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Investment in Education Entrepreneurship and Economic Growth in Nigeria

ADEOTI JULIUS OLAKUNLE

Department of Economics, Emmanuel Alayande College of Education, Oyo

Abstract: **The paper investigated the relationship between investment in education, entrepreneurship and economic growth in Nigeria using annual time-series data from 1981 to 2013. OLS methodology, Johansen Co-integration and Error correction technique were employed to analyze macroeconomic data sourced from CBN statistical bulletin. The OLS result shows through its 98% goodness of fit value that all variable except unemployment are positively related to the gross domestic product, proxy for economic growth in Nigeria. The Co-integration test and the Error-correction technique revealed that a long-run relationship exists between investment in education, entrepreneurship and economic growth in Nigeria. The study suggests that the government should take appropriate measures to adequately invest in the educational sector and also place more attention on the development of small and medium-sized enterprises in order to ensure sustainable economic growth in Nigeria.**

Keywords: **Investment in Education, Entrepreneurship, Economic Growth.**

1. NTRODUCTION

1.1 Background to the Study:

Education plays a critical role in creating human capital, which contributes to production and economic growth just as physical capital, land, and labor do (Judson 1998). The world has entered the age of knowledge economy. Education and human capital development in the advanced and emerging economies are the pivoting tools to engender profound transformations and periods of rapid growth and development (Ajetomobi, 2005).

There also is increasing empirical evidence that education matters, not only for personal development, health status, social inclusion and labour market prospects of individual learners, but also for the broader economic performance of countries (OECD/UIS, 2003).

The economic development of a country depends on the quality and quantity of its resources, the states of technology and the efficient deployment of resources in both the production and consumption process (Dougherty, 1997). The human resources of a country are similar to the physical capital resources, in that, not only can the stock increase but also, investments can improve its productivity. Expenditure on formal and informal education has the potential of improving the quality of labour force. Raja (2000) argued that education is the first step in the path of development process. It is a two way process, on one side, it increases the economic growth and on the other side, it reduces poverty and increases the productivity. It plays a very crucial role in building of human capabilities and enhances economic growth through skills and knowledge. Education is the imperative part of human competency and sovereignty (Sen, 1999). Kim & Terada-Hagiwara (2010) elaborated the importance of well-educated labor force as it is considered necessary in the diffusion and adoption of new technology and new methods of production.

In Nigeria, in terms of budget estimates the ratio of public expenditure on social and commodity services to total expenditure averaged 2.2% between 1977 and 2007. Out of this amount about 6.5% was directed to education during the same period (Oladoyin, 2010). Nevertheless, a major trend in education in Nigeria is that public expenditure on education

as a percentage of the gross national product was 1.5% in 1960, 1.7% in 1985-87 and 0.7% in 1995 while other developing countries such as Jamaica had 4.9% between 1985 and 1987 and 7.5% between 1995 and 1997, Malawi 3.5% between 198 and 1987 and 5.4% between 1995 and 1997 (UNDP, 2003:313).

Section 1 paragraph 7b of the National Policy on Education emphasized that the national educational goals is the acquisition of appropriate skills and the development of mental, physical and social abilities and competencies as equipment for the individual to live in and contribute to the development of the society (FRN, 2004). This section of the National Policy on Education is also in harmony with the position of Farrant (2010) which states that the essence of any educational programme is to ensure that the products of the system are equipped with the relevant knowledge, skills and attitude needed to contribute meaningfully to the economic development of the nation.

This view above thus leads to a factor which also cannot be under-emphasised in sustaining effective economic growth and just like education, entrepreneurship also poses its unbeatable contribution in the process of ensuring economic growth in Nigeria. The inability of the graduates of the educational system to contribute meaningfully to the economic development of the nation by being self-employed was what informed the introduction of Entrepreneurship education in schools. The call for the introduction of Entrepreneurship education in schools is an indication of its importance in economic empowerment and job creation in particular. This education has become necessary as Nigeria continues to churn out graduates that are hardly self-reliant but solely dependent on white collar jobs.

Entrepreneurship is the creation and management of a new organization designed to pursue a unique, innovative opportunity and achieve rapid, profitable growth (Shane and Venkataraman, 2000). Kanothi (2009) quoting Binks and Vale (1990) defines entrepreneurship as an unrehearsed combination of economic resources instigated by the uncertain prospect of temporary monopoly profit". Entrepreneurship also entails the act of risk-taking, innovation, arbitrage and co-ordination of factors of production in the creation of new products or services for new and existing users in human society (Acs and Storey 2004, Minniti and Lévesque 2008, Naudé 2007, Kanothi, 2009). The deliverable of entrepreneurship is making or doing things differently; making or providing innovative products or services; or organising how the products are made or supplied.

Economic growth on the other hand is the increase in the value of the goods and services produced by an economy. It is conventionally measured as the percent rate of increase in real gross domestic product, or GDP (Jones, 2002). Growth is usually calculated in real terms, i.e. inflation-adjusted terms, in order to net out the effect of inflation on the price of the goods and services produced. In economics "economic growth" or "economic growth theory" typically refers to growth of potential output, i.e., production at "full employment," which is caused by growth in aggregate demand or observed output (Erbee and Hagemann, 2002).

Entrepreneurship is an ill-defined, multidimensional, concept. The difficulties in defining and measuring the extent of entrepreneurial activities complicate the measurement of their impact on economic performance. Understanding their role in the process of growth requires a framework because there are various intermediate variables or linkages to explain how entrepreneurship influences economic growth. Examples of these intermediate variables are innovation, variety of supply, entry and exit of firms (competition), specific efforts and energy of entrepreneurs, etc.

The socio-economic impact of entrepreneurship on the sustainable economic growth of the Nigerian economy is difficult to accurately measure or estimate, but it is believed to be highly dynamic and significant (Chu, Kara, Benzing, 2010). However, a study estimated that between 45 and 60 percent of the urban labour force work for small private enterprises or what is otherwise called small businesses (Chu, Kara, Benzing, 2010 quoting Nwaka, 2005). Another study suggests that entrepreneurship has been beneficial because the Nigerian private sector comprising of small and medium enterprises provides diverse employment opportunities for 50 percent of the country's population and 50 percent of its 199 Journal of Sustainable Development Studies industrial output (Ariyo (2005).

According to the World Bank (1999), education is fundamental to construction of knowledge economy and society in all nations. It is through education that knowledge and skills are transferred to individuals, and their competencies and abilities developed. Thus youth entrepreneurship education has been given prominence all over the world. Through entrepreneurship education, youth are provided with knowledge, skills and innovation so as to encourage them to develop entrepreneurial acumen in variety of setting (Wikipedia 2008). Entrepreneurship Education refers to programs that

promote entrepreneurship awareness for career purposes and provide skill training for business creation and development. (Vesper 1990).

Entrepreneurship education can prepare for new venture initiation by transferring knowledge and developing relevant skills that improve the self-efficacy and effectiveness of the potential entrepreneur. (Gomen, Hanlon and King 1997). Entrepreneurship Education encourages students to think innovatively around their future career or employment options, as well as how they can contribute directly to their community's well-being. Such programmes are helping to reduce youth vulnerability, social marginality and poverty, especially in distressed or disadvantaged communities.

Above have been stated the route at which education and entrepreneurship can impact Nigeria's economic growth, however, a need to examine empirically the impact of human capital and entrepreneurship education, with a view to deriving implications for policy direction led to the development of this research work as this becomes the main focus of this project.

Nigeria has a moderate economic growth rates records but still struggle with myriad of economic challenges. The growth records did not bear positive relation to the performance of other sectors of the economy. The question is why did the country record such growth rate figures and yet have serious socio-economic problems such as high unemployment, high poverty and illiteracy rates, dilapidated health and educational infrastructure, incessant strike action among its workforce especially in the education sector coupled with high rate of drop out among school age children etc?.

Public expenditure on education as a percentage of the gross national product was 1.5 (1960); 1.7 (1985-87) and 0.7 (1995) percent. This compares very unfavourably with other developing countries such as Jamaica 4.9 (1985-87), 7.5 (1995-97) and Malawi 3.5 (1985-87), 5.4 (1995-97) percent (UNDP, 2003: 313). In recent times, the percentage of the annual federal government budget to education in Nigeria for the periods 2005-2007 was 6.3%, 7.8%, 8.7% in 2005, 2006, and 2007 respectively instead of 26.0 percent as recommended by the United Nations Educational Scientific and Cultural Organisation (UNESCO). Evidently, there is still a significant shortfall in educational investment necessary for the realization of sustainable growth and development in the country.

Studies indicate that small enterprises are the leading force in the development of African economies and are essential for economic growth in many developing countries (Chu, Kara, Benzing, 2010).Entrepreneurial initiatives especially innovation, risk bearing, employment creation, new opportunities identification and the commercialization of results of inventions have indeed contributed to the prosperity in many regions of the world (Schumpeter, 1950; Ukaegbu, 2000, Chu, Kara and Benzing, 2008). In Africa, the contribution of entrepreneurship cannot be underscored. For instance, Ghanaian micro-enterprises employ less than 5 people, yet accounted for 70 percent of country's workforce (Government of Ghana, 2003; World Bank, 2006). Similarly, Kenya's private SMEs sector employed 3.2 million people and contributed 18 percent to the nation's GDP (OECD, 2005).

Nigeria has not been able to experience accelerated growth because it is a mono-product economy with the large proportion of government revenue coming from oil wealth, while numerous other solid minerals remain unexploited and untapped. The economy has disproportionately relied on the primary sector (subsistence agriculture and the extractive industry) without any meaningful value addition to growth and development. In light of this, the little growth recorded in the economy, thus far, has been without commensurate employment, positive attitudinal change, value reorientation, and equitable income distribution, among others.

Nigeria records an impressive rates of economic growth which grew at an average 7.6% between 2003 and 2010(World Bank 2011), but this did not lead to sustainable development (Oladoyin, 2010).This trend is backed up with an indicator of the worsening poverty in Nigeria. Inflation has remained moderate thanks largely to a sustained increase in food production and the tight fiscal and monetary policy regimes of the federal government. The effects of increases in food production are lower cost of living and, consequently, lower consumer prices for manufactured products that depend on agricultural raw materials. Efforts at stimulating real sector activities have been dampened by high interest rates, poor infrastructure and import competition.

Conversely, Nigeria has economic problems, her poverty situation is alarming though it records an impressive rate of economic growth which grew at an average 7.6% between 2003 and 2010(World Bank 2011), but this did not lead to sustainable development (Oladoyin, 2010)

According to CIA (2010), Nigeria's real GDP growth rate was 6.51% in 2005, it declined to 5.63% in 2006, 5.0% in 2009 and rose to 6.4% in 2007, before recording another fall to 6.1% in 2008. In 2010 it stood at 8.2% (Abiola, 2012). Ajetomobi (2008) submits that both low grade and professional workers are more than 50% of unemployed citizens who had no vacancy for which they could be considered every year. When David Cameron admitted recently that the UK unemployment rate is disappointingly high and indicated his government desire to see faster growth in the economy, he took it for granted that when growth improves, jobs are created. Leaders in developed and emerging economies have their eyes on the GDP growth figure as the leading indicator to decline in poverty incidence through reduced unemployment, increased household income and reduced inequality. BGL research and intelligence (2012).

In the light of the above value judgment, this research work empirically demonstrates the impact of investing on education that caters for entrepreneurship development as dominant tools to sustainable development.

The effect of investment in education and entrepreneurship on the economy is still an unresolved issue theoretically as well as empirically. A few studies report positive and significant relation between investment in education and economic growth while several others find significantly negative or no relation between investment in education and economic growth. Also, the correlation between investment in entrepreneurship education and growth of the economy needs to be evaluated empirically.

- This study explained why government's investment in education yields low or no return.
- The society as a whole would understand through this study, the incompleteness of education without focus on its entrepreneurship aspect.
- This study revealed how entrepreneurship development will reduce the rate of unemployment in the economy which has the capacity to enhance economic growth in Nigeria.
- This study created a background for further research to the students on the chronic effect of low allocation to education, the government's neglect of the educational sector and its effect on the economy.
- The study revealed the major problems of entrepreneurship and how this has hindered sustainable growth in Nigeria, and provided its probable solutions.

2. LITERATURE REVIEW

2.1 Conceptual Framework:

2.1.1 Concept of Economic Growth

Economic growth refers to the phenomenon of a quantitative increase in the economy's output, inputs, and efficiency for a considerable length of time. Economic growth shows the conditions necessary for full employment, full capacity growth of the economics, Odularu (2006).

Torado (1977) cited by Anyanwu (1995) says "economic growth is the steady process by which the productive capacity of the economy is increased overtime to bring about rising levels of national income".

Economic growth can be measured in three (3) basic forms which are:-

(i) Nominal measurement of Growth

(ii) Real output Growth rate

(iii) Growth measured in per-capita values

2.2 Relationship between Education and Economic Growth

To date, researchers have mostly found a positive relationship between enrolment rates and/or years of schooling and gross domestic product (GDP) growth in developing countries (Baldacci, Clement, Qui and Gupta, 2005). The linkage between education and economic growth are robust and suggestive.

Bratti et al (2007) estimated a model of economic growth and human capital accumulation based on a sample of countries at different stages of development. Their result revealed that the increase in the primary and secondary level of education

contributes to an increase in productivity. Bakare (2006) investigated the growth implication of human capital investment In Nigeria using vector auto regressive correction mechanism. The study revealed that there is a significant functional and institutional relationship between the paradox of education and economic growth n Nigeria using the standard accounting model. The findings suggest that education has not had the expected growth impact on economic growth.

Education at all levels contributes the economic growth thought imparting general attitude and discipline and specific skills necessary for a variety of workplace. It contributes to economic growth by improving healthy reducing fertility and possible by contributing to political stability Babatunde and Adefabi (2005). The major importance of educational system to any labor market would depend majorly in it's absolutely to produce a literate disciplined flexible labor forces via high quality education. Adams Smith (1937), Marshal (1930) and Schultz (1961). Consequently with economic development new technology is applied in production which results in an increase in the demand for workers for better education. The pioneer work in this regard is the work of hicks (1988) which revealed that the growth rate of human capital which is also dependant on the amount of time allocate by individuals to acquire skills

Rebelo (1991) later examined the model by introducing physical capital accumulation function. However the model of endogenous growth by Roomer (1990) assumes that the creation of new ideas is a direct function of human capital which manifests in the forms of knowledge as a result of investment in human capital leads to growth in physical capital which in turn leads to economic growth in physical capital which turn leads to economic growth other studies that as a source of economic growth. Include Barrow and Lee (1993), Roomer (1991), Benhabib and Spiegel (1994). Some studies have examined different ways through which investment in education can affect economic growth in Nigeria.

In a recent development Gupta and chakraborty (2004) development an endogenous growth model of a dual economy where investment in education is the source of economic growth. They argued that the duality between the rich individuals exists in the mechanism of investment in education accumulation. Rich individual allocate labor time not only for their own production and knowledge accumulation but also train the poor individual. In a different dimension{bratty et all (2004)} estimate a model of economic growth and the investment in education accumulation based on a sample of countries at different stages of development. Their result revealed that an increase in the primary and secondary level of education contributes to an increase on productivity. They posit that investment in education accumulation rates are affected by demographic variables. For examples, they established that an increase in life expectancy at birth brings about an increase in secondary and tertiary education, while a decrease in juvenile dependency rate negatively affects secondary education.

Abiodun (2002) stated that education is fundamental to the process of nation building and should be given prominence in the developing efforts. Bamisaye (1987) observed that education is expected to affect social behavior of the educated person or the person being educated, such social behavior ranges from avoidance of abusive language, unrely and ethical consideration are relevant to the concept of education. Osokoya (1989) defined education as the process of cultural transmission. He used culture to embrace the people's religion commerce political organization, science and technology as well as other ideals and values that permeate a society and binding its people into a recognizable unit.

Alabi (2010) says that education can be formal, informal and non-formal. He says education is a means of achieving the nation's normal objectives.

2.3 Concept of Entrepreneurship:

The evolution in scholarly views of entrepreneurship is reflected in the categories of *behavioral*, *occupational*, and *synthesis* definitions. Schumpeter (1950; 1961) famously defined the entrepreneur as the coordinator of production and agent of change ('creative destruction'). As such the "Schumpeterian" entrepreneur is above else an innovator. Scholars who share this view of entrepreneurship do not consider entrepreneurship to be very important in earlier stages of economic development – they see the contribution of entrepreneurship to be much more important at later stages of development, where economic growth is driven by knowledge and competition. At earlier stages of development, entrepreneurship may play a less pronounced role because growth is largely driven by factor accumulation (Ács and Naudé, 2013).

Behavioural definitions also stress the risk-taking dimension of entrepreneurship. Kanbur (1979:773) described the entrepreneur as one who 'manages the production function' by paying workers wages (which are more certain than

profits) and shouldering the risks and uncertainties of production. Such definitions are seen as very relevant for developing country contexts characterized by high risk and uncertainty. The predominance of small firms in developing countries – the bulk of entrepreneurship studies in developing countries are concerned with small and medium enterprises (SMEs) - has been postulated to be a symptom of economy-wide uncertainty, where the probability of success is small (Wiggens 1995).

Policy implications follow from these views, for instance that government policy for promoting entrepreneurship should reduce uncertainty and transaction costs. Policy though, is only a proximate cause for risk and uncertainty and in recent years development scholars have recognized 'institutions' (the "rules of the game") as the ultimate determinant of development.

Institutions affect not only the supply but, perhaps even more importantly, the allocation of entrepreneurship. According to Baumol (1990:895) entrepreneurial ability can be allocated towards productive, unproductive, or even destructive activities. He defines entrepreneurs as 'persons who are ingenious and creative in finding ways that add to their own wealth, power, and prestige'. Underdevelopment is not due to an insufficient supply of entrepreneurs, but due to institutional weaknesses that result in a "lack of profit opportunities tied to activities that yield economic growth" (Coyne and Leeson 2004:236).

In economic theory entrepreneurship has been modeled as an occupational choice between self-employment and wage-employment (Lucas 1978, Evans and Jovanovic 1989, Murphy et al.1991). Hence someone will become an entrepreneur if profits and the non-pecuniary benefits from self-employment exceed wage income plus additional benefits from being in wage employment. Entrepreneurship is thus often synonymous with self-employment. Because selfemployment is often not by choice but by necessity, a distinction if often made in between necessity and opportunity entrepreneurs – as in for instance the Global Entrepreneurship Monitor (GEM, Reynolds et al. 2005).

A synthesis definition has been offered by Gries and Naudé (2011: 217) that combines behavioural and occupational views and relates entrepreneurship to the three big ideas in development economics. As such, this definition to an extent reflects some of the evolution in the scholarly thinking about entrepreneurship, and defines entrepreneurship as "**the resource, process and state of being through and in which individuals utilize positive opportunities in the market by creating and growing new business firms**.".

As a *resource*, entrepreneurship has the instrumental value that it is accorded in economics; as *process* it accords to the attention given in management studies on the start-up, growth and exit of firms and as *state-of-being* it recognizes that entrepreneurship is not limited to being instrumental, it is often valued in itself.

Entrepreneurship is not only concerned with business success, as measured by profits, but also with subjective welfare and non-economic wellbeing. Entrepreneurship is a catalyst for structural change and institutional evolution.

2.3.1 Who is an Entrepreneur?

Entrepreneur can be defined as an innovating individual who has developed an ongoing business activity where none existed before. Meredith (1983) defined an entrepreneur as a person or persons who possesses the ability to recognize and evaluate business opportunities, assemble the necessary resources to take advantage of them and take appropriate action to ensure success. Entrepreneurs are people who constantly discover new markets and try to figure out how to supply those markets efficiently and make a profit. He is a person that searches for change, responds to change, and exploits change by converting change into business opportunity.

2.3.2 Types of entrepreneurship and their relation to economic growth:

Throughout intellectual history, the entrepreneur has worn many faces and fulfilled many roles (Hébert and Link, 1989). In this section we focus on three entrepreneurial roles, emphasized by Schumpeter, Kirzner and Knight, respectively. A *first* is the role of innovator. Schumpeter was the economist who has most prominently drawn attention to the 'innovating entrepreneur'. He or she carries out 'new combinations we call enterprise; the individuals whose function it is to carry them out we call entrepreneurs' (Schumpeter 1934, p. 74). A *second* is the role of perceiving profit opportunities. This role is labeled as Kirznerian (or neo-Austrian) entrepreneurship (see for instance Kirzner, 1997). A *third* is the role of assuming the risk associated with uncertainty. This is labeled as Knightian entrepreneurship. When an individual

introduces a new product or starts a new firm, this can be interpreted as an entrepreneurial act in terms of each of the three types of entrepreneurship.

The individual is an innovator, he (assumes that he) has perceived a hitherto unnoticed profit opportunity and he takes the risk that the product or venture may turn out to be a failure.

Based on their study of the history of economic thought about entrepreneurship, Hébert and Link (1989, p. 47) propose the following 'synthetic' definition of who an entrepreneur is and what he does: 'the entrepreneur is someone who specializes in taking responsibility for and making judgemental decisions that affect the location, form, and the use of goods, resources, or institutions'. When searching for links between entrepreneurship and growth, this definition does not suffice. The dynamics of perceiving and creating new economic opportunities and the competitive dimensions of entrepreneurship need more attention. The key contribution of entrepreneurship to economic growth might be singled out as being 'newness'. This includes the start-up of new firms but also the transformation of 'inventions and ideas into economically viable entities, whether or not, in the course of doing so they create or operate a firm' (Baumol 1993, p. 198).

The management literature has a broad view upon entry. In surveying this literature, Lumpkin and Dess (1996) integrate the renewing aspects of entrepreneurship. `New entry can be accomplished by entering new or established markets with new or existing goods or services. New entry is the act of launching a new venture, either by a start-up firm, through an existing firm or via internal corporate venturing' (Lumpkin and Dess 1996, p.136). In their view, the essential act of entrepreneurship is more than new entry as we see it. Entrepreneurial activities, `new entry' in existing, large firms often takes place by mimicking smallness. Newness through start-ups and innovations as well as competition are the most relevant factors linking entrepreneurship to economic growth. While managerial business owners fulfill many useful functions in the economy such as the organization and coordination of production and distribution, they cannot be viewed as the engine of innovation and creative destruction. This is the major function of Schumpeterian entrepreneurs and intrapreneurs.

2.3.3 Entrepreneurial Education and its consequences on Nigerian Economy:

Entrepreneurship is not a new concept in Nigeria, however, as much as it is popularly discussed, it can be figuratively stated that it is being poorly or rarely implemented. As it is, according to Omolayo (2006) is the act of starting a company, arranging business deals and taking risks in order to make a profit through the education skills acquired. Another view of entrepreneurship education is the term given to someone who has innovative ideas and transforms them to profitable activities. Summarily, entrepreneurship can be described as "the process of bringing together creative and innovative ideas and coupling these with management and organizational skills in order to combine people, money and resources to meet an identified need and create wealth.

In the same vein, Nwangwu (2007) opined that entrepreneurship is a process of bringing together the factors of production, which include land, labour and capital so as to provide a product or service for public consumption. However, the operational definition of entrepreneurship is the willingness and ability of a person or persons to acquire educational skills to explore and exploit investment opportunities, establish and manage a successful business enterprise.

Entrepreneurship is a concept not to be overlooked, if sustainable economic growth is the goal of any economy (Araba, 2012), thus, the educational sector, especially the universities have great roles to play in ensuring the development of entrepreneurship in Nigeria by inculcating in its youths (students) the virtue of being self-dependent and reliable in any field they might find themselves. In this vein, the role of the university and entrepreneurship is discussed below:

2.3.4 University Education and Entrepreneurship in Nigeria:

Little attempts have been made to translate the broad terms of the university educational policy into consequences for the employment planning. There is, for example, no provision for enterprise orientation for undergraduates or whether graduates could expect to find themselves in various kinds of self-employment.

The concern for acquisition of knowledge and skill in Nigeria's tertiary institutions is so enormous to the almost neglect of its implication for employment (or unemployment). What is intriguing is that the way Business Education, Accountancy, Business Administration are taught in some Universities and Polytechnics gives absolutely no

acknowledgement that the skills and knowledge may prove more directly useful to students after schools as self-employed (Aladekomo, 2004).

It is nowhere suggested in the University curriculum course content that a very possible outcome may be self-employment. One fact that has remained undisputable is that Nigeria historically has a very popular and powerful aspiration towards qualifications which are now being acquired either through Full-time or Parttime mode. Both traditionally and recently, 'qualifications' economy have operated because of the close link between qualifications and improved wage and salary. What is surprising however is the increasing attractiveness of qualification in the face of massive retrenchments in the formal sector of the economy and massive unemployment of the 'qualified'. The need has therefore arisen to link 'Qualification economy' to self-employment and job creation.

Programmes to prepare people for entrepreneurship to support small business, have become subjects of Further Education and Training. Over the years, Further Education has been saddled with the responsibility of filling the literacy gaps of drop-outs or unschooled entrepreneurs, training them and equipping them with skill for success. In this regard it is necessary to recognize and commend the efforts of the following institutions;

* Center for Industrial Research Development of the Obafemi Awolowo University, Ile-Ife.

* Federal and State Ministries of Industry

* The World Bank and the ILO

* Non-Governmental Organizations devoted to assisting entrepreneurs.

Tertiary institutions and particularly Universities definitely have a role to play in preparing the youth for the world of self-employment. This is the cry of the present critical situation of massive graduate unemployment.

In restructuring the educational system, there should be concern for wider linkages to the economy, the labour market, and the categories of the self-employees, under-employed and the rural poor, (Afenyadu, 1998).

No one doubts the needs for our Universities, to look outward on global competitiveness and the challenge of continuous technological improvement as stated in the 1996 South Africa's Department of Education Policy (page 14) on quote: *"Knowledge, information and culture increasingly inhabit a borderless world with new computer and communication technologies transforming the way people work, produce and consume",* (CIRD, 2011).

It is however equally important for Universities to also look inwards at the millions of unemployed youth and devise a way of equipping undergraduates to be self reliant before graduating particularly since the dream jobs are no longer there. This underscores the importance of the introduction of Enterprise Education in the curriculum of Universities and other tertiary institutions (Aladekomo, 2004).

2.3.5 Relationship between Education and Entrepreneurship:

It is well known that human capital is important for development and for individual earnings in particular. In a recent extensive robustness analysis by Sala-i-Martin et al. (2004), primary schooling turns out to be the second most robust factor influencing growth in GDP per capita out of sixty-seven explanatory variables in growth regressions on a sample of eighty-eight countries 1960–96. Later analyses have found a similarly clear positive association between years of schooling and growth, but results are sensitive to model specification, particularly which measures are applied for human capital (Hanushek and Woessmann, 2008). Macro studies indicate that the rate of return to schooling across countries is on average about 10 percent. Returns appear higher for low income countries, at lower levels of schooling and for women (Psacharopoulos and Patrinos 2004).

Similarly, human capital influences occupational choice and performance patterns within occupations. Van der Sluis et al. (2005) perform a meta-analysis of micro-level studies with respect to the relationship between education on entry into and performance in entrepreneurship in developing countries. They find that an increase in education generally pull individuals out of farm work but its impact on the choice of wage work versus enterprise activities are ambiguous. However, the relationship between schooling and performance is unambiguously positive. In developing countries an additional year of schooling raises enterprise profits by 5.5% which is lower than the impact of an additional year of education on wage income and lower than the effect in developed countries, estimated to 6.1% (Kolastad, 2009).

There is a remarkable difference between studies analyzing the relationship between education and wage earnings (see for instance Card 2001; Harmon and Oosterbeck 2003) and studies analyzing the relationship between education and enterprise profits as the latter studies generally do not address issues of endogenity and selection (van der Sluis et al 2005). Van der Sluis et al (2007) is an exception but is based on data from the U.S. As generally found in empirical studies, success of entrepreneurship increases with education but this might stem from the fact that more talented individuals are both more successful and more educated. Schooling is an endogenous decision and unobserved variables such as individual skills and talents might drive the results leading to biased estimates of returns to schooling. Nor do previous studies control for the fact that the choice of becoming an entrepreneur (rather than a farmer or wage worker) is itself endogenous. On the one hand, more education increases the profit-generating capabilities of the entrepreneur, making more highly educated individuals become entrepreneurs. Not taking this effect into account leads to overestimation of returns to schooling. On the other hand, more education increases the outside opportunities and drive potentially successful entrepreneurs to other occupations where the marginal value of additional education is higher than for entrepreneurship. In that case, standard least squares estimates may underestimate the impact of education on performance (Wiig, 2009).

2.4 Theory and evidence on the entrepreneurial returns to education:

In the classic Mincer (1974) human capital model, education has a productive impact. Schooling reflects an investment decision by an agent who compares future net benefits and current costs of education, including forgone income. The optimal investment decision is where the marginal return of investment in education (s'th year of schooling) is equal to marginal costs (of the s'th year of schooling) and generally one assumes a concave return function. As there is heterogeneity across individuals according to marginal costs and marginal returns, the optimal decision varies across individuals. Mincer treats earnings as separable in years of schooling and experience and more schooling generally improve performance (otherwise it would not been initiated). However, the theory does not provide any clear answer on the impact of education on performance of different occupational groups. The Mincer model focuses on income from wages and does not analyse the selection and performance decisions simultaneously. The econometric evidences on the role education play for occupational choice and performance are mixed. However, generally education improves performance. The mixed results can partly be explained by differences in methodological approaches for dealing with selection, endogenity and unobserved heterogeneity. Mincer (1974) found that the returns to schooling on wages were 10% in the US. Harmon, Oosterbeek and Walker (2003) find that the return of education was 9% for men and 16% for women in the UK. These results were robust controlling for plant size, union membership, part time status, marital status and family size. However, traditional OLS estimates of returns from schooling show substantial variations across countries and gender. Harmon, Oosterbeek and Walker (2003:120) show that in developed countries, the range varies from 1 % (for females in Netherlands) to 17 % (for females in Northern Ireland). One generally finds that the relative returns to education among women increase in countries with low female participation rate and that the impact of education is higher for rich households (the complementarity of ability and education is highest for the most able and this relationship has grown stronger over time). In a meta-analysis of OLS studies Harmon, Oosterbeek and Walker (2003) found that on average the return of education is 6.5% which are in line with the results of Angrist and Krueger (1991).

From the literature on schooling and wages by Kolstad (2009), we know there are various strategies for dealing with endogenity and unobserved heterogeneity. One approach is to make the unobserved observable, in this case making the ability measureable. For countries where we have test scores for cognitive skills, one generally finds that the importance of education decrease when controlling for cognitive skills (see Hanushek and Woessman 2008).

Another approach is to apply a natural experiment that treat individual different in a way that affect their education level but not the entrepreneurial outcome. IV techniques based on family background variables, time of the year borned, whether parents were self employed, policy changes in schooling laws, differences across regions in implementing laws, distance to school are among the various IV variables used. IV estimates are generally found higher (more than 20%) than OLS which to some extent is a puzzle as one on apriori grounds would expect that OLS methods lead to upward-biased estimates of the true causal effect of schooling (which indicates that the instruments are weak in the sense that they are not completely exogenous (school reforms are for instance targeted to specific groups), Barrettt (2011).

Most studies of how education influence the performance of enterprises apply traditional OLS tools and on average an additional year of schooling increase enterprise income by 5.5 % per year according to the meta analysis by van der Sluis et al (2005:252). The authors bemoan the lack of sophistication of studies of entrepreneurial profits and underline the importance of drawing upon the experience from the extensive literature on the impact of education on labour market outcomes discussed above. The research design should apply an integrated model where the selection and performance decisions are analysed simultaneously while at the same time controlling for the fact that education is an endogenous variable (high ability persons will generally select more education).

Education influences the *selection* to become an entrepreneur through various mechanisms. More education is generally correlated with higher wealth and consequently lower start-up costs for enterprise activities. The direct impact of education might also differ across occupations and therefore influence the initial choice of occupation. If education has a higher impact on the productivity in business activities compared to other occupational choices, more talented persons become entrepreneurs. When education improves the entrepreneurial ability, but not the productivity of an individual employee – education will increase both the likelihood of becoming an entrepreneur and the performance of the entrepreneur. To the extent that education is more profitable for entrepreneurs than for wage earners, more talented potential entrepreneurs will become entrepreneurs and traditional OLS estimate will therefore provide an overestimate of the effect of education, Hanushek (2008).

Education also influences the diversification strategies within a household (more education provides more room for diversification within the household). Education leads to diversification strategies away from farming activities (Reardon et al., 2001; Hatlebakk 2009; van der Sluis et al 2005). Hatlebakk (2009) finds that persons completed primary school in Malawi generally tends to work as wage earners, but he does not find a corresponding significant impact of education on the choice to become an entrepreneur. In their review of studies from developing countries van der Sluis et al (2005:248) find that more educated individuals are more likely to become wage earners and/or entrepreneurs and that women are more likely to become wage earners when education increases. The above referred separation effect between wage earners and entrepreneurial activities further increase with the level of urbanisation and in countries where agriculture is dominating. In contrast, in their review of enterprise literature in industrialised countries van der Sluis et al (2008) do not find that education influence the choice to become an entrepreneur. Neither do they get support for the hypothesis that the return from education is higher for employees than for entrepreneurs (through for instance a stronger screening effect). van der Sluis et al (2007) finds the opposite based on US data. They use the entrepreneurship status of the father (assume a positive relationship) and religion (a negative relationship) as instruments for the entrepreneurship selection equation.

Given the choice to become an entrepreneur, education can have a further impact on business *performance*. To measure the impact of education on entrepreneurship performance and to prescribe policy education, one need to distinguish between these two effects. As regarding selection, there are generally two mechanisms or channels that are pointed to in the literature. On the one hand, education increases managerial ability and thereby increases the probability of entrepreneurship (particularly if this ability effect is higher for entrepreneurs than for other occupational groups). On the other hand, education generates better outside opportunities and thus decrease the likelihood of entrepreneurship. For instance, increased education increases the opportunities for (high) wage income.

According to van der Sluis et al (2008:798), theory does not provide any clear answers to which effects that dominate the decision to become an entrepreneur. While there is a lot of literature on factors determining diversification strategies of the rural poor (see for instance Barret et al 2001, Reardon 1997), this literature generally do not analyse how education influence the decision to become an entrepreneur versus for instance a wage earner.

In addition to increased profits, education can have further productive effects on business performance that are more difficult to measure. Education can for instance increase the survival rate of the firm through the facilitation of improved capabilities of the entrepreneurs, including capabilities to adjust to new external conditions and to adopt new technology. Education might also reflect signalling activities by the firm. Rather than improving productivity, education is in many circumstances used to signal existing productivity. As for the human capital model, the signalling model is not able to provide policy prescriptions about the relative importance of education for various occupational groups – for instance whether entrepreneurs gain more from education than wage employees. For instance, one might claim that entrepreneurs do not need to signal their productivity as they are selfemployed, but on the other hand the self-employed are also dealing

with uninformed stakeholders such as clients and providers of credit and might need signalling devices. Also at this point, the theory is ambiguous and it is therefore not obviously clear that education only play a signalling role for wage earners.

According to Lazear (2005), entrepreneurship requires general knowledge and the formal education system normally increase this, particularly at the lower levels that are most common in developing countries. To the extent that wage earners are more specialised and general competence do have a small impact of wage earners ability, education also has a limited impact on the selection to become a wage earners. On the other hand, the distribution of individual ability is heterogeneously distributed and there might be differences across groups - for instance that women tend to become wage earners when their education level increases.

2.5 Empirical Framework:

Babatunde and Adefabi (2003) investigated the long run relationship between education and economic growth in Nigeria between 1970 and 2003 through the application of Johansen Cointegration technique and vector auto correction methodology. Their finding reveals that the Johansen Cointegration result established a long run relationship between education and economic growth.

Akinyemi, Ofem, and Adebisi. (2012) examined educational financing reforms in Nigeria: a survey-based cost implications analysis for university education. The descriptive survey design and survey design and secondary data on students' enrolment and household income from the Nigerian Bureau of Statistics (NBS) and National Universities Commission (NUC) of various years was adopted. the empirical analysis revealed that tuition fees were higher in private universities than state universities due to private universities profit-oriented nature. Thus, the analysis inferred that the regressive impact of user's fee is mitigated by offering targeted scholarships with emphasis on the low and middle income households, National budget reform be put in place with the education sector given priority to allocation of more funds.

Ndiyo (2002) on the "paradox of Education and economic growth in Nigeria" modeled for contribution of education growth. He considered real growth of gross product (RGDP) as respondent variable and gross fixed capital formation (GFCT), aggregate labor force (LAF) and real budget allocation to education (REDUB) as explanatory variables. He estimated the modes in both level firm and in logarithmic form respectively. In essence, education plays positive relationship between education and economic growth.

Ndiyo (2002) persist that the contribution of education to economic growth certainly depends on the quality of education.

Lawal, Wahab and Iyiola (2011) investigated the relationship between education and economic growth in Nigeria between 1980 and 2008 through the application of ordinary least square techniques (OLS). The result shows that education investments have direct and significant impact on economic growth in Nigeria.

Deniz and Durrell (2008) traced an interaction between economic growth and education to the pioneering work of Becker (1962), Schultz (1960), Nelson and Phelps (1966). Later following neo-classical growth theory introduction by Solow (1956), several growth models were developed to explain the interaction between economic growth and education. The models developed by Roomer (1986) and (1990) and Lucas) (1988) on the effects of the technology on the economic growth stimulated on a new wave of discussion on the role of education on economic growth.

The paper then concludes that there can be no significant economic growth in any economy without adequate human capital development (Education).

Adebiyi (2004) investigated the paradox of educational expenditure and economic growth relationship in Nigeria using annual time series data from 1970 to 2008. Some statistics tools were employed to explore the true relationship between these variables. The study examines statistic characteristics of each time series by testing their stationary using Augmented Dickey Fuller (ADF) and Phillip Peron (PP) tests and using vector Auto Regression (VAR) model. Then the relationship between growth rate of real GDP and Real capital expenditure or education is dynamically examined using error correction mechanism. The finding reveals that or increase in real expenditure on education reduces growth rate of gross domestic products which is a paradox.

Hrishikesh and Surendra(2007) conducted research on human capital and economic growth: evidence from developing countries, Human capital in the form of education was used to explain GDP growth in augmented Solow models. A

statistically significant coefficient for human capital variable in these models was recently reported for OECD countries using recent data. they use time series and panel regressions for data on a group of eighteen large developing countries for the period 1982-2001. This study confirms and extends results by OECD and other similar studies. Since most of our models have a significant human capital regressor in such a study of developing countries, they conclude that it is important for policy regarding educational opportunities, and increased emphasis and focus on education and technology in developing countries.

Sangjoon (2004) investigated the relationship among human capital, total factor productivity growth and convergence using international panel data on macroeconomic indicators and educational attainment. It explicitly allows for the heterogeneity in technology growth across countries by use of the stochastic Solow model and dynamic panel estimation techniques. Thus the convergence in his study is toward the steady state of the individual country, not toward the common steady state for all nations in the data set as in the existing literature. It reports the findings as follows. First, heterogeneity in technology growth across countries, which has been typically assumed to be nonexistent in the growth literature, is found to be prominent. Secondly, the average estimates of convergence rates are between 27% and 32% per annum, which are much higher than those reported in the researches using cross-section data. Thirdly, the model with human capital proxy by various educational attainment measures gives higher convergence rate estimates than the model without it.

Oyelola, Ajiboshin and Raimi (2011) investigated on the importance of entrepreneurship as a realistic mechanism for sustainable economic growth in Nigeria considering the experiences of developed nations like the United States and vibrant economies like China and India. They discussed that entrepreneurship has been instrumental in economic growth, balanced regional development and job creation in most dynamic economies, where technology is changing at a faster rate and the product lifetime cycle is shrinking. They adopted the narrative-textual case study (NTCS) methodology and their study revealed that the right business environment for entrepreneurship is lacking in Nigeria on account of the challenges of frequent power outages, bad roads, multiple taxes extortion of money from SMEs by government officials, lack of genuine support service for SMEs and expensive transportation/telecommunications costs have all combined to inhibit entrepreneurship and economic growth. They therefore concluded that government should focus on capacity building, improving infrastructure, judicious utilisation of the oil wealth and enabling environment thereby leading to sustainable economic growth.

Araba (2012) conducted a research on 'the strategies of entrepreneurial education' carried out in two of the universities pioneering it; Federal University of Technology, Akure, and Covenant University Ota, the former being a public university and the latter a private university. He set out in his research to appraise if educational styles arouse the interest of students in the industries of their discipline; to explore the effectiveness of entrepreneurial development strategy in education in universities that implement it; to see if the current university educational system stimulates entrepreneurial creativity in its students. His findings portrayed a huge disparity between the perception and conceptualization of entrepreneurship in the graduates of each university used in the study, creating the significance in the strategies being used to educate the students while in the university and he thus concluded that entrepreneurial education should be taught in the field and through practical approaches, rather than using theoretical approaches, as the former yields better results for the economy than the latter. He therefore recommends that Universities should work toward becoming entrepreneurial hubs for students and young entrepreneurs; the government should also focus more on the youth age group for entrepreneurship development in the country.

Waspodo (2013) conducted a study on "entrepreneurship education and economic growth to welfare in the nation". He emphasized in his study that development of learning and teaching activities aims to build a spirit of human creativity, innovation, sportsmanship and self-employment and these learning need to be followed up with efforts to integrate character education classes, education, creative economy, and entrepreneurship education into the college curriculum. This program is a very important to economic growth, and more important than the object that is emphasized in most economic education. The image is an impression that a poor country because people do not have program entrepreneurship education with effective and efficiency, so perceptions received by a person when he saw, heard and used in the national industry to generate economic value. The image must be built in a planned and measured so as to

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discover the presence of a positive impact on the nation. Creative economy is a recent surge in economic growth and thus, entrepreneurship needs to be invested in the lecture so that they can optimally support its economic growth.

3. RESEARCH METHODOLOGY

The study specifically used the multiple regression (OLS) ordinary least square in the process of analyzing the data, to test the research hypothesis.

This model was employed in an attempt to determine the impact of investment in education and entrepreneurship on Economic Growth performance in Nigeria.

The linear multiple regression technique is given as: -

$GDP = \alpha_0+\alpha_1 (TEXPEDU) +\alpha_2 (GFCF) +\alpha_3 (TLBF) + \alpha_4 (ACU) + \alpha_5 (UE) + \alpha_6 (CPS) + \alpha_7 (LASME) +U$

Where:

GDP =Gross Domestic Product

TEXPEDU = Total Expenditure on Education

GFCF = Gross Fixed Capital Formation

TLBF = Total Labour Force

UE = Unemployment Rate

ACU = Average Capacity Utilization

LASME = Loan available to Small and Medium Scale Enterprises

CPS = Credit available to Private Sector

U = Error term

4. DATA ANALYSIS AND DISCUSSION OF FINDINGS

This chapter presents the presentation and analysis of the data used, interpretation of results collected from different publications, and implication of the Results.

4.1 Presentation and Analysis of Results:

The result obtained from the regression analysis carried out on the equation specified in the previous chapter will be used to draw up the conclusions and possible recommendations for the study.

4.2 Empirical Analysis of Data:

The estimate of stochastic model and relevant statics for education, entrepreneurship and economic growth is shown below. The estimations are based on relevant statistics. Given the foregoing discussion and relying on previous studies such as Ayara (2003), Mankiw et al (1992), and Pritchett (2001), the following model was employed in an attempt to determine the impact of investment in education and entrepreneurship on economic growth performance in Nigeria.

$GDP = \alpha_0+ \alpha_1 GDPMANUF+ \alpha_2 GFCF + \alpha_3 TEXPEDU+ \alpha_4 TLBF+ \alpha_5 UE+ \alpha_6 CPS + \alpha_7 ACU + \mu$ Where:

GDP= Gross Domestic Product

GDPMANUF = Contributions of Manufacturing Industries to GDP

TEXPEDU = Total Expenditure on Education

GFCF = Gross Fixed Capital Formation

TLBF = Total Labour Force

UE = Unemployment Rate

ACU = Average Capacity Utilization

CPS = Credit available to Private Sector

α_0, α_1, α_2, α_3, α_4, and α_5, α_6, and α_7 were parameters

μ = Error Term

Gross domestic product is a proxy for economic growth performance while investment in education is proxied by total expenditure on education. Average capacity utilization and Contributions of Manufacturing Industries to GDP are used as a proxy for entrepreneurship. The choice of these proxies is supported by development literature. The a priori expectations are: α_1, α_2, α_3, … $\alpha_7 > 0$. This implies that total expenditure on education and entrepreneurship have positive relationship with economic growth. Previous studies like Ayara (2003) employed ordinary least squares approach with data not covering recent estimates. The contribution of this study to knowledge is in terms of the estimation techniques employed and the data used which is extended to 2013. An attempt will be made to empirically investigate the impact of investment in education and entrepreneurship on economic growth in Nigeria for the period 1981-2013, using cointegration and error correction techniques. The growth rates of all the variables are used in the study.

The data for the empirical analysis were obtained from various issues of *Annual Reports and Statement of Accounts and Statistical Bulletin* published by the Central Bank of Nigeria.

In the study, linear multiple regression [OLS] techniques were used to analyze the data which has been given above. Time series data were used for the analysis. E-view7 Windows econometric package was used to process the data obtained.

4.3 Unit Root Tests:

Prior to the estimation of the model specification above, the characteristics of the data have to be examined. Testing the stationarity of economic time series is important since standard econometric methodologies assume stationarity in the time series while they are in the real sense non-stationary. Hence the usual statistical tests are likely to be inappropriate and the inferences drawn are likely to be erroneous and misleading. For example, the ordinary least squares (OLS) estimation of regressions in the presence of non-stationary variables gives rise to spurious regressions if the variables are not co-integrated (Granger and Newbold, 1974).

The growth rates of all the variables were used to conduct unit root tests to determine the stationarity of the variables using Augmented Dickey-Fuller (ADF) test. The results of the unit root tests are presented in table below. The results in the table show that all the variables are stationary in their first differences.

Variables	95% ADF Critical Level	Probability Value	Order of Integration
GDP	-2.9639*	0.0413	1(1)
GDPMANUF	-2.9604*	0.0000	I(1)
TEXPEDU	-2.9810*	0.0247	I(1)
GFCF	-2.9604*	0.0032	I(1)
TLBF	-2.8504*	0.1087	I(1)
UE	-2.9639*	0.0000	I(1)
CPS	-2.9604*	0.0434	I(1)
ACU	-2.9810*	0.0486	I(1)

*significant at 5 percent level

Source: Author's Computation

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The Result of the Ordinary Least Square analysis is shown below:

Dependent Variable: GDP
Method: Least Squares
Date: 05/18/15 Time: 09:28
Sample (adjusted): 1981 2013
Included observations: 28 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
GDPMANUF	1.826040	0.527410	3.462275	0.0025
GFCF	0.750036	0.169096	0.709869	0.4860
TEXPEDU	0.761772	0.240180	0.923360	0.3668
TLBF	1.49E-05	1.30E-06	11.46630	0.0000
UE	-1.147142	1.242594	-0.923183	0.3669
CPS	0.008457	0.005833	1.449719	0.1626
ACU	0.743663	0.454470	1.636330	0.1174
C	-220.6546	50.59223	-4.361432	0.0003
R-squared	0.989615	Mean dependent var		379.8893
Adjusted R-squared	0.985980	S.D. dependent var		126.0739
S.E. of regression	14.92801	Akaike info criterion		8.479312
Sum squared resid	4456.911	Schwarz criterion		8.859942
Log likelihood	-110.7104	Hannan-Quinn criter.		8.595675
F-statistic	022.2566	Durbin-Watson stat		1.040671
Prob(F-statistic)	0.000000			

The table above shows the result of the regression analysis carried out using OLS technique. The result shows that all variables under study conform to a-priori expectation. From the above analysis, it was evident that a 1% increase in GDP is brought about by 182% increase in the contribution of manufacturing industries to GDP, 75% increase in gross fixed capital formation, 76% increase in total expenditure on education, 0.0000149% increase in total labour force, a 114% decrease in the unemployment rate, 0.84% increase in the credit available to the private sector and a 74% increase in average capacity utilization. This simply postulates that an increase in the gross domestic product of the country is highly dependent on an increase in investment in education and entrepreneurship and a decrease in the unemployment rate in the country.

The estimated value of R^2 (goodness of fit) of 98% shows that a 98% systematic variation in Nigeria's gross domestic product is brought about by variations in the variables under study. This also ascertains that the remaining 2 percent variations can be attributed to other forces outside the model, which is covered by the error term (μ).

The adjusted R^2 is 98 percent. By implication, this shows that over 90 percent of the variations in GDP growth can be explained by the variables taken together. These results show a goodness of fit of the regression. The F-statistics of 22.25 shows that the explanatory variables are important determinants of the GDP growth rate in Nigeria. The Durbin-Watson statistics of 1.04 rules out auto-correlation.

The F-statistics shows a value of approximately 22.25 which indicates that the overall model is significant with the probability value being P = 0.000000 which indicates a significance at 1 percent. The Durbin-Watson statistics shows a value of 1.04 which indicates the presence of serial correlation. The Akaike information and Schwarz criterion shows approximately 8.47 and 8.58 respectively which simply indicates that the model selection is good.

4.4. Cointegration Test:

Having tested the stationarity of each time series, the next step is to search for cointegration between the variables. For this purpose cointegration tests were conducted by using the reduced rank procedure developed by Johansen (1988) and Johansen and Juselius (1990). If the error correction term is significant with negative sign, it will be concluded that there

is no long run relationship between the proxy variables of investment in education, entrepreneurship and economic growth.

This method should produce asymptotically optimal estimates since it incorporates a parametric correction for serial correlation. The nature of the estimator means that the estimates are robust to simultaneity bias, and it is robust to departure from normality (Johansen 1995). Johansen method detects a number of co-integrating vectors in non-stationary time series. It allows for hypothesis testing regarding the elements of co-integrating vectors and loading matrix. Johansen procedure is used to determine the rank and to identify long run relationship. The cointegration test results are reported in table below:

As evident in table below, the dependent variable GDP is cointegrated with GDPMANUF, GFCF, TEXPEDU, TLBF, UE, CPS, and ACU. The test statistics strongly reject the null hypothesis of no cointegration in favour of eight cointegration relationships between the variables. Thus, the results show that the dependent and independent variables are both cointegrated and have long run relationship with one another.

Furthermore, the long-run adjustment dynamics is specified by the error correction mechanism (ECM). Best fitting or parsimonious error correction model was selected.

Johansen Cointegration Test

Eigenvalue	5 Percent Critical Value	Hypothesized No of CE(s)
0.9816	159.5297	None *
0.9313	12.6154	At most 1 *
0.9041	95.75366	At most 2 *
0.8344	69.81889	At most 3 *
0.6328	47.85613	At most 4 *
0.4593	29.79707	At most 5 *
0.3112	15.49471	At most 6
0.0376	3.841466	At most 7

*(**) denotes rejection of the hypothesis at 5% significance level.

L.R. test indicates 8 cointegrating equation(s) at 5% significance level.

Dependent Variable: D(ECM)
Method: Least Squares
Date: 06/17/15 Time: 05:49
Sample (adjusted): 1984 2008
Included observations: 25 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ECM(-1)	-0.572445	0.189892	-3.014587	0.0066
D(ECM(-1))	0.187100	0.206997	0.903876	0.3763
D(ECM(-2))	0.407848	0.200735	2.031776	0.0550
C	1.845083	6.023601	0.306309	0.7624

R-squared	0.338436	Mean dependent var	0.014603
Adjusted R-squared	0.243927	S.D. dependent var	34.52400
S.E. of regression	30.01947	Akaike info criterion	9.787216
Sum squared resid	18924.54	Schwarz criterion	9.982236
Log likelihood	-118.3402	Hannan-Quinn criter.	9.841307
F-statistic	3.580982	Durbin-Watson stat	2.048894
Prob(F-statistic)	0.031048		

From the above result it could be deduced that one period lag of the residual of cointegration is significant at 5% since the error correction term is significant with negative sign (C = -11264.58) with probability value of (P=0.0018<0.05). Therefore, there is long run joint causality from the independent variables to the dependent variable – GDP; proxy for economic growth in Nigeria.

The result of parsimonious error correction model is reported in table above. The main variables of interest, i.e. the growth rate of educational expenditure and contribution to entrepreneurship has positive and significant effect on the economic growth of Nigeria.

4.5 Implication of the Result:

These results explain the role of investment in education and entrepreneurship in Nigeria's growth process and corroborate the findings of Babatunde and Adefabi (2005) which indicated a positive relationship between investment in education and long run economic growth in Nigeria, and also the study of Waspodo (2013) who believed that the business world is the backbone of the national economy, so efforts should be made to improve focus on the entrepreneurship sector of the economy and this starts from inculcating in individuals of a country through education, the skills and innovations needed to become entrepreneurially capable, and government's contributions to improve the entrepreneurship level of the economy through investments and funding, via making available to entrepreneurs timely and adequate funds needed to finance their businesses, and also through building their entrepreneurial skills. One of the visions of the government should be to build new entrepreneurs who are reliable, competent and independent because it is very important to remember that the actual entrepreneurial activity is not only effective at the level of micro-economy, but also at the level of incoming macro-economy. The result of the study does not tally with the findings of Ayara (2003) which suggest that education has not had the expected positive growth impact on economic growth in Nigeria.

From the result also, it could be deduced that the intercept in the model, though negatively related to GDP (Economic growth) is very much significant. This is simply because the probability is less than 0.05 (P < 0.05) indicating that the intercept is a significant factor that determines the GDP (Economic growth) of the country. This simply explains that if, or when all other explanatory or independent variables are held constant, the economic growth proxied by GDP will still be declining at the rate of 220.6546. The implication of this is that if the government fails to invest in education as well as in entrepreneurial activity in the economy, the gross domestic product of Nigeria will fall at the rate of 22,065% which is a record of an astronomical fall in GDP.

5. SUMMARY, CONCLUSION AND RECOMMENDATIONS

Having reviewed some of the related literatures and collected all necessary data, which have been analyzed and discussed in chapter four, this chapter therefore provides a summary and conclusion. Recommendations were also made in line with the results and suggestions for further research studies were provided.

5.1 Summary:

This paper has provided evidence on the impact of investment in education and entrepreneurship on economic growth in Nigeria, using the Ordinary Least Square method and relying on cointegration and error-correction techniques. The study found that investment in education and in entrepreneurship in Nigeria is quite low and fall below the recommendations of the United Nations. Nevertheless, it is found that investment in education does not only contribute positively to economic growth in Nigeria, but the impact is strong and statistically significant. This, by implication, means that if Nigeria is to achieve sustainable economic growth rate, it is of utmost importance to improve the quality of education and invest heavily in the sector. There is also need for government's urgent intervention in the aspect of entrepreneurship in the economy – enforcement of entrepreneurial studies in schools and institutions, and also assisting and supporting through funds small and medium scale enterprises in Nigeria.

5.2 Conclusion:

The study showed the relationship between investment in education, entrepreneurship and Nigeria's economic growth. The findings revealed that there exists a long-run relationship between the variables and that investment in education and entrepreneurship both have a significant impact on the economic growth of Nigeria. Therefore based on the findings, we

conclude that the level of education can be improved to ensure human capital investment and that entrepreneurship can be focused on to ensure sustainable economic growth in Nigeria.

5.3 Recommendations:

The following recommendations are made to improve the performance of economic growth through adequate budgetary allocation to education and focus on entrepreneurship in Nigeria:

The study recommends that there is the need to increase budgetary allocation to the educational sector. Government should as a matter of priority implement the minimum United Nations recommendation of 26 percent budgetary allocation to education. The donor agencies like the World Bank, UNDP, UNESCO, etc should also be encouraged to inject funds into the educational sector especially, the tertiary institutions, (Oladoyin, 2009).

A legal system that provides price stability is the central elements in this area (Gwartney et al., 1999). However, a government that grows too large as the case is in Nigeria, retards economic growth in a number of ways. First, as government grows, relative to the market sector, the returns to government activities diminish. The larger the government, the greater is its involvement in activities it does poorly. Second, more government means higher taxes, as the government fails to provide basic essential infrastructures for a better standard of living of its citizens. However, as taxes take more earnings from citizens, the incentive to invest declines. Third, compared to the market sector, government is less innovative and less responsive to change (Onipede, 2003). Based on this, the study thus recommends that infrastructural development that would ensure the smooth operation of markets should be enhanced as government can meaningfully enhance economic growth by providing an infrastructure for the smooth operation of markets.

Nigeria's vision of achieving sustainable economic growth and social development will remain unrealized if the nation's infrastructural needs are not addressed. The provision of infrastructure such as power, transport and water is vital. Without adequate, cheap, constant and reliable electric power supply, no technological development will be successively achieved.

New innovation is lacking in Nigeria, most entrepreneurs prefer to import goods and package for sales because of high cost of production. In order to reverse this trend, it is pertinent that government gives priority to capacity building for technological innovation, good infrastructure and provide environment conducive for business that will lead to sustainable economic growth.

Additionally, since entrepreneurs are vital to economic growth, legislators and other leaders who develop economic policies should strive to encourage the innovation and risk taking of entrepreneurs. Enforcing property rights through contract, patent and copyright laws; encouraging competition through free trade, deregulation and antitrust legislation and promoting a healthy economic climate.

Any country that lacks capacity for production of goods will become a consuming nation instead of an industrial nation.

Finally, the Nigerian government needs to shift from over-dependence on oil and place more attention on the development of small & medium sized enterprises for sustainable economic growth in Nigeria. As in the words of Naude (2013), "economic prosperity in Nigeria, as in the rest of the world, depends on strong and empowered private sector to lead MSEs to a higher level of growth which would significantly contribute to the country's economic well-being".

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