

# **Entrepreneurship Development and Unemployment Reduction in Nigeria: A Survey of Public Opinion in Selected Nigerian Cities**

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## **Abstract**

The paper discussed entrepreneurship development and unemployment reduction in Nigeria. It views entrepreneurship development as capacity building for self-employment. It assumes a direct relationship between entrepreneurship development and unemployment reduction. The research question addressed the extent of the relationship between entrepreneurship development and increased employment opportunities/enhanced economic growth in Nigeria. The place of study consists of the 37 capital cities of Nigeria while the duration of study is between September 2013 and August 2014. A descriptive research design was used in executing the study, using 407 randomly selected registered unemployed graduates in 37 capital cities of Nigeria, for questionnaire administration. The sample size of 407 was determined from a population of 20.3million unemployed graduates as at 31<sup>st</sup> August 2014, using Yamane 1964 sample size determination formula at 5% level of significance for sampling error. Results from the data analysis indicated that significant relationship exists between entrepreneurship development and increased employment opportunities/enhanced economic growth in Nigeria and recommends among others: capacity building for potential entrepreneurs, provision of start-up capital for new entrepreneurs, establishment of entrepreneurs funding agencies, incorporation of entrepreneurship development in educational curricular, public/private sector partnership in infrastructural provision and provision of incentives for new business development.

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## **1 Introduction**

### **1.1 Background of the Study**

Nigeria is a nation of paradox, blessed with enormous resources but confronted with high rate of unemployment. Before the advent of colonial government, unemployment was a rare phenomenon in Nigeria because the people were highly entrepreneurial and productively engaged. With the adoption of western-style of formal education, Nigeria lost her culture of self-reliance and self-employment thus changing graduates mindset from job creation to job-seeking [1]. Entrepreneurship development is generally regarded as a panacea for the high rate of unemployment in Nigeria. It is viewed as capacity building for self-employment. Ajakale [2] defined it as a purposeful intervention by an adult (the teacher) in the life of a learner to impart entrepreneurial qualities and skills that enables the learner to survive in the business world. Awogbenle and Iwuamadi, [3] defined it as the process of enhancing entrepreneurial skills and knowledge through structured training and capacity building. Structured training transfers knowledge and skills from the expert to the learner [4] while capacity building enables an individual to realize his/her potentials for growth [5]. Garavan and O’Cinneide [6] in their contributions maintained that entrepreneurship development is often used for developing enterprising people and inculcating an attitude of self-reliance using appropriate learning processes.

To highlight the significance of entrepreneurship development in the growth of an economy, it has been variously referred to as a source of employment generation, because of its positive impacts on the economy and quality of life of the people [7]. Studies have established its positive relationship with stimulation of economic growth; employment generation; and empowerment of the disadvantaged segment of the population [8]. The essence of entrepreneurship development is its ability to envision and chart a course for a new business venture by combining information from the functional disciplines and the external environment in the context of the extraordinary uncertainty and ambiguity that faces a new business venture [9]. Alam and Hossan [10] see entrepreneurship development as playing a key role in the process of economic development through creation of employment opportunities, increasing investment and consumption of a nation. Chigunta [11] sees it as a source of job creation, empowerment for the unemployed and economic dynamism in a rapidly globalizing world. An effective entrepreneurship development program either focuses on creating new product or service (creativity) or finding new ways of using an existing one (innovation).

The role of government in entrepreneurship development in Nigeria became significant after the civil war (1967-70). Since the mid-1980s there has been an increased commitment of government to entrepreneurship development especially after the introduction of the Structural Adjustment Program (SAP) in 1986. Several policy interventions that were aimed at stimulating entrepreneurship development via small and medium scale enterprises promotion, based on technology transfer strategy, failed to achieve the desired goals because most indigenous entrepreneurs became distribution

agents of imported products as opposed to building in-country entrepreneurial capacity for manufacturing, mechanized agriculture and expert services. Nowadays, Nigerian government promotes entrepreneurial culture through initiatives that build business confidence, positive attitude, pride in success, support and encouragement of new ideas, social responsibility, technological supports, encouraging inter-firm linkages and promotion of research and development.

Although, several attempts have been made at encouraging entrepreneurial activities in Nigeria in the past, the real entrepreneurs have not emerged. It is therefore, not surprising that only minimal success has been recorded particularly in areas requiring relatively low level skills. While none of the past initiatives are completely without merits, the truth is that they did not have a significant, lasting and sustainable positive effect. This shows that without appropriate intervention to halt the unemployment situation in Nigeria, more people will become unemployed with varying consequences on economic growth and national development.

Basically, the two approaches for entrepreneurship development in Nigeria include: provision of generous credit facilities for small-scale industrialists (seed capital) and provision of training facilities for potential entrepreneurs (capacity building). In spite of the fact that entrepreneurship development has been regarded as the bulwark for employment generation, economic growth and technological development, nevertheless it has had its own fair share of neglect by both federal and state governments in Nigeria resulting in negative impacts on the economy. It is against this background that it becomes pertinent to embark on a public opinion survey on entrepreneurship development and unemployment reduction in selected Nigerian cities.

## **1.2 Statement of the Problem**

The major challenge of entrepreneurship development in Nigeria is the poor entrepreneurial culture of the people. The introduction of western-style of formal education by the colonial administration, changed graduates mindset from job creation to job-seeking, destroyed self-reliance, self-employment and entrepreneurial skills of Nigerians as they became permanently dependent on the colonial masters [12,13]. This has resulted in massive unemployment and craze in the contemporary times for ready-made jobs.

The most serious economic problem an individual can face in any society is that of unemployment. A person is said to be unemployed if he is willing and able to work but the work he is capable of doing is not available to him [14]. Others may be unemployed because their skills have been rendered obsolete by technological changes or because they have no skills at all [15]. The level of unemployment in a nation is a mirror image of the state of its economy. Unemployment of people may not necessarily arise out of any vacancies in the economy as a whole, but essentially the unemployed may not possess the right skills for the available employment. Also, the course contents of most tertiary education in Nigeria lack entrepreneurial contents that would have enabled graduates to become job creators rather than job seekers. With inadequate skills and few opportunities, graduates face a future of low-wage employment, unemployment and under-employment in the informal sector with little job security and prospects. Other challenges of entrepreneurship development in Nigeria include: poor financing, inadequate social infrastructures, inadequate manpower, weak industrial base, corruption, lack of political will and poor patronage of home-made products.

### **1.3 Research Objectives**

The objectives of the research are as follows:

1. To determine the extent of the relationship between entrepreneurship development and increased employment opportunities in Nigeria.
2. To determine the extent of the relationship between entrepreneurship development and enhanced economic growth in Nigeria.

### **1.4 Research Questions**

Despite the challenges confronting Nigeria's attempt at entrepreneurship development, substantial progress has been made through various government intervention programs (Structural Adjustment Program (SAP), National Poverty Eradication Program (NAPEP), Youth Enterprise with Innovation in Nigeria (YouWiN) and National Open Apprenticeship Scheme (NOAS)), in empowering unemployed graduates in acquiring skills that will enable them to be self-employed thus prompting the following research questions:

1. Does any significant relationship exist between entrepreneurship development and increased employment opportunities in Nigeria?
2. Does any significant relationship exist between entrepreneurship development and enhanced economic growth in Nigeria?

### **1.5 Research Hypotheses**

In view of the above research questions, the following null hypotheses were formulated:

$H_0$ : There is no significant relationship between entrepreneurship development and increased employment opportunities in Nigeria.

$2H_0$ : There is no significant relationship between entrepreneurship development and enhanced economic growth in Nigeria.

### **1.6 Literature Review**

Historically, the study of entrepreneurship dates back to the work of Richard Cantillon and Adam Smith in the late 17th and early 18th centuries, but was largely ignored theoretically until the late 19th and early 20<sup>th</sup> centuries and empirically until a profound resurgence in business and economics in the last 40 years. In the 20<sup>th</sup> century, the understanding of entrepreneurship owes much to the work of economist Joseph Schumpeter in the 1930s and other Austrian economists such as Carl Menger, Ludwig von Mises and Friedrich von Hayek.

Globally, entrepreneurship development is increasingly being recognized as an important driver of economic growth, employment generation, innovation and poverty alleviation [16]. Poor entrepreneurship development has also been identified as an immediate reason why businesses in developing countries fail to start or progress. Schnurr and Newing [17] justified the need for promoting entrepreneurship culture on the ground that youth in all societies have sterling qualities such as resourcefulness, initiative, drive, imagination, enthusiasm, zest, dash, ambition energy, boldness, audacity and courage which are all valuable traits for entrepreneurship development. In supporting this assertion, Bennell [18] maintained that governments, NGOs and international bodies seeking to improve youth

livelihoods could best pursue their empowerment objective by tapping into the dynamism of young people and build on their strong spirit of risk-taking through entrepreneurship development.

The entrepreneurship development policy of a nation is closely linked to its economic and social development program. As a lifelong learning process, it starts as early as elementary school and continues through all levels of education. The United Nations Development Programme [16] opines that the ultimate objective of entrepreneurship development should be to facilitate the creation of an entrepreneurial culture, which in turn will help potential entrepreneurs to identify and pursue opportunities. An effective entrepreneurship development policy should focus on developing individuals who wish to start or expand a business rather than focusing on developing the enterprise [3]. Thus, entrepreneurship development should focus on producing individuals who can blend creativity, innovation with sound business principles to commercialize new products and services [19]. In every act of entrepreneurship development, a new firm is raised hence entrepreneurship is enterprise-creation. In Nigeria and elsewhere, entrepreneurship development is all about creation of small and medium scale enterprises.

Some scholars and commentators have argued that as far as the formal sector is concerned, the average Nigerian graduate is not employable because he/she does not possess the skills needed by the employers of labor for a formal employment. Oba [20] identified lack of marketable skills of unemployed persons as the greatest obstacle to employment generation and poverty reduction in Nigeria. Similarly, Adegbite, et al [21] noted that technical entrepreneurial talent which involves the establishment and management of manufacturing industries for productive activities in the real sector of the economy is lacking in Nigeria. However, a World Bank study by Henrik and Morchs (1995) as cited in Adegbite et al [21], has proposed a contrary view that technical entrepreneurial talent is indeed available but that the economic environment has been such that it does not allow this talent to develop. This proposition concurs with a third view by Adjebeng – Asem (1989) as cited in Adegbite et al [21] that African entrepreneur is alive and well, but that he/she rather than undertaking manufacturing business (technical entrepreneurship) has been diverted to non-productive and rent-seeking activities which researchers have referred to as commercial entrepreneurship. Whichever view is taken from the above positions, the fact remains that, there is a critical factor gap in Nigeria's entrepreneurship development Process. This obvious critical skill gap inhibits skill development in the country and clearly indicates a missing gap, which needs to be filled.

## **1.7 Conceptual Framework**

Entrepreneurship is a process of identifying opportunities, allocating resources and creating value through identifying unmet needs or opportunities for change while entrepreneurship development enhances entrepreneurial skills and knowledge via structured training and capacity building. Tijani-Alawiye [22] views entrepreneurship development as the process of increasing the supply of entrepreneurs or adding to the stock of existing small, medium and big enterprises available to a country by creating and promoting many capable entrepreneurs who can successfully run innovative enterprises, nurture them to growth and sustain them, with a view to achieving broad socio-economic development goals. Entrepreneurial success is a function of the ability of the entrepreneur to see opportunities in the marketplace, initiate change (or take advantage of change) and creates value through solutions. It entails that the entrepreneur should be prepared to

assume a reasonable degree of risks, be a good leader in addition to being highly innovative. Okaka [23] observed that entrepreneurial success depends on the extent of entrepreneurship development.

The essence of entrepreneurship development is the ability to envision and chart a course for a new business venture by combining information from the functional disciplines and the external environment in the context of the extraordinary uncertainty and ambiguity which faces a new business venture [9]. This manifests in the form of creative strategies, innovative tactics and uncanny perception of trends, market mood changes and courageous leadership.

In his model for entrepreneurship development for great and dynamic economy shown in figure 1, Ogundele [24] stated that entrepreneurial deficiencies (lack of skill, knowledge, culture and finance) of an individual can be corrected through entrepreneurship development (micro, intermediate and macro levels), this will result in improved entrepreneurial performance/effectiveness dovetailing in increased employment opportunities and enhanced economic growth/national development.



Figure 1: Model of Entrepreneurship Development for Great and Dynamic Economy  
Source: Adapted from Ogundele, O.J.K. (2005) entrepreneur development for a great and dynamic economy, 2nd annual National Conference, Association for encouraging qualitative Education in Nigeria, Ambrose Alli University, Ekpoma, 9th -13th November.

Figure 1 show that entrepreneurship development can produce the desired changes in individuals and group behavior by eliminating\_entrepreneurial deficiencies thus resulting in positive improvement in society. At the micro level of entrepreneurship development, the model focuses on the fundamental characteristics of the individual: the physical make-up and the mental capacity which set limits on the types of opportunities that could be exploited. Others are the individual's attitudes, motivations and needs as a member of a family and the general society.

The intermediate level relates to supportive institutions and agencies that could further mould entrepreneurs or individuals, by equipping them with more practically oriented skills and competencies for improved performance. It is assumed that existing or practicing entrepreneurs could perform better when exposed to relevant education, training and development while non- entrepreneurs could be developed to become active

entrepreneurs or self-employed. This is because deficiencies manifested in entrepreneurial practice may be corrected through on and off the job trainings while the provision of financial support and training facilities could facilitate the emergence of new entrepreneurs.

The macro level focuses on the individual's childhood and adolescence environments. These are the homes, schools, social groups, economic characteristics of the environment, political systems and priorities, technology, culture, religious and social values. Various combinations of these macro level variables will determine individuals' quality of education. With entrepreneurial oriented education, entrepreneurial deficiencies will be eliminated and desired changes will be obtained in individual and group behavior which will subsequently result in positive improvement in society: increased employment opportunities, enhanced economic growth and national development.

### **1.8 Theoretical Framework**

This research is based on the psychological theories of the 'Schumpeter and Refugee effects.' The process of entrepreneurship activity reducing unemployment situation in the economy is termed "Schumpeter effect". Garofoli [25] and Audretsch and Fritsch [26] in their separate studies found that unemployment is negatively related to new-firm startups, that is, as new businesses are established employability is stimulated and unemployment reduces substantially. In the same vein, Lucas [27] and Jovanovic [28] note that high unemployment in the society is associated with a low degree of entrepreneurial activities, that is, where propensity to set up enterprises is low; the rate of unemployment would be very high. The implication of the above assertions is that those who are unemployed tend to remain so because they possess lower endowments of human capital and entrepreneurial talents required to start and sustain new firms to keep them going. A low rate of entrepreneurship culture and skills in any society may be a consequence of the low economic growth, which also reflects higher levels of unemployment [29].

This process of unemployment fast-tracking entrepreneurship activity has been termed a "refugee effect". This remarkable view dates back to Oxenfeldt [30], who pointed out that individuals confronted with unemployment and low prospects for wage employment often turn to self-employment as a viable alternative. This observation was also an extension of Knight's [31] view that individuals make a decision among three states – unemployment, self-employment and employment. The simple theory of income choice lends credence to refugee effect by suggesting that increased unemployment will lead to an increase in startup business activity on the grounds that the opportunity cost of not starting a firm has decreased (Evans and Leighton, [32]; and Blanchflower and Meyer, [33]). Similarly, Picot et al. [34] and Pfeiffer and Reize [35] observe that new firms hire the needed employees to work for them, thus helping to reduce the level of unemployment in the society. Evans and Leighton [32] found that unemployment is positively associated with greater propensity to start a new firm. Many other studies establish that greater unemployment serves as a catalyst for startup activity (Reynolds, Miller and Makai, [36]; Reynolds, Storey and Westhead, [37]).

## 2 Method

### 2.1 Research Scope/Design

The scope of this study is limited to the unemployed graduates in 37 capital cities of Nigeria. It is assumed that responses obtained from the sample respondents would be representative of the opinions of all unemployed graduates in Nigeria on their perception of entrepreneurship development and unemployment reduction in Nigeria. The duration of study is between September 2013 and August 2014. The core aspect of the study is the use of cross sectional survey research design in generating the required primary data.

A sample of 407 randomly selected registered unemployed graduates in 37 capital cities of Nigeria, were used for questionnaire administration. The sample size of 407 was determined from a population of 20.3million registered unemployed Nigerian graduates as at 31<sup>st</sup> August 2014[38], using Yamane[39] sample size determination formula at 5% level of significance for sampling error. The sample respondents were selected on the bases of the first eleven registered unemployed graduates in each of the 37 capital cities of Nigeria. Data collected were analyzed using descriptive and inferential statistics. The questionnaire was designed to obtain a fair representation of the opinions of 407 registered unemployed graduates in 37 capital cities of Nigeria using a four-point Likert type scale. The questionnaire responses of the sample respondents were presented using tables while formulated hypotheses were tested using analysis of variance (ANOVA). A total of 407 copies of the questionnaire were administered, collected and used for the analysis.

### 2.2 Calculation of Sample Size

The sample size was determined from a population of 20.3million registered unemployed Nigerian graduates as at 31<sup>st</sup> August 2014 using Yamane[39] formula for sample size

determination thus: 
$$n = \frac{N}{1 + N(e)^2}$$

Where: n= sample size, N= population size, e= level of significance/sample error factor

$$n = \frac{20.300.000}{1 + 20.000.000(0.05)^2} = 407$$

## 3 Results and Discussion

### 3.1 Distribution of Responses on Research Questions

#### 3.1.1 Question Number 1

Does any significant relationship exist between entrepreneurship development and increased employment opportunities in Nigeria? Table 1 shows that questions: 1, 2, 3, 4, and 5 with varying mean scores of 3.03, 2.92, 2.81, 2.69 and 2.90 were above the weighted average of 2.5. The table further revealed a grand mean score of 2.87 indicating a strong evidence of the existence of a significant relationship between entrepreneurship



development and increased employment opportunities in Nigeria. This conclusion is buttressed by the separate studies of Garofoli [25] and Audretsch and Fritsch [26] that unemployment is negatively related to new-firm startups, that is, as new businesses are established employability is stimulated and unemployment reduces. This conclusion is also supported by the observation of Lucas[27] and Jovanovic[28] that high level of unemployment is often associated with a low degree of entrepreneurial activities, that is, where people are not motivated to set up business enterprises, the rate of unemployment would be very high.

$$\text{Mean Score} = \frac{4n_4 + 3n_3 + 2n_2 + 1n_1}{n_4 + n_3 + n_2 + n_1} = \text{Equation (1)}$$

Where  $n_1, n_2, n_3$  and  $n_4$  are the respective number of responses obtained from each of the four options provided while 1, 2, 3 and 4 respectively represent the weights (SA (4), A (3), D (2) & SD (1) attached to each of the four options.

Table 1: Mean responses on the relationship between entrepreneurship development and increased employment opportunities in Nigeria (n=407)

S/No.	Research Questions	S A(4)	A(3)	D(2)	SD(1)	Total Responses	Mean Score
1	Does entrepreneurship development empower people with entrepreneurial skills/knowledge to set up their own businesses?	175 700	105 315	92 184	35 35	1234	3.03
2	Does entrepreneurship development improve entrepreneurial performance in the operation of existing business enterprises?	155 620	115 345	85 170	52 52	1187	2.92
3	Does entrepreneurship development instill a need for achievement in people for the establishment of new businesses?	145 580	100 300	100 200	62 62	1142	2.81
4	Does entrepreneurship development encourage people to take calculated risks in the establishment of new businesses?	135 540	97 291	90 180	85 85	1096	2.69
5	Does entrepreneurship development have the potential for increasing employment opportunities in Nigeria?	165 660	90 270	100 200	52 52	1182	2.90
Grand Mean							2.87

Source: Field Survey, 2014.

### 3.1.2 Question number 2

Does any significant relationship exist between entrepreneurship development and enhanced economic growth in Nigeria? Table 2 shows that questions: 6, 7, 8, 9, and 10 with mean scores of 2.63, 2.84, 3.04, 2.67 and 2.94 were above the weighted average of 2.50. The grand mean of 2.82 shows that there is a strong evidence of a significant relationship between entrepreneurship development and enhanced economic growth in Nigeria. This conclusion is buttressed by the observation of Olaniyan and Okemakinde [40] that human capital enhancement through entrepreneurship development is a critical factor that propels economic growth and sustainable development. The conclusion is also

supported by Schumpeter [41] observation that entrepreneurship training is responsible for creative destruction that is education acts as an impetus for creating new ideas, improved techniques, new technologies and new products thus resulting in economic growth. Robert [42] in his human capital theory advocates education as a tool for improving human capital, stimulating labour productivity and boosting the levels of technology across the globe.

Table 2: Mean responses on the relationship between entrepreneurship development and enhanced economic growth in Nigeria (n=407)

S/No.	Research Questions	SA(4)	A(3)	D(2)	SD(1)	Total Responses	Mean Score
6	Does entrepreneurship development stimulate the establishment of new businesses/self-employment in Nigeria?	115 460	110 330	100 200	82 82	1072	2.63
7	Does entrepreneurship development encourage individual/group productivity in Nigeria?	155 620	102 306	80 160	70 70	1156	2.84
8	Does entrepreneurship development increase the quantity of goods and services produced in Nigeria?	180 720	105 315	80 160	42 42	1237	3.04
9	Does entrepreneurship development increase the total investment and consumption in Nigeria?	130 520	95 285	100 200	82 82	1087	2.67
10	Does entrepreneurship development have the potential for enhancing economic growth in Nigeria?	167 668	100 300	90 180	50 50	1198	2.94
	Grand Mean						2.82

Source: Field Survey, 2014.

### 3.2 Test of the First Hypothesis

H<sub>0</sub>: There is no significant relationship between entrepreneurship development and increased employment opportunities in Nigeria.

H<sub>1</sub>: There is a significant relationship between entrepreneurship development and increased employment opportunities in Nigeria.

Table 3: Computation of Statistical Variables on the First Hypothesis from table 1.

S/No.	Strongly Agree		Agree		Disagree		Strongly Disagree	
	X	X <sup>2</sup>	X	X <sup>2</sup>	X	X <sup>2</sup>	X	X <sup>2</sup>
1	175	30625	105	11025	92	8464	35	1225
2	155	24025	115	13225	85	7225	52	2704
3	145	21025	100	10000	100	10000	62	3844
4	135	18225	97	9409	90	8100	85	7225
5	165	27225	90	8100	100	10000	52	2704
Total	775	121125	507	51759	467	43789	286	17702

Source: Survey Data, 2014.

Calculation of total sum of squares (SS<sub>T</sub>)

$$SS_T = \sum_{i=1}^c \sum_{j=1}^{n_i} (X_{ij} - \bar{X})^2$$

$$\sum X^2 = 121.125 + 51.759 + 43.789 + 17.702 = 234.375$$

$$\frac{\sum X^2}{N} = \frac{(775 + 507 + 467 + 286)^2}{20} = 207061,25$$

N = 20

SS<sub>T</sub> = 234375 - 207061.25 = 27313.75

SS<sub>T</sub> = 27313.75

Calculation of between group sum of squares (SS<sub>B</sub>)

$$SS_B = \sum_{i=1}^c n_i (\bar{X}_i - \bar{\bar{X}})^2$$

$$\frac{\sum X^2}{N} = \frac{(775 + 507 + 467 + 286)^2}{5} = 231511,8$$

$$\frac{\sum X^2}{N} = \frac{(775 + 507 + 467 + 286)^2}{20} = 207061,25$$

SS<sub>B</sub> = 231511.8 - 207061.25 = 24450.55

SS<sub>B</sub> = 24450.55

Calculation of within group sum of squares (SS<sub>w</sub>)

$$SS_w = \sum_{i=1}^c \sum_{j=1}^{n_i} (X_{ij} - \bar{X})^2 \text{ or } SS_w = SS_T - SS_B$$

SS<sub>T</sub> - SS<sub>B</sub> = 27313.75 - 24450.55 = 2863.20

Calculation degrees of freedom

$$SS_T \text{ df} = N - 1 = 20 - 1 = 19$$

$$SS_B \text{ df} = n - 1 = 4 - 1 = 3$$

$$SS_W \text{ df} = 4n - 4 = 4(5) - 4 = 20 - 4 = 16$$

Calculation of Variances

$$\text{Between group variance (SB2)} = \frac{\text{Between group sum of squares (SSB)}}{\text{Between group degree of freedom}}$$

$$S_B^2 = \frac{\sum_{i=1}^c n_i (\bar{X}_i - \bar{\bar{X}})^2}{c-1}$$

$$S_B^2 = 8150.18$$

$$\text{Within group variance (SW2)} = \frac{\text{Within group sum of squares (SSW)}}{\text{Within group degree of freedom}}$$

$$S_W^2 = \sum_{i=1}^c \sum_{j=1}^{n_i} (X_{ij} - \bar{X}_i)^2$$

$$S_W^2 = 178.95$$

$$F\text{-value} = F_{df_1, df_2} = \frac{s_{B^2}}{s_{W^2}} = \frac{\text{Between\_group\_variance}}{\text{Within\_group\_variance}} = \frac{8150.18}{178.95} = 45.54$$

Table 4 shows that calculated F-Value of 45.54 resulted from the relationship between entrepreneurship development and increased employment opportunities in Nigeria. This calculated F-Value is significant since it is greater than the critical F-Value of 5.29 given 3/16 degree of freedom at 0.01 level of significance. Hence, the null hypothesis is rejected while the alternative is accepted. This shows that there is a significant relationship between entrepreneurship development and increased employment opportunities in Nigeria.

Table 4: Computation of Analysis of Variance on the relationship between entrepreneurship development and increased employment opportunities in Nigeria.

Source of variance	Sum of squares	Degree of freedom	Mean sum of squares	Calculated F-value	Table critical F-value	Decision
Between groups	24450.55	3	8150.18	45.54	5.29	$H_0$ : Rejected
Within group	2863.20	16	178.95			
Total	27313.75	19				

Source: Statistical Computation and Table 3.

### 3.3 Test of the Second Hypothesis

H<sub>0</sub>: There is no significant relationship between entrepreneurship development and enhanced economic growth in Nigeria.

H<sub>1</sub>: There is a significant relationship between entrepreneurship development and enhanced economic growth in Nigeria.

Table 5: Computation of Statistical Variables on the Second Hypothesis from table 2.

S/No.	Strongly Agree		Agree		Disagree		Strongly Disagree	
	X	X <sup>2</sup>	X	X <sup>2</sup>	X	X <sup>2</sup>	X	X <sup>2</sup>
6	115	13225	110	12100	100	10000	82	6724
7	155	24025	102	10404	80	6400	70	4900
8	180	32400	105	11025	80	6400	42	1764
9	130	16900	95	9025	100	10000	82	6724
10	167	27889	100	10000	90	8100	50	2500
Total	747	114439	512	52554	450	40900	326	22612

Source: Survey Data, 2014.

Calculation of total sum of squares (SS<sub>T</sub>)

$$SS_T = \sum_{i=1}^c \sum_{j=1}^{n_i} (X_{ij} - \bar{X}_i)^2$$

$$\sum X = 114439 + 52554 + 40900 + 22612 = 230505$$

$$\frac{\sum X^2}{N} = \frac{(747 + 512 + 450 + 326)}{20} = 207061.25$$

$$SS_T = 230505 - 207061.25 = 23443.75$$

$$SS_T = 23443.75$$

Calculation of between group sum of squares (SS<sub>B</sub>)

$$SS_B = \sum_{i=1}^c n_i (\bar{X} - \bar{\bar{X}})^2$$

$$\frac{\sum X^2}{n} = \frac{747^2}{5} + \frac{512^2}{5} + \frac{450^2}{5} + \frac{326^2}{5} = 225785,8$$

$$\frac{\sum X^2}{N} = \frac{(747 + 512 + 450 + 326)^2}{20} = 207061,25$$

$$SS_B = 225785.8 - 207061.25 = 18724.55$$

$$SS_B = 18724.55$$

Calculation of within group sum of squares (SS<sub>w</sub>)

$$SS_w = \sum_{i=1}^c \sum_{j=1}^{n_i} (X_{ij} - \bar{X})^2 \text{ or } SS_w = SS_T - SS_B$$

$$SS_w = SS_T - SS_B = 23443.75 - 18724.55 = 4719.20$$

$$SS_w = 4719.20$$

Calculation of Degrees of Freedom

$$SS_T \text{ df} = N - 1 = 20 - 1 = 19$$

$$SS_B \text{ df} = n - 1 = 4 - 1 = 3$$

$$SS_w \text{ df} = 4n - 4 = 4(5) - 4 = 20 - 4 = 16$$

Calculation of Variances

$$\text{Between group variance } (S_B^2) = \frac{\text{Between\_group\_sum\_of\_squares}(SS_B)}{\text{Between\_group\_degree\_of\_freedom}}$$

$$S_B^2 = \frac{\sum_{i=1}^c n_i (\bar{X}_i - \bar{\bar{X}})^2}{c - 1}$$

$$S_B^2 = \frac{18724,55}{3} = 6241,52$$

$$\text{Within group variance } (S_w^2) = \frac{\text{Within\_group\_sum\_of\_squares}(SS_w)}{\text{Within\_group\_degree\_of\_freedom}}$$

$$S_w^2 = \frac{\sum_{i=1}^c \sum_{j=1}^{n_i} (X_{ij} - X_i)^2}{n - c}$$

$$S_w^2 = \frac{4719,20}{16} = 294,95$$

$$F\text{-value} = F_{df_1, df_2} = \frac{S_B^2}{S_w^2} =$$

$$\frac{\text{Between\_group\_variance}}{\text{Within\_group\_variance}} = \frac{6241,52}{294,95} = 21,16$$

Table 6 shows that calculated F-Value of 21.16 resulted from the relationship entrepreneurship development and enhanced economic growth in Nigeria. This calculated F-Value is significant since it is greater than the critical F-Value of 5.29 given 3/16 degree of freedom at 0.01 level of significance. Hence, the null hypothesis is rejected while the alternative is accepted. This shows that there is a significant relationship between entrepreneurship development and enhanced economic growth in Nigeria.

Table 6: Computation of Analysis of Variance on the relationship between entrepreneurship development and enhanced economic growth in Nigeria.

Source of variance	Sum of squares	Degree of freedom	Mean sum of squares	Calculated F-value	Table critical F-value	Decision
Between group	18724.55	3	6241.52	21.16	5.29	H <sub>0</sub> : Rejected
Within group	4719.20	16	294.95			
Total	23443.75	19				

Source: Statistical Computation and Table 5

### 3.4 Conclusion and Recommendations

The paper discussed entrepreneurship development and unemployment reduction in Nigeria. It assumes a direct relationship between entrepreneurship development and unemployment reduction in Nigeria. The three major findings of the research are as follows:

- ❖ Entrepreneurship development empowers people with entrepreneurial skills/knowledge to set up their own businesses.
- ❖ There is a significant relationship between entrepreneurship development and increased employment opportunities in Nigeria.
- ❖ There is a significant relationship between entrepreneurship development and enhanced economic growth in Nigeria.

Arising from the findings of this paper, it is suggested that both federal and state governments in Nigeria should take the following measures to sustain the gains from entrepreneurship development:

1. Capacity building for potential entrepreneurs: More skill acquisition centers should be established all over the federation to facilitate entrepreneurial capacity building for a greater number of potential entrepreneurs in the country.
2. Provision of start-up capital for new entrepreneurs: Government should provide start-up capital with favorable repayment terms, for new entrepreneurs to achieve their objective of self-employment.
3. Establishment of special funding agencies for entrepreneurs: Government should establish special agencies for funding entrepreneurs to facilitate hitch-free access to finance by genuine entrepreneurs.
4. Incorporation of practical-oriented entrepreneurship programmes in educational curricular: Government should incorporate practical-oriented entrepreneurship programmes in the national educational curricular to facilitate early acquisition of entrepreneurial skills/knowledge.
5. Public/private sector partnership in infrastructural provision: The private sector should

partner with the public sector in the provision of social infrastructures that will aid the establishment and operation of business organizations.

6. Provision of incentives for new business development: Government should provide incentives (tax exemption, soft loans, protection from external competition, etc.), that will motivate unemployed graduates to set up their own businesses.

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