in equation (1) are defined in Table 1. These variables are also described as follows:

- $X_1$  represents EMPLOYMENT. It is a categorical variable where 1=yes (if non-agricultural household enterprise is employed) and 0, otherwise, (if non-agricultural household enterprise unemployed). The *a priori* expectation for the coefficient of this variable can be either positive or negative, and studies like Diao *et al.* (2018), Osondu *et al.* (2014), and Odoh and Nwibo (2017) are consistent with this expectation.
- $X_2$  depicts TRANSPORT, which implies spending on transport. It is a categorical variable assigned 1 for yes (indicating that the non-agricultural household enterprise spends on transport) and 0, otherwise (indicating that the non-agricultural household enterprise spends nothing on transport). The *a priori* expectation is that the coefficient of this variable will be negative following Atamanov (2011).
- $X_3$  represents COST, the spending on other business costs by household of non-agricultural enterprises. It is a categorical variable taking a value of 1 for yes (implying that the enterprise spending on other business costs) and 0, otherwise (implying that the enterprise is did not spend on other business costs). Economic expectation suggests that this variable should have a coefficient that is positive since a higher value enhances the performance of the enterprise in terms of physical capital stock acquisition. Hence, the *a priori* expectation of its coefficient is positive. This is consistent with studies like Diao *et al.* (2018), Osondu *et al.* (2014) and Odoh and Nwibo (2017).
- $X_4$  stands for SALARIES, it represents spending on salaries by non-agricultural household enterprises. It is a binary variable taking the value of 1 for yes (implying that the non-agricultural household enterprise incurred spending on salaries) and 0, otherwise (if there is no spending on salaries).



The study by Shehu and Sidique (2014) showed a positive coefficient for this variable, but other studies like Ayambila *et al.* (2017), Aziz *et al.* (2017), Owoo and Naud'e (2014), and Seng (2015) obtained a negative coefficient. Hence, our *a priori* expectation for the coefficient of this variable is either positive or negative.

- $X_5$  represents LOCATION, the location of the enterprise. It is also a binary variable that takes a value of 1=yes (if the enterprise is located in rural areas) and 0, otherwise (that is, if the enterprise is located in urban areas). Following Atamanov (2011), our *a priori* expectation for this variable is negative.
- $X_6$  represents RENT, the spending by non-agricultural household enterprises on rent. The variable is categorised into two to take a value of 1 for yes (indicating spending on rent by the enterprise) and 0, otherwise (if the enterprise is not spending on rent). For this variable, Ayambila *et al.* (2017) and Seng (2015) had a negative coefficient, but Diao *et al.* (2018) had positive coefficient. The overall *a priori* expectation is either positive or negative for the coefficient of this variable.

**Table 1.** Measures of the variables used in the binary logistic regression

Dependent Variable	Variable label	Coding	Expected Sign
Access to credit	CREDIT	1=yes; 0, otherwise	Not Applicable
Independent Variables			
Employment( $X_1$ )	EMPLOYMENT	1=yes; 0, otherwise	(+/-)
Spending on transport( $X_2$ )	TRANSPORT	1=yes; 0, otherwise	(+/-)
Spending on other business cost( $X_3$ )	COST	1= yes; 0, otherwise	(+/-)
Spending on salaries( $X_4$ )	SALARIES	1=yes; 0, otherwise	(+/-)
Location( $X_5$ )	LOCATION	1=rural; 0, otherwise	(+/-)
Spending on rent( $X_6$ )	RENT	1= yes; 0, otherwise	(+/-)

*Source:* Author's compilation from General Household Survey (NBS, 2019) using SPSS

## 4. Results and Discussions

### 4.1 Descriptive Analysis

Table 2 shows the distribution by percentage share of non-agricultural household enterprises that have access to credit and those that do not have access to credit between urban and rural area. The Table also shows the distribution according to

those that job paid employment and job unpaid employment. The Table for instance shows that unemployed (unpaid job) have less percentage share for access to credit but employed (paid job) has more percentage share for access to credit.

The report also show that those employed have more percentage share for access to credit in both urban and rural area than their counterpart that do not have access to credit. For those that are unemployed revealed less percentage for access to credit and more for non-access to credit in both urban and rural. This implies that access to credit is serious challenge facing unemployed group in Nigeria.

**Table 2. Percentage Distribution of Access to Credit and employment by sector**

	Access to credit				No Access to Credit				Total			
	Urban Area	% Share	Rural Area	% Share	Urban Area	% Share	Rural Area	% Share	Urban Area	% Share	Rural Area	% Share
Employed	18	56.25	25	86.21	9	11.69	14	13.21	27	24.77	39	28.89
Unemployed	14	43.75	4	13.79	68	88.31	92	86.79	82	75.23	96	71.11
Total	32	100	29	100	77	100	106	100	109	100	135	100

*Source: Authors' Computation from General Household Survey 2019 Using SPSS*

## 4.2 Binary Estimation Results

Table 3 shows the estimated results of binary logistic regression model on the determinants of access to credit. The table shows that employment (EMPLOYMENT) by non-agricultural enterprises have positive coefficient and p-value of 0.00 which is statistically significant at 1% level. In other words it implies that the employment is positively and significantly influence access to credit by non-agricultural household enterprises in Nigeria.

As shown in Table 4, the coefficient values (B) is 2.036. Hence, the results indicate that the higher the employment, the higher will be the tendency for the enterprise to have access to credit.

This result is uniform and consistent with studies by Blanchflower and Evans (2004), which also found that employment significantly impacts on the performance of enterprises. This result is also consistent with other studies like Atamanov (2011), Ayambila *et al.* (2017), Aziz *et al.* (2017), Nagler and Naudé (2017), Ojonta and Ogbuabor (2021), Ojonta *et al.* (2021), Rijkers and Söderbom (2013) and Shehu and Sidique (2014). These studies also obtained a positive coefficient for employment.

Thus, those studies attest that employment is an important driver for access to credit. Another result from the table shows that the spending on other business cost (COST) and spending on transport (TRANSPORT) by household non-agricultural enterprises are negative in coefficient and p-value of 0.024 and 0.032 respectively. The two results imply that both factors are significant at 5% level but negatively influence access to credit.

Hence, the result indicates that the higher the spending on transport (TRANSPORT) and other business cost (COST), the lesser will be the tendency for non-agricultural household to have access to credit. This result is consistent with the studies Asimakopoulos *et al.* (2009) and Diao *et al.* (2018). Other factors captured in Table 4 such as spending on salaries (SALARIES), spending on rent (RENT) and location (LOCATION) of the enterprise are insignificant.

The outcome shows that these factors do not exert significant influence on access to credit by non-agricultural household enterprises. These finding is in line with the studies like Mapunda *et al.* (2018), Ojonta and Ogbuabor, (2021) and Ojonta *et al.* (2021), which agreed that spending on salaries, rent and location of enterprises are not statistically significant.

**Table 3.** Overall results of binary logistics regression

Variables	B	S.E	p-value	Exp(B)
EMPLOYMENT	2.036	0.346	(0.000)***	7.663
COST	-0.418	0.354	0.024**	0.658
SALARIES	-0.55	0.503	0.273	0.577
TRANSPORT	-0.441	0.439	0.032**	0.643
LOCATION	-0.304	0.385	0.143	0.738
RENT	0.137	0.379	0.718	1.147
INTERCEPT	-1.066	0.462	0.021	0.344

**Notes:** Observation: 244, pseudo R<sup>2</sup>: 0.247, correctly predicted: 78.3, dependent variable: Access to credit. Abbreviation: 1= B: relative risk ratio value, which represents the estimated coefficients, 2=S.E: denotes robust standard error, 3= p-value: represents probability value of estimated model, 4= Exp(B): denotes is odd ratio computed as exponential of B (coefficient). \*, \*\* and \*\*\* indicate the significance level at 10%, 5% and 1% respectively.

**Source:** Own study.

Table 4 is another estimation of binary logistic regression disaggregated into urban and rural household. The result of the regression revealed that the impact of employment on access to credit by non-agricultural household enterprises is positively and statistically significant at 1% level in urban and rural areas. The result is consistent with the findings in Table 3.

Table 4 also shows that the impact of spending on other business cost (COST) on access to credit by non-agricultural rural household enterprise is negative and statistically significant at 10% level while urban counterpart is insignificant.

Also, the table revealed that the impact of spending on transport (TRANSPORT) on access to credit by non-agricultural urban household enterprise is negatively and statistically significant at 5% level but the rural counterpart is insignificant.

**Table 4.** Specific sector results of binary logit regression

Variables	UE				RE			
	B	S.E	p-value	Exp(B)	B	S.E	p-value	Exp(B)
LOCATION	0.103	0.582	0.86	1.108	-0.76	0.568	0.181	0.468
SALARIES	-0.57	0.81	0.48	0.564	-0.922	0.678	0.174	0.398
TRANSPORT	0.544	0.778	0.484	1.724	-1.233	0.59	(0.037)**	0.291
RENT	-0.1	0.626	0.872	0.904	-0.13	0.514	0.801	0.878
EMPLOYMENT	2.445	0.514	(0.000)***	11.533	1.825	0.522	(0.000)***	6.203
COST	-1.07	0.616	(0.082)*	0.342	0.06	0.485	0.902	1.062
INTERCEPT	-2.25	0.837	0.007	0.105	0.063	0.627	0.919	1.065

**Notes:** UE: urban enterprise, RE: rural enterprise, UE observation: 135, RE observation: 109, UE pseudo R<sup>2</sup>: 0.322, RE pseudo R<sup>2</sup>: 0.237, UE correctly predicted: 85.9, RE correctly predicted 77.1, dependent variable: Access to credit. Abbreviation: 1= B: relative risk ratio value, which represents the estimated coefficients, 2=S.E: denotes robust standard error, 3= p-value: represents probability value of estimated model, 4= Exp(B): denotes is odd ratio computed as exponential of B (coefficient). \*, \*\* and \*\*\* indicate the significance level at 10%, 5% and 1% respectively.

**Source:** Own study.

### 4.3 Diagnostic Checks

The section of this study is to ensure that the outcome of this study are unbiased for inference, we performed a diagnostic checks on the underlying model for the study. The outcome are provided in Table 5. The results show that the entire model is statistically significant at 1% level. Additionally, the Mc Fadden is significant at 5% level. The pseudo R<sup>2</sup> (Cox and Snell = 0.20; Nagelkerke = 0.046) which implies that the model has a strong potential of prediction.

These R<sup>2</sup> are generally in line with the values reported by Nugraha (2017) and Aziz *et al.* (2017). The percentage of corrected prediction indicates that 78.3 percent can be predicted by the model. These diagnostic checks implies that the underlying model for this study is perfect for inference.

**Table 5.** Test for Model Suitability

Test Statistics	Value	Significance
Number of Observations	244	
-2log-Likelihood	318.259	
Cox & Snell R <sup>2</sup>	0.20	
Nagelkerke R <sup>2</sup>	0.046	
Mc Fadden	0.022	
Chi-square	66.795***	0.0000
Percentage correct prediction	78.3	

**Note:** \*\*\* Level of significance at 0.0000.

**Source:** Own study.

We also investigated classification tests as shown in Table 5. The findings reveal that Visible Error Rate (VER) is 13.93% while the overall Visible Correct Classification Rate (VCCR) is 86.07%. These two results indicate that the adopted model is reliable in terms of classification performance. More also, these results are also consistent with the studies (Abdullah and Majid, 2014; Abdulqader, 2017).

**Table 5.** *Final classification results for the binary logistic model*

Kind of Test	unemployed	employed	Total
unemployed	1	32	33
employed	2	209	211
VER		13.93%	
VCCR		86.07%	

*Notes:* VER denotes Visible Error Rate while VCCR denotes Visible Correct Classification Rate.

*Source:* Own study.

## **5. Conclusion and Policy Recommendations**

This study examines the impact of employment on access to credit by non-agricultural household enterprises in Nigeria. The result of this study has revealed that employment is positively and significantly influence access to credit by non-agricultural household enterprises in both urban and rural area in Nigeria.

Our study also shows that spending on other business cost and transport are negatively and significantly influence access to credit by non-agricultural enterprises in urban and rural areas respectively. The study also show that those who are paid job have more percentage share for access to credit in both urban and rural areas.

This study suggested for the following policy recommendations: Attention should focus on relevant policies that provide support for employment creation to enable them have access to credit. In doing so, the issuance of loan to investors should be given with little or no interest charges. When that is considered as such, the trickledown effect is that capital investment will increase, employment will boom, poverty will be alleviated and that will stimulate overall economic growth.

Another important area is to create income generating activities to increase the income of such enterprises in rural areas in order to enable them enhance their financial capacities, expenditure needs and increase their returns on investment. These areas will help to increase their financial strength to pay back loans and improve their abilities to have access to credit.

Another area that can support employment and access to credit is through sensitization of the population on the importance of poverty alleviation, especially those in the lower end of the income distribution. Besides, the living conditions of non-agricultural household enterprises can be improved through government

interventions. It is important to note that provision of social amenities especially in the rural areas will go a long way to encourage employment and access to credit by non-agricultural household enterprises operating in these areas. This can only be feasible if such amenities are adequately available at reduced costs. In conclusion, this study suggests that employment is an important driver for access to credit.

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