International Journal of Social Sciences and Humanities Invention 8(07): 6504-6514, 2021
DOI: 10.18535/ijsshi/v8i07.02
ISSN: 2349-2031
https://valleyinternational.net/index.php/theijsshi

Research Article

Entrepreneurship Practices and Poverty among farmer entrepreneurs in Jos, Nigeria.

Atayi Abraham Vincent[1], Danladi Jonathan[2] (Ph.D), Bosede Awoyemi (Ph.D) and Atayi James Ameh[4].

[1, 2, 3,] Department of Economics, Afe Babalola University, Ado Ekiti, Nigeria
[4] Department of Political Science, Ekiti State University.

Abstract
The study seeks to examine the effect of Entrepreneurship practices on poverty among farmers in Jos, Nigeria. The study covered small and medium scale farmer entrepreneurs within Jos North, Jos South and Jos East. A sample size of 518 was obtained from the population of 834 at 5% error tolerance and 95% level of confidence, using Simple Random Sampling. 505(97.5%) of the questionnaire distributed were returned while 13(2.5%) of the questionnaire distributed were not returned. self-structured questionnaire was used to collect data. The study conducted a pre-test on the questionnaire to ensure the validity of the instrument. Data collected were presented in frequency tables. To measure the effect of entrepreneurship practices on poverty, Probit and order probit models were specified and analysis was based on FGT and MPI measures of poverty. The study revealed that a very high level of entrepreneurship practices among farmers will reduce poverty among farmers. The study recommends among other things that entrepreneurship practice intensity among the farmers be increase so as to help in improving their standard of living by reducing poverty through increased income resulting from high entrepreneurship activities.

Keywords: Entrepreneurship Practice, Poverty, FGT, MPI and Probit

I. Introduction

As a practice, entrepreneurship aims to uncover possibilities, improve goods and services for rational consumers, and profit as a return for taking investment risk (Izediuno, O. L., Alice, O. T., & Daniel, O. A 2018). When it comes to agriculture and farming, phrases like entrepreneurship, value chains, and market connections are becoming increasingly popular. According to the Food and Agricultural Organization, many small scale farmers and extension organizations acknowledge that farmers have little future unless they become more entrepreneurial in the way they handle their farms (FAO, 2013). They are increasingly required to create for markets and profit. Someone who produces for the market is referred to as an entrepreneur. An entrepreneur is a self-motivated and innovative leader who is continually looking for ways to enhance and develop his company. An entrepreneur enjoys taking measured risks and is personally accountable for both earnings and losses.

Farmer entrepreneurs must treat their enterprises as long-term investments in order to ensure their long-term viability. FAO (2013) states that they must be able to recognize and seize chances. Although some small and medium-scale farmers possess these abilities, they continue to prioritize the preservation of their traditional way of life. Their production choices are made based on what they require rather than what is feasible. Farmer entrepreneurs have vivid mental images of what is possible and the future they desire. They understand that the market determines what is achievable. The farmer entrepreneur is always on the lookout for new chances, and they understand that they can be located in the market. The agricultural entrepreneur, David, wants to generate money.

Since the commercial finding of crude oil in Nigeria and its exploration, the agricultural sector, which used to be a vital part of the economy, has been ignored. Nigeria used to be a major exporter of agricultural

products in the 1970s, but she had abandoned her rich agricultural endowments in favor of crude oil (Oluwasanmi, 2011). The Nigerian economy, like that of Brazil in the first decade after independence, might be defined as an agricultural economy because agriculture was the primary driver of total economic growth (Ogen, 2003). Agriculture was the most important sector in terms of occupational distribution and GDP contribution. Nigeria was the world's second largest producer of cocoa, largest exporter of palm kernels, and largest producer and exporter of palm oil during this time. Nigeria was also a major exporter of cotton, groundnut, rubber, and hides and skins during this time (Oluwasanmi, 2011). In the 1960s, the agricultural sector generated over 60% of GDP, and while relying on traditional tools and indigenous farming practices, Nigerian peasant farmers produced 70% of Nigeria's exports and 95% of the country's food needs (Famorigo, 1998). The agriculture sector, on the other hand, was neglected during the 1970s oil boom, according to the National Bureau of Statistics (NBS, 2017). Since then, Nigeria has experienced tremendous poverty, which has resulted in poor health, defined as the general health state of farmer entrepreneurs, whether poor, fair, good, or exceptional, as well as a lack of basic food products.

Furthermore, since the dawn of the twenty-first century, one of the most significant difficulties confronting most developing and growing economies, including Nigeria, has been poverty, which has a severe impact on health. Many of the world's poorest inhabitants live in rural areas and subsist on less than US$1.25 per day, with agriculture and forest activities acting as their primary sources of income. Eric and Jincai (2018) found that it has the potential to impair one's health. Poverty is still the most common type of human deprivation in the world, and it has a severe impact on the health of many people in both the developed and developing worlds. Poor health condition associated with rural people, the majority of whom are farmers, is often blamed for the absence of quality human capital in rural areas.

Nigeria's poverty rate has risen dramatically since 1999, when democratic administration was reintroduced after more than 60 years of independence (Awojobi, 2014). According to data from the Brookings Institute, Nigeria is now the world's capital of people living in extreme poverty (Kharas et al., 2018). According to the statistics, Nigeria has roughly 87 million people living in extreme poverty, with six individuals falling into poverty every minute (Kharas et al., 2018). The majority of Nigeria's population lives in impoverished areas of the country, in deplorable conditions.

Poverty, with its detrimental impacts on individuals, is one of the biggest difficulties facing emerging and impoverished countries around the world, particularly Nigeria. It has become so widespread as a result of Nigeria's high unemployment rate, which has become a defining feature of the country's economy. Poverty continues to be the most significant impediment to the successful utilization of human resources through good health for Nigeria's social and economic development. In recent years, there has been a growing interest in using agricultural entrepreneurship, which is regarded as one of the most important drivers of economic growth in many countries, including Nigeria, to find a long-term solution to the problem of poverty and poor health in developing countries like Nigeria.

II. Literature Review

Under the conditions of uncertainty and risk, entrepreneurship is described as the mobilization of economic resources to start a new firm, identify new business possibilities, or revitalize an existing business for the purpose of profit under private ownership (Adenutsi, 2009). Furthermore, entrepreneurship is a process that might result in the creation of a single business or entrepreneur with the primary goal of profiting from scarce resources, most commonly under private control. Entrepreneurship, on the other hand, is concerned with generating consistent cash flow for a group of people or a person in the future via the use of initiative, creativity, and imagination, with the goal of reducing risk and maximizing profits in the long run (Adenutsi, 2009).

Furthermore, entrepreneurship is defined as the creation or exploitation of business prospects, as well as the recognition of these opportunities through the formation of new ventures.

Entrepreneurship, according to Timmons (1994), is the process of generating or seizing an opportunity and pursuing it regardless of the resources available at the time. Similarly, entrepreneurship is a method of

pursuing opportunities by people or groups of individuals (Stevenson and Jarillo, 1990). Tran and Von (2016), on the other hand, define it as the practice of forming new businesses or strengthening existing ones in response to identified possibilities. Entrepreneurship, according to economists, is a powerful economic force that empowers individuals to seek opportunity where others see insurmountable challenges. It is the process of combining resources, labor, and other assets in order to increase their worth. Entrepreneurship, according to Drucker (1985), is a behavior rather than a state of being.

Entrepreneur, according to Ayozie (2013), is a person who continually develops and invents in order to build something of recognized value around anticipated opportunities. An entrepreneur is also defined as a person who starts a business and enters a market, as well as someone who takes on some items and risks. In conclusion, entrepreneurship emphasizes, among other things, creation, innovation, and risk-taking. Second, entrepreneurship is the pursuit of value creation through the promotion of economic activity, such as the identification of new products, practices, or markets through enterprising human activities.

Agricultural Entrepreneurship at the Individual Level

Traditional growers, who strive for growth through enlargement and specialization, and prudent farmers, who are characterized by financial conservatism and seen solely as farmers, are identified by Lauwere (2005), whereas social farmers, who have a high social orientation, and new growers, who have a social and growth orientation, are identified by Lauwere (2005). Only the latter two types are considered entrepreneurs, as they demonstrate self-criticism, leadership, creativity, perseverance, and proactivity. Bohnet et al., (2003) point to a new category of lifestyle entrepreneurs, often newcomers to agriculture, who regard the rural environment as spaces for idyllic farming through engagement with environmental management, by demonstrating how attitudes to land use may explain engagement in entrepreneurship. Other research looks at the goals and motivations of farmers who engage in entrepreneurial activities, such as increased income and profit maximization (Little et al., 2001; Windle and Rolfe, 2005), more opportunities to contribute to the community (McGehee et al., 2007), and overcoming rural isolation by meeting new people (McGehee et al., 2007). (Vik and McElwee, 2011). Farmers' principal motives, according to McGehee and Kim (2004), are to completely utilize resources and educate consumers, while socio-cultural and emotional reasons are a major motivator, depicting entrepreneurship as a livelihood strategy in agriculture. They also provide a solid foundation for categorizing the various reasons and approaches to entrepreneurship in the agriculture industry. As a result, they also serve as a starting point for understanding farmers' identities.

Approaches to Poverty (Theory)

Poverty, from the perspective of a social researcher, is a complicated phenomenon influenced by a wide range of causes and which can be investigated from a variety of angles. Poverty research and interpretation is difficult since there are as many ways to measure poverty as there are to define it. Different poverty assessments can be carried out depending on the point of view taken and the issues that need to be addressed. A first categorization refers to the sort of base information used and can be referred to as objective and subjective poverty; similarly, we can speak of absolute and relative poverty based on the scale or reference used to define the thresholds. Finally, it's critical to distinguish between static and dynamic investigations. A crucial factor in dynamic studies is the amount of time spent in poverty. A distinction is made between transversal poverty (for a specific year) and long-term or chronic poverty in this way. Analyses based primarily on the inability of access to certain essential consuming items are carried out from a completely different perspective, as it is acknowledged that these constraints can result in a lack of social integration. Multi-dimensional deprivation is the study of this component of social exclusion that is strongly linked to poverty. Objective poverty studies collect data through variables that are measured by a researcher's direct observation, giving them a high degree of objectivity (the most commonly used variables are household income and expenditure). Subjective poverty research is based on people's or households' perceptions of their circumstances.

Objective Poverty

An analysis of both absolute and relative poverty is carried out using an objective approach. Absolute poverty is described as a condition in which an individual's basic requirements are not met, in other words,

when essential goods and services are unavailable (normally related to food, housing and clothes). Poverty is tightly tied to destitution in this idea, which can be applicable to any country or society. A person defined as poor according to this criterion is categorised in the same way all throughout the world. As we will see later, developing methods for assessing absolute poverty is extremely difficult, if not impossible. The term "relative poverty" refers to the location of poverty in a given society. A person is deemed poor in this context when they are plainly disadvantaged, either financially or socially, in comparison to others in their environment. The concept of poverty is inextricably tied to the concept of inequality. According to this last criterion, the distinction between poor and non-poor people is dependent on the level of development of the community under study and cannot be applied to a different civilization. Poverty, on the other hand, is not a static phenomena, and a person's situation may change over time, allowing them to move in and out of poverty. It is also critical to conduct dynamic poverty studies that account for changes and transitions, as well as to examine a population over a sufficiently long period of time, rather than just during specific years and in isolation.

Subjective poverty

As previously mentioned, information on the opinions of individuals or households, as well as their circumstances, is employed in evaluations of subjective poverty. In contrast to the objective perspective that exclusively employs observable and measurable indicators, this technique of comprehending poverty influences the subjective view that households have of their financial status.

Multi-dimensional deprivation

Another term, multi-dimensional deprivation, is closely tied to social exclusion and is concerned with deprivation or lack of access to some commodities and services deemed vital for society, whether or not they are fundamental needs. Non-monetary factors and deprivation indicators are used to generate poverty measures, which are then broken down further. Severe poverty is a term used to describe this sort of multi-dimensional deprivation. Each of these alternative approaches to defining and measuring poverty provides a unique viewpoint on the same issue.

The many approaches each contribute unique and valuable information that should be merged to provide the most comprehensive general picture 4 feasible. Even though the single use of relative poverty measures offers data on the percentage of persons in poorer financial circumstances than other citizens, it does not explain whether the most fundamental needs of these people considered poor are addressed or if they feel excluded. As a result, combining absolute and relative measurements will aid in gaining a better understanding of poverty. When attempting to assess poverty, it's vital to remember that the majority of research are based on data from household surveys. These surveys obviously do not capture information on homeless people or people who live in institutions, which implies that persons from these categories, who are disproportionately affected by poverty, are excluded from the measures that are normally taken.

Effect of Entrepreneurship Training and Education on Poverty.

Entrepreneurship education and training encompasses a self-reliance concept that includes things like developing a new cultural and productive environment, as well as encouraging new attitudes and cultures in order to meet future problems (Arogundade, 2011). Entrepreneurship education, according to (Okereke and Okorafor, 2011), is a powerful and effective tool for self-empowerment, job development, and wealth generation. Entrepreneurship education entails instructing students, learners, and would-be businessmen, as well as providing trainees with the necessary abilities for teaching responsibility and developing potential trainees' ideas (Ezeani, 2012). Furthermore, entrepreneurship education is defined as “the individual ability to convert ideas into action” (Oluseye, 2017). It encompasses abilities like as creativity, inventiveness, and risk-taking, as well as the capacity to organize and manage projects in order to meet goals and master one's own life. Entrepreneurship education is defined as a specialized knowledge that instills risk-taking, creativity, arbitrage, and coordination of production elements in learners with the goal of developing new products or services for new and existing consumers within human societies (Akhuemonkhan et al., 2013)

Social Entrepreneurship and Poverty

Poverty is currently Africa's most important social concern, according to the World Bank, and one of social entrepreneurship's key goals is to reduce poverty (Narayan, 2017). Social entrepreneurship has been shown

to boost economic output, social capital, and employment. In recent years, social entrepreneurship has evolved as a model for promoting entrepreneurship by combining social and business activity. Many definitions of social entrepreneurship have been proposed by academics. Some people place a premium on non-profitability as a primary criterion (Austin et al, 2012). Others include any commercial operation that primarily serves the community or provides market access to those in need (Austin et al., 2012). Others, on the other hand, are willing to incorporate any entrepreneurship activity needed to alleviate social problems, whether or not it generates financial rewards (Austin et al. 2012). To support this, (Shaheen, 2016) has described how social entrepreneurship can help solve difficult and pressing social problems such as crime, illiteracy, unemployment, mental illness, HIV/AIDS, and drusen (Ven et al, 2007). Because social issues are often at the foundation of poverty, the number of poor people can be reduced only to the extent that these issues can be addressed.

Sustainable Entrepreneurship and Poverty

Although predicting long-term viability is challenging, certain survival-oriented start-ups clearly lack growth potential (Wu and Si, 2018). Approaches that are more likely to be long-term sustainable could be based on projects that promise to be disruptive developments, for example (Si et al. 2015). It causes market disruption by allowing the impoverished to act as both consumers and suppliers. Its most significant effect is to move people's views away from passive and economic behavior toward proactive and proactive behavior. The underprivileged went out to find fresh business possibilities and potential clients on their own (Si et al. 2015). The consumer orientation in this entrepreneurial activity is particularly apparent because the impoverished themselves are the main consumers and body of entrepreneurs. This is reflected in the fact that such programs tend to target lower-income customer groups and provide them with lower-cost goods (Wu and Si, 2018). It causes market disruption by allowing the impoverished to function as both suppliers and consumers. The most significant consequence is that it shifts people's attitudes and economic conduct from reactive to proactive. The poor set out to find new clients and prospective business prospects (Si et al. 2015).

Agricultural Entrepreneurship and Poverty Reduction

In Nigeria and other places, the development or revival of rural communities has become a new growth point for rural economies. Agricultural entrepreneurship is a new strategy in Nigeria's new normal that aims to progress rural urbanization, reinvigorate the rural economy, and alleviate poverty. This is because agricultural entrepreneurship has been demonstrated to be capable of efficiently supporting rural industrialisation by assisting farmers in increasing their incomes and improving their standard of living. Farmers who engage in entrepreneurial activities are thus more likely in developing nations to escape poverty faster than non-farm entrepreneurs (Nagler and Naudé, 2017). As a result of the aforementioned situation, most Nigerian agricultural strategies must place a heavy emphasis on the growth of rural entrepreneurship in order to reduce poverty. Village agribusiness initiatives, for example, have supported the growth of entrepreneurship and innovation as a means of tackling extreme poverty in impoverished communities over the years. Despite the fact that poverty in Nigeria is a complex issue, the rural poor in Nigeria have limited access to public goods such as education, healthcare, housing, roads, and meaningful jobs in order to better their living situations.

Entrepreneurship Practices and Poverty

There is a strong evolving link between entrepreneurship and poverty reduction in developing countries (Jaafar, 2015; Ngoasong and Kimbu, 2016; Sigalla and Carney, 2012; Yanya et al., 2013), according to a plethora of literature (Jaafar, 2015; Ngoasong and Kimbu, 2016; Sigalla and Carney, 2012; Yanya et al., 2013). (Ngoasong and Kimbu, 2016). Previous research has found a link between entrepreneurship development and improved living standards and quality of life, which is consistent with our a priori expectation of a positive relationship between agricultural entrepreneurship and poverty reduction. In a study of microfinance institutions cited by (Wujun and Mbella, 2014), (Haughton and Khandker, 2015) demonstrates that "indirectly, entrepreneurship is an important factor to poverty reduction that is not just for beneficiaries but also for the rest of the society through positive externalities." Another study (Olayinka et al., 2015) looked at the impact of entrepreneurship education and training on poverty reduction in Nigeria. A stratified random sampling strategy was used by the researchers. The findings suggest that there is a positive

and significant relationship between entrepreneurship and poverty alleviation. Also, (Kareem, 2015) concludes that there is a significant relationship between entrepreneurship and poverty alleviation at the 1% probability level in his empirical study of the relationship between entrepreneurship and poverty alleviation. The four dimensions of entrepreneurship (sustainable, unsustainable, exogenous, endogenous). Each quadrant denotes the different forms of poverty-reduction strategies that rely on entrepreneurship.

Agricultural Entrepreneurship and Poverty

Although there is insufficient empirical evidence to establish a link between agricultural entrepreneurship and poverty reduction in the existing literature, it is expected that the two issues are linked because the majority of the world's poor live in rural areas and rely on agriculture as their primary source of income, which requires entrepreneurship (Birthal et al., 2015)

Some scholarly works on farmer entrepreneurship in China and other countries are currently available (Bao et al., 2016; Carter, 1999; Kahan, 2012; McElwee, 2006; Pyysiäinen et al., 2005; Rudmann, 2008; Sharma et al., 2010), and the findings of these studies show that farmer entrepreneurship has the potential to improve the living conditions of resource-poor farmers in rural areas. According to (Saxena, 2012), farmer entrepreneurship in India plays a critical role in raising per capita income by creating rural jobs. According to the study, farmer entrepreneurship has aided in increasing production in farm and non-farm enterprises, as well as minimizing the migration of young people from rural to urban areas. Although the literature on farmer entrepreneurship in China is still growing, a recent study by (Yuan et al., 2017), based on Grounded Theory and using 219 observations from Zhejiang Province, found that many Chinese farmers are turning to entrepreneurial activities as a way to earn higher incomes and improve their living standards.

III. Methodology

This study employed the use of primary data and secondary data. The primary data were obtained from questionnaire while the secondary were collected from the Central Bank of Nigeria, National Bureau of Statistics, Bank of Industry, Small and Medium Enterprise Development Agency of Nigeria, Journals and Text books, internet etc.

Model Specification

$$PV_{mpi} = \beta_0 + \beta_1 IF_i + \beta_y X_i + \varepsilon_i \quad (1)$$

$$PV_{fgt} = \beta_0 + \beta_1 IF_i + \beta_y X_i + \varepsilon_i \quad (2)$$

Where

IF_i = the Individual Farmer's Entrepreneurship Index

X_i = indexes other control variables such as educational qualification, net profit, age etc.

β_y = indexes the coefficient of other control variables

PVL=Poverty where 1= rich, 0=poor. Both MPI and FGT indices will be used

IV. Result and Interpretation

Table 1: Descriptive Statistics for the inferential analysis

Variable	Mean	Standard Deviation	Minimum (Maximum)
Entrepreneurship Index			
Very Low Entrepreneurship Index (Normalize)	0.311	0.463	
Low Entrepreneurship Index (Normalize)	0.251	0.434	
High Entrepreneurship Index (Normalize)	0.2	0.4	
Very High Entrepreneurship Index (Normalize)	0.238	0.426	
Level of Education			
Education(None)	0.012	0.108	
Education(Primary)	0.17	0.376	

Education(Secondary)	0.36	0.481	
Education(Post-secondary)	0.457	0.499	
Gender			
Male	0.735	0.442	
Female	0.265	0.442	
Marital Status	1		
Marital Status (Never Married)	0.119	0.324	
Marital Status (Married Monogamous)	0.531	0.5	
Marital Status (Married Polygamous)	0.263	0.441	
Marital Status (Separated)	0.016	0.125	
Marital Status (Divorced)	0.024	0.152	
Marital Status (Widowed)	0.048	0.213	
Log of Income	163431.7	100957.7	27000(1015000)
Log of Age	46.261	7.469	29(60)
Household Size	5.580	2.339	1(12)

Source: **Computed from STATA 15, (2021)**

To measure the effect of entrepreneurship practices on poverty, entrepreneurship practices was presented in four categories, very low, low, high and very high level of entrepreneurship practices, other variables include in the analysis include categorical level of education, marital status. Gender, age, income and household size. The descriptive statistics of these variables using mean and standard deviation are presented in table 1. The very low entrepreneurship index has the highest proportion with (0.311), this is followed by low entrepreneurship index (0.251) and very high entrepreneurship index (0.238). However, high entrepreneurship index has the least proportion with (0.2). The result of the farmers' characteristics shows that farmers with post-secondary education on the average have the highest proportion (0.457), followed by farmers with secondary and primary education with (0.36) and (0.17) respectively, while farmers with no formal education are in the least categories of level of education. On gender, the proportion of male farmers is 0.735, while female farmers is 0. 265. The marital status of farmers is presented in six categories, the married monogamous status has the highest proportion, while separated marital status has the lowest proportion. The farmers' average monthly income is N 163, 431.7 with standard deviation of 100957.7, the income also ranges between N27000 -N1015000 per month. On the average, the farmers 'age is 46 years, the minimum and maximum age is 29 and 60 years respectively. The average household size among the farmers is 6 and it ranges from 1 to12.

To measure the effect of entrepreneurship practices on poverty, Probit and order Probit models were specified and analysis was based on FGT and MPI measures of poverty. Table 4.5b shows that all 505 observations were used in the Probit analysis, thus no missing value was recorded. The likelihood ratio chi-square of 178.97 with a probability value of 0.000 for FGT and 144.92 chi-square with a probability value of 0.000 for MPI, indicate that the models as a whole are statistically significant. Also, the Pseudo R-squared values of FGT (0.759) and MPI (0.277) implying that the explanatory variables jointly explain about 75.9% and 27.7% of the variation in poverty level respectively. The coefficients of the variables, their standard errors, the z-statistic, associated p-values, and the 95% confidence interval of the coefficients are also presented. In addition, heteroscedastisity and potential autocorrelation were corrected in the statistical results using robust standard errors. The analysis employed quartile dummies for the entrepreneurship index, which was categorized as very low, low, high and very high levels of entrepreneurship practice among farmers. Other dummy variables are education, marital status, gender. The reference categories for the categorical variables were variables with highest observation and variables that fall to the extreme side of the distribution and also convenient and sensible to use. The results were validated at $p \leq 0.01$ and 0.05.

Focusing on the coefficients of the explanatory variables, the result shows that a change from the very low EPI to very high EPI reduces the z score by 0.444 for MPI and by 0.673 for FGT. at 5% level of significance. Similarly, a change from the high EPI to very high EPI reduces the z score by 0.515 for MPI

and by 1.187 for FGT. This implies that a very high level of entrepreneurship practices among farmers will reduce poverty among farmers. From table…, an increase in income increases the z score by 0.502 at 1% level of significance for MPI. This analysis indicates that a positive and significant relationship that exist between income and poverty. Although, this finding is not consistent with the theoretical expectation, but it actually captures the reality of the farmers who are entrepreneurs with meagre income. However, the FGT result indicates a decrease in poverty as a result of increase in Income. On the part of education, a change from none level of education to primary and secondary, level of education increases the z score by 1.831 for MPI and reduces the z score by 0.906 for FGT. at 1% level of significance. The MPI result on marital status show that a move from never married to married polygamous status will decrease z score by 0.521. Equally, a change from never married to married monogamous status will decrease z score by 0.781 for MPI and 1.84 for FGT at 1% level of significance. For Gender, a male farmer decreases the z score by 0.772 for MPI and 0.647 for FGT at 1% and 5% levels of significance respectively. Age also decreases the z score by 1.545 for MPI and 1.432 for FGT at 1% and 5% levels of significance respectively. Finally, for FGT, an increase in household size of the farmer increases the z score by 0.796 1% levels of significance.

Table 2: Probit model analysis of the effects of entrepreneurship practices on Poverty

		FGT	**MPI**
Probit regression	Number of observation	505	505
	Wald chi2(11)	178.97	144.92
	Prob > chi2	0.000	0.000
	Pseudo R2	0.7591	0.2772
Log pseudo likelihood		-84.2331	-241.341

Poverty Index	**MPI**	**FGT**
Very Low Entrepreneurship Index (Normalize)	-0.444(-2.46)**	-0.673(-1.91)**
Low Entrepreneurship Index (Normalize)	-0.103(-0.57)	-0.925(-2.26)**
High Entrepreneurship Index (Normalize)	-0.515(-2.51)**	-1.187(-3.71)***
Log of Income	0.502(3.44)***	-3.659(-8.53)***
Education(Secondary)	-0.278(-1.75)*	-0.033(-0.11)
Education(Primary)	1.831(7.74)***	-0.906(-2.73)***
Marital Status (Married monogamous)	-0.521(-2.13)**	0.361(0.66)
Marital Status (Married Monogamous)	-0.781(-4.29)***	1.84(5.92)***
Gender (Male)	-0.772(-4.55)***	-0.647(-2.02)**
Log of Age	-1.545(-3.52)***	1.432(1.96)**
Household Size	0.038(1.14)	0.796(6.81)***
Constant	0.475(0.24)	34.672(7.33)***

Source: **Computed from STATA 15, (2021)**

Note: ***, ** and * corresponds to 1%, 5% and 10% levels of significance.

Reporting the marginal effect of entrepreneurship practices on poverty, the results for FGT show that there is negative and significant relationship exist between entrepreneurship practices and poverty level at 1% and 5% levels of significance for very low, low and very high EPI. This implies that being an entrepreneur decreases the probability of being poor by 25.7% for very low EPI,35.4% for low EPI and 44.4% for high EPI compare to very high EPI. Likewise, the MPI results show that the probability of very low EPI is 0.16 and 0.179 for high EPI at 1% and 5% levels of significance. Alternatively, the coefficient of income in the model is negative and statistically significant at 1% alpha level. This simply means that a unit increase in income of the respondents lowers the probability of being poor by 137.5% for FGT, while it increases the probability of being poor by 18.9% for MPI. Also, the negative and significant coefficients of primary education dummy at 1% level imply that having primary education is associated with lower probability

(34.9%) and (62.5%) of being poor compare to none level of education for both FGT and MPI respectively. The probability of being poor as a result of monogamous marital status is 51.5 for FGT and 28.9% for MPI. Furthermore, the negative and significant relationship that exist between male dummy and poverty level at 1% level of significance implies that being male increases the probability of being poor by 22.5% for FGT and 29.6% for MPI compare to the females.

The positive and significant coefficient of the household size in the table indicates that at 1% level of significance, one-unit increase in household size will increase the probability of being poor by 29.9%. for FGT. Lastly, the marginal effect of age on poverty level is significantly negative. Alternatively, the coefficient of age in the model is negative and statistically significant at 5% alpha level. This simply means that a unit increase in age of the farmers lowers the probability of being poor by 53.8% for FGT. However, MPI reports a negative relationship between age and poverty with 58% probability.

Overall, entrepreneurship practices, male dummy, primary education dummy, married monogamous dummy, household size, age and income are the major determinants of poverty among the selected farmers in Jos.

Table 3: Order Probit model analysis of the effects of entrepreneurship practices on Poverty

Poverty Index	**FGT**	**MPI**
Very Low Entrepreneurship Index (Normalize)	-0.257(-1.91)**	-0.16(-2.46)**
Low Entrepreneurship Index (Normalize)	-0.354(-2.26)**	-0.038(-0.57)
High Entrepreneurship Index (Normalize)	-0.447(-3.71)***	-0.179(-2.51)**
Log of Income	-1.375(-8.53)***	0.189(3.44)***
Education(Secondary)	-0.012(-0.11)	-0.102(-1.75)*
Education(Primary)	-0.349(-2.73)***	0.625(7.74)***
Marital Status (Married monogamous)	0.128(0.66)	-0.177(-2.13)**
Marital Status (Married Monogamous)	0.511(5.92)***	-0.289(-4.29)***
Gender (Male)	-0.225(-2.02)**	-0.296(-4.55)***
Log of Age	0.538(1.96)**	-0.58(-3.52)***
Household Size	0.299(6.82)***	0.014(1.14)

Source: **Computed from STATA 15, (2021)**

Note: ***, ** and * corresponds to 1%, 5% and 10% levels of significance.

V. Discussion of Findings

Based on the above empirical literature and focusing on the coefficients of the explanatory variables, the result of this study shows that a change from the very low EPI to very high EPI reduces the level of poverty for both MPI and FGT at 5% level of significance. Similarly, a change from the high EPI to very high EPI reduces the poverty level as well for both MPI and FGT. This implies that a very high level of entrepreneurship practices among farmers will reduce poverty among farmers. In addition, the FGT result indicates a decrease in poverty as a result of increase in income resulting from high level of entrepreneurship practices. Above all, since Schumpeter placed entrepreneurship at the center of economic growth, many studies have shown that entrepreneurship plays an important role in stimulating economic growth (Shane and Venkataraman, 2000). Moreover, there has been a recent increase in studies which show that entrepreneurship practice has the potential to reduce poverty and conflicts in developing countries (Bruton and Ketchen, 2013 and Tobias *et al*; 2013).. This is because it has been found that agricultural entrepreneurship is capable of effectively stimulating rural industrialization since it is able to help farmers increase their incomes and improve their standard of living. Farmers involved in entrepreneurial activities are therefore more likely to overcome Poverty faster than non-farm entrepreneurs in developing countries (Nagler and Naudé, 2017).

VI. Conclusion and Recommendation

This study concludes that a very high level of entrepreneurship practices among the farmers will reduce poverty level among the farmers in the study area. Therefore entrepreneurship practice intensity among the farmers is key to improving their standard of living by reducing poverty through increased income resulting from high entrepreneurship activities.

The negative connection between poverty and entrepreneurship practice calls on the individual farmers in small and medium scaled business to increase their level of entrepreneurship practices so as to alleviate poverty. Suggested ways through which the farmers can improve the level of entrepreneurship practices are to improve their financial, marketing, business and risk management skills by going for further training or education. A step in this direction will help improve the living conditions of the farmers and their families and support Nigeria in poverty eradication.

References

1. Adenutsi, Deodat E., 2009. Entrepreneurship, job creation, income empowerment and poverty reduction in low-income economies, MPRA Paper 29569, University Library of Munich, Germany.
2. Adesola, O. O., Oluseye, A. M., Omonike, A. O., Omowunmi, O. M., & Oluwaseunfunmi, O. J. (2017). Causes and effects of graduate unemployment on the Nigerian economy (The case study of Lagos State). *Asian Research Journal of Arts & Social Sciences*, 1-10.
3. Ainin, S., Parveen, F., Moghavvemi, S., Jaafar, N. I., & Shuib, N. L. M. (2015). Factors influencing the use of social media by SMEs and its performance outcomes. *Industrial Management & Data Systems*.
4. Akhuemonkhan, I. A., Raimi, L., & Sofoluwe, A. O. (2013). Entrepreneurship education and employment stimulation in Nigeria. *Journal of studies in social sciences*, *3*(1).
5. Arogundade, B. B. (2011). Entrepreneurship education: An imperative for sustainable development in Nigeria. *Journal of emerging trends in educational research and policy studies*, *2*(1), 26-29.
6. Chen, K. Z., Fan, S., Babu, S. C., Chen, K. Z., Joshi, P. K., Cheng, E., & Birthal, P. S. (2015). Innovations in financing of agri-food value chains in China and India. *China Agricultural Economic Review*.
7. David Kahan,2012, Entrepreneurship in Farming, a United Nations project
8. De Lauwere, C. C. (2005). The role of agricultural entrepreneurship in Dutch agriculture of today. *Agricultural Economics*, *33*(2), 229-238.
9. Ezeani, N. S. (2012). Application of entrepreneurship education: A panacea for effective secondary schools management in Nigeria. *Singaporean Journal Of business Economics and management studies*, *1*(5), 27-45.
10. Famorigo. S.O. (1998): *Land tenure and Agricultural Development in Nigeria*. Ibadan. NISER
11. FAO (2013).World Food and Agriculture Electronic File.www.fao.org/corp/statistics/en
12. Gebremariam, G. H., Gebremedhin, T. G., & Jackson, R. W. (2004). *The role of small business in economic growth and poverty alleviation in West Virginia: An empirical analysis* (No. 377-2016-20786).
13. Haughton, S. (2015). J., & Khandker,". *Handbook on poverty and inequality," Washington*.
14. Izediuno, O. L., Alice, O. T., & Daniel, O. A. (2018). Analytical review of small and medium scale enterprises in Nigeria. *International Journal of Small Business and Entrepreneurship Research*, *6*(2), 32-46.
15. Kharas et al., 2018Kharas, H., Haml, K., & Hofer, M. (2018).Rethinking Global Poverty Reduction
16. Kimbu, A. N., & Ngoasong, M. Z. (2016). Women as vectors of social entrepreneurship. *Annals of Tourism Research*, *60*, 63-79.

17. Messeghem, K. (2003). Strategic entrepreneurship and managerial activities in SMEs. *International Small Business Journal*, *21*(2), 197-212.
18. Nadim .A and Anders. H (2007) A Framework for Addressing and Measuring Entrepreneurship
19. Naminse EY, Zhuang J (2018) Does farmer entrepreneurship alleviate rural poverty in China? Evidence from Guangxi Province. PLoS ONE 13(3): e0194912. https://doi.org/10.1371/journal.pone.0194912
20. Narayan, D. (2017). Poverty is powerlessness and voicelessness. In *Development ethics* (pp. 117-120). Routledge.
21. National Bureau of Statistics, Data and Analysis of Youth Unemployment in Nigeria. National Bureau of Statistics (NBS), Statistical Bulletin, 2017.
22. Naudé, W. (2017). Entrepreneurship, education and the fourth industrial revolution in Africa.
23. Ogcn Olukoya (2003) Patterns of Economic Growth and Development in Nigeria since I960 in S.O. Arifalo and Gboyega Ajayi (eds.) (2003) Essays in Nigerian ContemporaryHistory.Lagos: First Academic Publishers
24. Okereke, L. C., & Okorafor, S. N. (2011). Entrepreneurship skills development for Millennium Development Goals (MGDs) in business education. *Business Education Journal*, *1*(11), 83-88.
25. Oluwasanmi, H.A.(2011): Agriculture and Nigeria's Economic Development: Ibadan University Press.
26. Sigalla, R. J., & Carney, S. (2012). Poverty reduction through entrepreneurship: Microcredit, learning and ambivalence amongst women in urban Tanzania. *International journal of educational development*, *32*(4), 546-554.
27. Tran, A.T.P. and Von Korflesch, H. (2016), "A conceptual model of social entrepreneurial intention based on the social cognitive career theory", *Asia Pacific Journal of Innovation and Entrepreneurship*, Vol. 10 No. 1, pp. 17-38. https://doi.org/10.1108/APJIE-12-2016-007
28. Van de Ven, A. H., Sapienza, H. J., & Villanueva, J. (2007). Entrepreneurial pursuits of self-and collective interests. *Strategic entrepreneurship journal*, *1*(3-4), 353-370.
29. Vik, J., & McElwee, G. (2011). Diversification and the entrepreneurial motivations of farmers in Norway. *Journal of small business management*, *49*(3), 390-410.
30. Vik, J., & McElwee, G. (2011). Diversification and the entrepreneurial motivations of farmers in Norway. *Journal of small business management*, *49*(3), 390-410