

Determinants of entrepreneurship in Nigeria: Are there hope for local development in Nigeria

By

Divine N. OBODOECHI, Oliver E. OGBONNA ,Ambrose Nnaemeka OMEJE ,Chinasa Ebere URAMA (PhD), Chinonso Victoria AGU, Paschaline N. UGWU and Ezebuilo Romanus UKWUEZE* (PhD)

Department of Economics, University of Nigeria, Nsukka, Enugu State, Nigeria

* Corresponding Author = ezebuilo.ukwueze@unn.edu.ng

Abstract

The discuss of micro, small and medium scale enterprises (MSMSEs) is common to policy makers and researchers. This is because MSMSEs have helped economies to grow through income generation, creation of employment, reduction of poverty, etc. This study investigated the determinants of entrepreneurship in Nigeria using multi-nomial logistic regression model for analysis from the Enterprise data of 2014. The results show that capital borrowed from non-bank financial institutions has a positive and significant relationship with business ownership; credit purchases from suppliers also has a positive and significant relationship with entrepreneurship; fixed assets funded by bank borrowing is a strong factor for entrepreneurship. It is recommended that banks should encourage private business borrowing by lending at a low interest rate; more credit from suppliers is encouraged, but entrepreneurs should sustain this relationship by paying back loans; policies for easy access to finance by small firms should be designed and implemented.

Key Words: entrepreneurship, credits, uncertainty, risks, logit

JEL: C25, C35, G23

1. Introduction

Entrepreneurs are business owners or those who possess the skill and express the initiative to set up an enterprise. They seize opportunities and take risks in order to maximize profits. Micro,

small and medium enterprises (MSME) can be defined as businesses that can be set up with relatively small capital, usually in local areas and mostly managed by its entrepreneurs. The decision making process is very flexible and the business operation can easily be changed from one mode to another. It is always easy to start and has high rate of failures though it contributes greatly to the supply of goods and services thereby contributing to economic growth.

In Nigeria and other developing countries, MSME tend to play a remarkable role in economic growth and development by constituting about 95% of entrepreneurs and creating about 70% of employment in the private sector (OECD, 2009) and contributes about 50% of GDP (World Bank, 2015). In developed economies, MSMEs have also been found to contribute as much as 60-70% of employment and about 55% of GDP (Evbuomwan et al., 2016).

These enterprises apply simple skills and machinery; utilize resources that are locally sourced and produce goods and services that are relatively cheap thereby promoting income generation and economic growth of the nation (Subhan et al., 2013 and Avendano, 2013). The importance of entrepreneurship became more prominent around the twentieth century during the industrial revolution and greater emphasis has been placed by government to foster their development through creating sustainable environment.

It has been estimated that by the year 2035, the active labour force in Africa alone will exceed the world's workforce put together (UIA, 2016) through the activities of MSMEs. MSMEs has been found to create as much as 45% of employment in Africa and about 33% of GDP in developing economies (Smeaton et.al, 2011).

Studies by Jegadeshwari & Velmurugan (2017); World Bank, (2013); Ogbeide & Adeboje (2017) observed that in many nations, a viable MSME encourages innovation and investment

which results in creation of employment and improvement in GDP – economic growth. It has been found that MSMEs in Nigeria are not measuring up to expectation as compared to other MSMEs in other developing countries (Evbuomwan et al., 2016).

However, some factors have been identified as determining the performance of MSMEs and entrepreneurship. These factors may include restricted access to finance, low opening and operating capital (Seker et al., 2010; Temitope & Agwu, 2016), educational level of entrepreneurs, limited supply of electricity (Stel.Van and Storey,2004).

There seem to be varying views concerning the determinants of MSMEs performance in Nigeria. Some opine that the nature or formation of the market where the enterprise operates can determine its performance. This market formation includes, the size of the firm, how long the firm has existed, type of ownership, how capital intensive the firm is (Lloyd-Williams et al, 1994; Evanoff & Fortier, 1988; Acs & Audretsch, 1987), some authors believe that a better performance of MSME comes from efficient management of available resources arising from innovative ability, that is , its ability to introduce new concepts and new ways of doing things, research and development and capital intensity (Samad, 2008; Makhija, 2003) while Dollar, Hallward-Driemeier, & Mengistae, (2005) believe that the type of location or setting of a business enterprise determines its performance. According to WBES (2014), financial challenge, poor electricity supply and high level of corruption determines the performance of MSMEs in Nigeria. Other studies have found low level of infrastructures, numerous taxation and poor security condition of the country to contribute to MSME performance. Studies show that there is yet no agreement/accord as to the determinants of MSMEs entrepreneurship performance in Nigeria.

Acs et al. 2016 and Welter et al. 2017 argue that entrepreneurs and entrepreneurship activities are paramount to economic development due lasting impact on the society. McMullen (2011) and Urbano, Aparicio, and Audretsch (2019a) opine that encompassing development can only be achieved through the activities of innovative and enterprising entrepreneur. Some authors (Burton, and Walsh (2018), Bruton, Ahlstrom, and Si (2015) and Sutter, Bruto, and Chen (2019)) have argued that comprehensive growth can better be achieved when a country keys into its own peculiar entrepreneurial activities which may likely reduce poverty since it has the potential of raising economic growth. McMullen (2011) and Gates (2008) suggest that institutional bottlenecks should be reduced to facilitate the growth of entrepreneurship to enable it achieve the goal of increasing productivity and poverty reduction as Webb et al. (2013); De Castro, Khavul, and Bruton (2014) and Bruton, Ireland, and Ketchen (2012), advocate that encouraging entrepreneurship specially in developing countries may act as a substitute device to improve standard of living. This study is poised to estimate the determinants of entrepreneurship in Nigeria, paying more attention to financial determinants.

2. Review of Related Literature

The determinants of entrepreneurship in literature can be grouped either as micro or macro, according to the levels of analysis. Some studies view entrepreneurship determinants as micro, while emphasizing individual motives and decisions of becoming an entrepreneur. An individual's ability to access information, identify and mobilize necessary resources, can influence his decision to engage in entrepreneurship (Garba, Mansor, & Djafar, 2013; Cuervo, 2005). Psychological factors such as desire for autonomy and independence, creativity, need for

achievement, acceptance of risk, and non-psychological factors such as education, social position, experience, etc., facilitates the motives to explore opportunities. Creativity, skill set and network of relations, type of professional experience, aid knowledge and product differentiation for new firms. This decision is mostly dependent on available employment alternatives – wage employment versus self-employment – that is mediated by the risk-reward profile of the individual.

The opportunities of starting a firm, which gives rise to the demand for entrepreneurship, may originate from the consumer's side (e.g., size, diversity and stability) or the firm's side (such as age, size, entry and exit, technological set, production structure, and outsourcing), and the business environment which includes availability and quality of local suppliers and related industries, competitor's strategy, and input conditions. On the other hand, the opportunity cost of starting a new firm, population characteristics – age structure, education, income disparity, individual skills and attitudes towards entrepreneurship, unemployment, culture, etc. – determine the supply of entrepreneurship (Cala, Arauzo, & Manjon, 2015). Although entrepreneurship allows individuals escape from poverty, less diverse and unstable business opportunities, weak environmental factors (educational system, family, work experience), poor innovative and technological knowledge, long-term unemployed individuals, little/no business network, limits the demand/supply of entrepreneurship in developing countries.

Identifying and exploiting opportunities may however depend on environmental conditions of the potential entrepreneur. Four dimensions of the economic environment are: macroeconomic stability, fiscal system, institutional framework, and cultural environment (Cuervo, 2005). The macroeconomic environment describes firm development in relation to size of the market, growth, and stability. As Cala et. al. (2015) points out, volatile macroeconomic environment and

cyclical variations induces entry patterns and investment projects especially in developing countries. Short-term decisions as a result of high uncertainty force firms to demand greater returns on their projects. The long-term consequences of economic downturn, in terms of human capital and attrition, may the formation of new firms in subsequent years. Thus, in a volatile macroeconomic environment, fewer entries are expected.

The choice between entering the informal or formal sector lies on the quality of institutional framework and public regulations. Although the informal sector may act as a “stepping stone” to formal entry, the entrepreneur may first enter the informal sector to avoid market, product and labour regulations, taxes, and bureaucracy etc. Complexities of the economic and productive structures, lack of diversity, weak industries, poor basic infrastructures, constrain entry and limits opportunities for new firms. In developing countries where firms have fewer resources and capabilities, the benefits from trade liberalization and network operation are usually low. The number of procedures involved in starting a business plan, minimum capital requirements, cost of starting and enterprise, the duration involved in starting a company, social contributions and time spent filing and payment of income tax, are among a number of constraints faced by entrepreneurs (Cala et. al., 2015; Edoho, 2015).

Misalignments between policies, complexities in obtaining loans from financial institutions, exorbitant interest rates, business taxation, act as major hindrances to entrepreneurship and MSME development (Edoho, 2015). In much of developing countries, with dualistic structure, MSMEs suffer from insufficient funding options while a sub-set of large firms make considerable use of equity and international financing. Lack of venture companies, inadequacy of capital markets, and failure of formal financial systems to assist enterprises because of

widespread informality, ability to repay loans at agreed date, interest rate spread and collateral, lack of personal savings, discourage entrepreneurship of talented individuals.

3. Data and Methodology

Enterprise survey data (2014) was adopted in this study and it is the latest data released so far by the World Bank. In Nigeria, the survey was conducted between April 2014 and February 2015 as part of the enterprise surveys roll-out. The aim of the survey is to track the state of enterprises within the private sector as well as build a panel of enterprise data that will help monitor the business environment in the country. Face to face interviews were conducted on firms in the manufacturing and services sectors in the country. Data were collected from 2676 firms and stratified sampling technique was adopted.

Model Specification

The multinomial logit regression adopted in this study is hinged on the Yamada et. al (2013) study who also considered the multinomial logit model for large data size with $p > 2$ choices and k covariates. Following this study, individual investors chose among a number of business ownership alternatives (private, companies or organisations). One major advantage of the multinomial logit over the normal logit model is that it doesn't assume any inherent ordering of choices (Martin and Quinn 2004).

The multinomial logit model assumes a multivariate normal distribution on the latent variables, $Z_i = (Z_{i1}, \dots, Z_{i,p-1})$.

$$Z_i = X_i\beta + e_i e_i \sim N(0, \Sigma), \text{ for } i = 1, \dots, n, \dots \dots \dots (3)$$

where β is the $k \times 1$ vector of the fixed coefficients in the model, X_i is the $(p-1) \times k$ matrix of covariates, e_i is $(p-1) \times 1$ vector of errors and Σ is the $(p-1) \times (p-1)$ positive definite matrix. Having an identified model will mean that the first diagonal element of Σ is constrained, $\sigma_{11} = 1$. The response variable, Z_i , is the index of the choice of individual i among the alternatives in the choice set and is modeled in terms of the latent variable, X_i through

$$Y_i(Z_i) = \begin{cases} 0, & \text{if } \max(Z_i) < 0 \\ j, & \text{if } \max(Z_i) = Z_{ij} > 0 \end{cases}, \quad \text{for } i = 1, \dots, p-1, \dots \dots \dots (3.1)$$

Where Y_i equal to 0 corresponds to a base category.

However, listing the variables of the model and re-specifying them in a functional form gives equation (3.2) below;

$$\text{Entrepreneurship} = f(k3e, k3b, k3f, k3hd, k5f, k5bc, k5dc, k30, j7a, j7b, j30a, j30c, j30e, n2a) \dots (3.2)$$

Where both the dependent and independent variables are explained below:

Table 1. Description of variables in the models

Variables	Description
Entrepreneurship (b2a)	Number of owned business by private domestic individuals=0, companies=1 and organizations=2.
K3e	Capital borrowed from non-bank financial institutions
K3b	Capital borrowed from banks
K3f	Capital purchased on credit/advances from suppliers
K5f	Fixed assets funded by credit from suppliers

K5bc	Fixed assets funded by bank borrowing
K5dc	Fixed assets funded by money lenders, friends or relatives
K30	Access to finance
J7a	% of total annual sales paid in informal payments
N2a	Labour cost

Source: Computed by Authors from Enterprise Data (2014)

4. Results and Discussion

Descriptive Analysis

Results in Table 2 shows the descriptive statistics of the variables used in the analysis. About 2676 of owned businesses were interviewed with a mean value of 70.59 and a standard deviation of 42.15. This suggests that business ownership represents only about 70.59 percent of the entire responses with a standard deviation of 42.15. Only about 1615 business owners reported to have been funded by money borrowed from the bank with a mean value of 1.51 and a standard deviation of 7.84. This is the same with money borrowed from non-banking financial institutions with a mean value of 1.21 and a standard deviation of 7.72. Also, the same is for fixed assets funded by credit from suppliers but with a mean value of 3.19 and a standard deviation of 10.90.

Table 2. Descriptive analysis of the variables used in the model.

Variable	Obs	Mean	Std. Dev.	Min	Max
Number of owned business by private domestic individuals, companies and organizations (b2a).	2676	70.59	42.15	9	100
Capital borrowed from non-bank financial institutions (k3e)	2652	2.96	11.03	9	100
Capital purchased on credit/advances from suppliers (k3f)	2652	7.25	15.70	9	100
Fixed assets funded by Non-bank institutions (k5e)	1615	1.211	7.72	9	100
Fixed assets funded by bank borrowing (k5bc)	1615	1.51	7.84	9	100
Fixed assets funded by credit from suppliers (k5f)	1615	3.19	10.90	9	100
Access to finance (k30)	2652	1.27	2.02	9	4

% of total annual sales paid in informal payments (j7a)	2633	0.020	10.02	9	100
Labour Cost (n2a)	2658	0.008	0.0014	9	53

Source: Computed by Authors from Enterprise Data (2014)

Table 3 reports the multinomial regression results of the study, with entrepreneurship being measured by the number of owned businesses by private domestic individuals, companies and organizations. This represents the dependent variable of the model and it takes three forms, 0 being private business ownership, 1 being ownership by company and 2 being ownership by organizations. The results in Table 3 show that capital borrowed from non-bank financial institutions had a positive and significant relationship with business ownership. This suggests that for a unit increase in capital borrowed from non-banking financial institution, the likely the increase in private business ownership is predicted to an increase by 0.045 units. This finding corroborates that of Evans (2021) who also found a positive and significant relationship with capital and surviving start-ups of businesses. Furthermore, capital purchased on credit/advances from suppliers was found to have a positive and significant relationship with entrepreneurship in Nigeria. For a unit increase in capital purchased on credit/advances from suppliers, increased the likelihood of private business ownership in Nigeria by 0.0208 units. This suggests that for a unit increase in credit advances from suppliers, the more likely private business ownership is to increase by 0.0208 units.

Also, from Table 3, it was found that fixed assets funded by bank borrowing has a positive and significant relationship with entrepreneurship in Nigeria. For a unit increase in fixed assets funded by bank borrowing, increased the likelihood of private domestic business ownership (entrepreneurship) in Nigeria by 0.0368 units. Firms are able to find fund supported by bank borrowing which intend to support most firms to go into business. This will therefore encourage

more business ownership since entrepreneurs are able to find support from the banks to engage in business. This goes a long way in enhancing development in Nigeria, hence a strong hope for development. Furthermore, fixed assets funded by credit from suppliers was found to have a positive and significant relationship with entrepreneurship in Nigeria. About 2.8 percent were more likely to engage in entrepreneurship due to increase in their fixed assets funded by credit from suppliers. This suggests that there will be more business start-ups when fixed assets funded by credit from suppliers increase. It therefore means that when businesses get funds from credit collected from suppliers, there is the likelihood to increase more business starts in the area. This intend improves development in the area.

We had to test for the goodness of fit for the model we applied using the McFadden pseudo R^2 . The McFadden pseudo R^2 is an index of the proportionate improvement in model fit relative to the null model of the regression (Pituch & Stevens, 2016). Based on our result in Table 3, we can say that the full model containing the predictors, represents 7.69 percent improvement in fit relative to the null model. This further confirms that our model is a good fit and hence very reliable in its estimates between the predictors and the dependent variable in the model.

Table 3. Multinomial Logistic Regression Model Result (Dep.Var Entrepreneurship)

Variables	Coefficient	t-value	Prob. value
Capital borrowed from non-bank financial institutions (k3e)	0.0453	3.91*	0.000
Capital purchased on credit/advances from suppliers (k3f)	0.0208	1.97**	0.049
Fixed assets funded by Non-bank institutions (k5e)	0.00549	0.27	0.789

Fixed assets funded by bank borrowing (k5bc)	0.0368	2.44*	0.015
Fixed assets funded by credit from suppliers (k5f)	0.0280	2.18*	0.029
Access to finance (k30)	-0.0256	-0.21	0.831
% of total annual sales paid in informal payments (j7a)	0.0016	0.10	0.920
Labour Cost (n2a)	0.00001	0.25	0.804
Constant	-4.3798	-12.48*	0.000
Number of obs	1589		
Log likelihood	-2235.5		
LR chi2 (213)	372.3		
Prob>chi2	0.000		
Pseudo R2	0.076		

* $p < 0.01$, ** $p < 0.05$, *** $p < 0.001$

Source: Computed by Authors from Enterprise Data (2014)

5. Conclusion and Recommendation

This paper was designed to investigate the determinants of entrepreneurship in Nigeria. Based on this, we adopted the multinomial logistic regression model in order to analyze the objective of the paper. Results from the analysis show that capital borrowed from non-banking financial institutions, capital purchased on credit from suppliers, fixed assets funded by bank borrowing and fixed assets funded by credit from suppliers had a positive and significant effect on entrepreneurship in Nigeria. On the other hand, access to finance, labour cost, and percentage paid as informal payments had no significant effect on entrepreneurship in Nigeria. Given the findings in the paper, it is imperative to call for a proper policy recommendation to improve upon the number of private owned businesses in Nigeria, by so doing it will help improve local developments.

Firstly, the government through the commercial banks need to encourage private business borrowing by encouraging the banks to lend at low interest and also encourage other non-interest yielding borrowing for small businesses in Nigeria. This is because our findings show that since fixed assets funded by bank borrowing positively impacts entrepreneurship and this will indirectly improve local development in Nigeria.

Secondly, non-banking financial institutions should get more support from the government. This will encourage more borrowings to small businesses, hence improving entrepreneurship in Nigeria. When small investors are encouraged through borrowing, it helps to increase the opening of more businesses. Our result supports the relationship with entrepreneurship positively and significantly.

Furthermore, more credit from suppliers is encouraged and will improve entrepreneurship in Nigeria. Our findings support this and it shows a positive and significant relationship with entrepreneurship, but borrowers should pay promptly so that this source of business financing can be sustained. The more credit they get the more business start-ups are encouraged.

Finally, government needs to create enough awareness of the various help available for small businesses, especially with access to finance; they need to make finance easily accessible to small business so as to encourage more business start-ups. Access to finance was found not to be significant in our results but if finances are made easily accessible, it will go a long way in helping entrepreneurship in Nigeria.

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