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FINANCIAL INCLUSION AND CHOICE OF BUSINESS ENTERPRISES AMONG ENTREPRENEURS IN RURAL NIGERIA

Salawu Mutiat B.

Department of Agribusiness Management, Federal College of Animal Health and
Production Technology, Ibadan, Nigeria

Fasakin I. James*

Department of Agricultural Economics, University of Ibadan, Nigeria

*E-mail: idowufasakin2010@gmail.com

ABSTRACT

Nigeria is the home to the unbanked population in sub-Saharan Africa, where half or more of adults are unbanked; therefore, this study examined the effect of financial inclusion on the choice of business enterprises among entrepreneurs in rural Nigeria. Wave four (2018/2019) of the General Household Survey data were analyzed using descriptive statistics, chi-square, and multivariate probit regression analysis. The result showed that less than 15% of entrepreneurs own a bank account, and about 25% had access to credit in rural Nigeria. More male entrepreneurs had access to credit and owned bank accounts than their female counterparts. The distribution of financial inclusion variables across enterprises revealed that a higher percentage of entrepreneurs who did not access credit (58.38%) and own a bank account (54.65%) engaged in agricultural enterprise only. This was followed by entrepreneurs engaged in agricultural and non-agricultural enterprises. The result of the multivariate probit regression indicates that variables such as bank account ownership and bank distance to the residence are the financial inclusion variables influencing the choice of enterprises. Other factors influencing the choice of enterprises were age, sex, marital status, household size, education level, assets owned, income, land area owned, and access to safety net. Thus, more financial institutions closer to the entrepreneurs should be established as this may enhance ownership of bank accounts and the use of other services provided by financial institutions.

KEY WORDS

Entrepreneurs, financial inclusion, business enterprises, rural Nigeria.

Globally, high unemployment rates have forced people to become more creative and create their abilities, making skill development a means of empowerment. The concept of entrepreneurship refers to the innovative growth of concepts and abilities. However, due to several issues, including a lack of technological knowledge, unfair competition, multiple taxes, unfavourable monetary policies, a lack of market research, unfavourable fiscal policies, poor policy implementation, and difficult access to funding, entrepreneurs in Nigeria are not currently performing exceptionally well (Arasti, 2011; Agri et al., 2018; Akinyemi & Adejumo, 2018; Aribaba et al., 2019). It has become more and more popular around the world to define entrepreneurship as the combination of all the qualities that allow someone to spot untapped business opportunities and put the necessary resources in place to successfully take advantage of them in the face of calculated risk and uncertainty. The creation, enhancement, realization, and regeneration of value for the enterprise's owners, all participants, and stakeholders have been highlighted as its key characteristics, making it a fundamentally significant component of contemporary economic and social life (Taiwo et al., 2016). Even though it goes beyond simply starting a business, entrepreneurship is unquestionably crucial to the empowerment of business owners. Finance is one of the essential components required for creating and expanding businesses. Numerous factors, including a lack of thorough entrepreneurial training, a small market size, obstructive laws



and regulations, poor infrastructure, and a lack of funding, have been suggested as the causes of Sub-Saharan Africa's high concentration of job creation in low-productivity micro/informal firms (Legas, 2015; Olawale & Garwa, 2010). Financial inclusion is frequently seen as a tool for enhancing the economic ability and capabilities of those with low incomes in a country and the right of all citizens to social inclusion and a higher quality of life (Banco Central do Brazil, 2010). The Nigerian government has implemented several policies, such as electronic banking, developing bank-customer relationships, educating the public about financial services, and offering credit in response to the success and benefits of financial inclusion on a global scale (CBN, 2013). Despite this significant effort, many people and those with low incomes continue to be excluded. They have been impacted in terms of their low economic engagement, growth of their entrepreneurial abilities, and overall economic development. It has been determined that having access to bank accounts, financial credit, and other financial services is an efficient approach to increasing one's ability to take advantage of economic possibilities (World Bank, 2013), particularly in developing nations like Nigeria. Financial institutions are important because they provide money for economic development and activity. Large numbers of people in Nigeria are excluded for various reasons, which slows down the nation's overall economic progress despite its enormous contribution (CBN, 2013).

In sub-Saharan Africa, where at least half of adults, including women, lack banking accounts, millions live in Nigeria. Other West Africa has seen an increase in mobile money accounts (Demirguc-Kunt et al., 2018). Nigeria is not included on the list of economies that have experienced this significant growth despite having a big population in Sub-Saharan Africa. The increase in mobile money accounts has aided those nations' efforts to increase financial inclusion, improve entrepreneurial abilities, and assist in lifting their people out of poverty by encouraging investments in their businesses, health, and education (Beck et al., 2008).

In the literature, the growing significance of financial inclusion as a driver of economic development and growth has been established. Lakuma et al. (2019) evaluated the influence of finance on the expansion of businesses of various sizes using firm-level data from the 2013 World Bank Enterprise Survey. The study concluded that small and medium-sized businesses (MSMEs) gain more from financial access than giant corporations. Women encounter more severe obstacles than men when trying to access financial services, according to the World Bank (2013). Due to a lack of collateral securities to obtain loans, conventional credit practices of money deposit banks have not been favourable to women-owned firms in developing countries (Kabukuru & Afande, 2016). Given that women entrepreneurs tend to have more interrupted and sporadic work histories, this has been attributed to lower levels of overall capitalization and ratios of debt financing, lower patterns of compensation, and more significant limitations in accessing personal savings (Bruin et al., 2007; Jamali, 2009). Women actively engage in entrepreneurship in Nigeria (Ayogu & Agu, 2015). For women-owned businesses, official funding for entrepreneurship has not yet been approved. According to Brixiova and Kangoye (2016), women entrepreneurs were typically distinguished from their male counterparts by lower sales performance, smaller start-up capital, and less access to technology. Financial inclusion has been biased, but not just because of gender. According to some writers (Galindo & Micco, 2007), lax institutions and enforcement are to blame for increasing prejudices. Failures in the market and institutions, the informality of small and medium-sized businesses (Kasekende & Opondo, 2003), and the failure of the business environment (Aterido et al., 2009) are all examples. Evidence has also demonstrated that age (Cabral & Mata, 2003), geography, and sector preference (Lakuma & Kuteesa, 2016) as well as decreased informality and infrastructure (Turyahikayo, 2015) also help to lessen biases against financial inclusion. Despite the significance of financial inclusion for business growth and the impact of business sector choice on bias reduction related to financial inclusion, previous research has not examined how financial inclusion can affect entrepreneurs' choice of business enterprise or sector using the agricultural and non-agricultural sectors as lenses. Additionally, there has been a lot of focus on urban economic activities compared to rural villages where agricultural activities occur. From those above, the



main objective of this study is to assess how financial inclusion influences the choice of enterprises in rural Nigeria. The specific objectives are to assess financial inclusion and enterprise choice among entrepreneurs, describe financial inclusion across selected socio-economic characteristics variables, examine the influence of financial inclusion on the choice of enterprises and identify other factors influencing the choice of enterprises.

MATERIALS AND METHODS OF RESEARCH

This study used secondary data from the fourth wave of the Nigeria General Household Survey (GHS) Panel Datasets. 4987 out of the 5000 respondents who were surveyed in the data set had a household response status of 99.72 percent. In 2010, 2012, and 2015, roughly 3,000 respondents, or 65% of the respondents, were from farm households (NBS, 2016). A two-stage probability sample was used for the GHS panel survey. The enumeration Areas (E.A.) served as the principal sampling unit (PSU). With a total of 500 EAs chosen using this method, they were chosen using a probability proportional to the size (Pps) of the total EAs in each state and FCT and the total households mentioned in those EAs. Households were randomly using the systematic selection of ten (10) households per E.A. This involved obtaining the total number of households listed in a particular E.A. and then calculating a sampling interval (S.I.) by dividing the total households by ten (10). The next step was to generate a random start 'r' from the table of random numbers, which stands as the first selection. Consecutive selection of households was obtained by adding the sampling interval to the random start. In all, 500 clusters/E.As and 5000 households were interviewed. These samples were proportionally selected in all the states such that different states had different sample sizes. However, the selection covers all the Local Government Areas and all the states in Nigeria; the urban and rural areas were also included in the sample. This study used 3,349 entrepreneurs' households from rural Nigeria in the 2018/2019 Generalized Household Survey.

Descriptive statistics such as frequency mean and standard deviation were used to assess financial inclusion and choice of enterprise. It was also used to describe financial inclusion across selected socio-economic characteristics.

Multivariate probit regression was used to examine the influence of financial inclusion on the choice of enterprises and to identify other factors influencing the choice among entrepreneurs. Multivariate probit is a generalization of the binary probit model. The analysis of the decision on the choice of enterprise among the respondents needs the use of a multivariate modelling framework to account for multiple enterprise choices and the possible simultaneity of the decision-making process. For this study, the Multivariate Probit model (MVP), the choice of enterprise among entrepreneurs in rural Nigeria, relates to each type of enterprise, corresponding to a binary choice (Yes/No) equation whose choices are modelled jointly while accounting for the correlation among disturbances. The multivariate specification supersedes the univariate specification when the error correlations significantly differ from zero; otherwise, the two modelling frameworks would yield comparable results if there were three enterprise choices in rural areas. Three equations describing a latent dependent variable corresponding to the observed binary outcome for each type of enterprise would need to be estimated simultaneously. A system of simultaneous probit was constructed for the three types of enterprise identified following Cappellari and Jenkins (2003) and Greene (2000). These enterprise types are Agriculture enterprise only, non-agriculture enterprise only, agriculture and non-agriculture enterprise.

The model is thus specified as follows:

$$Y_{ini}^* = \beta_n' X_{in} + \varepsilon_{in} \quad (1)$$

$$Y_{ini}^* = 1 \text{ if } Y_{ini}^* > 0 \text{ and } 0 \text{ otherwise}$$

$N=1 \dots n$; ε_{in} are error terms distributed as multivariate normal, each with a mean of zero and



variance-covariance matrix V , where V has values of 1 on the leading diagonal and correlations as off-diagonal elements. If it is assumed that they are distributed independently and identically with a normal distribution, equation (3) defines N univariate probit models. The assumption of the interdependence of the error terms implies that information about a youth's choice of employment does not affect the prediction of the same youth's probability of choice of another employment type. Although the whole set of N equations in equation (3) can be estimated separately by ignoring unobserved correlation among outcomes, neglecting correlation would give inefficient and biased estimates.

In this study, the dependent variable in the MVP model includes three dummy variables corresponding to the types of enterprise an entrepreneur engaged in:

- Y_1 = Entrepreneur engaged in agricultural enterprises only (1 if yes, 0 otherwise);
- Y_2 = Entrepreneur engaged in non-agricultural enterprises only (1 if yes, 0 otherwise);
- Y_3 = Entrepreneur engaged in agricultural and non-agricultural enterprises (1 if yes, 0 otherwise).

The independent variables are the X s which are:

Household Variables:

- X_1 = Asset Ownership (Value in ₦);
- X_2 = Household received safety nets (1 if yes; 0 if otherwise);
- X_3 = Household Size (Persons); X_4 = Size of land area (Hectares).

Financial Inclusion Variables:

- X_5 =Credit Access (1 if yes; 0 if otherwise);
- X_6 = Ownership of Bank Account (1 if yes; 0 if otherwise);
- X_7 = Distance to nearest Bank/ATM (meters).

Entrepreneur's Socio-economic Variables:

- X_8 = Marital Status (1 if married; 0 otherwise);
- X_9 = Sex (1=Male, 0 otherwise);
- X_{10} = Age (Years);
- X_{11} =Income (₦);
- X_{12} = Education (1 if educated; 0 otherwise).

RESULTS AND DISCUSSION

The distribution of financial inclusion variables is presented in Table 1. The result showed that only about 25% of entrepreneurs have access to credit in rural Nigeria. The disaggregation by gender in Table 2 showed that about 72% and 94% of male and female entrepreneurs in rural Nigeria do not have access to credit. Although the percentage of male and female entrepreneurs with access to credit was low, more males have access to credit than their female counterparts. A significant difference also existed between credit accessibility and the sex of entrepreneurs. A similar trend was observed for ownership of bank accounts, as less than 15% of the entrepreneurs own a bank account. About 84% and 96% of male and female entrepreneurs do not own a bank account. There was a significant difference between ownership of a bank account and the sex of the entrepreneur. The result implied that credit accessibility and ownership of bank accounts were extremely low among entrepreneurs in rural Nigeria. Also, more male entrepreneurs own a bank account and access to credit than their female counterparts. Decomposition based on the region of respondents revealed that more entrepreneurs in the North-Central (85.95%) have access to credit, followed by entrepreneurs in the North-West (30.63%). From the sampled entrepreneurs, less than 10% of entrepreneurs have access to credit in the North-east and the entire southern region (South-east, South-south and South-west). Ownership of bank accounts was more prominent among entrepreneurs in rural South-south Nigeria, while other regions experienced low account ownership among entrepreneurs.

Choice of Enterprise among Entrepreneurs in Rural Nigeria. Table 4 shows the category of enterprises the entrepreneurs were engaged in. About 56% of entrepreneurs were engaged in agricultural enterprise alone, almost 33% were engaged in Agricultural and



non-agricultural enterprises, while about 11% of the entrepreneurs were engaged in non-agricultural enterprise only. The low participation of entrepreneurs in rural Nigeria in non-agricultural enterprise is not surprising because agriculture is the primary occupation of more than 70% of households in rural Nigeria. Entrepreneurs' engagement in dual enterprises showed that these entrepreneurs are aware of the need to diversify not only to reduce the adverse effects of risks and uncertainties associated with agriculture but also to improve the welfare and livelihood of rural entrepreneurs. The disaggregation by gender in Table 5 revealed that more male entrepreneurs were engaged in agricultural enterprise only (64.55%) while more female entrepreneurs were engaged in multiple enterprises (Agriculture and non-agriculture enterprises-72.71%). It was also found that more male entrepreneurs were engaged in non-agricultural enterprises than their female counterparts.

Table 1 – Distribution of Financial Inclusion Variables in Rural, Nigeria

Variable	Yes		No	
Financial Inclusion Variables	Freq.	%	Freq.	%
Credit Access	820	24.48	2,529	75.52
Own Bank Account	467	13.94	2,882	86.06

Source: Data Analysis from GHS 2018/2019.

Table 2 – Distribution of Financial Inclusion variables across Gender

Variable	Male				Female				Chi-square Statistics
	Yes		No		Yes		No		
Financial Inclusion Variables	Freq.	%	Freq.	%	Freq.	%	Freq.	%	
Credit Access	786	28.49	1,973	71.51	34	5.76	556	94.24	135.77***
Own Bank Account	443	16.06	2,316	83.94	24	4.07	566	95.93	58.22***

Source: Data Analysis from GHS 2018/2019.

Table 3 – Distribution of Financial Inclusion Variables across Region

Variable	Credit Access				Ownership of Bank Account			
	Yes		No		Yes		No	
Region	Freq.	%	Freq.	%	Freq.	%	Freq.	%
North-Central	514	85.95	84	14.05	36	6.02	562	93.98
North-East	34	4.83	670	95.17	25	3.55	679	96.45
North-West	204	30.63	462	69.37	26	3.90	640	96.10
South-East	34	5.61	572	94.39	20	3.30	586	96.70
South-South	34	6.23	512	93.77	360	65.93	186	34.07
South-West	10	4.37	219	95.63	6	2.62	223	97.38

Source: Data Analysis from GHS 2018/2019.

The high number of women in dual enterprises may be attributed to the fact that women are risk-averse and tend to take small incremental risks; however, evidence of gender neutrality in risk propensity in specific managerial contexts has been established (Maxfield *et al.*, 2010). The distribution of enterprise choice across regions of residence in Table 6 showed that a higher percentage of entrepreneurs that engage in Agriculture enterprises alone reside in the South-west (87.34%), North-central (85.79%), North-east (70.45%) and South-south (59.89%). Less than 10% of entrepreneurs in all regions except the North-west were engaged in non-agriculture enterprises only. More than 75% of entrepreneurs in the South-east were engaged in Agricultural and non-agricultural enterprises, while only 8.29% of entrepreneurs in the South-west were engaged in dual enterprises. This implied that agriculture remains the major enterprise that supports the welfare and livelihood of residents in rural Nigeria.

Financial Inclusion and Enterprise Choice among Entrepreneurs in Rural Nigeria. The distribution of financial inclusion variables in Tables 7 and 8 revealed that more entrepreneurs did not access credit (58.38%) or own a bank account (54.65%) engaged in agricultural enterprise only. This was followed by entrepreneurs engaged in agricultural and non-agricultural enterprises. Significant differences were observed between financial inclusion variables and choice of enterprise among entrepreneurs. Awotide *et al.* (2015)



asserted that credit accessibility significantly boosts and enhances agricultural productivity. Obisesan and Adeyonu (2018) identified fear of insolvency, lengthy processes, and lack of required identification as barriers to opening bank accounts among arable crop farmers in Nigeria.

Table 4 – Distribution of Enterprise Choice among Entrepreneurs in Rural, Nigeria

Enterprise Choices	Frequency	Percentage
Agriculture Only	1,881	56.17
Non-Agriculture Only	367	10.96
Agric and Non-Agric (Both)	1,101	32.88

Source: Data Analysis from GHS 2018/2019.

Table 5 – Distribution of Enterprise Choice across Gender

Variable	Male		Female	
	Freq	%	Freq	%
Agriculture Only	1,781	64.55	100	16.95
Non-Agriculture Only	306	11.09	61	10.34
Agric and Non-Agric (Both)	672	24.36	429	72.71
Chi-square Statistics	542.06***			

Source: Data Analysis from GHS 2018/2019.

Table 6 – Distribution of Enterprise Choice across Region

Region	Agriculture Only		Non-Agriculture Only		Agric and Non-Agric	
	Freq	%	Freq	%	Freq	%
North-Central	513	85.79	21	3.51	64	10.70
North-East	496	70.45	20	2.84	188	26.70
North-West	220	33.03	257	38.59	189	28.38
South-East	096	15.84	52	8.58	458	75.58
South-South	327	59.89	17	3.11	202	37.00
South-West	200	87.34	10	4.37	19	8.29

Source: Data Analysis from GHS 2018/2019.

Table 7 – Distribution of Credit Access across Enterprise

Credit Access	Agriculture Only		Non-Agriculture Only		Agric and Non-Agric	
	Freq	%	Freq	%	Freq	%
Yes	531	64.76	90	10.98	199	24.27
No	1,350	58.38	277	10.95	902	35.67
Chi-square Statistics	38.74***					

Source: Data Analysis from GHS 2018/2019.

Table 8 – Distribution of Bank Account Ownership across Enterprise

Account Ownership	Agriculture Only		Non-Agriculture Only		Agric and Non-Agric	
	Freq	%	Freq	%	Freq	%
Yes	306	65.52	16	3.42	145	31.05
No	1,575	54.65	351	12.18	956	33.17
Chi-square Statistics	37.11***					

Source: Data Analysis from GHS 2018/2019.

The Influence of Financial Inclusion on the Choice of Enterprise. The result of the multivariate probit model showed that entrepreneurs with bank accounts are more likely to choose non-agriculture enterprises only and less likely to choose both agricultural and non-agricultural enterprises. A positive relationship was observed between ownership of bank accounts and choice of agricultural enterprises only. Hence, ownership of bank accounts tends to favour the choice of non-agricultural enterprise in rural Nigeria. It can be further deduced from the positive relationship between ownership of a bank account and choice of agricultural enterprise that ownership of a bank account could also favour the choice of agricultural enterprise alone if other factors hindering access to a bank account are addressed. The farther the distance from the bank to the entrepreneur's residence, the less



likely the choice of agricultural enterprises only and both agricultural and non-agricultural enterprises.

Table 9 – The Influence of Financial Inclusion on Choice of Enterprise among Entrepreneurs in Rural Nigeria

Variables	Agriculture Only	Non-Agriculture Only	Agric and Non-Agric
Household Variables			
Asset ownership	0.4701*** (0.0983)	-0.5232*** (0.1077)	-0.1249 (0.1007)
Received safety nets	0.4156*** (0.0983)	-0.3399** (0.1508)	-0.2298* (0.1316)
Household size	-0.0289** (0.1030)	0.0484*** (0.0129)	0.0013 (0.0112)
Size of land area	0.1099*** (0.0152)	-0.0013 (0.0133)	0.1251*** (0.0162)
Financial Inclusion Variables			
Ownership of bank account	0.0609 (0.1053)	0.4176*** (0.1545)	-0.3180*** (0.1071)
Credit access	-0.0229 (0.0656)	-0.0224 (0.0843)	0.0623 (0.0677)
Distance to bank	-0.0277*** (0.0074)	0.0843*** (0.0120)	-0.1623*** (0.0224)
Respondent's Socio-economic Variables			
Marital status	-0.0326* (0.0200)	0.0557** (0.0258)	-0.0250 (0.1316)
Sex of entrepreneur	-1.2726*** (0.1108)	-0.0110 (0.1389)	1.4075*** (0.1104)
Age of entrepreneur	-0.0141*** (0.0024)	-0.0111*** (0.0032)	0.0184*** (0.0025)
Income of entrepreneur	9.19e-07* (5.35e-07)	-6.73e-06*** (1.45e-06)	1.39e-06** (5.39e-07)
Education	0.0147*** (0.0242)	-0.2602*** (0.0308)	0.0024 (0.0251)
Constant	4.2761*** (0.9704)	0.0618 (1.5202)	-5.9524*** (0.9707)
Prob>chi2	0.0000	0.0000	0.0000
Observations	3,349	3,349	3,349

Standard errors in parentheses *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.
Source: Data Analysis from GHS 2018/2019.

However, increasing the distance from the bank to the entrepreneur's residence only increases the choice of non-agricultural enterprises. Bank distance to the residence has been identified as a significant determinant of financial inclusion, especially among rural households. Distance from commercial institutions to the residence has been identified to correlate with techno-driven financial inclusion and bank usage in rural areas (Oluwatayo, 2014). Moreover, access to financial services is a function of the distance between the service provider and the user of the financial product. The farther away the banks are from the user, the more discouraged they are in assessing it. This is also in line with the findings of Abel *et al.* (2018), who reported a significant relationship between banking distance to residence and financial inclusion.

Regarding credit access, the variable was not significant. However, the relationship between the variable and choice of enterprise revealed that access to credit among entrepreneurs could enhance the choice of agricultural and non-agricultural enterprises. This implies that entrepreneurs with access to credit would be willing to diversify and avert the risk of engaging in only agricultural and non-agricultural enterprises. The result further indicated that other factors, namely asset value, social safety access, household size, land area, income, education status, age and sex of entrepreneurs, influence or choice of enterprise. An increase in the value of household assets only increases the choice of agricultural enterprises and reduces the choice of non-agricultural enterprises and both agricultural and non-agricultural enterprises. This implies that wealthy households prefer to invest and engage in only agricultural enterprises. Ownership of valuable assets would encourage entrepreneurs' participation in commercial agriculture, bring more profit, and improve livelihood. It will also enhance credit accessibility as the bank requires physical assets such



as land to disburse loans. Physical assets have also been identified as wealth associated with affluence and stability in a business setting. Access to a safety net increases the probability of choice of agricultural enterprises only and reduces the choice of non-agricultural enterprises and both agricultural and non-agricultural enterprises. This implies that more entrepreneurs would prefer to engage in agricultural enterprise only if there is a safety net. The safety net has contributed significantly to the increase in business enterprises, especially in the rural area. Akobeng (2017) has highlighted the positive impact of social security, such as safety net or remittances on agriculture production, in shock cushioning. The coefficient of household size was significant for agricultural enterprises and non-agricultural enterprises. This implies that an increase in household size would reduce the probability of choice of agricultural enterprise only and increase the probability of non-agricultural enterprise only. Although agricultural enterprises in rural Nigeria largely depend on family labour, more household members imply more consumption expenditure; therefore, an entrepreneur with more family members may opt for non-agricultural enterprises if the return on investment in the sector is higher than that of agricultural enterprises as this may guarantee an abundance of economic resources to cater for the livelihood and welfare of household members. Parvin and Akteruzzaman (2012) asserted that family size increases non-farm employment among rural farmers in Bangladesh.

As regards the size of land, an increase in the size of land increases the probabilities of choice of agricultural enterprises only and choice of both agricultural and non-agricultural enterprises. The increase in land size also reduces the choice of non-agricultural enterprises only. The land is an essential factor of production in agriculture. Entrepreneurs who own land can increase their operations and even adopt improved technology. The result implied that if entrepreneurs have access to land, they would be more willing to participate in agriculture and both enterprise types. The agricultural employment industry in developing countries has been hindered by low land access rates and weak tenure security (Kosec *et al.*, 2018; Ghebru *et al.*, 2018). Married entrepreneurs are less likely to choose agricultural enterprises only and more likely to choose non-agricultural enterprises only. This might be due to the less tedious nature of the non-agriculture enterprises. Married entrepreneurs might need more strength to carry out some demanding activities of agricultural enterprises. A similar finding from the study by Ayambila *et al.* (2017) revealed that the marital status of the respondents influences participation in non-farm employment. Also, male entrepreneurs are less likely to choose agricultural enterprises only and more likely to choose both agricultural and non-agricultural enterprises. The patriarchal nature of households in Africa makes all economic needs of household members the responsibility of the man. Therefore, men would prefer to engage in multiple employment industries that would bring more income needed to cater to household members' financial needs. Older entrepreneurs are less likely to choose only agricultural and non-agricultural enterprises. Increasing the age of entrepreneurs increases the probability of choice between agricultural and non-agricultural enterprises. Older entrepreneurs may be characterized by more family responsibilities that require multiple sources of income to cater for their needs. Also, older farmers who might need help managing agricultural enterprises effectively due to associated risks and other conditions. Previous authors also associated less participation in agriculture among older people with the risk and uncertainties associated with agricultural production (Obisesan & Adeyonu, 2018; Ayambila *et al.*, 2017). Entrepreneurs with more income are more likely to choose agriculture enterprises only and also choose both agricultural enterprises and non-agriculture enterprises. This implies that the income of the respondents tends to increase the choice of agriculture enterprise; people with lower incomes have less disposable income; hence they have a lesser choice of participating in agriculture enterprise. Similarly, educated entrepreneurs are more likely to choose agriculture enterprises only and also choose both agricultural enterprises and non-agriculture enterprises. Entrepreneurs that are educated with more income are less likely to choose non-agricultural enterprises only. Education contributes significantly to human capital development and helps an individual make a rational choice in any enterprise. Concerning agriculture entrepreneurs, educated entrepreneurs will be able to make rational choices and critical decisions in their agribusiness



enterprise. Decisions on business expansion and technology adoption are easier with education. Oduro-Ofori and Acquaye (2014) opined that education leads to higher productivity among agriculture practitioners.

CONCLUSION AND RECOMMENDATIONS

Using the data of 3,349 entrepreneurs from rural Nigeria in the 2018/2019 Generalized Household Survey, this study explores the linkage between financial inclusion and choice of business enterprise/sector. The data were analyzed using descriptive statistics, chi-square, and Multivariate Probit (MVP) regression analysis. The result revealed that less than 15% of entrepreneurs own a bank account, and about 25% have access to credit in rural Nigeria. More male entrepreneurs have access to credit and own a bank account than their female counterparts. The distribution of financial inclusion variables across enterprises revealed that a higher percentage of entrepreneurs who did not access credit (58.38%) and own a bank account (54.65%) engaged in agricultural enterprise only. This was followed by entrepreneurs engaged in agricultural and non-agricultural enterprises. The result of the multivariate probit regression indicates that variables such as bank account ownership and bank distance to the residence are the financial inclusion variables influencing the choice of enterprises. Other factors influencing the choice of enterprises were age, sex, marital status, household size, education level, assets owned, income, land area owned and access to safety net.

As a policy recommendation, since financial inclusion is necessary for all entrepreneurs to grow, establishing more financial institutions close to the people is advocated since the distance to accessing banking services keeps increasing due to cities' expansion without a commensurate increase in banking halls. Access to banking services would encourage more entrepreneurs, especially those involved in agricultural enterprises, to open and own bank accounts as ownership of a bank account may enhance the entrepreneurs-bankers relationship and also make them harness other opportunities such as applications for loans, overdrafts etc. associated with ownership of bank account. Also, social security support schemes should be established across all ages and sexes to increase the income of all entrepreneurs. This will help boost their enterprises to acquire physical assets, thus increasing entrepreneurs' participation in agriculture, ultimately enhancing food security. Complementary policies to increase land accessibility should be implemented by necessary authorities to boost participation in the agricultural sector.

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