

BICHI JOURNAL OF EDUCATION (BIJE).

VOLUME 10 ISSUE NO.2, 2010.

**A PUBLICATION OF FEDERAL COLLEGE OF EDUCATION
(TECHNICAL), BICHI. P.M.B. 3473, KANO.**

FOREWORD

The place of academic publication in the development of education cannot be underscored going by the increasing global knowledge hunt/expansion. Bichi journal of education (BIJE) as registered its foot print in the publication of rich and qualitative theoretical/empirical research articles by way of enlarging the pool of academic knowledge. This edition (Vol.10 No.1), like the previous one, lends credence to the assiduous effort of the editorial team towards establishing an enduring academic legacy which the future academic cycle will live to appreciate and emulate. I hope our teaming contributors and subscribers will not relent in their efforts toward partnering with us to sustain the vision and goals of academic publication.

Alh. Ibrahim Jibril
Provost.

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QUALITY EDUCATION AND ENTREPRENEURSHIP PROGRAMME

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Introduction

Quality education has always been a source of concern to the stakeholders especially, employers of labour. Owing to this development, interests in entrepreneurship education has also been rising in Nigeria as a measure of ensuring quality education. One of the compelling driving forces behind these interests and concern is perhaps the growing body of research on the relationship between entrepreneurship and economic growth. This actually point to, and reinforce, the critical contribution of job creation, innovation, productivity and economic growth in an emerging economy like that of Nigeria. A number of factors have been identified in the research literature as being associated with the level of entrepreneurial activity in developing and developed countries, acting as either promoters or inhibitors. In my view as an Educational planner, such multi-faceted and varied influencers include social and cultural factors; attitudinal factors; taxation and ease of business entry and exit factors; population, immigration and GDP growth factors; labour market and regulatory factors; the relative size of the public to the private sector; the density of small firms/business owners in the population; and the prevalence of entrepreneur role-models, just to mention a few. The studies in entrepreneurial education and their findings provide a great deal of important input to our understanding of the factors influencing entrepreneurial behaviour in the Nigerian society. One may conclude that in making entrepreneurship education policy, context certainly matters. One may also conclude that it is difficult to find simple correlations between the level of entrepreneurial activity and, for example, economic growth. So how are policymakers to cope with sorting through this vast array of factors believed to influence the emergence of entrepreneurship? No one field of research by itself has the capacity to produce the definitive answer to such questions as: what can be done to improve the quality of education so as to increase the level of entrepreneurial activity within an economy or what is the precise role of government in that process? This brief keynote will hopefully address these and similar questions.

The Role of Education

Education is basic to the future of Nigeria. The nation's ability to prosper and to thrive in an increasingly knowledge-based global society and economy depends on our educated population. The values and practices of pure research, i.e. discovery, originality, innovation etc, all shape and motivate learning. The most frequently stated objectives of especially higher education in Nigeria are critical thinking, scientific and quantitative reasoning, preparation for citizenship, moral reflection, readiness for work, respect for diversity, broad intellectual knowledge, the transmission of culture, and appreciation of our national values. At the root of all these legitimate

and important goals is an even more fundamental purpose of learning: intelligibility which breeds entrepreneurship. We cannot improve a world we do not understand, and we cannot advance if we do not comprehend ourselves, our strengths, limitations, and motivations. By making the world and ourselves increasingly comprehensible and thereby manageable, education establishes a foundation for human growth, creativity, fulfilment, and progress. If intelligibility which results in, among other things, entrepreneurship is a fundamental goal of education, then Nigeria's education system must reflect the experience and conditions of our contemporary life. Education, no matter how qualitative, cannot make intelligible a world from which it is removed or does not address. Education must teach students how to make sense of their education by engaging in entrepreneurship, which means affecting the reality in which they (will) actually live. Education cannot succeed if it becomes insular and static. A distinctive strength of quality education should be dynamism and adaptability, a capacity to address urgent, current questions of nature, society, and human experience as well as classic ones.

Entrepreneurship is now a dominant force in Nigeria's contemporary system of education. It generates ongoing innovation and improvement of our institutions. It makes them more efficient, affordable, and, thus, effective. Entrepreneurship enhances the quality of our collective and individual lives. It changes the way we work, the way we communicate, the way we live. Innovation and improvement depend on intelligibility. In the final analysis, we cannot devise or enhance the incomprehensible. We cannot repair what is mysterious to us. Because intelligibility is a fundamental purpose of education, and generating new knowledge is the highest expression of learning. Entrepreneurship and education are inextricably bound to one another. Each has an ineluctable interest in the success of the other. Against this background, entrepreneurship should be both a legitimate subject in education and a pervasive approach to learning and the management of universities.

Why Entrepreneurship Matters

Entrepreneurship is the transformation of an innovation into a sustainable enterprise that generates value. An entrepreneur is any entity, new or existing, that provides a new product or service or that develops and uses new methods to produce or deliver existing goods and services at lower cost. Entrepreneurs innovate new ways of manipulating nature, and new ways of assembling and coordinating people. The innovator shows that a product, a process, or a mode of organization can be efficient and profitable, and that elevates the entire economy. Entrepreneurs take risks to develop a novel, sustainable enterprise—a new or improved product, service, or mode of organization that can exist independent of its originator—that benefits the economy and society. Though entrepreneurship can involve—and thus often is mistaken for—invention, creativity, management, starting a small business, or becoming self-employed, it is neither identical with nor reducible to any of them. The defining trait of entrepreneurship is the creation of a distinction between replicative 'entrepreneurs—those producing or selling a good or service already available through other sources and innovative 'entrepreneurs, who matter for economic growth. Hence, entrepreneurship entails the commercialization of an innovation. Entrepreneurship emerges from the realm of commerce, but it cannot be restricted there. Quality education is the bedrock. It is through quality education that cultural and social values and economic policies and behaviours are shaped and validated. For entrepreneurship to be a mainstream and routine business practice, it must reflect its society's view of how the world should work and how human beings should behave. Social attitudes, political practices, economic policies, and the legal system must support creativity, risk-taking, and the implementation of new enterprises. Entrepreneurship cannot thrive if the education system does

not support it by ensuring quality education. Entrepreneurship is a process of fundamental transformation: from innovative idea to enterprise and from enterprise to value. Entrepreneurship is more than just a business practice, it is an educational product which is a distinct mode of thought and action, and which derives from business but can operate in any realm of human endeavour. Entrepreneurship requires knowledge, imagination, perception, practicality, persistence, and so on, which are all acquired through quality education. Entrepreneurship is a self-actualizing activity that integrates the self, the entrepreneur, with society and quality education is a process of ensuring self-actualization. Unavoidably, therefore, entrepreneurship is an exercise in social responsibility. To suppress or constrain innovation and improvement means ignoring a society's needs and wants, holds it back, and diminishes its future. Entrepreneurship is the unique process that, by fusing innovation and implementation, allows individuals to bring new ideas into being for the benefit of themselves and others.

Entrepreneurship in Education

Entrepreneurship is and should remain as part of our educational endeavour mainly because of the following: it is critical to understanding and succeeding in the contemporary global economy; it is already an expanding area of learning; it is becoming a basic part of what universities themselves do; and it seeks to meet many of the goals of a quality education. To neglect entrepreneurship therefore, is to make learning (and generally education) worthless to the world it is supposed to help. Entrepreneurship has long been overlooked as a topic of economic study, but recent scholarship has underscored its leading role as a major generator of wealth in the contemporary economy. The continual creation of new enterprises is a fundamental reason for the economic growth and technological innovation of the Nigerian economy. Entrepreneurship's centrality to the steady improvement of human welfare explains its pertinence to education. Although entrepreneurship has been a relatively standard component of the curricula of most business schools in Nigeria, it is beginning to emerge as a discrete area of study. The exceptional curricular expansion of entrepreneurship is a good reason to rethink its place in the general undergraduate curriculum. Increasingly, universities and all institutions of higher learning are agents of entrepreneurship. For universities and other institutions of higher learning to advocate entrepreneurship as a core activity and then fail to teach that activity broadly to their students disconnects the school's mission from its practice. Finally, although it is among the newer subjects in the academy, entrepreneurship fulfils many of the established goals of a high-quality education. Entrepreneurship is not an isolated activity. It is embedded in larger structures. Even if conceived narrowly as solely a business practice, entrepreneurship ultimately is unintelligible without knowledge of the interlocking and reinforcing systems of law, economics, politics, finance, and cultural values that make it plausible and thereby foster it. Moreover, because entrepreneurship has a practical focus, its study naturally and easily demonstrates how ideals and theories actually affect behavior. Indeed, entrepreneurship's focus on the pragmatic can channel the ambition and talent of young people away from fanciful speculation and toward concrete projects.

Exploring Entrepreneurship policy Frameworks for Quality Education

Prescriptions about what entrepreneurship policy should be have been derived either from the development of theoretical and/or conceptual frameworks or from findings of research on the

experiences and needs of entrepreneurs. What has been proposed is an eclectic theory of entrepreneurship that weaves together into integrated framework aspects of culture, occupational choice, the resources available to entrepreneurs, and the extent of entrepreneurial opportunities in the economy. This framework is intended to provide insights to policymakers striving to promote entrepreneurship. These researchers suggest a number of possible roles for government policy in influencing the level of entrepreneurship at the country level. They distinguish between the supply side and the demand side of entrepreneurship and highlight the different sets of policy interventions available to governments depending on which view is taken vis-a-vis the determinants of entrepreneurship. Influencing the demand side are factors such as the demographic composition of the population, the resources and abilities of individuals and their attitudes towards entrepreneurship. The supply side is influenced by opportunities for entrepreneurship created by new technologies, the differentiation of consumer demand and the industrial structure of the economy. On the demand side, entrepreneurial opportunities are created by market demand for goods and services, whereas the supply side generates (potential) entrepreneurs that can seize the opportunities, provided they have the resources, abilities and preferences to do so. The actual rate of entrepreneurship is determined by occupational choice decisions and may deviate from the equilibrium rate due to demand-side forces, such as changes in market structure and technological developments. The discrepancy between the actual rate and the equilibrium rate is expressed through a surplus or lack of entrepreneurial opportunities, which will then lead to either the entry or exit of entrepreneurs.

I want to propose that Universities and other institutions of higher learning should develop a policy focus on entrepreneurship for three major reasons, namely:

- |) There is a strong positive relationship between new firm start-up rates and measures of economic prosperity|
- |) New ventures are contributing substantially to both gross and net employment growth, while large firms are shedding jobs|
- |) The ability of Nigeria to replenish the stock of businesses and jobs and to accommodate the volatility and turbulence in the small business sector will enable it to be best positioned to compete effectively in the global economy|

To succeed in the implementation of entrepreneurship education Nigeria must therefore, consider and take a special note of the following policy implications:

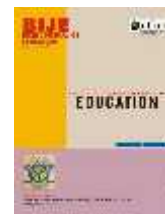
- |) Enhance general and entrepreneurship-specific education|
- |) Lessen the regulatory burden on new and small firms|
- |) Strike a balance between the need to protect the unemployed with the need to encourage higher levels of individual self-sufficiency|
- |) Facilitate greater levels of female participation in business ownership|
- |) Compensate for gaps in the population age structure in cases where there is a projected decline in some specific age group, i.e., the group with the highest propensity for becoming entrepreneurs and|
- |) Encourage tolerance of diversity in personal income and wealth.|

Universities, as well as other institutions of higher learning have a key role to play. Whereas the role of government, at various levels, is to act as a catalyst, it is the main agent who must plan

the strategy, build the vision, mobilise key players, and commit resources to promote the emergence and development of new entrepreneurs and dynamic enterprises.

Conclusion

Even though, mine is supposed to be a keynote address, I nevertheless hope that the discussions and issues raised will prompt questions and challenges, which will hopefully be addressed by subsequent presentations. I want to conclude by posing yet some more questions vital to the issues of entrepreneurship and education in Nigeria. That is if entrepreneurship is to promote quality in education or the vice-versa, how then should we teach and learn it? Does it need to become a distinct field of learning or a discipline, in order to find a durable place in the overall curriculum? The Conference should endeavour to address these and similar questions in the communiqué to be issued at the end.



CONSTITUTING QUALITY EDUCATION FOR EFFECTIVE ENTREPRENEURSHIP PROGRAMME

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INTRODUCTION

With an estimated population of 140 million, Nigeria accounts for nearly one quarter of the populations of sub-saharan Africa. Growing at an estimated **2.8%** a year, certainly it is one of the fastest growing populations in the World with children below the ages of sixteen for 45%. Despite its oil revenue, it is estimated that 70% of the population are still living below poverty line largely due to lack of access to quality education (VSO, 2008). The Federal Ministry of Education in its 2006 presentation identified education as a transformative tool to develop, empower and progress the Nigerian nation. Yet the education system which is regarded as an instrument for the nation's socio-economic development, industrial and technological advances and political as well as cultural growth, has over decades been in a state of severe crisis, stemming from an increase in disparity between the requirements vital to providing quality education and the available resources. According to the 2008 World Bank Report on Education sector Due to high increase in number and size, our education sector has now become large and complex, demanding for continuing strategic planning and efficient management . These challenges have prompted growing concern over the efficiency and effectiveness with which the nation's educational system is handled. In order to have a quality education that holds a strong bearing and insistence on economic empowerment of the Nigerian citizens, there is need to explore and examine the best options and best practices for guidance. Therefore, the primal intent of this presentation condenses around five major components viz: Brief Historical background of education in Nigeria; Theories of Quality Education; Toward constituting a Quality Education; Effective Entrepreneurship Education Programme; Entrepreneurship Education in the NPE, MS and Roadmap, Critique; Framing Challenges and Mapping Solutions.

1.1 BRIEF HISTORICAL BACKGROUND OF EDUCATION IN NIGERIA.

Nigeria as a developing nation has enormous potential for industrial expansion and technological advancement and these developments are a never-ending process as one innovation leads to another. For Nigeria to realize these potentials and available resources, a quality education system was required. Historically, Nigeria inherited a British system of education with Colonial mentality; which did not see to the future needs of the country as a developing nation. That type of education, according to Fafunwa (1982) mainly reflected the needs of Colonial Masters of the 1950s among which initially, acquisition of conventional literary and artisan skills and later on academic pursuit in general education assumed preponderance over technical orientation in industrial arts as well as science and

technology education necessary for the nation's technological growth. Thus, ever since the attainment of independence in 1960 and eventual status of a developing nation, Nigeria has been and still remains challenged by the problem of providing relevant and quality education to the ever increasing number of students' population (Aloko, 1999). Still through its history, education in Nigeria, has undergone various levels of development and acquired significant changes through review and reform efforts, all the recommendations insist on substantial financial input. Yet, there is paucity of convincing evidence that shows attainment of well documented success and general effectiveness of programme implementation.

1.2 THEORIES OF QUALITY EDUCATION

Theoretically, there is a plethora of educational theories that have emerged over centuries. Each theory has had and still has distinct characteristics that profoundly influenced and continues to influence our educational practices. In considering the contributions, theories make to development and implementation of education system, one must do so with great care as several trends continue to emerge to confirm or disapprove one other. Perhaps the best way to show respect for these limitations is to state expert's clarifications rather than delving into definitive statements. According to World Bank (2008) The successful formulation and implementation of quality education system is largely dependent upon the quality of inputs and the **degree of interplay** among the major stakeholders i.e. **Governments, Ministry, Institutions and Development Partners**. The roles of each in constituting quality education are as follows:

On one hand, governments, concentrate on consultations, economic growth, wealth creation, legislation, planning, accountability, financial regulation and management, research priorities scholarships, collaborations etc ministry should see to quality assurance, accreditation system, roles and mission, mobility, status, allocations, competitiveness performance, initiative etc. Similarly, while institutions focus on strategic planning statistics, performances, review, motivation upgrading, professional development, administration decentralization, supervision, improvement, employment and departure etc development partners become more concerned with recognition, expansion, special programme, donations, ICT equipment instruction and leadership.

On other hand, according to McDonald (1990) Quality education operates as a system comprising of basic components that seek to ensure the conformity of the simultaneous operation of the **internal coherence factors** which include: **Content, Teacher, Student and Setting**. McDonald further stated that:

In order to constitute quality education, there is need to ensure the matching of these internal coherence factors.

- a. Contents that are politically, culturally and socio-economically determined are adequate, relevant, worthwhile and address current and future challenges, issues and aspirations of the nation.
- b. Teachers are academically qualified, and have attained high level of professional competence and developed positive attitude toward teaching their respective fields of specialization.
- c. The students admitted are physically and mentally adequate and attitudinally ready to withstand the challenges involved in the process of learning.

- d. The setting receives the necessary, adequate and continuing administrative, financial and societal supports which include maintenance and development of the physical as well as psychological aspects of learning environment.

McDonald summarizes his theory of quality education as follows: A good quality education system strives to be envisioned as having independent subjective interior existence which is capable of experiencing, obliged to history and motivated by sincerity of its purpose .

1.3 TOWARD CONSTITUTING A QUALITY EDUCATION

To constitute quality education there is need to consider and recognize what World Bank 2008 Report refers to as inter play model as well as Mc Donald's thesis of internal coherence factors. Considering the World Bank Report (2008) as well as McDonald (1999) vision on quality education, the conference participants may deliberate further to ascertain whether our education system is a quality one, and has met the experts' requirements and whether it is good enough for effective entrepreneurship training.

1.4 EFFECTIVE ENTREPRENEURSHIP EDUCATION PROGRAMME

According to Zottan (2006) Entrepreneurship has at least two meanings, first, entrepreneurship

refers to owning and managing a business. This is the **occupational notion of entrepreneurship** within this concept, there are dynamic and static perspectives: while **dynamic perspective** focuses on the creation of new business, **static perspective** relates to the number of business owners. Secondly entrepreneurship refers to entrepreneurial behavior in the sense of seizing an economic opportunity. This is the **behavioural notion of entrepreneurship**. Entrepreneurs in the behavioural sense need not be business owners. Brown (2007) identifies another category of entrepreneurs referred to as social entrepreneurs . They are innovators whose ideas have the potential to disrupt existing patterns of actions, driving further societal change. In sum, an entrepreneur is an initiator, innovator and risk bearer – the catalyst who combines land, labour and capital resources in new and unique ways to produce new goods and services (Coleman, 2001). Almost all successful international businesses such as: General Motors, Coca-Cola, IBM, Canon, Samsung, Honda, Mercedes, Lexus, Intel Johnson, McDonald, Kodak, Nokia, Nike, Oxford, Harvard, Cambridge, 3M, Apple II, PZ, as well as our national businesses such as: Odutola, Ekene Dili Chukwu, Dangote, Dantata, The Young Shall Grow, Kabo Air, Virgin Nigeria, Dana Air, Ashaka and many more all have contributions to socio-economic development of humanity. Entrepreneurship education then is an education which prepares citizens to become an entrepreneur, employer and a manager of resources.

1.5 ENTREPRENEURSHIP EDUCATION IN THE NPE

The Post-Colonial Education was not leading to the production of scientists and technologists capable of utilizing creative and productive force for national development it is in response to this guide the development of a responsive and productive quality education in Nigeria. One of the significant thrusts of this policy is the incorporation of entrepreneurship in science and technology segment to boost nation's economic development. To support this strategy, the government and institutions began to build in entrepreneurship education in school curriculum.

1.6 ENTREPRENEURSHIP COURSES IN THE NCCE MINIMUM STANDARD (MS).

When Ashby Report of 1962 recommended that an organ that would see to the peculiar needs of teacher education and professional preparation in Nigeria, nobody had the establishment of NCCE in mind. However, what Ashby conceived then eventually led to the promulgation of Decree No.3 of 1989. An instrument upon which the National Commission for Colleges of Education was established (NCCE: New Letter, Jan 1995, Vol. 3; No. 1). The Commission was charged with the following responsibilities:

1. Making recommendations on the National Policy on Education necessary for the full development of teacher education.
2. Laying down National Minimum Standards for Nigeria Certificate in Education (NCE) programmes for nationwide application.
3. Harmonizing entry requirement for admission in Colleges of Education.

The eventual production and implementation of the MS document certainly had brought to an end the utilization of unrefined and differentiated curricula tailored by Individual Advanced Teachers Colleges (ATCcs). It also made transferability of credit system possible. Subsequent reviews of the MS have over 19 years generated various modifications resulting on one hand; expansion exclusion, separation and integration of course contents on the other hand, procurement of infrastructural facilities, equipment and instructional materials. One major thrust in the reviewed versions of the MS is the inclusion of entrepreneurship courses in the vocational and technical education component at the levels of NCE II and NCE III.

1.7 ENTREPRENEURSHIP EDUCATION IN THE ROADMAP FOR NIGERIAN EDUCATION SECTOR.

The 2009 Roadmap for the nation's educational sector was recently presented by the Hon. Minister of Education to the National Stakeholders of education to obtain comments consensus and ownership. The Roadmap which focuses on four priority areas i.e. Access and Equity; Standards and Quality Assurance; Technical and Vocational Education and training; and funding recognizes education as the vital transformational tool and formidable instrument for socio-economic empowerment. The document clearly states the roles of tertiary institutions in achieving socio-economic empowerment through provision of effective Vocational Technical Education. Entrepreneurship as a course in Vocational and Technical Education Departments, will certainly receive enormous attention in respect to funding.

1.8 CRITIQUE OF ENTREPRENEURSHIP COURSES IN MS

In a related development, entrepreneurship courses as contained in the 3rd edition of 2002 MS is of quality standard and full coverage of topics. However, it rather addresses issues vertical direction than horizontal enrichment. Moreover, the general observation remains that whether this particular segment of entrepreneurship course was actually field tested prior to its incorporation into the MS. It is discussable whether the continuing expansion of course content is not leading to imposition and credits overloading on students.

1.9 FRAMING CHALLENGES AND MAPPING STRATEGIES

The 1988 UNESCO International Education case studies of selected countries revealed that many developing countries have embarked on processes of curriculum diversification and integration as a way of tackling unemployment and poor economic performance. It was obvious that continuous curriculum reforms are needed to improve the quality of education system and students' capacity for self-employment, such reforms must focus on procurement of infrastructure and instructional system delivery. Since Vocational Technical Education has remained a powerful instrument for tackling unemployment and poor economic performance, the instructional environment in Vocational Technical Institutions can be redesigned to prove the kind of employability skills and managerial competence needed for entrepreneurship engagement. In establishing a business unit whether on the basis proprietorship, partnership, private or public limited liability, basic considerations such as: capital, choice of business and location factor need definite attention. Many small scale businesses have failed due to lack of business experience, insufficient finance, wrong choices of location, business line, investment attitude and judgement. (Pauda, 2001). According to Nwamaradi and Emele (1988) business organizations and industries in Nigeria are seriously affected by environmental factors. These factors include political, socio-cultural, economic, technological and infrastructural problems. In a related development, Owo (1992) associated the concept of entrepreneurship with the activities challenges of establishing and operation of business enterprises Viz:

Identification of investment opportunities, correct decision making, promotion and establishment of business. Provision of scarce resources required for production and distribution.

Management of human and material resources for the attainment of the basic objective, risk bearing and involving innovations in science and technology.

At institutional level, the issue of inadequacy of infrastructural facilities, workshop experiences pedagogical activities, curriculum review efforts industrial work experience, career guidance relevant projects orientation motivation, research and development continuity, articulation, etc remain major challenges to the entrepreneurship education.

2.0 SUMMARY

The making of a successful entrepreneur, civil engineer or medical doctor or an accountant or an architect or a petroleum engineer or an aircraft technician or a food technologist or indeed any other professional in the areas of science and technology begins with the lessons in elementary science and technology. Therefore, it is the quality of education that lays the foundation of technological development in any country. Both the effectiveness and pace of entrepreneurship advancement of a nation depend on the quality and efficiency of its education system (Lassa, 1997). This citation should remain us of the necessity of quality education for national economic development. Therefore, quality education must be capable of preparing citizens with the knowledge, competence and attitude to face developmental challenges of a nation. In recognition of the contributions quality education can make to the development of an effective entrepreneurship programme, it is found that

major stakeholders as well as internal coherence factors have profound influence on a nation's socio-economic development plan.

Entrepreneurship education is identified as a major source of Nigeria youth empowerment, yet there is still scanty evidence supporting the adequacy of governmental and non-governmental corporate supports. Since the spectrum of entrepreneurial investments is limited in Nigerian economic sector due to economic, societal, infrastructural and political problems there is an urgent need to ensure that the potential mismatch between the education content and our industrial and market needs is non-existent.

2.1 CONCLUSIONS

The quality of education, training and attitude an entrepreneur possesses is large responsible for his productivity and successfulness. Through the process of quality education which emphasizes innovations, skills acquisition and managerial ability, an effective entrepreneurship programme can be put in place.

In the explanation of quality education for effective entrepreneurship training, four essential issues have to be addressed namely: content, process methodologies and the effectiveness of products. For the purpose of participants' deliberations on entrepreneurship education, the range of production for which the entrepreneur sticks his head, his initiative and resources, should go beyond factory production, to include provision of personal services such as: supply of security guards, the marketing of industrial products, collection of broken bottles and plastic products for re-cycling and setting up of one's own workshop or business centre. Therefore, entrepreneurship education, must address contemporary issues for socio-economic development of the nation.

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BIJE – Bichi Journal of Education
ISSN(Print): xxxx-xxxx ISSN(Online): 2734-3375
Vol. 10, No. 2, 2010; pp: 13-21.
Publisher: School of Education, F.C.E (T) Bichi.
URL: <https://bijejournal.com/BIJE>



LIBRARIANSHIP AND ENTREPRENEURSHIP EDUCATION PROGRAMME IN NIGERIA AND BEYOND

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ABSTRACT

The paper examines Librarianship and Entrepreneurship programme especially in the twenty first (21st) century and beyond. The two concepts have been defined. Librarianship as the art of managing books and non-book resources is the profession which encompasses other enterprises among which are publishing; Information and Communication Technology (ICT); Management; Education etc. Librarians in all institutions realized the importance of incorporating entrepreneurship in order to promote the services of their libraries and to be self-reliant. Entrepreneurship is the ability of an entrepreneur (Manager, Librarian, Teacher etc) to put product and services to profitable output. In library schools and most libraries today efforts are geared towards financial contribution to the development of the parent organization by establishing business centers, internet cafes, consultancy, editing.

INTRODUCTION

Librarianship can simply be defined as a branch of knowledge which deals with the acquisition, processing and making available books and non - book resources to the users. Buckland (1988: 17) stated that, the term 'Librarianship' is ambiguous it can refer to a set of techniques or it can refer to the occupational field of those who are known as Librarians. However, in this paper Librarianship is used both as techniques and an occupational field (that is, an avocation) on the other hand the concept of 'Entrepreneurship' can easily be fit to the techniques and occupational field of Librarianship. Entrepreneurship means the ability of a person to use resources available in his disposal to provide services or manufactures products. Mamman (2008: 2) quoting Miami University of Ohio 2003 asserted that Entrepreneurship is the process of identifying, developing and bringing a vision to life. The vision may be an innovative idea, an opportunity or simply a

better way to do something. The end result of this process is the creation of new venture, formed under conditions of risk and considerable uncertainty.

LIBRARIANSHIP IN THE PAST, PRESENT AND THE FUTURE

In the past Librarianship produced scribes in palaces, courts and other related institutions of the state. Similarly, it guided the then literates how to preserve, conserve and run libraries in the Monasteries, Mosques, Churches, Palaces, and such similar places. Gregorian (1998: 12) further shed light on the Libraries of the past, libraries are not only repositories of human Endeavour, and they are instruments of civilization. Then there was not much incorporation of Entrepreneurship in Librarianship or in libraries. However, libraries of ancient Egypt, Assyria, and Mesopotamia were more or less practicing Librarianship in less developed enterprising skills. The Librarianship of the subsequent centuries especially the twentieth (20th) century and twenty first (21st) century excelled in bringing aspects of entrepreneurship to promote and make Librarianship or libraries more enterprising, ground for societal change and a tool for development and growth. Presently, Librarianship has been changing from its hitherto position of neglect to modern concept of a technique and a profession. Salami (2006: 2) lamented that, the revival of learning during the late middle ages and early renaissance inspired scholars to collect ancient manuscripts. In addition, the invention of printing press in the fifteen century gave a tremendous impetus to the making and collection of books and marks the beginning of the modern period of library development. The development which today make librarians more enterprising, by serving their clients and generating substantial income for sustenance. From the foregoing one can easily deduce that librarianship as a technique and profession would be the Ivory towers of learning, businesses, politics and all areas of human Endeavour. Morris (1994: 23) perceived, Librarianship as a profession that plays a key role in modern society.

LIBRARIANSHIP IN THE PRESENT DAY AND ITS ADOPTION OF ENTREPRENEURSHIP

Librarianship teaches knowledge and skills, that enables librarians to be self-reliant, and guides the users to the world of learning and entrepreneurship. Ekuoye (2007: 4) maintained that libraries are beyond wall and shelves. They are not the books that stand in rows. They are not about a discipline or a profession. Pick up a classification scheme, and you will begin to appreciate the catholic nature of Librarianship. The author is emphasizing the broadness and the significant of Librarianship in the life of all species in the universe, not man alone. The libraries store books and related print and non - print materials for consultation. Researchers utilize the

materials for research in Education, Economy, Medicine, Sciences and Technology which invariably touch everyone and everything existing in different time. In its wider form Librarianship includes not only libraries but the course - Library science and techniques of running a library. As stated earlier whatever meaning one attaches to Librarianship the adoption of Entrepreneurship programme is important and somehow compulsory. Morris (1994: 131) reported, that the Library and Information science schools (LIS) must continue to cater for their traditional library markets, but recognize that the needs of those markets are changing at the same time, as the number of job opportunities in the traditional market declines; they have to consider the possibilities offered by the emerging market. The market is ready to absorb any product (graduate) of library and Information science school that was taught the traditional Library science courses and the modern accredited courses in Science, Management and other useful disciplines. The libraries are not left behind in the changing trend from the traditional functions of acquisition, cataloguing, classification, reference services, bindery and sitting without read-ling the clients. Abosede (July, 2007: 23) enumerated the significance of entrepreneurship as follows:

- Small- Business accounting;
- Human and Public relations;
- Law about business;
- Effective utilization of profession
- Personal administration etc

These are the basic entrepreneurship rudiments that can be adopted and use for the promotion of entrepreneurship program in libraries or library schools. Small business accounting entails the record keeping functions in businesses and it can be used to assist libraries in recording statistics of fines, charges for services and products. Human and public relations gear librarians and students of library and information science to publicity roles in receiving clients, inquiries, sales, marketing. While, Law about business guides in the setting up business, running it and maintaining it. Personal administration, teaches the librarians and students the administrative procedure in terms of managing resources both human and material resources. This will further make entrepreneurship fare well with Librarianship. Ajagu (2005: 7) stated that, an entrepreneur conceptualizes an idea and brings it to reality via systematic and well- articulated planning. Babakarewa (2009 : 6 and 44) stated Entrepreneurs are promoters because they can scan the environment, identify opportunities, marshal resources and implement the business idea, he explained the roles entrepreneurship provides to society, as itemized below:

- Nurture potential innovators for new services, new processes, new product - for the good of the society;
- Serve as suppliers, customers and subcontractors of larger organizations - a big market in the society;
- Provide competition throughout the economy among small and large firms alike, Leading to improved products, services and efficiency in society - for the good of society.

The innovation for new services enhances creation of new products and services for the benefits of society and libraries. The librarians can extend their brains and hands to innovate enterprising services to sustain libraries. Imagine a library branch becoming a big market in the society. This of course will be possible through innovation and effective entrepreneurship programme.

RELEVANT AREAS FOR ENTREPRENEURSHIP BY LIBRARIANS

There are areas in Librarianship that easily go with entrepreneurship program; there are other areas that need careful thinking and innovation to make them march with different kinds of Entrepreneurship program. As Ekuoye (2008: 91) put it, librarians can excel either as librarians or entrepreneurs or even both. This is in term of personal ground and corporate existence, that is, library as a whole. Areas such as: acquisition, cataloguing, classification, and indexing, abstracting, labeling, bindery can be easily march with entrepreneurship program to make them serve the client with speed, precision and effectiveness. While library reading rooms or sections, circulation desk, media section, library equipment such as computers and accessories, chairs, cushions, desks are specific areas that need careful organization and planning before commercializing them. As far as individual practice is concern a librarian or group of librarians can practice Librarianship combine with entrepreneurship to excel and take their organization to a greater height Ekuoye (2007 : 91) quoting, Occupational outlook handbook, bulletin 2470, 1996 which stated: Entrepreneurial Librarians may start their own consulting practices. They act as free - lance (self - employed or casual) or information brokers and provide services to other libraries, businesses, or government agencies. The practices open the librarian to other professionals who in turn will join with him to develop software for library use book records accounting for libraries, database for librarians and research students and many other related products and services. According to Ekuoye (2007 : 99) the following businesses one can do with his library skills.

Telephone / GSM Library

This service is vital in the dissemination of information all over the world within a short period of time. With it according to Ekuoye (2007:99) librarian needs to submit well packaged proposal to any Telephone/GSM company. The mode of client's payment can be arranged easily. You need to start with a GSM line and a good handset, put adverts in the dailies to inform the world of your services. However, getting your fee from clients may not be easy. A good thing about this business is that you do not necessary need an office to start with and potential clients initiate calls. Some telephone/GSM calls are: reference services, directional questions, readers' guidance, dial a story.

Photocopying Services

Photocopy machines are available in different types from the modern type which are connected with the computers to the old types. They simplified the task of libraries, information centre different kind of offices, and different type of client's needs of the documents. Whether, based on individual capacity or in the library photocopying thrives very well. In the manual on University management, (2001) by the national universities Commission (NUC), librarians are expected: to plan strategies for revenue generation to upgrade and maintain their services beyond institutional financial resources and provision.

Stationery Store

The store can be used to sale notebooks, writing papers, pens, drawing sets, cards and related items. According, to Ekuoye (2007: 102) if a proposal regarding the running of a stationery store in a tertiary institution library is well packaged, the librarian will permit it. Similarly, librarians on their own can open stationery stores in markets places and other community centers and educational institutions taking notes of the needs of customers.

Newspaper Vendor/ Distributor

The venture is easy and lucrative. Librarians can go into newspaper selling. As a distributor you can double as a vendor raking in what would have gone to the vendors. This type of entrepreneurship is more or less practice on individual capacity, however libraries can open an information section were magazines and other romance and entertainment dailies can be read on a fee and can be sold as well to their clients. To go into the newspaper business, find out the state branch of the national association in your state. Meet the state chairman who on your behalf relate with the national executives to establish you. In the same vein you can go alone after starting you can meet the officials of newspaper association to be recognized and do lawful business.

Newspaperman

One can publish his own newspaper in as much as there is financial backing to do so, this can be done by a librarian, group of librarians or library or group of libraries. It generates money to one or institutions since newspaper comprises of many columns that no matter how it will attract reader to buy. And its distribution should be extended to include schools, markets, parks, conferences, hospitals, stations etc. However, you should be a crack journalist with flair for gathering and disseminating news. you also need brain and leg to work as a starter. Examples of some newspaper: The Afemai voices, Afemai express, Afemai celebrity in Auchi. The Idemili voice in Anambra, Village news in Ogun state. The Punch newspaper of Friday, September 1, 2006 itemized the following ingredients for a successful newspaper business:

- Avoid unnecessary overhead cost;
- Operate from your house, write the stories yourself;
- Get your close relations and friends to support you with advertisements;
- Keep a slim staff at the outset;
- Use target marketing;
- Give incisive coverage to your environment and celebrate the people;
- Explore marketing the newspaper to your target audience outside the immediate community.

Service to the visually impaired

The services for these categories of clients include reference services, study materials, spiritual and psychological needs. Thus, Ekuoye (2007: 105) opined you can propose to some authors whose books are making good sale or whose materials are a must for some courses to have it on tape. Once the agreement is made and production is done properly you can begin to sell to the visually impaired clients. Which eventually would lead to the Visually Impaired Library (VIL) and Visual Impaired bookshop (VIB)?

Bindery and Lamination Services

These services are done usually separately but a determine librarian and entrepreneur can join them and discharge effective services. Bindery is a technical work of binding papers to give it cover and protection, also a worn out bounded book, journal, magazine can be rebounded. Lamination is simply using thin plastics films and heat pressure to protect and preserve a document. Some laminate certificates, letters of contract, pictures and other valuable documents.

Bindery and lamination business is flourishing especially with the invention of modern machines.

Printing and Publishing

In fact, a printer cannot survive without a publisher, it is a vice versa sort of relationship. A librarian can practice as a printer printing library materials such as: library cards, labels, registers, and non-library materials such as wedding invitation cards, other ceremonial cards, school registers, cash invoices etc. The library can establish the press house or lease with printing press to have the printing for profit purposes. Publishing can also be done by a librarian practicing on his own or to be done by library as an institution. The sourcing for manuscripts is more or less easy by a librarian since he usually comes into contact with them either in his personal practice or in the library if working under a library. Having the editors to edit would not be so difficult for him. Since we are in a place where reading is not value one wants to go into publishing has to take an option to publish for the target audience demands in order to make gain.

Compilation

As a librarian practicing privately or as a librarian working under a library of a giving body, it is necessary for one to decide to make an impact. Lasisi, in *The Punch*, Wednesday, March 7th (2007 : 3) History has it that of the compilers of the ancient seven (7) wonders was Callimachus, the librarian of the defunct Royal Library of Alexandria. Compilation is now even a very lucrative venture as printers and publishers come off with different version of reference materials such as who's who, Directories of different issues, diaries, almanacs, calendars among others and they are being patronized by clients in libraries, schools, motor parks, hospitals, stores etc. A library can get contract to compile list of schools in Nigeria and be paid for by the Ministry that give the contract for instance.

Bookselling

Bookselling business is another type of lucrative business but only when done with knowledge of the market and clients. It is done more or less in shops within institution premises and mobile shops. Similarly, librarian can on his own goes from one client to the other in order to sale his stocks. Ekuoye (2007: 110) suggests as a librarian, you stand a better chance than many in the bookselling business you are a professional. This gives you an edge over others who are in the business. One has to observe the market, customer needs and the trend or the seasons even the key points for examination purposes have their target customers and season so are the other resources.

Babakarewa (2009: 6) gave similar areas where entrepreneurship can make an infiltration in librarianship. Librarian can be on his own, that is, where a librarian decides to practice one of the above business listed. Invention, a librarian can invent product or service either in term of software or other learning aid product for sale. Manufacturing, products such as: chairs, desk, ladders etc. Librarian can go for services, such as: motion pictures both educative, entertainment and religious, art galleries, ICT equipment and services.

LIBRARIANSHIP AND THE FUTURE

The future is very bright, the entrepreneurship program is expanding daily, the librarians are changing their perceptions are embracing the modern trends. It is just like companies diversifying so are the librarians and the libraries. We are seeing today medical doctors studying librarianship, those who read engineering go for second degree in librarianship. This development makes the profession more marketable and recognizable. Librarianship has come of age and is ready to move with time by adopting not only entrepreneurship program in its acquisition, abstracting, indexing, circulation, cataloguing, classification, reference services, database, bindery but it has gone far in Information and communication technology (ICT) so far there are many library software such as: TINLIB, X - LIB. Oyinloye (2004 45) stated, library application software such as X - LIB, TINLIB, INMAGIC, CDS/ISIS, DATA- TREK etc. All these and more open up access to librarians and non - librarians to produce products that are marketable and beneficial. The library of Congress catalogues online provides subscribers with easy access to catalogues, class numbers, subject headings, and other information. When log to <http://www.loc.gov/cds>. While logging to <http://Berkeley.worldcat.org/oclc> allows for free access to the University collection of University of California collections. Tomorrow it would probably be libraries for all accessing it in handsets (GSM sets), library services such as references available in all networks at affordable prices and book publishing becoming easier at affordable fees with librarians becoming more enterprising. The government present and past perception of libraries will go as the bureaucrats are seeing the changing roles and enterprising nature of the librarians and the libraries. Today and in the future libraries have halls where they hire for conferences and other activities, they have cafe and computer centers for commercial purposes, media facilities for hiring, CDs and other relevant information carriers for sale, bookstores for sale of different items. In the Academic, Public, National, Private, Research, Special and school libraries they are all adopting entrepreneurship program.

RECOMMENDATIONS

- Libraries should be effectively funded by it mother organization right from inception.
- Librarians should wake up and face the challenges of Information age.

- The librarians should enlighten the community about the activities of libraries and should specifically emphasize roles of libraries in education, politics, religion, business and economy.
- The libraries should be steered to the direction of enterprising by getting capital to establish publishing house, bookshop, café, and information centres etc.
- The librarians should inform the world that librarianship is as old as history and a mother of all professions; therefore, they should seize any opportunity to combine the profession with entrepreneurship.

CONCLUSION

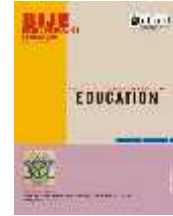
Librarianship and Entrepreneurship are alike as the libraries are the centers of inculcating reading, knowledge, and entrepreneurship. They are now manifesting their true colors in the position of vocations or professions. In the past they remain more or less reading centers and custodians of print and non-print materials. Today and the future libraries and the librarians are diversifying by extending Librarianship to Management of business, Consultancy, and manufacturing. All these give librarians and libraries another bright future we are witnessing today. And the librarians especially are finding new ways of practicing the profession and new ways of informing the public of their existence and enterprising.

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TECHNOLOGY AND ENTREPRENEURSHIP

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ABSTRACT

What has happened in Nigeria as in other parts of the world is that modern communications, ICTs have availed us new tools that have application in all fields of human endeavour. It opens new doors and new opportunities. New income streams are possible and new millionaires are popping up from various ends of the earth. Only recently, Microsoft founder, Bill Gates reclaimed his number one position as the richest man on earth after oil and ore magnates threatened his position for only a few years. What has become obvious is that across the country, wealth is being reordered and redistributed by ICT. Mobile Banking and electronic money transfers would have been impossible without a robust backbone infrastructure engendered by the recent opening up of the market to competition.

INTRODUCTION

As instability continues to ripple through the global economy, it is clear that no one is immune to the effects of tighter credit and slower consumer and business spending. But while it is impossible to predict how long the current uncertainty will last or what the final impact will be on jobs and growth. There is optimism about long-term economic prospects, here and around world. The trends that have made the last decade so dynamic for business in every corner of the globe haven't changed. As technology continues to improve and productivity continues to rise. New business opportunities continue to emerge.

Concept of Entrepreneurship

Entrepreneurship is the practice of revitalizing mature organizations particularly new businesses generally in response to identified opportunities. Entrepreneurship is often a difficult

undertaking, as a vast majority of new businesses fail. Entrepreneurial activities are substantially different depending on the type being started. An Entrepreneur is a person who is willing and able to convert a new idea or invention into a successful innovation. For Drucker (1970), Entrepreneurship is about taking risk. The behaviour of the Entrepreneur reflects a kind of

person willing to put his or her career and financial security on the line and take risks in the name of an idea, spending much time as well as capital on an uncertain venture. The acts of Entrepreneurship is often associated with true uncertainty, particularly when it involves bringing something really novel to the world, whose market never exists. Before the Internet, nobody knew the market for Internet related businesses such as Amazon, Google, You Tube, Yahoo etc. Only after the internet emerged did people begin to see opportunities and market in that technology. Entrepreneurship is widely regarded as an integral player in the business culture of the developed and developing society particularly as an engine for job creation and economic Growth. John Howkins (2001) focused specifically on creative Entrepreneurship. He found that Entrepreneur in the creative industries needed a specific set of traits including the ability to prioritize ideas over data, to be nomadic and to learn endlessly. Every successful entrepreneur brings about benefits not only for himself/herself but for the municipality, region or country as a whole. The benefits that can be derived from Entrepreneurial activities are as follows:

1. Enormous personal financial gain
2. Self-employment, own bossing, offering more job satisfaction and flexibility of the work force.
3. Employment for others, often in better jobs.
4. Development of more industries, especially in rural areas or regions disadvantaged by economic changes, for example due to globalization effects.
5. Encouragement of the processing of local materials into finished goods for domestic consumption as well as for export.
6. Income generation and increased economic growth.
7. Healthy competition thus encourages higher quality products.
8. More goods and services available.
9. Development of new markets.
10. Promotion of the use of modern technology in small-scale manufacturing to enhance higher productivity.
11. Encouragement of more researches/studies and development of modern machines and equipment for domestic consumption.
12. Development of Entrepreneurial qualities and attitudes among potential Entrepreneur to bring about significant changes in the rural areas.

13. Freedom from the dependency on the jobs offered by others.
14. Ability to have great accomplishments.
15. Reduction of the informal economy.
16. Emigration of talent may be stopped by a better domestic Entrepreneurship climate.
17. Serious tax advantages.

Concept of Technology

Technology is a little easier to talk about because its effects can be seen everywhere. The cloths we wear, the houses we live in motor vehicles, aircraft or even the simple tools such as the hoe and machetes are all products of technology. Through science we understand the laws of motion, gas, electricity, magnetism, and so on. The use of knowledge to solve practical problems is the essence of technology. Technology may therefore be defined as the systematic use of organized knowledge to solve practical problems. The systematic procedures of science are also used in technology. That is to say that the processes of definition, observation, experimentation and analysis are used in technology but with the basic difference that the whole effort is directed towards solving some practical problem in society. It is not always obvious to see how to use organized knowledge to solve practical problems. Hence technology requires great ability in achieving a relative use of knowledge. There are today many problems in our society which can be solved through the use of existing scientific knowledge. For instance, with our existing knowledge of high-yielding rice we should be able to grow more rice but we have not absorbed the necessary technology to do so. Thus we are importing rice even though the land and scientific knowledge with which to grow more rice are available. The scientific knowledge to build cars and radio and television sets is available in the world but we are not building these items to any great extent as yet because we have not acquired the technology to make them. One of the greatest challenges facing this and future generations of our society is to learn how to use available scientific knowledge to solve many practical problems to improve the quality of life for our people. Throughout the twentieth century the uses of the term have increased to the point where it now encompasses a number of -classes of technology such as:

1. **Technology as Objects:**

Tools, machines, instruments, weapons, appliances—the physical devices of technical performance.

2. **Technology as Knowledge:**

The know-how behind technological innovation

3. **Technology as Activities:**

What people do –their skills, methods, procedures, routines.

4. **Technology as a Process:**

Begins with a need and ends with a solution

5. **Technology as a Socio-technical System:**

1. **It Involves Design**

At the centre of technology lies design. That design is the very core of engineering is affirmed by the requirement that all degree engineering courses should embody it. The designs process in technology is a sequential process which begins with the perception of a need, continues with the formulation of a specification, the generation of ideas and a final solution, and ends with an evaluation of the solution.

3. **It Involves Making**

The motivating factor behind all technological activity is the desire to fulfill a need. For this reason all designs should be made or realized –whether that is through prototype, batch –or mass production or some form of three-dimensional or computer model –if the need is to be truly fulfilled, the design is to be legitimately evaluated, and the design activity is to have been purposeful and worthwhile.

4. **It is Multi-Dimensional**

Not only may design and production involve co-operation between different specialism (between, for example, designer, production engineer and materials scientist), but may involve technologists in performing a multitude of functions, such as working with others, operating within budgets, persuading decision makers, communicating to clients and working to deadlines.

5. **It is Concerned with Values**

Technology is informed by values at every point. Value decisions may be called for not only in relation to the specific design criteria (i.e aesthetic, and economic judgments, suitability for purpose and ease of manufacture) but also in relation to the rightness or wrongness of a particular solution in ethical terms.

6. **It is Socially Shaped/Shaping**

Technological enterprises are determined not by advances in knowledge nor simply by the identification of needs, but by social interests. Of the potential new Technologies available at any one time only a few are developed and become widely implemented. In this way Technology is shaped by society, by consumer choice. Yet it could also be

argued that technology shaped society, - the technology of the motor car, for example, has shaped our environment and our whole way of life. One source of confusion is the undoubted relationship that exists between science and technology. Sparkles illustrated this relationship and pointed out that even though science and technology overlap in an area which might be referred to as applied science, there are a number of important differences between the two, even though these differences might not be self-evident to an average member of the general public who, through neglect and through repeated use of the phrase science and technology has lost the distinction between science and technology.

Entrepreneurship and the Role of Technology in an Uncertain Economy

There's no doubt that this is a time when thoughtful business leaders must carefully assess how to best utilize their resources to weather the uncertainty that lies ahead. Information technology can play an important role in helping companies respond to this difficult and rapidly changing economic environment. In the near term, for many organizations the emphasis will be on cutting costs and reducing risk. Today, there are a number of technologies that are helping companies lower expenses and improve effectiveness and efficiency. One example is virtualization. A technology that makes it possible to run more than one operating system on a single computer, virtualization reduces costs and lowers energy consumption by enabling organizations to lose more of the computing power that they already own. Another example is unified communications technologies that bring voice communications, e-mail, and instant messaging together to allow organizations to replace traditional phone systems with integrated software solutions that reduce hardware and maintenance costs. Today, video conferencing and new collaboration tools are making virtual meetings much more like face-to-face interaction and enabling people to share and collaborate more effectively. In addition, companies are finding that reducing computer energy usage is one of the most effective ways to lower costs without hampering organizational capabilities. Many of the technologies mentioned above are enabling forward looking companies to build information systems that are not only more cost-effective but that also enable people to understand and respond to changing business conditions with greater insight and speed than ever before. This focus on people is critical. Ultimately, economic growth depends on innovation. Innovation is built on the ability of people to transform new ideas into products that deliver new value to customers. The danger is that as the global economy slows, companies will shift so much of their focus to controlling expenses that they will lose sight of the critical importance of investment in innovation. The fact is that in any economy, innovation is the foundation for creating opportunity and success. Companies that continue to pursue innovation position themselves to better weather difficult economic times. And they create the conditions for more rapid growth when the economic climate improves. Today, there's no doubt that we've entered a period where companies and individuals are facing a new set of economic challenges. But at the same time, we're in the midst of a period when key technology trends –more powerful devices, new ways of connecting to each other and to information, new

ways of interacting with computers are converging in ways that will revolutionize the role that computing plays in our lives at home and at work.

Success Tips for Small Businesses

-) Do what you are anointed to do.|
-) Know what you can't do and hire someone to fill the gap.|
-) Use your own capital before asking for others.|
- |
-) Cherish the capital you get from others.|
-) Separate friendship from ownership.|
-) Don't be afraid to change your models.|
-) Don't be afraid to choose partners.|
-) Passion for people.|
-) Passion for the city/the community.|
- |
-) Passion for order.|
-) Passion for wealth.|

-) There should be creation of artifacts and systems to meet the people's need.|
-) Designs and invention should be accomplished with production.|
-) Availability of equipment and raw materials for analysis and synthesis of designs.|
-) Holism, involving the integration of many competing demands, theories, data and ideas.|
- |
-) Activities should always be value-laden.|
-) There should be search for theorizing about new processes (eg. Control; information).|
-) Pursuit of sufficient accuracy in Modeling to achieve success.|
-) Taking good decisions based on incomplete data and approximate models.|
-) New formulations to improve designs, construction and testing.|

Conclusion

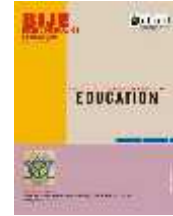
A country without a contented and happy citizenry cannot be strong at domestic and international levels. A weak nation cannot be respected and is unable to exert its interest in the world whether it was of yesterday, let alone of today. The time of dreams should be over. We must stay awake to the realities of challenges of now and in the 21st century. To minimize the widespread level of unemployment currently on ground in the country. The Nigeria Youths should be expose to entrepreneurial training.

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WOMEN AND AGRICULTURAL ENTREPRENEURIAL SKILL

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ABSTRACT

Success and sustainability of Agricultural projects are at risk if women are not included in project activities. In line with this, this paper discusses women and agricultural entrepreneurial skills. The special qualities of woman were discussed such as resilience, perseverance, great risk taking. Also, various careers in agriculture where women can excel in entrepreneurship were enumerated. Such areas are poultry production, fishery, processing, snail farming and many others. The paper also identified three vital areas in food security where women have excelled to include sustainable food production, economic access to food and nutrition security. Recommendations were made such as review of the land use decree to favour women, provision of incentives, functional literacy, etc. especially to women in agriculture of which if accepted and implemented will increase food production and enhance economic empowerment of the nation.

Introduction

Every form of education, traditional, western or even agricultural always emphasizes functionality, that is, usability of learned skills. This education enables one to acquire skills, abilities and competencies to live and contribute to the growth and development of the society at large. Entrepreneurial training in agriculture especially for women exposes the recipients to various areas/specialties where they can acquire skills for productive farming practices. In times past, it was thought by many that agricultural enterprises were exclusively men's domain. However, in recent times, the reverse is the case. Women now own, manage and run small, medium, large and even commercial agricultural ventures successfully. They are seen in production, processing, marketing, research and even extension services. The unique activities of women especially in the home in terms of nutrition, family health, income generation among others, make their role in agricultural entrepreneurial skill very essential. Moreover, women are naturally endowed with the qualities required for successful entrepreneurship especially in Agriculture.

Entrepreneurial Education

This is the type of education that teaches one how to plan, organize, and manage a business venture. This training exposes one to the various business opportunities available, the one best for you and how to choose your business site. The risk of each enterprise, how and where to source for funds, and reason why business fails are all parts of the course content. Entrepreneurship education goes hand in hand with vocational courses in order to equip graduates with appropriate skills required to start off a business in an area of choice. An entrepreneur is a risk-taker, a man (woman) who braves uncertainty, strikes out on his own, and through native wit, devotion to duty and singleness of purpose, somehow operates a business and industrial activity where none existed before (Nwachukwu, 2005). The woman entrepreneur with this type of education will be able to select from the pool of agricultural enterprises that would interests and makes her earnings from it. It implies that this training helps the woman agricultural entrepreneur to be self-employed, have saleable skills for employment, able to fend and provide for her family and society at large. Ogwuazor (2008) enumerated that an educated woman has equal opportunities as she can compete on equal terms with man; the benefits of girl-child education accrue from generation to generation. No wonder the popular saying that when you train a man, you train a soul or an individual but when you train a woman, you train a nation and that nation starts with her home. Quinsunbing (1995) stated that project success and sustainability are at risk if women are not included in project activities. Men usually decide on the measure planned, but in many cases women are then responsible for carrying out the activities. This is an informed opinion because they work with women farmers.

Enterprises in Agriculture

Agriculture is a multi-disciplinary course that span from Art through to Science as well as the Business and management of crops and animals. Mundi and Alfred (2006) listed about thirty-two careers that are taught at various levels of education. Nwachukwu (2005) categorized the enterprises for small scale operation into Agro-based, livestock-based, forest-based, marine-based and others.

Some of the specific enterprises in Agriculture include:

- ✓ **Poultry production** – chicken, turkey, guinea fowl, ducks, parrots, ostrich, etc. One can specialize in incubating, hatching, rearing or marketing of their produce (Aduka, 2002:147-150).

- ✓ **Fish farming/Aquacultures:** Caring for and rearing of water animals like prawns, crabs, fish, etc. One may specialize in fingerling production or even algae culture. Constructed ponds, demarketed parts of rivers/stream or even big water tanks can be used. The major challenge is the supply of some good quality water always.
- ✓ **Cattle, goat and sheep:** The major challenge here is areas that are tse-tsefly and ticks free (Macdonald, 1985)
- ✓ **Rabbitary and piggery:** These animals are highly prolific and their rate of feed conversion is very high, brings in quick returns on investment.
- ✓ **Snailry or snail farming:** Cool shaded areas with abundant vegetation. Use wire netting to protect them from escaping (Ndu, 2003).
- ✓ **Apiculture/Bee Keeping:** A shady orchard (nectar) far from railway or highway to avoid vibration and also close to stream or provide good steady water supply (Leventis Manual, 1996:52-53).
- ✓ **Feed compounding:** Feed compounding for various animals using by-products such as bran, offials, cakes from groundnut, palm kernel, cotton seed, meals of bone, blood and fish as well as additive. The type, age and condition of animal determine the quantity of each feed ingredient.
- ✓ **Raising nursery** plants with improved seeds, plantation crops such as oil palm cocoa, rubber; orchard crops/fruit-orange, mango, guava, pineapple.
- ✓ Ornamental – flowers. Vegetables – all types (leafy, fruits, roots)
- ✓ **Processing:** Primary processing in the farm: threshing; winnowing, parboiling, drying of grains; fermentation of cocoa and curing of tobacco, fish and meat drying.
- ✓ **Secondary processing:** small, medium and large processing in industries, e.g. Fruit juice, tomato puree, yoghurt making, plantain chips, etc.
- ✓ **Preservation and storage:** Grains are preserved with chemicals, or locally with pepper, ash, tubers are peeled, sliced and dried in order to increase their shelf-life. Dawanau Market in Kano is an eye opener that there is great wealth in storage of grains. Also the Federal College of Produce Inspection and Storage Technology, an offshoot of the Nigerian Stored Products Research Institute (NSPRI) offers nine months' certificate course in various areas of storage pest and disease management (Okunade, 2004).

- ✓ **Marketing and Distribution:** Sales of - farm fresh items e.g eggs, milk, meat, vegetables, honey, fruits, etc in shops, supermarket and even for export.
- ✓ **Soil testing and fertilizer programming.**
- ✓ **Farm surveying and landscaping.**
- ✓ **Organic farming** – a new trend in agriculture whereby crops and animals are produced and processed devoid of synthetic materials; only organic materials are used. It is however, not popular in Nigeria yet, but gaining so much ground in Europe and America.
- ✓ **Engineering:** Fabrication and maintenance equipment, sales and service of these equipment.
- ✓ **Oil milling:** groundnut oil, palm-oil processing, soya oil, cotton seed oil (vegetable oils).
- ✓ **Processing of spices and condiments,** eg. yajj curry thyme, ginger and garlic powder and oil.
- ✓ **Processed and bottled ground nut, cashew**
- ✓ **Tannery works** – leather shoes, bags, etc.
- ✓ **Local soap-making** – dudu oshu.
- ✓ **Breeding and research** (crops and animals).
- ✓ **Extension.**
- ✓ **Service centres,** e.g. drug stores, feed stores. Many of these services centres are run and managed by women. For example, PHED Agrovot, along Airport Road, Kano, feed store for fish, poultry and other animals. They also render veterinary services and supply improved day-chicks to customers.

Special Characteristics of Women and Agric. Entrepreneurship

The Holy Bible aptly describes the woman as a virtuous, hardworking person who feeds for everyone, making her husband proud at the gates (Proverbs 31). These home-makers which constitute a greater percentage of the Nigerian population are the custodians of social, cultural and fundamental values of the society. They are uniquely created to perform unique and peculiar functions, both at home and in the large society. Ogwuazor (2008) opined that women are ... uniquely created for unique purposes. Their feminine nature, mental capability and organizational ability, power of womanhood and the influence they exert in the world are unique. These rare qualities equip the woman to move on despite all odds. Their resilience, perseverance and endurance prepare them for all the hazards and risks of agricultural production and processing. Women patiently birth, nurture and care for whatever the lay their hands to do especially things that have direct effect on the family income, nutrition, welfare, and health.

These priceless qualities are in line with those outlined by Nwachukwu (2005) as requirements for successful entrepreneurship. These qualities include:

- (i) Reasonable risk takers
- (ii) Self-confident
- (iii) Hard workers
- (iv) Goal setters
- (v) Accountable and,
- (vi) Innovative.

A woman is the greatest risk-taker in life. She is the one who can afford to abandon her parents, siblings, family name, home and every relative to go and live with an unknown man for life. What a risk! Paramount changes in most spheres of life come through or for women. She is therefore an indispensable tool for the development of any successful venture, business, family or even nation; Agriculture therefore is not an exception. Quisumbing et al (1995) enumerated the advantages of working with women farmers to include:

- (i) They are more easily accessible, are rarely away from the farm,
- (ii) Have much better basic knowledge of nutrition, health, and reproduction,
- (iii) Have experience in group work especially in extension.

She functions effectively in wealth creation of her society and nation at large. The woman excels in whichever aspect of Agriculture she engages in due mainly to her dedication, accountability and her ability to manage and cope with environmental challenges. Her education enables her to identify the areas of need and ventures into it. Vocation in Agriculture are many

and varied and can be obtained from various institutions of federal or state ownership such as universities, colleges of agricultural polytechnic, college of education, agricultural research institutes, corporations such as Leventis Foundation Schools at Ilesha in Osun, Dogon Dawa in Kano (Leventis Manual, 1996); Federal College of Produce Inspection and Storage Technology in Kano. Others include the institutions where certificates and diploma programmes are organised in order to develop high and low manpower in Agriculture. Other avenues of acquiring these skills include: on-the-job-training on the farm as a staff, industrial attachment training (IT) or as a corps member. Many people, who work on farms especially animal farms, own and manage their own and even render services to other farmers. Non-governmental organizations (NGOs) have not been left out especially as it relates to women in agriculture. WOFAN is popular in this area because they empower the rural women providing information; materials and equipment to enable them (rural women) have better produce especially in processing and packaging their yield.

Food Security

Despite the economic melt-down, the world population is yet on the increase. Governments of both the developed and developing countries are all making efforts to ensure that their citizens are secured and protected from the effects of the global economic hike-up. The Seven-Point Agenda of the Yar'adua administration has food security as one of its priority areas. In Nigeria, as in other parts of the world, women are under-utilized as good source of power for agricultural growth and development. The removal of the biases especially in the allocation of resources to women will help turn agriculture around. In spite of the enormous social, cultural and economic constraints faced by women in Agriculture, Quisumbing et al (1995) identified three vital roles women play in food security. These are:

- (i) sustainable food production
- (ii) economic access to available food, and,
- (iii) nutritional security.

Women and Sustainable Food Production

Sustainable food production is the first pillar of food security. When food is continuously being produced, hunger and starvation is far and people are healthy to produce their quota to economic growth. In most rural communities in Nigeria, it is the women and children that are active in food production, while the able-bodied men migrate to the cities. The food produced usually in subsistent level is consumed in their fresh state. The farm sizes range from 1 – 2 ha to 2- 5 ha (Leventis Manual, 1996), and items produces include vegetables, grains, tubers, and animals. Women account for 70 - 80% of household food production in Sub-Saharan Africa, 65% Asia, and 45% in Latin America and the Carebeans (Quisumbing et al 1995). That is, to say if women are given equal opportunities in terms of input and other resources as well as human capital, they can achieve yields equal to or even significantly higher than those of men. Their level of production will rise from subsistence to commercial on a steady level. This is so because women engage in lean season production than men and this ensures continuous supply of fresh food all year around.

Women and Economic Access to Food

Recent studies have indicated that improvement in household welfare depends not only on the level of household income, but also on who earns that income. According to Christin (1995) women relative to men, tend to spend their income disproportionately on food for family. It further went on to say that women's incomes are more strongly associated with improvement in children health and nutritional status than men's income. It is a known fact that a woman's focus is her home. It therefore means that whatever she gets her priority is the home's welfare. When women's income improves through appropriate agricultural empowerment, the household stands

to benefit since she will have more money to spend on balanced nutrition, healthcare and education. Another feature of women's income is that it comes steadily and more frequently though in smaller amounts than that of the men. However, and whatever the amount, it is spent on the family up-keep.

Woman and Nutrition Security

Nutrition is another vital pillar of food security which deals with having balance food for members of the family or society. It focuses on providing the right quantity and quality of food for the various age brackets in the home based on their work or what they are going through at the moment (pregnant, sick, baby, etc.). In every normal society, the woman is in charge of the kitchen. Ogwuazor (2008) opined that education helps the woman to understand complex issues associated with modern times such as healthcare, suitable diet for the family and appropriate clothing. ... whatever her profession, a woman is a mother who takes care of her husband, children and home.

She ensures that her family members have their fair share of protein, energy, micronutrients and minerals from the available food for their good health. It also includes health and child care, access to clean water and proper sanitation. As a home manager, the woman is equally interested in the non-food inputs towards good nutrition. These areas require care and time investments. Care affects nutrition security in the following ways.

- (i) feeding practices such as breastfeeding and the preparation of nutritious food;
- (ii) health and hygiene practices such as bathing of children, washing hands before food preparation, etc.

Also every member of the family requires time and attention to meet up with physical, mental, and social needs especially of children. When appropriately done promote good health which good nutrition is to achieve. These three vital pillars of food security are enhanced when the woman entrepreneur is properly educated. Her family is healthy due to food and steady nutrition, the children are educated thereby enhancing the human capital and the society is good for it.

Challenges to Women in Agriculture Entrepreneurship

There are several challenges to entrepreneur development especially in Nigeria. Some of the obvious ones include:

- (i) Inadequate and ready finance, poor technological knowledge higher degree of risks and uncertainties, management problems, competition, utilities. These challenges face

all business whether managed by a man or woman. This is to say that for women entrepreneurs in Agriculture, their problems are double. Some of the peculiar challenges of women in agriculture to include limited access to land – for production, as collateral for loans, formal right and title are given to only men.

- (ii) Poor access to improved inputs such as seeds, young animals, improved planting practices, and even agricultural information.
- (iii) Social and cultural barriers e.g. pudah system, poor communication with extension staff.
- (iv) Women's lower education levels relative to men,
- (v) Women agricultural entrepreneurs have to fulfill multiple roles (sometimes simultaneously) as a mother, wife, daughter, sister, etc.
- (vi) Moreover, technical innovations are not necessarily gender neutral mainly incline for men's use.

Apart from the above, agricultural production deals with crops and animals that are subject to weather factors, disease pathogens, nutritional imbalances, price fluctuations as well as perishability of produce. This means that agricultural entrepreneurs have higher risks and uncertainties than their counterparts in other production areas.

Conclusion

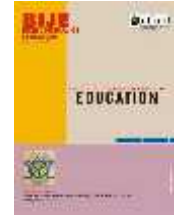
Women are naturally endowed with highly valued traits and virtues that make them unique and fit for production, processing or even marketing in agricultural enterprises. All that is needed is to provide them with the necessary resources (inputs) for effective production. Some of these needs include equal access to large fertile lands, non-collateral credit facilities, vocational and extension education as well as access to improved breeds of plants and animals. Moreover, facilities for processing, preserving and storing of produce should also be made available to them. With most of the resources available, women agricultural entrepreneurs will ensure sustainable food production, accessibility as well as basic nutritional security for both the home and the nation.

Recommendations

- (i) The land use decree of 1978 should be reviewed in line with Yar'adua's Seven-Point Agenda on land reforms. Land should be made available to females especially for farming activities. The stringent measures should be relaxed.
- (ii) Intensives such as improved seeds, animal breeds, improved planting practices; etc. at subsidized rates should be made available to farmers especially women.
- (iii) Functional literacy training for women and increased education for girls will increase productivity both today and in the future.
- (iv) Programme and project planners in Agriculture should borrow a leaf from sustainable city project (SCPs) whereby the target communities are directly involved from planning through to the implantation. The leads to sustainability of such programmes.
- (v) Women farmers should be encouraged to form co-operative in order to ease loan acquisition, marketing of their produce as well as purchase of inputs.
- (vi) Provision of small – medium scale technologies for processing of produce. This will reduce the rate of damage of agricultural produce and increase the farmers' income.
- (vii) Non-governmental organisation (NGOs) especially those that are women inclined should be encouraged WOFAN in Kano.

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APPRAISING THE CONTRIBUTIONS OF CAREERS AND PROFESSIONS TOWARD ENTREPRENEURSHIP IN THE NIGERIAN ECONOMY.

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ABSTRACT

Careers and Professions are elements within and without the concept of Entrepreneurship as regard Human capital development for a self-sustaining developing economy such as Nigeria. Nigeria needs a large pool of indigenous entrepreneurs as expectation of foreign direct investment keep reseeding. This paper, analyses through a theoretical paradigm of National System of Innovation, contributions (prospects and problems) of these conceptual elements towards building appropriate population of entrepreneurs for the growing Nigerian economy. The paper also advances some suggestions to solve identified problems.

INTRODUCTION

Entrepreneurial population explosion in the 1960s and 1990s in Asian transformed many Asian countries through knowledge (Sciences, technology and skills), production and trade into domineering global competitors popularly called, 'the Asian Tiger', Dike 1991). Career is defined as an occupation undertaken for a substantial period of a person's life's Hornby (2000). Career could be made from menial jobs, crafts and trades (sub-professions) and the professions (accountancy, engineering, law, teaching, medicine, architecture, etc). From all these careerists are made. However, only people engaged in menial job face a tenuous transformation into Entrepreneurship. For an economy to take-off in a transformation process, Rostow (1974) states that such economy requires a group of innovative Entrepreneurs whose innovative drives are mostly enhanced by acquired knowledge and skills. Here lies the need to encourage the sub-professionals and professional to be entrepreneurs in order to expand the population of the latter and propel the Nigerian economy into a take-off stage towards the desired economic growth, all other things being equal. By the end of an economic take-off stage, Rostow (1974) posits that, on economy should have about 60% of her working force to be professionals and sub-professionals most of who are to be potential and or entrepreneurs. Where is the Nigeria economy now? Also, what do we (the economic Managers) need to do?

THEORETICAL FRAMEWORK: The National System of Innovation (N.S.I.)

Entrepreneurship and innovation built into the country manpower trainings’ curricular in a coordinated manner with industries through research and technological development will produce the right type of and population of entrepreneurs as required by the economy. Ewuziwe (2009), observes that, the Nigerian economy still now have shortage of competent entrepreneurs who can help manage private businesses and create expanding employment opportunities for the development of the country’s economy. Along this scenario, Nigeria requires a national Framework that fuses education, technology, industries and economic opportunities to facilitate the building of the required population of Entrepreneurs for the country.

NATIONAL SYSTEM OF INNOVATION.

Lundvall (1992) defined the National System of Innovation – N.S.I – as, A dynamic economic system that displays learning as its central and social activity involving all stakeholders and characterized by positive feedback and reproduction. The system therefore, emphasizes the roles of national institutions through which the state and its policies are viewed and assessed. Fine (1992), further explains the notions of the National system of Innovation through the South Korean experience that, the nature of technology and technical change pervasively transformed the economy through linkages with industries, institutional training and mutual reinforcement in both the public and private sectors of the economy

TABLE : 1.0 Contrasting best practised National Systems of Innovation

NSI INDICES COUNTRIES	RATIO OF R&D INGNP	SOURCES OF R&D (TECHNOLOGY)	FOCUS OF Ph.D TRAINING	INSTITUTIONAL/ INDUSTRIAL LINKAGES.
United State	2.0%	Firm-based	Extensive on Applied Research and Development	Very High
Japan	2.7%	Firms-based	Strategic Industrial Technology	Very High
East Asian			Industrial Human capital	

	2.0%	FDI Firm financed	in Technology and /Vocational Education	High
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Source: Dike (1997): NISER (2005) NOTE: FDI – Foreign Direct Investment.

Dike (1997) from table 1.0 asserts that, for a country to acquire technological capacity with the right human capital, she must concretize inter-linkages and mutual reinforcement. If the above best – practice NSI is vigorously pursued the right type (not just money – making ones) and population of Entrepreneurs may emerge.

ENTREPRENUERS AND THE NIGERIAN ECONOMY: AN OVERVIEW.

Apart from infrastructural deficiencies facing the Nigerian economy, the development of the technology and human capital are added challenges inhibiting the production of knowledge – based and skillful Entrepreneurs.

Table 2.0: Institutional Comparison of Educational Systems – Nigeria and two (2) Industrial Countries.

COUNTRIES OF EDUCATION	NIGERIA	GERMANY	UNITED STATE
Primary	6 years	10years	Terminates at middle school
Secondary	6years-3years, junior 3years Senior	1 – 3years middle school with class – room training and apprenticeship	High school 3 – years training.
Tertiary	2 – 6 years University/Degree, Polytechnics – Diploma, College of Education NCE	3 – 4 year terminal Master Technical Certificate/Degree	4 years Bachelor Degree.
Post Graduate	Master and Ph.D Degree	Doctoral Degree	Master and Ph.D Degree.

Sources: Nigerian National Policy on Education (1979). Dike (1979).

The Nigerian educational system as at 1979 (Table 2.0 above refers) was not really functional – the system had been fairly reformed since then, but still, inexpedient – and fairly apeing the American instead of /German educational system which incorporates technical skills acquisition through formalized apprenticeship trainings. Empirically, the population of Nigerian entrepreneurs is dominated by illiterate and semi-illiterate (some skilled in craft – trades), entrepreneurs who mostly acquired skills through informal apprenticeship trainings. See Tables 3.0 and 4.0 below. Also, skilled professional Entrepreneurs (most of them in consultancy services) are even in short supply, Olanrewaju (2004)

Table 3.0: List of Survey of Entrepreneurial respondents per Table.

Trades	No of Respondents
Tailoring	28
Furniture/Carpentry	28
Auto-mechanics	28
Hair dressing	28
Radio and Television Servicing	24
Secretarial Training/Services	20
Refrigeration and/Air – conditioners Repairs	20
Electrical Installation Services	24
TOTAL	200

Source: NISER Research Field Survey (1999) (Omisakin, 1999).

Table 4.0: Sources of Entrepreneurial Skills Acquisition in Nigeria.

Sources	Percent
Apprenticeship	47.6
Vocational Training	15.2
Formal School Education	14.8
Self - Trained	4.3
Others	2.7

Sources: DPC. Field survey (1999).

From the above, it is to be noted that illiterate or semi-illiterate and poorly skilled Entrepreneurs with modern technology are not right for a desired knowledge – based and technology – driven economy for Nigeria. Efforts by Nigeria Governments to turn-around the undesirable position by the provision of skills and competencies through Agencies such as the Nigerian Directorate of Employment (NDE), Industrial Training Fund(ITF). Technology Business Incubators (TBIs), Industrial Development Centres (IDCs), Small and Medium Enterprises Development Agency of Nigeria (SMEDAN), etc., are well noted but with inadequate impact to build the much – needed population of skilled Entrepreneurs as these Agencies are bogged down with bureaucratic red – tapism, NISER (2005). Infusion of entrepreneurship educational curricula might not be enough also.

CONCLUSION.

Within the 1960s, India, Malaysia and Philippines were in deep economic recessions with high unemployment mostly exported to developing countries. Now, in the new millennium years, these economies through entrepreneurship, small and medium industrialization are now classified as emerging economies in the era of drying Foreign Direct Investment and global economic crisis. Analysis in this Paper makes it imperative for Nigeria to embrace entrepreneurship, train and re-train sub-professionals and professionals and rapidly expand the population of her Entrepreneurs. To realize this Goal, the following suggestions are proffered.

SUGGESTIONS:

- (I) Professional bodies should review their curricula to include the study of Entrepreneurship.
- (II) Nigeria sub-professional Entrepreneurs should upgrade their knowledge and skills, through further training, e.g. a Tailor to be a Fashion Designer, Nafi‘u (1995).
- (III) On-going curricula inclusion of entrepreneurship at the tertiary education level should be extended to all levels of educational system in the country
- (IV) Nigerian Entrepreneurs should be encouraged to go more into capital/commodity
- (V) production on small, medium and large-scales instead of the prevalent service-rendering (e.g. Consultancies) Entrepreneurship.

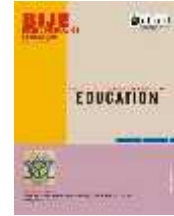
Table 3.0 refer.

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CITIZENSHIP AND ENTREPRENEURSHIP

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ABSTRACT

A saying goes thus: —life is not a bed of roses|. This is a fact. If life is not a bed of roses, then entrepreneurship cannot be a tea party. It is a product of hard work of sleepless nights, being jack of all trades and master of all. Learning to start out early in the day and work till late night, and it takes being prepared to wait until the seed of your enterprise germinates grows up into fruits bearing tree and then harvest the fruits. A lot of people dream of becoming entrepreneur but have not really weighed the odds and counted the cost whether they can sustain the initial enthusiasm and endure till the seed planted begin to bring in fruitful harvest. This is the essence of citizen education for better entrepreneurship. Citizenship education helps in creating desirable social behaviours and skill in students in the light of some social problems which the society is trying to solve. The main trust of this paper is to define important concepts as they relate to the discuss, x-ray the challenge before the Nigeria Nation as regards unemployment of school leavers and the need to encourage skill oriented education.

INTRODUCTION

Economic realities in Nigeria since Gen. Ibrahim Babangida (1985), Nigeria’s onetime military president who introduced the structural adjustment programme, had pushed many to embrace alternative means of sustenance aside paid employment. One of the few options Nigerians of all

ages and sex have exploited in the past 20 years is entrepreneurship. Many were ill-prepared for the task of entrepreneurship before they embraced it, leading to the early demise of many of such start-ups, while those who survived did so in the hard way. Every game has its success rules, and entrepreneurship is not an exception. Being an entrepreneur is more than just starting a business, it is about having the right attitude and the drive to succeed in business. All successful entrepreneurs have a similar way of thinking and possess several personal key qualities that make them so successful in their chosen venture. Successful entrepreneurs like Mike Adenuga have an inner drive to succeed and grow their business rather than having a Harvard business degree or technical knowledge in a particular field. A one-table exhibition, arranged at the foyer

of the Bola Ige Information Technology Center, National Women Center, Abuja. The date was Tuesday, March 10, 2009. On display were baby cots, baby bags, baskets, various types of perfumes, soaps, chocolates, curie, pomade and many other household needs. These items were products of women who were trained on Information Technology skills at the Prof. Iya Abubakar Community Center, Bauchi, under the Microsoft Corporation social corporate responsibility flagship programme, the Unlimited Potential. Under the programme at the Bauchi Center, 50 Women living in Purdah (Seclusion) were trained on basic IT skills and entrepreneurship. The result was an astonishing torrent of creativity that has produced these products which are of very high international standards, yet all made from locally available materials. Does this not tell us that industry lies in the empowerment of the people? The secret as revealed by Yusuf Mahmoud, a staff of the Iya Abubakar Centre who conducted people round the exhibition was that the women were able to leverage their newly acquired IT skills, browsing through relevant websites, downloading designs and recipes which they then adopted and used local materials to produce their wares. Today many of these women who are secluded and therefore living from homes, have found an outlet for their creativity through the internet. They are economically empowered and fully engaged. One of the main aims of citizenship education is inculcating in the individuals the desirable idea, values, norms, philosophy and cultures of their society that have evolved over the years. Every citizen including the young has a responsibility to make a positive impact on his/her group community, and country. But to do this, the individual need to have the confidence to contribute and to appreciate that his/her contribution will be useful to the development of the society. To empower and involve everyone in the process and thus safeguarding stability and encourage change, we must gear their thoughts and imagination accordingly through citizenship education in all its ramifications. According to Aibangbe (2004), there is no better time to talk, about citizenship education for effective citizenship in Nigeria than now, when our society appears to be lottering at the brink of collapse. At the same time, citizenship education must be distinguished from mere indoctrination. Hence the individuality of the citizenry must also be protected.

Definition and Meaning of Citizenship Education

There is no viable single-sentence definition of citizenship education. The concept is far too broad for that. But it is possible to obtain a working characterization of it from a broad spectrum of views on the field. Onipe (2002) for instance, sees citizenship education as: —The deliberate incubation of Social and Cultural attitudes, knowledge and skills that enable individuals to become socially and politically integrated within the society. Ubioworo and Avwata (1997), on the other hands, describe citizenship education as nothing but: —A process of spreading the ideas or knowledge of Citizenship skills, traits and abilities required for the development of the nation and members of the diverse Nigerian Communities. To Adiotomre (2003), this implies that citizenship education aims at inculcating the ideas of the society in the youth. He goes further to argue that citizenship education can also be those things we expect the youth to acquire in order for them to be able to develop and contribute more meaningfully to the development of the country. Such expectations,

in accordance with constitution of the Federal Republic of Nigeria, may include: virtues of respect for the worth and dignity of the individual, respect for the dignity of labour, faith in man's ability to make rational decisions, sharing responsibility for the common goals of society, acquiring moral and spiritual values in interpersonal and human relations, etc. The ultimate aim of citizenship education in Nigeria can be said to involve how individuals may, be transformed through the process of education into sound and effective citizen. Citizenship education according to Lar (1999) is: That type of education which teaches what it entails to be citizens of a Community, his responsibilities in the society: his limitations and the fundamental rights he is supposed to enjoy as enshrined in the constitution. It also teaches why it is important for one to be patriotic to the country and love his fellow countrymen so that unity, progress and stability will be reached. Meziobi (1992) was of the opinion that citizenship education equips the individual with pertinent knowledge and skills that will enable one to contribute meaningfully to the development and progress of an ever enhancing dynamic modern world. Citizenship education is a form of socialization that enables the citizens of a country to adapt to their society through the provisions adequately made by government. This informs the view of: Ikwemelu (1994) to the effect that —citizenship education is the type of education that can transform a person into a citizen. Furthermore, it prepares the society itself to enable a citizen to exhibit his citizenship. Citizenship education aims at inculcating through practical exercises such qualities as public spiritedness, voluntary service, sense of fair play, honesty, and respect for opposing opinions and views, and self-sacrifice for the good of others. These qualities will promote self-reliance, the dignity of labour, national ethnicity, unity in diversity and national economic and political stability. From the above definitions and views one can deduce that citizenship education refers to the educative means in a sovereign state whereby the citizens or individuals become socially and politically aware, socially integrated into the social milieu, acquire social skills and competencies (for entrepreneurship) and become socially sensitive and actively participate in their social responsibilities for maximum productivity and development.

Concept of Entrepreneurship

The word entrepreneur is defined in terms of specific functions which the entrepreneur performs or in terms of characteristics or activities generally associated with the entrepreneur. The concept has been explained by various authors in various ways:

1. The dynamic process of creating incremental wealth (Histrich and Peters 2002). The wealth created by individuals who assume the major risks in terms of equity, time and/or career commitment or provide value for some product or service. The product or service may or may not be new or unique but value must somehow be infused by the entrepreneur by receiving and locating the necessary skills and resources. In the process of creating something new with value necessary time and effort are involved, coupled with financial, psychic and social risk with resultant rewards of monetary and personal satisfaction and independence.

2. The willingness and ability of an individual to seek out investment opportunities in an environment and be able to establish and run an enterprise successfully based on the identified opportunity (Gana 2001).

All successful entrepreneurs have the following qualities:

1. Inner drive to succeed
2. Strong belief in themselves
3. Search for new ideas
4. Openness to change
5. Competitive by nature
6. Highly motivated and energetic
7. They are dedicated
8. Visionary
9. Risk takers
10. Boundless energy
11. A quick study
12. Rejecting rejection

Skills Oriented Education Is What Nigeria Needs

The nation's educational system equips students only with explicit knowledge which exposes students to learning by rote without necessarily leading to the acquisition of skills badly needed for production processes. Mass unemployment among school leavers; widespread ignorance and poverty as well as acute industrial backwardness are the results of this deficient system of education, which has made the nation to be complacent as a consumer one instead of learning to produce what its citizens need and what others need. When we observe Nigeria today, we do not see a learning society. We have hordes who go after explicit knowledge. We learn by rote and do not translate the explicit knowledge (Knowledge about a school subject) to procedures and have no means of turning it into implicit skills that lead to productive process. We have learned to consume the products of other economies, but we have avoided learning to produce what we need or even what others need. Little wonder that we are challenged with providing employment for our school leavers. An organization or a culture can only be said to have acquired knowledge when a broad section of the population has become repeat doers. Then the knowledge will have found its way into applications in the production processes for the organization, and in the economy and culture of the people. A typical knowledgeable society will have a few elites who operate as creators of knowledge working mainly at the theoretical level, many more who act as adapters and innovators working at the practice level, and most people acting as repeat doers working at the application level. A functional education is the type that empowers the people to use the accumulated knowledge to produce products and services that have economic value. This type of education is non-existent in Nigeria because —we do not have enough production activities to force people to really learn. The minister of labour and productivity, Adetokunbo Kayode, (2009) said it is indeed disheartening to watch helplessly as youths spend their years and vigour going about in search of jobs that do not exist. This has range of implication for social stability. He went further to say, it is even more agonizing when we consider the plight of helpless parents who worked hard to educate their children. They wait endlessly for their children to get employment after graduation. Also in the light of series of the infectious—corruptive influences prevalent among the Nigerian populace, it becomes very important that our pupils in schools should be trained to abhor completely attempts to develop these ill. This will

enable the replacement of the corrupting influences of society with better refined good citizens that will affect the Nigeria society through selfless efforts and self-reliance. To facilitate the improvement of these objective Citizenship Education should be taught in Nigerian schools.

If the challenge of unemployment must be comprehensively and holistically tackled from all fronts, Nigeria should take a cue from the heavy investment in human capital development which Japan and the Asian Tigers (Korea, Taiwan, China, Singapore and Hong Kong) undertook before being transformed from technological backwardness to relatively modern and affluent economies. —In parity— Experts have tried to explain the success of the Asian Tigers by two theories —Assimilation and Accumulation theories. The later theory stresses the role of investments in moving these economies along their productive functions. Having investment in machinery, especially those with in-built technology helped in no small way to push these countries along the path of rapid industrialization.

These were supported by training, research and apprenticeship and by efforts of study groups to technology exporting countries. In the end, it is a strategy that transforms them from consumers to producers that made the difference. Production for export creates the necessary condition for learning and the knowledge enable better and more production. The act of production, which can only be ensured by functional education, leads to acquisition of the essential knowledge for better productivity that can result to economic emancipation. If according to Ibezim (1994)

Citizenship education which is a compulsory General Studies course in the Nigeria tertiary education curriculum, is intended to train the students in civic responsibility vis-a-vis state objectives, duties and obligations.

From the foregoing, the introduction of citizenship Education in schools can be deemed to have been Informed by the following objectives:

- i. To prepare the student to be able to identify and exercise their civic rights and responsibilities.
- ii. To enable the government to appreciate the stated objectives and responsibilities.
- iii. To help the students to appreciate their economic, Political, social, cultural and physical environment.
- iv. To enable the students to appreciate the working of democracy in thought and deeds relating to large and small groups.
- v. To help the students to develop the ability to adapt to changing economic, social, cultural, political and physical environment.

- vi. To enable the students to devise necessary intellectual and political tools for improving their social and physical environment,
- vii. To help the students to acquire the necessary skills and techniques for analyzing social events such as causes of political unrest, purpose of youth movements, inflation; etc.
- viii. To inculcate in the students the ideals of good leadership- followership relationship;
- ix. To initiate in the students the desire to ask for information
concerning the government of the time and its essence and to offer useful suggestions for the successful establishment and sustenance of good governance.

For Nigeria to become one of the top 20 economies in the world, the following suggestions are recommended:

- (1) There should be a new emphasis on quality education aimed at broadening access to practical and adaptive knowledge that can be used in production, an education which recognizes that most people should be taught skills and competencies that are useful in the productive process.
There should be widespread creation of avenues and opportunities for apprenticeships in productive skills.
- (3) There should be accessible institutions where young people can go to learn various trade, adding that these institutions should provide training that can be certified to meet minimum standards of proficiency acceptable to employers in industry.
- (4) Lastly, economic policies that give priority to export of manufactured and processed goods must be put in place; this is critical as it will impose the strict discipline of the market standards on the nations Local production.

CONCLUSION

Yes, atrophy as a country, we must produce what we consume. We must add value to the work of our hands. We must value excellence, knowledge and positively. We must love work. We must act in these ways if we want to survive, if we want to live a balanced society. We have no choice than to embrace the global best practices of (entrepreneurship)

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BUSINESS EDUCATION AND ENTREPRENEURSHIP PROGRAMME

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ABSTRACT

In Nigeria today, education is the fastest growing industry and Business Education has equipped many of its graduates with valuable skills which have earned them employment in both public and private sectors of the economy. This paper aimed at discussing the roll of business education for a successful entrepreneurship programme. The paper discusses the positive attitude to entrepreneurship programme and how to acquire ample knowledge that will make the graduate to be creators of job rather than job seeker. It also identifies the constraints of Business education in producing creative entrepreneurs and suggests recommendations that will help Business Education graduates to be self-reliance, be creative, have ability to identify and exploit opportunities and have personal drive. One can clearly understand that Business Education is an entrepreneurship programme designed to achieve socio-economic development in Nigeria. For effective realization of Business education programme as an enterprise, there should be adequate number of teachers with their salaries, remunerations, in service training and retraining should be considered with priority. And to succeed as an entrepreneur, one must have self-confidence, technical knowledge drive or the spirit of investment and goal orientation.

INTRODUCTION:

Business Education has over the centuries helped creative people to provide new solution to the problems of the time. The ability of human beings to find creative solutions to problems are essential for the well-being of the human race. There is need for the development of creative skills among ourselves which will in turn lead to the production of self-reliant individuals who will be job creators rather than jobs seeker. In Nigeria the present situation of things has resulted to the closure of many factories, compulsory retirement and retrenchments of factory workers, unemployment of youths high cost of things and poverty. This situation has necessitated increased awareness of the need for self-reliance and self-employment. The Nigeria Educational system is expected to rise to the challenge by equipping students with the requisite competencies and skills for self-reliance. The sustainability and relevance of any business enterprise in this world of competition and constant change requires a dynamic and creative individual. It is the capacity of persons to produce compositions, products or ideas of any sort which are essentially new or novel and previously unknown to the producer **HUR/OCK**, (1993). Creativity is a form of self-expression. It is the ability to create something from personal

feeling and experiences. The conditions of modern day living characterized by complexities of hardship and interdependence call for increased levels of creativity **Torrance** (1979). The rapid change requires new adjustment, new habits, and new ways of thinking, new material needs and new methods of doing things. In entrepreneurship programme, there is need for new ideas through productive thinking; new strategies and investment fields are required for diversification. It is people with greater receptivity for newer ideas and initiatives that are likely to enjoy the benefits for researchers offer. The world is to-day faced with a lot of competition and constant change. Under these changing conditions, simple conditions, and simple conformity to the past may lead to unresolved problems and consequent unhappiness. Business Education is a field of study that offers numerous occupational opportunities for individuals. It is capable of equipping individuals with saleable skills that help for self-employment, hence self-reliance. This paper examines the potentialities of a functional Business Education programme in stimulating entrepreneurial development in our economy. It also examines the challenges faced in tailoring Business Education to produce creative entrepreneurs and recommend strategies for re-stooling Business Education for self-employment.

■ **CONCEPTUAL CLARIFICATIONS:**

In order to place this paper into its proper perspective, it is necessary to clarify the key concepts like Business Education, Creativity, and Entrepreneurship.

■ **BUSINESS EDUCATION:**

Anao (1986) defined Business Education as an education process of content which has its primary aim as the preparation of people for roles in business enterprises, such roles could be as employees/entrepreneur or employers or simply self-employed . It is aimed at equipping graduates with the right skills that will enable them to engage in a life of work in the office as well as for self-employment **NCCE** (2002). The objectives of Business Education at any level include the following:-

1. To provide guidance for each individual in solving problems of personal living, educational choices, occupational choice and adjustment. Business Education is tailored towards providing the individual with requisite skills and attitudes for effective performance in a business profession in addition to equipping the individual with the ability to adapt to work situations. Every organization has its peculiar system of operation. Business education aims at providing individual with necessary attitudes to apply to personal initiative in solving organizational task.
2. To provide Entrepreneurship Education. Business Education curriculum regardless of the Level in which it is offered aims at developing some understanding of the free enterprise system and encourages the individuals to ultimately own, manage and administer their own business thereby achieving self-reliance.
3. Develop basic awareness of the contribution which business and office employees make, to the Nigerian economic system.
4. Improving personal qualities and building, attitudes necessary for adjustments to personal and employment situations.

5. Developing the abilities of students to the maximum.
6. Guiding individuals for suitable placement in business and office employment
Osuala (1993).

■ **CREATIVITY:**

Encarta (2007) defined creativity as imaginative ability, the ability to use the imagination to develop new and original ideas or things especially in an artistic context. Creativity can be manifested by being innovative **AKPAN** (2004). It is characterized by doing new things or the doing of things that are already being done in a new way. Therefore, it is all about imaginativeness originality, ingenuity and innovation. Entrepreneur is said to be creative, imaginative and innovative.

■ **ENTREPRENEURSHIP:**

Entrepreneurship is the changing of the value of resources, labour materials and other production factors for more viability. **Lankford** (2003) defined it as process of creating something different with value by devoting the necessary time and assuming the accompanying financial psychic and social risks and receiving the resulting rewards of most personal satisfaction. Entrepreneurship, is thus about self-reliance in employment in creativity and in taking risks.

According to **Schumpeter** (2005) entrepreneurship could be regarded as an innovative process of change, whereby new products, or new combinations or procedures were created. Entrepreneur is a factor of production which effectively controls, manages, organized and co-ordinates all other factors of production in order to achieve the objectives of organization. The functions of an Entrepreneur are providing the capital, Risk bearing, decision making, coordinating other factors of production. Others are efficient management, organization, research and development, determining price policy and maintenance of good communication.

The Schumpeterian theory of entrepreneurship believes that no nation would break the barriers to development without a critical mass of entrepreneurs. Pascal Dozie in his goodwill message remarked that Nigeria falls into the category of countries that lack strong entrepreneurial class. Thus **Akpan** (2004) noted that the problem of employment in Nigeria is as a result of the deficiency in the countries educational curricula. He argued that the formal educational system in the country prepares youth to fill existing jobs but fail to equip them to create jobs. Business education is a field of study that offers numerous occupational opportunities for individuals, it is capable of equipping its graduates with saleable skills prepared for self-employment, hence self-reliance.

Since Business Education has the potentials to produce graduates with entrepreneurial ability, it would then be necessary to examine the roll of Business Education in developing creative entrepreneurship.

■ **ROLE OF BUSINESS EDUCATION AND ENTREPRENEURSHIP PROGRAMME:**

Business Education produces teachers that teach business subjects in our secondary school. It also equips the graduates with the right skill that can enable them become self-

reliant. The utilization of practical skills acquire will enable the students who studied business education to get better jobs and help them to contribute their own services to the society. Through the skills acquired individual individuals could explore his environment and available resources with it to create their own job. The marketable skills that they have help them to fit into the world of employment or be self-employed. The knowledge acquired in Business Education and the training in the Entrepreneurship programme will help the graduates to set small scale businesses like business centres, internet cafes, typing institution fashions and textiles designing etc. **Oghechi** (2005). **Kurya and Danko** (2006) noted that the future of the country lies in the direction of small and medium enterprises with the people who are technically competent running them as technical skills training comes with entrepreneurship programme. Business Education with entrepreneurship programme will prepare our graduates to venture into self-employment and avail themselves with the opportunity to set up their own enterprises and also employ other job seekers. **Abe** (2006) aptly explained the role of entrepreneurship programme in economic development as follows:-

- ❖ Helps in building economic base and provides job opportunities for individuals and society in general.
- ❖ Helps in initiating and constituting changes in the structure of business and society.
- ❖ Helps in the innovation and development of new products on services for the market. Helps in stimulating interest in the new venture created.

■ **ENTREPRENEURIAL NEED IN TEACHING AND LEARNING BUSINESS EDUCATION:**

Business Education as a skill –oriented discipline has the capacity of equipping learners with saleable skills, thus helping in the reduction of the unemployment problems in the country. It is an applied field of study built upon many disciplines for the purpose for achieving and maintaining the well-being of individuals in the society. Exposure of students to relevant manipulative skills enhances their knowledge base and creativity. Entrepreneurial creativity is viewed as an embodiment of a different economy, different technology and different society characterized by the idea of wealth producing potential capacity expressed in a going working, producing business actions and behaviours. **Schwartz** (1979). This is achievable if the medium of education is used to help students' **evaluation** ideas and behaviours. The current level of unemployment among graduates in the country suggests that there are gross deficiencies in the training acquired and application of skills possessed by the graduates **Ochonogor** (2003) and **Onyebeke** (2003). Entrepreneurial creativity is capable of empowering Business Education graduates through small or medium scale enterprises in the areas of business centres, service locations etc.

■ **CONSTRAINTS IN ACHIEVING ENTREPRENEURSHIP IN BUSINESS EDUCATION PROGRAMME:**

1. **Shortage of enough trained Business Education Teachers:** there is shortage of trained personnel in this field who are to produce other teachers. This is as a result

of low status accorded to teachers and lack of motivation to retain these in service, plus low remuneration and poor conditions of service. It has been noticed that many schools have only one or two business education teachers to handle courses which need many experienced and competent teachers. The shortage of manpower causes a lot of problems as teachers can only pass on the skills and ideas to their students when they themselves are masters of their trade.

2. **Curriculum.** Akpan (2004) observed that the scarcity of employment opportunities in Nigeria is as a result of deficiency in the country's educational curricula. The argument stands that the formed educational system in the century prepares the youths to fill existing jobs but fail to equip them to create jobs. The curriculum content especially at NCE level is too narrow for the level of that the introduction of computer has rendered some equipment obsolete e.g. manual typewriters.
3. **Constraints of information technology and globalization:** Aluwong (2004) observed that in the face of shrinking public sector jobs, partly because of globalization and universality of knowledge, the most beneficial way to access the labour market is self-employment. The introduction of computers has brought new challenges to the functionality of Business Education. Majority of practicing Business Teachers have minimal or o ICT skills for effective utilization of software, internet, fax etc. the teacher therefore cannot impart the skills.
4. **Lack of fund:** Business Education is capital intensive and so some schools have not enough money to purchase computers as emphasis now is on the use of computer. Nolen (1967) and Denyer (1980) both agreed that for any form of instruction or training to be meaningful, the right type of equipment must be available. Shortage of regular power supply to support efficient and effective instruction and development of technology is always there.
5. **Poor Societal Attitude:** Vocational Education which Business is an aspect is regarded as inferior to secondary school and believed to be meant only for drop outs. This according to Yakubu (2000) in Imarghigbi (2003) is the reason for continued low enrolment figures in colleges of education. Oran cited in Imarghigbe opcit lead to challenging issues of lowering the requirement by institution sourcing for students. The end result is that of producing mediocre teachers who cannot complete with other professional colleagues in the system.
6. Shortage of textbooks needed for teaching and learning are lacking.
7. **Methodology of teaching:** The lack of equipment lead to the method of teaching being more theoretical rather than emphasizing on the practical aspects that help to build the much need vocational skills.

CONCLUSION:

The paper examines the role of Business Education in creative entrepreneurship programme and its needs in terms of skills acquisition and inculcation of entrepreneurial attributes for an effective teaching and learning of business education. Factors inhibiting development of creative thinking at all level (individuals, schools, and societies) were also discussed. The challenges faced in tailoring Business Education and

entrepreneurship programme were highlighted. The paper also recommends strategies for rebuilding Business Education for self-employment.

RECOMMENDATIONS:

In order to achieve an effective and functional entrepreneurship programme in Business Education, the following recommendations are suggested.

1. The curriculum contents of Business Education need to be enriched to make it more functional. The recent introduction of Entrepreneurship programme and computer appreciation in the curriculum of Business Education is a step in the right direction **NCCE (2002)**. With the introduction of computers, Business Education should be computer/ IT bias. Computer studies should be a core in every semester though the whole programmes. And because of the wide use of computer in Nigeria and the need for self employment, computer studies as of entrepreneurial education should form one of the main streams of Business Education at all levels. Some of the subjects that are absolute should be purged and replace with skills that are available to computer application like shorthand.
2. The issue of manpower shortage needs to be addressed. This can be done by offering special bursaries or scholarships to interested and competent Business Education Students. The local sourcing of students for entry into Business Education should be stopped. To enhance the retention of well trained manpower in Business Education competitive salaries and allowances should be paid them. Furthermore, the current practice of appointing non-professionals to teach Business Courses should be stopped. This is because Business Education is an integrated whole and therefore should not be taught using electric approach. Also specialists in Business related subject should teach Business courses as support staff.
3. The challenge of information technology and globalization have made our traditional education system no longer able to cope with the rapid advancement of scientific knowledge and changing needs of the society in various levels. There is the need therefore to renew expand and diversify our education programmes and provide our student with scientific and technological knowledge and skills necessary to induce innovation in our economic plan for sustainable development. **Ekpen Young (2003)** and **Nwabuisi (2003)** noted that emphasis has been shifted from that of teaching business subjects through chalk and Talk to that of applying the resources provided by information and communication technology (**ICT**). It is concerned with systems for the creation, acquisition, processing, storage, retrieval, selection, transformation, dissemination and use of visual, pictorial textual and numerical information. The availability of items such as printers, disk drives, fax and internet facilities in teachers' college is a more towards the application of advance information.
4. Business teachers already in service need massive re-training and re-orientation in areas of computer studies and information technology so as to equip them with relevant skills to pass to their students.

5. Government should assist graduates of Business Education who need to float their own business by providing them with soft loans to procure capital items of equipment e.g computer. Government should also address the shortage of equipment and instructional materials which Business Education has been contending with. The private sectors should be motivated to contribute towards solving these problems.
6. The methods of instruction adopted should produce sound versatile teachers of the discipline. Practical work should be emphasized more as the enhancement of our instruction given out to depend exactly on the transfer value instruction given out to student especially when such mode of instruction is practically oriented.

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BIOLOGICAL GARDEN AND ENTERPRENUERSHIP PROGRAMME AN AVENUE FOR SUSTAINABLE EDUCATIONAL DEVELOPMENT IN NIGERIA

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ABSTRACT

The fall in government paid employment desires that a reasonable amount of entrepreneurial education components be evolved and introduced for recipients of education at all levels of education in Nigeria. The paper focuses on the usage and application of acquired skills, mental ability and creativity as the attribute needed for successful entrepreneurial programme. Therefore to address the problem of redundancy, unemployment, and poverty and promote sustainable development the paper discussed the usage of biological garden, in which production, rearing and cultivation of areas like fishery, rabbi try, genetic breeding and growth of orchard etc, where used as panacea to the anemic syndrome.

INTRODUCTION

As a result of poverty the quality of life is low, with endemic diseases like malaria, river blindness etc. so also are cases of infant and maternal mortality. These clearly portray a level of insecure economy and non-productivity of the citizens. This agrees with the notion of Oranu in Abubakar (1999) who noted that Nigeria as a nation is faced with insecure economy, problems of simultaneous inflation and recession, as well as significant unemployment of both the youth and the adults. This unsatisfactory state of the nation's economy calls for a review of our policies, especially human resource development, as the economy does not promise employment opportunities for its citizens. Therefore, the curricula of science education need to be modified to be able to provide students with basic entrepreneurial skills necessary for self-employment.

Basically the government and the private sectors have a lot to contribute in creating jobs and enabling environment for poverty alleviation, the education sector can also make some input. The school therefore needs to be made more attractive and productive to students, so that they can proudly identify with the schools and be willing to build same up, even after they have left school. These thrust when achieved will both directly or indirectly up lift the society in various dimensions.

EDUCATIONAL ATTAINMENT AND ENTREPRENEURSHIP PROGRAMME

Entrepreneurship can be defined as the art of identifying a business opportunity, planning for it and getting it going. Nafziger (1977), stated that entrepreneurship is productive resources which coordinates and organizes other resources for (capital and man power) economic development. It is difficult to venture into any financial endeavour without capital and without having acquired the proper skills of its operation. This clearly means that a person can be taught how to identify a business opportunity, plan it, organize it and manage it. Abubakar, (1999) stated that it will be a disservice to the students if their acquired skills and knowledge cannot provide them with employment. More so, it will be a great loss to the society if her skilled work force is not contributing to her economic and industrial development. If education is to be meaningful it is ought to be organized around the proven needs of the nation, society and the individual. Some of the essential roles of vocational education according to Burleigh (1988), is to,

- i. Develop and maintain a skilled labour force sufficient to ensure the production of an abundance, of good quality domestic goods and services at reasonable cost.
- ii. To provide an individual with techniques, competences and knowledge which are saleable in the labour market.

Educational activities are made to transmit and preserve the cultural heritage, sustain changes in technological advancement, promote ideological transformation and economic structure as variable means of preparing productive people who are fully integrated within the dynamic life and survival of the community (Oyekan 1997). Adding to this justification for skill acquisitions in biology, Akanbi (1996) stated that science education has several gains among which include to:-

- i. Develop the powers of positive thinking.
- ii. Generally, emancipate the citizens from squalor, by raising their standard of living through provision of employment opportunities.

JUSTIFICATION FOR SKILLS ACQUISITION IN BIOLOGY TOWARD ENSURING A SUCCESSFUL ENTREPRENEURIAL PROGRAMME

Biology is field of study with abundant opportunities of self-employment, provided the learners are well prepared and groomed in the field (Ukpene, 2001). The preparation of these learners comes through the translation of basic theoretical concept into organized practical. Obviously the role of practical work in developing psychomotor or manipulative skills as well as enhancing better understanding of products and processes in science cannot be over emphasized; for the practical nature of a subject is commonly regarded as important sources of learners' motivation – (Bryce and Robertson, 1983). It is through the provision of these practical that required skills which are relevant and compatible with developmental needs of the country as well as addressing some national priorities will be harnessed. It will also serve as a training ground for small scale industry which has the following specific objectives (NDE, 1989).

- i. To develop a pool of potential entrepreneurs who are well equipped to start and successfully manage the small and medium scale industries.
- ii. Encouraging self-employment as a conscious and predetermined choice.

- iii. Generating of employment opportunities for others.
- iv. Reduction of dependent on Government and large firms for salaried employment.

It is not possible for the old educational system to produced graduates with practical skills, because it was considered bookish and emphasized the acquisition of white color jobs. But the new system of education was adopted because; it provided vocational skills and emphasized self-reliance as indicated in the national policy on education. This correspondently, will lead to poverty eradication, and self-actualization. (Ibrahim, 2005).

CONCEPTUALIZE BASIS OF USING BIOLOGICAL GARDEN AS A PANACEA FOR TRAINING ENTREPRENEURIAL PROGRAMME IN SCHOOLS

Inquiry and observations are process that will encourage students to develops ideas and solve problems in a logical and systematic manner. One of the methods of imparting desirable knowledge involving skill acquisition and a total change of self-dependence from an early age of growth is through the use of biological garden. The basis of this statement is the fact that the garden if well planned and established will effect sound biological education, in which the learners will learn how to behave like scientist, observe, record, experiment, deduct, and express relationships and infer logical conclusions. In setting up a biological garden the teacher should select a suitable site which should be as close as possible to the biology laboratory. The propose garden should be properly and structurally mapped out, to contain life forms that will occupy respective spaces. The following sections are suggested.

1. Water Reservoir
2. Beds for Plant Specimens
3. Pond (Artificial or Natural)
4. Animal House
5. Site for Genetic Breeding of Plants.
6. Growth of Orchard.
7. Special life Forms/vegetables

1. Water Reservoir: - Water is the source of life; its presence is the basis of a lively garden. The sources of getting water are tap, borehole, well or naturally occurring pond. The water is to be used for both watering, feeding and as habitat to life forms.

2. Beds for plant Specimens (Floral gardening and nursery)

These are plants that are raised and grown for ornamental, medicinal, research and other purposes. In these days of improved living standard, the beauty of houses and homes are being complemented by copious planting of flowers around them. Using this section of the garden the students can be taught knowledge of cultivation of different species of plants, and flowers of various designs and colors. This area will also be used to raise rare species which are either seasonal or difficult to obtain. These could equally be sources of revenue to the school.

3. **Pond (fishery site):** Fisheries is now globally seen and recognized as an avenue which is highly rewarding, easy to maintain but capital intensive. The elements of fisheries can practically be carried out, in which pond can be constructed by digging a suitable portion. The floor and sizes of the pond should be cemented. It is advisable to have outlet for excess or contaminated water without allowing the biotic component to escape. Equipping the learners with the managerial skills will help them to appreciate its suitability for self dependence before or after graduation.
4. **Animal House:** - Here small animals that are needed for people's consumption are reared. Animals like rabbits that are highly cost effective and with high fecundity rate can be introduced. This will instill in the students, an idea of managerial skills of rearing for both commercial and practical purposes.
5. **An Area For Genetic Breeding Of Plants:-** Theoretical knowledge of genetics has shown its relevance in improving food production. This concept can be practically demonstrated in the garden, especially through grafting. To do this cut surfaces of two different plants of the same or similar plants are collected so that the growing tissues of both plants come into contact, and both grow to form a good plant. For example, a sweet orange can be grafted onto a sour orange. The tree will therefore show the characteristics of sweet orange and obtain its healthiness from the sour orange. (Komolafe, 1977). This method can be applied on varieties of fruits, for home and commercial consumption.
6. **Site for growth of Orchard:-** This is an area designated for the cultivation growth, and maintenance of different species of fruits, in this particular section students will be taught skills of Seed selection, nursing, bed preparation spacing and harvesting est. Fruits are needed on daily basis for nutritional requirement of the body, so their growth will yield high revenue to the owner. Therefore the idea of having it in the garden is a good foresight and highly rewarding.
7. **Special life forms/modified plants.**
In this particular area, the teacher may rear and grow plants that can be used for specific purposes such as garlic, onions, ginger, which are economically viable for domestic usage .Seedlings of other plants that are needed for averting calamities such as desert encroachment, can also be planted example like neem trees, eucalyptus etc. Cactus can be planted as boarder in some areas of the garden.

CONCLUSION

Education is a cumulative activity that promotes economic well-being of the child and prosperity of the country. It is also a weapon which will enhance effective poverty eradication among citizens. This paper has stressed the relevance of a neglected aspect of biology (the biological garden) in equipping and streamlining the learners towards learning some basic concepts of becoming self-sustainable and useful to self and the general public.

RECOMMENDATIONS

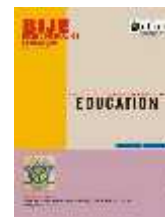
1. Biology curriculum should be the type that will enhance the adaptation of the learner to the changing word of skillful, scientific and technological betterment that will enable him to function properly within his limited capacity.
2. The education that children should acquire, according to pat (2007) should be community centered that promote local enterprises development as well as industry through factoring into education as well as leveraging the resources of the school in

making available community services, in areas such as increasing in food production, afforestation, draught control, sanitation educational technology development etc. To emphasize the dignity of labour, more attention should be given to entrepreneur curriculum, which will help in achieving the stated goals of national policy on education.

- 3 Schools that offer biological sciences should be compelled to set up biological garden so as to gear their product towards learning practical concept of entrepreneurship for poverty eradication.
- 4 Teachers should endeavour to attend regular workshops and conferences so as to understand and appreciate the concept of managing natural resources, pollution, desert control and modeling of ideas into practical forms.

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THE ROLE OF VOCATIONAL TECHNICAL EDUCATION IN ACHIEVING ENTERPRENEURSHIP PROGRAMME IN NIGERIA.

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ABSTRACT

Entrepreneurship as a concept described an attitude modification to create and develop an enterprising mind of an individual to undertaken to militate, maintain a business for the production and distribution of economic goods and services. Is considered vis-à-vis the roles of Vocational and Technical Education. The paper looked at what VTE is all about, the concept of entrepreneurship, roles of vocational and technical education as a tool for achieving entrepreneurship education. It was concluded by calling for the acceleration of vocational and technical education into graduate programmes/course as well as integrating entrepreneurship education into primary and secondary school. Recommendations were made for enhanced entrepreneurship in vocational and technical education sectors.

INTRODUCTION

Every dynamic society responds to the challenges of accelerated pace of technological innovation and growth. Economic & technological changes engender corresponding changes in the world of work and the need for educators to provide preparatory and continuing educational experience that fit the youths for the world of work.

The desire of government the world over especially in developing countries like Nigeria is to build a better world in the 21st century. It is in response to the world's main developmental challenges and to the call of a civil society that entrepreneurship programme was borne. The economy of the nations is developed by quality of higher level manpower produced by higher

institutions of learning. Educators of tertiary institutions must prepare for entrepreneurial training that will richly transform the economy, hopefully. Kolade in Oriola (2005), noted that Nigeria's problems of serious unemployment as rapidly becoming more severe on daily basis. Okwunaso and Isiney (1999) also observed Nigeria's lack of adequate self-reliant manpower as one contributing factor to the nation's employment problem. Chinyere (2004) similarly opined that unemployment breeds poverty is one of the greatest problems plaguing Nigeria today. According to her, no nation has ever survived successive high rates of unemployment in the event of the attendant waste of human resources it breed and the hardest hit among the unemployed are poor millions and the youths and graduates of tertiary institutions. If these observations are anything to go by the paper wants to contend that economic survival of Nigeria requires the breeding of people who will be able to organize their own entrepreneurial undertakings, produce goods and services for wants satisfaction, for self-employability purpose and even employ others. It is on this note that this paper attempts to present Vocational and Technical Education as a tool for entrepreneurship programme in Nigeria.

What is Vocational and Technical Education?

Vocational and Technical Education can be described as the acquisition of skill, knowledge and attitude in any area of study to qualify one for gainful employment or self-employment. Adenuga in Adegbenjo (2007) 'sees it as an education geared towards skill acquisition in handwork for self-reliance. It is directed towards the world of work. Ekpeyong (1995) opined that vocational and technical education is education in career oriented courses offered in institution, which are meant to equip students with knowledge, understanding and skills of different occupational areas in industries. This means that VTE is tailored towards career – orientation which in turn leads to self-sustenance it is also an education which fits intricate experience of the real world of work through the acquisition of relevant knowledge, skills, attitude and understanding for the world of work. United Nations Education Scientist and Cultural Organization (2007) also affirmed technical and vocational education as a comprehensive term referring to those aspects of the educational process involving in addition to general education, the study of technologies and related sciences and the acquisition of practical skills attitudes, understanding and knowledge, relating to occupations in various sectors of economy and social life. Since, technical and vocational education is often seen as a product of human resourcefulness. This is to say that the technical progress of any nation depends on the level of resourcefulness by her people which in turn is a direct reflection of the quality of training and meaningful development in education in that nation.

The concept of Entrepreneurship

Entrepreneurship is fast becoming the major focus of Nigeria education system as it is being embraced by most Nigerians as a way of life. People within and outside the institutions are finding it palatable and interesting as it offers them a vibrant vision of how to really attain their vision of being self-employed as well as being employers of labour rather than searching for inexistent employment. Emeruwa in Olumuyiwa (2006). Ubenyi (2007) saw entrepreneurship as attitude modification to create and develop an enterprising mind. An enterprising mind set generates models on wealth creation. No wonder Izedonmi in Ubenyi (2007) state that only fools down tools; if you want to remain a poor man, be an employee only; and employee is always a servant; and a servant cannot create wealth. In other words, people without entrepreneurial acumen or ability remain at the lower level of the ladder of wealth.

However, many authors have defined entrepreneurship in various ways for instance, Stevenson and Sahlman (1987) described entrepreneurship as the relentless pursuit of opportunity without regard to the resources currently controlled. Also Haligan (1989) saw it as a reform, innovation, wealth creation and risk taking. Therefore, entrepreneurship is generally sees as an individual's ability to seize opportunities and to turn ideas into action; ability to plan and manage projects in order to achieve objectives; and be creative, innovative and ready to take risks. It is believed that as engines of the economy, entrepreneurship education plays a critical role in shaping attitudes, skills and culture and by widespread exposure of students to entrepreneurship will make it more likely that they become entrepreneur in the future. No wonder former American President Ronald Reagan knowing the importance of entrepreneurship to a nation's economy once said while addressing American entrepreneurs in a speech he titled, "The greatest game in town we have lived through the age of big industry and the age of the entrepreneur, the age of the individual, that is where the nation's prosperity is coming from, and that is where it is going to come from in the future. Summon up courage and start business of your own. While some of you may fail. A surprising number will succeed and become financially independent, self-fulfilled and rich beyond your dreams.

The above assertion also holds true for Nigeria, with the effort the government is making in the area of job creation through entrepreneurship. Although, many Nigerians who have ventured into small scale business have been faced with one problem or another in time past but the federal government of Nigeria has been making efforts to encourage self-reliance and entrepreneurship in the society. For instance NDE that is, National Directorate of Employment was launched in 1987, this was meant to create employment for graduates and the society in general by teaching them vocational skills that would make them to be useful to themselves and the society they find themselves.

Roles of Vocational Technical Education as a Tool for Achieving Entrepreneurship.

Since vocational and technical education is all about skill acquisition, manipulation and it is tailored towards career – orientation and it serves as the bedrock for development of any nation’s economy. It cannot be over emphasized, the roles it plays in achieving entrepreneurship programme in Nigeria.

Generation of Employment and Creation of Job Opportunities.

Kolade in Oriola (2005) noted Nigeria’s problems of serious unemployment as rapidly becoming more severe on daily basis, but with the help of VTE individuals’ will be developed with the essential vocational skills that will make them useful to themselves and the society in general. Since a well-trained worker will be much more productive as an individual within the society; that is, the individual will be more of a producer of goods and services than a consumer of the available goods and services.

Alleviation of Poverty

Chinere (2004) observed that unemployment breeds poverty and poverty is one of the greatest problems plaguing Nigeria today. Vocational technical education will help many graduates with entrepreneurial skills to survive in times of emergency . This has been proven right in recent time, when workers of various categories were retrenched in both public and private sectors due to the economic state of the country such workers who possessed skills other than that for which they are previously employed had something else to fall back on and better off financially than those who had no other skills.

Okwunaso and Isineyi in Oriola (2005) also observed that Nigeria’s lack of adequate self-reliance man-power is one of the contributing factor to the nations employment problem. VTE offers beneficiaries the ability to be self-reliant and to be employer of labour since, it trains appropriate number of personnel for capability in those area of the country’s present and future needs.

The desire of most developing countries, including Nigeria, is to have self-reliant and resilient economy capable of generating an internally self-sustaining growth. In so doing VTE leads to the taming of the environment or the maximization of the resources in the environment.

Vocational technical education helps to promote our culture and value what we have, for instance the skill of making Adire which are being used in most homes today, waving of basket etc these are all enterprising ventures.

Recommendations

- There is a need for qualified educationist and instructors if vocational and technical education are to emphasize entrepreneurship programme in Nigeria. That is to say teachers should be given adequate training in entrepreneurial knowledge, skills and attitudes, they are expected to teach. These have to be reflected in both pre-service and in-service training programmes of the teachers. It has been pointed out that most of the pre-service programmes of vocational and technical educators are deficient as shown by Nwaokolo et'al in Ekwue (2002). Since people cannot teach what they do not know, these educators require in-service training in entrepreneurial knowledge, skills and attitudes to make their trading more effective and efficient.
- Successful small scale business entrepreneurs who have been successful owners in business for long time should be employed to help train students on how to start and succeed in business. It is also necessary to develop ways of working with other agencies institutions and organizations which are attempting to provide training and assistance to small business such as NDE.
- A special body should be set up by the government to monitor the implementation and supervision of entrepreneurship education already existing in various level of the educational system in Nigeria.
- Acceleration of entrepreneurship education at various levels of education. Students in secondary schools, colleges of education, polytechnic and universities should be given opportunities for educating and training for self-employment. At the primary level, Nelson and Leach (1981) suggested that the concept of owning and operating a small business should be introduced in career education programmes. This paper recommends an extra session for entrepreneurship education in all our school systems.
- Adequate and functional facilities and equipment should be distributed to all vocational and technical colleges for effective training in order to enhance learning and encourage full participation in entrepreneurship programme in Nigeria.

- Loan facilities with low interest rate should be made available to those who intend to start up a small scale business enterprise.

Conclusion

Because of the present circumstance of unemployment in Nigeria, there is need to consider seriously the acceleration of entrepreneurship programme in our education system. For

vocational and technical education to be relevant to the educational and socio-economic advancement of the nation, graduates at various levels must be acquainted with entrepreneurship skills which will enable them select among the various occupational area of vocational and technical education such as establishing an automobile workshop, carpentry, welding and fabricating workshops just to mention a few.

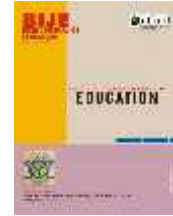
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QUALITY TECHNICAL EDUCATION AS A TOOL FOR EFFECTIVE ENTREPRENEURSHIP IN NIGERIA

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ABSTRACT

Technology has been considered as the bedrock of industrialization in the developed countries. Nigeria is blessed with abundance of human and material resources, yet it experiences high rate of unemployment leading to poverty, social, political and problems. This paper discusses how Technical Education can bring about effective entrepreneurship in Nigeria. It explains the concept, the goals, and role of Technical Education for achieving effective entrepreneurship in Nigeria. Recommendations were made as policies concerning Technical Education should be effectively implemented, Nigerian should be re-orient more through electronic media so as to boost entrepreneurship in Nigeria.

Introduction

Technology was identified as dominant factor for economic development of any country. According to United Nation Education Scientific and Cultural Organization (UNESCO 1990), development in technical education was intimately linked to the general trends in the economy and labour market which are particularly susceptible to the effects of technological changes. For any nation to realize technological development, emphasis must be geared towards creating training opportunities for the production of technicians, technologist and other skilled personnel who are capable of utilizing and transforming available natural resources into goods and services. No nation can be self-reliant without developing and utilizing her indigenous technologies. Nigeria require technologists and other skilled personnel who can harness the abandoned natural resources into goods and services in various sectors of economic and social life. It is obvious that other factors of production are idle unless and until technology is in place and properly used or implemented. According to Procter (1985), an entrepreneur requires technical competence, mental ability, human relation skill, high achievement drive and creativity. For entrepreneur to achieve target goals, technology must be employ to propel other means of wealth creation and distribution of goods and services. Technical education is an academic programme with various branches that can transform Nigeria into a producer/manufacturer nation from

present status of a consumer/importer nation. Its various courses are career oriented and thus produce skilled man power to work in the chosen trade or profession. National policy on education (2004) describes technical education as those aspect of educational process involving in addition to general education, the study of technologies and related sciences and acquisition of practical skills, attitude, understanding and knowledge relating to the occupations in various sectors of economic and social life. Similarly, Okorie (1998) viewed technical education as an aspect of education which is career oriented with career specific courses offered in institutions such as secondary schools, technical colleges, business schools, colleges of education (technical), polytechnics and universities, which are meant to equip the learner with knowledge, understanding and skills of different occupational area in the industry. The acquisition of skills leads to the development of new career and consequently metamorphosed into self-reliant. Olaitan (1993) says that technical education is any form of education whose primary purpose is to prepare person for employment in recognized occupation. It provides skills, knowledge and attitudes necessary for effective employment in specific occupation. Equally Osuala (1978) sees technical education as a training intended to prepare student to earn a living in an occupation in which success is dependent on technical information and an understanding of laws of science and technology as applied to modern design, production distribution and services. By the above points, technical education is geared towards the development of a new careers and occupation for self-reliance.

Goals of Technical Education In Nigeria

Technical Education as contained in section 7 of the FRN(2004) has the Following goals:

- |) To provide trained manpower in the applied sciences and technology and particularly at craft, advanced craft and technical level.|
- |) To provide the technical knowledge and vocational skills necessary for agricultural, commercial technological and economic development.|
- |) To give training and impart the necessary skills to individual who shall be self-reliant economically.|

From the above, it is clear that the primary purpose of Technical Education is for the production of technicians, technologists and related Personnel for direct employment in industry. Olaitan (1996) describes

Technical Education as a form of education which emphasized the development of occupational skills needed as preparation for work. It equips the learner with salable and entrepreneurial skills and also promote the dignity of labour by enhancing work as the goal of education.

Entrepreneurship

Entrepreneurship was viewed by Agagu (2006) as the pursuit of opportunity regardless of resources currently controlled. According to Onah (2002) entrepreneurship is the growing of venture through the use of innovatives and risk-assuring management. It is an act of creating

business through innovative and risk-assuring management. An opportunity is first identified, labour is put in and consequently the fruits of ones labour are harvested. Entrepreneurship can also be described as creative and innovative response to environment. Such responses can take place in any area of human endeavour such as building technology, electrical, woodwork, mechanical, education social work and services of all types on the formation of small scale business units within the informal sector. These business units have high potential for creating new job increasing output and improvement in general standard of living. According to Dike(1994), fifty percentage of total urban development can be counted for by jobs created in the small scale enterprise sector. Enterprenuers requires technical skills in addition to managerial qualities as well as personal-social relationship for the growth and sustenance of enterprise. Procter (1985) revealed the attributes necessary for entrepreneurs, such as technical competence, mental ability, human relation skill, high achievement drive and creativity. Similarly, Onah (2002) described entrepreneur as a man or woman who dreams on ideas or issues which have many dimension of development. He or she has the expertise or the management capability to develop ideas into fruition. In view of the above points, we understand that an entrepreneur is an innovator which could be in any of the following.

1. The introduction of new goods (un-existing goods) or an improvement in the equality of existing goods.
2. The introduction of new methods of production with less time Consuming and maximum output.
3. The open of new market-in particular and export market in new territory.
4. The conquest of a new source of supply of raw material or half manufacture goods and the creation of new type of industrial organization in- particular the formation of a trust or some other type of monopoly.

The Role of Technical Education In Achieving Effective Entrepreneurship in Nigeria

According to the commission on the review of higher Education (1992) report, Technical Education was aimed at the production of technician and technologists and other similar business related personnel for direct employment into industries. Technical Education also provide people with the ability to be creative in the transformation of natural resources in their immediate environment into goods and services. For instance, from local construction of farm tools e.g. hoe, axe, e.t.c to the construction of shelters, mobilities, clothes e.t.c. technical Education also provide people with the opportunity to utilize available resources and dependant on indigenous technologies inherited which is not capable of satisfying our demand. We have developed alternate source of energy e.g solar energy, wind energy, hydropower, and thermal for health living and industrialization. It offers entrepreneurs new method of construction and design to meet the present demand and also enhance maximum production in firms with less time consuming, it enables them transact business effectively with the outside world through internet (I.C.T). The use of electronic media such as computer, scanner, photo copier e.t.c cannot be over emphasized because it saves time, money and reduce burden. Entrepreneurs can also effectively measure the competency of individual technologist to be employed for better placement and

allocation of duties in both production line and service industry. It again makes entrepreneurs undertake routine maintenance on different machines, equipment and other capitals to avoid total breakdown which is an antidote to production.

Constrains In Technical Education Responsible For Ineffective Entrepreneurship In Nigeria

Despite the significant role played by Technical Education for producing high skilled personnel's' in specific occupation for self-reliance, it is faced with some constrains which has greatly affected entrepreneurs in Nigeria. Some of these problems will be discussed.

) Inadequate funding/ Insufficient capital.|

The success of every occupation or career depend largely upon the financial ability/capacity as well as physical facilities needed for such programme.

Money is being the most valuable factor of all the resources required because without money other factors of production cannot be provided. Okorie (1993) said that fund and instructional facilities in consonance with industrial development in the country are grossly inadequate. Similarly, okoro (1993) observed that technical education suffers some serious problems that have limited its effective contribution, one of these problems is funding leading to inadequate teaching facilities. A situation where funds are lacking or inadequate not much could be achieved and this will equally deter the clamour towards wealth creation and self-reliant. Technical education is experiencing gross inadequency of teaching and learning facilities and little that are available are either outdated, broken down or out of use due to related problems such as lack of consumable materials and electricity, power supply for operating the equipment and machine. Fund was identified as one of the impediment in the development of technical education which in turn adversely affects the trainee, high rate of interest place on bank loans by bankers and other financial institution has also scared those with zeal to embark on small scale enterprise for self-reliance.

) Poor implementation of Government policy and programme|

Over the years, good policies have been formulated on technical education, strategies for improving the present status of technology were identified. But they are either not implemented or poorly implemented.

) Poor Economy|

Economical problem such as high cost of raw materials and goods greatly affect the growth of some business as huge amount is invested in the purchase of raw materials, transportation of

facilities. While the market demand is low, some finished products have been in warehouses for months. This reduces the entrepreneur zeal to produce more thereby making him / her indebted to pay the staff wages.

) Negative Attitudes|

Some people have strong believe that professions like banking, farming and paramilitary are the utmost means of achieving lively needs or fetch more and enrich people easily,thereby developing less interest and emphasis on vocational occupations or enterprises for self-reliant.

) Erratic Power Supply|

Irregular supply of electricity directly reduces the production. In a situation where entrepreneur cannot afford to fuel His/Her power plant no production shall take place for some days. The money He/She supposed to us for the maintenance of machines and other capitals are sometimes converted to the purchase fuel.

Conclusion

Technical Education has been identified as that greatest tool to be used in reducing high rate of unemployment, poverty, social, political and other problems through wealth creation in various sectors of economy. Therefore, anenabling environment must be put in place for functional Technical Education the bedrock of sustainable entrepreneurship programmes.

Recommendations

) Adequate fund must be provided to run technical education for producing Skilled personnel demanded in industry, agricultural and commerce. Federal Government should provide sufficient instructional facilities in technical institutions. In fact, the national policy of science and technology (1996) recognized that one important means of

achieving National development is to have strong technical education programme in all levels of education. It must be realized that technical education played an important role towards industrialization. Adequate modern facilities and sophisticated equipment should be provided in our schools, colleges and universities for training students in various professions or vocations for self-reliant.

) Policies concerning technical education should be left to those in the field of technology to formulate and implement them. Formulation and implementation of Technical Education policies by the general educators has a serious obstacle to the development of productivity in this country.|

) Nigerians should be re-oriented through electronic media (Television, radio newspapers e.t.c) on the significance of technical education to economic development. Free training as well as seminars, workshops and conferences on significance of Technical Education in various fields of human endeavour should be provided for self-reliant.|

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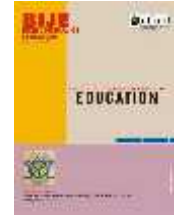
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THE IMPACT OF BUSINESS EDUCATION ON SELF-EMPLOYMENT AND ENTREPRENEURSHIP OF NIGERIAN SCHOOL GRADUATES

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ABSTRACT

The role and importance of small-scale enterprise in the economic development of a nation cannot be over emphasized. It is therefore no doubt a backbone of ever economy, including Nigerian. This paper discussed in detail the concept of Business Education, and the need for self-employment and entrepreneurship through Business education programme and how they are related. Various types of small business that facilitate the attainment of self-employment through Business Education programme and how they are discussed, top features that can enhance success in business and avert failure that are rampant in entrepreneurship programme. Likely problems retarding the development of entrepreneurship are highlighted and recommendations were made on how a business education can be a good entrepreneur and self-employed.

INTRODUCTION

Business Education is viewed as the activity of making buying, selling or supplying things for money while an entrepreneur is seen as one who possess a willingness to take risks while other are blind and then develops optimum confidence in achieving success beyond that of others (Osuala in Momoh 2004). The essence of entrepreneurship education is to facilitate in the attainment of self-reliance, and one way of achieving this is through Business Education. The demand to engage in entrepreneurship sounds loud and clear as we go on the highways. Momoh (2008) asserted that bill board all over the place keep on calling the attention of passersby with inscriptions life if you can imagine it, then you can achieve it . Go start something , great things start small and such alike. All these shows the important of entrepreneurship in the attainment of self-employment through Business Education. However, it is a general believe that Nigeria as a developing nation is saddled with poor economic condition such unemployment, poverty, over dependence on government to provide work for the citizens, illiteracy etc, that was why Akanbi (2002) asserted that any education is worth its salt when it solves basic social problems . Business Education in the course of training have been made to understand that they

are being trained to be job creators rather than job seekers. Therefore, recipients of Business Education programme after the training are not expected to be dormant or idle as per income generation is concerned, Ekula (2008). They are not to be found in the record of unemployed persons within the society and should thus be able to solve their own basic social problems if not those of others. It was also opined by Nwokolo (1994) that Business Education is aimed at turning out right workforce, with business and entrepreneur ability for positioning in various sectors of the economy globally. Therefore, when considering the above assertion we will certainly agree that there is a great relationship between Business Education entrepreneurship and self-employment.

THE CONCEPTS OF BUSINESS EDUCATION

Different scholars look at the meaning of Business Education differently Aliyu (1998), asserted that there are numerous definitions of Business Education, as there are many Business Education as the education for business or training in business skills which are required for use in business policy analysis. It is the deliberate intent of teachers to inform students about economics and business concepts and skills that might be of use in later life, Aliyu (2001) it is meant to equip the youths with certain economic and business concepts as a vehicle for better understanding and analysis of the world in which they live. For intelligent and wise decision on goods and services to consumers or producers, Business Education is essential to all individuals. According to Okorie (2001) Business Education is concerned with the organized effort of school to equip the learners with certain economical and Business concepts as a vehicle for better understanding and analysis of the world in which they live. It can be used as an effective tool for economic stability of a nation by turning job seekers to job creators, Daramola (2008). People who receive Business Education are provided with occupational intelligence to enable them fit into and find job satisfaction in labour force in a complex and dynamic world. Added to this Popham in Daramola (2008). Business Education as education that prepares students for entry into advancement in job related of business. They noted that this preparation also enables students to handle their own business affairs, function as intelligent consumers and as well as capable citizens in the economy. Anao cited in Medebi (2002) has the definitions to be an educational process or content which has its primary aim in the preparation of people for roles in Business enterprises such roles could be as employer or simply as self-employed. This position of Anao, clearly shows the link between Business Education, entrepreneurship and self-employment.

SELF EMPLOYMENT AND ENTREPRENEURSHIP

Oxford Advanced Learner 's Dictionary define self-employment as working for oneself and not employed by any company etc. Therefore, the ability of an individual to established a small scale business, be able to manage it and make profit out of it is a step towards self-employment.

The assumption that the government ought to create jobs for graduate is wrong. Government does not create jobs. How many people will it create job for? Therefore, what is required of the government is for organized private sector and foreign investment to flourish in the country. Graduates should be challenged by what the environment offers. Considering the packaged of pure water business many Nigerian ventured into it and are making a living out of it. People are employed today in the business but just one person started it and today many have benefited. The use of motor cycle for commercial purpose popularly referred to as okada business generate as much as ₦4,000 of ₦5,000 per day (Personal Survey 2009) how many graduates earn as such as that in a day? However, for an individual to attain self-reliance through Business Education one must be able to have knowledge of entrepreneurship. The term entrepreneurship is derived from a French word Entrepreneur meaning one who undertakes tasks in a production process. The term has been defined by many authors among which are:-

The willingness and the ability of an individual to seek out investment opportunities in an environment and to be established and run enterprise successfully based on identified opportunities, Gana (2001). Akanbi in Momoh (2007) conceives an entrepreneur to be a person who attempts to make money with his or her initiative by taking risks and ultimately becoming a robust business owner . This assertion therefore shows that a good step toward attaining self-reliance is entrepreneurship. In the same vein Osuala (2004) defines entrepreneurship as the ability to get up a business enterprise as different from being employed. This ability should be acquired and should differ in some respect from the abilities required to enable a person obtain employment. It involves the acquisition of skills, ideas and management abilities necessary for self-reliance. It is observed by Udoh (2002) that, No nation can attain self-reliance without productivity, which refers to the level of output in relation to the level of input employed in a given period . Stressing the need of entrepreneurship in attaining self-reliance (Timmons (1987) asserted that entrepreneurship is the process of planning and organizing a small venture, the marshaling of people and resources to create, develop and implement solution to problems to meet people need. All these assertions stressed the need for entrepreneurship to attain self-reliance and this can only be possible with help of sound Business Education. Functional Business Education should therefore see possessors being productive in their abilities to establish enterprise form where societal needs can be met. Various type of small scale business therefore exist which can facilitate in the attainment of self-reliance among which are:-

1. **Seminars/workshop** :- All one need to do here is to find a need and fill it. When one identifies the area of interest, send letters to companies, corporate organizations, individual and some captains of industries to participate in the workshop. Then rent a venue for the seminar and put all the necessary facilities in place. If properly planned and executed, you make your fortune out of it, and become self-reliant. It is a decent and good way to earn a living, even though very challenging but very rewarding.

2. **Mobile Photographer:-** This is another lucrative business that may keep one knocking at the door of success. What one requires is to buy a camera, set every other thing in motion for the business. This may cost one less than 40,000 and can earn him up to 20,000, 50,000 per months depending on his ability.
3. **Taxi Services:-** Driving is a very common job but very paying one can start his own service using hired cars or by agreement on daily returns with the owner or one can use his own car if he can afford one. One can hire a car with less than 1,000 on daily basis. It is a good venture much depends on the way you operate it taxi operators make a profit of 3,000, 5,000 per day, Personal Survey (2009)
4. **Remedial Teacher:-** If one know a subject or a few of them very well and can teach, one in making a headway to success and a step toward self-reliant one can get a place that can accommodate up to 20 – 30 students and procure the services of qualified teachers for the business. One need less than 20,000 to purchase school materials while money accruing from registrations and tuitions should be used to pay teachers and other staff salaries.
5. **Mobile Barber:-** This is another business that may facilitate the attainment of self-reliant. With less than ₦50,000 one can start this business successfully. You only need to buy electric or manual clipper, a brush, cloth, powder and cleansing chemical. Visit different homes, office or shops and your neighbours, charge lower than what the barbing saloons charge.
6. **Greeting Cards:-** There is great deal of money being made in the greeting card business. Many millions of cards are sold annually and the demand seem to be on the increase Christmas cards sell more than other cards like get-well soon cards, wedding cards, lovers and birthday cards. One may make a lot of money doing this business.
7. **Car Wash:-** One can set up a place for washing cars in urban or rural areas. This business offers great opportunity for those who want to bend down and make a living out of it. One can start the business with less than ₦50,000 to buy brushes, water vessels, liquid soap or detergent. It is a sure success venture that can facilitate the attainment of self-reliance.
8. **Compound Cleaning:-** One can embark on compound cleaning with less than ₦5,000 to buy bucket, detergent, brooms, brushes and rakes for the service. It is another source of good path to attain self-reliance.

There may be some other forms of small business that can equally help an individual to attain self-reliance when embarked upon. Furthermore, features that can enhance success in one business are identified by Chidi (2006) as follows:-

1. **Simplicity of operation:-**

The first and most important is that the business one chooses must be very simple to operate. It must be free from tedious contracts and complex manufacturing process. The easier it is, the better for one to make money fast.

2. **Low Capital Outlay**

The business must not necessarily require a very large investment of capital. For most profitable business, it is not necessary to invest more than 10,000 to 50,000 at the start. One can increase his/her capital outlay as the business grows and there is need for additional capital.

3. **Go for simple production processes:-**

It is advisable, where possible, to avoid complex product that require expensive manufacturing machinery. The simpler one manufacturing process(es) and one product is the better for success with this, it makes it easy to learn and master the process as there is no need for training programme of long duration. It also saves the expenses of buying and installing costly and sophisticated machinery and equipment.

4. **Go for Highest Earning per investment:-**

One need not to invest in business activities that require large number of hours to produce a return. One ambition is to earn the largest amount of money per hour return on your investment. It is therefore advisable to look for activities that bring one fast return per unit of time invested to enable one build his/her wealth quickly and with least sweat.

5. **Work with few productive staff:-**

Here, one has to choose a product or service that he/she can work on all alone at the initial stage without the need for extra labour. One business must require minimum labour force because large labour force requires extra money fixed monthly overhead and supervision. If one must employ additional hands in his/her business (and these must be committed type) one must first of all be convinced that there is need for living them.

6. **Fast selling Goods**

One should try and find a product that will sell fast. The faster you sell your product, the higher the turnover and the better chances of getting rich quick.

7. **Avoid Large Expensive Inventory**

It is advisable to avoid a business where one must maintain a warehouse full of expensive inventory e.g. jewelry, gold, diamond etc it is not necessary for one business to have expensive furniture

8. **Large Demand**

Also consider to sell something that almost everyone can use. If one cannot develop such a product or service, keep on looking for one that at least a greater proportions of the population will buy.

9. **Look for service or product with repeat sales tendency:-**

It is also necessary to look for a product that customers can make a repeat purchase first purchase e.g Coca-Cola which is the bestselling soft drink in the world Kotler (2000).

10. **Identify and satisfy target market**

Lastly, one can make big money with a product or service that has clearly defined market one can easily reach. Is the product for men, women youth or professionals? Until one spell out clearly these hard facts, ones' business is built on shaky foundation. One need to point out the specific usage. Carry out informal market research and feasibility study to establish the demand base for your product or service. However, these are numerous problems that are likely to retard the development of entrepreneurship in Nigeria. These are identified by Gana (2001) as follows:-

- i) **Incompetence:** This is when entrepreneur does not know how to run the enterprise and so makes wrong decision which might retard development of entrepreneurship in Nigeria.
- ii) **Lack of managerial experience:** Here the entrepreneur may lack knowledge in the management of the five MIS management, men, money, material and machinery and therefore affect the development of the system.
- iii) **Lack of experience in the chosen line:** This is when the entrepreneur lack relevant knowledge of operational methods, procedures and policies. He or she may even lack knowledge in the nitty-gritty of the area of business he/she wants to undertake for e.g., a few years ago when the government banned importation of ready-to wear garments, a lot of people without the knowledge of clothing construction established dressmaking establishments. They hired skills tailors who ended up cheating their employees and leaving the establishment when they were most needed.

- iv) **Neglect:** Occasionally some entrepreneur may have hands in many pies and may end up neglecting some. This of course will retard the development entrepreneurship because of lack of adequate supervision.
- v) **Fraud:** A situation where employees cheat on goods and money from the business. If this is not quickly detected and nipped in the bud, it could lead to the collapse of the business and hence retard the development of entrepreneurship.
- vi) **Inadequate Capital:** A situation where an entrepreneur did not start a business with adequate capital can lead to the collapse of that business and can retard the attainment of self-reliance through entrepreneurship.

Hisrich and Peter (2002) asserted that the following are some reasons why entrepreneurship fail in most cases:-

-) Goals set by entrepreneur are unreasonable.|
-) Goals are not measurable.|
-) The entrepreneur had not made a lot of commitment to the business and the family.|
-) No customer need was established for proposed product or service.|

CONCLUSION

All over the world self-employment i.e. entrepreneurship, is increasingly seen as a development strategy for nations and Nigeria is no exception. The time has come for young and already engaged entrepreneurs to put aside the fears that often deter them from existing seeming hurdles on the part to entrepreneurship to be a successful entrepreneur, one must be like a proverbial dog with a bone, he does not drop the borne until he finishes with it. An entrepreneur should therefore never embark on too much sleeps, rest or eat until he accomplishes his set goals. He should therefore hold tenaciously to his dreams.

RECOMMENDATION¹

Based on the discussions so far, the following recommendations will help a business educator to be self-employed and an effective entrepreneur.

- i. An entrepreneur should be able to be result oriented person. He/she should set difficult but achievable goals. He/she should be persistent, persevering and

- determined. He/she should set measurable goals. E.g. by the end of the first year of operation, I should be able to make a profit of 10% after tax .
- ii. Self-confidence:- The entrepreneur should believe in him/herself and not just on fate. He/she see obstacles or difficulties to achieving his/her goal as challenges, which must be faced squarely and conquered.

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EVALUATION OF GROWTH PERFORMANCE OF YANKASA LAMBS FED SUGARCANE PEELS: AN AGRICULTURAL ENTREPRENEURSHIP PROGRAMME FOR NATIONAL DEVELOPMENT.

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ABSTRACT

This study was conducted to evaluate the nutritional value of sugarcane peels. Randomized Complete Design (RCD) was used in this experiment. Ninety (90) days were used for feeding trial using (20) growing Yankasa lambs. Four different diets were formulated containing sugarcane peels to replace cowpea husk at 0, 15, 30, and 45 %. Inclusion of sugarcane peels in the diet of growing sheep up to 45% level did not adversely effect ($P>0.05$) performance. Such inclusion level led to decrease in the cost of feed/kg live-weight gain. However, animals on 15% sugarcane peels diet were better compared to other treatments in terms of weight gain but in terms of cost of production, animals on 45% sugarcane peels diet were the best for economic return. Therefore, it concluded that the use of sugarcane peels in the formulation of ruminant feeds would adversely reduce the cost of conventional feeds as well as urban solid waste, which is polluting our environment in terms of air (when sugarcane peels were burn) and blocking our water waste (Drainage). In view of this, it was recommended that, sugarcane peels could be included in the diet of growing Yankasa lambs without adverse effect on performance. Therefore, entrepreneurs should use sugarcane peels as raw materials for the manufacture of Animals' feeds in order to utilize its potentials.

INTRODUCTION

The escalating cost of conventional feedstuffs has necessitated the search for cheap alternative feed resources that can meet the nutritional needs of livestock. Such feedstuff should have the advantage of cost as well as poses very low human food preference to eliminate competition between man and animals (Obioha, 1992). To alleviate the problems associated with feeding, using different unconventional feeds in the right proportion can reduce the high cost of feeds. The uses of residues and agro-industrial by-products as supplements are becoming increasingly popular in Nigeria. The suitability of grain offal and crop residues in feeding ruminant is also

well documented (Louca, 1982). Ration could be formulated from offal and crop residues for use as supplements instead of the conventional concentrate. The sugarcane peels are almost available throughout the year but more available during the dry season of the year. This is a waste obtainable from sugarcane; up till now it has not been used for any purpose. It is being dumped in the water ways causing environmental havoc by blocking drainage. In addition, the streets become unclean and burning it can cause additional environmental pollution by adding to the global warming. In view of this, the utilization of sugarcane peels in the diets of ruminants will drastically reduce the above captioned problems as well as reducing the problem of feed scarcity especially during the dry season. Sugarcane peels is a waste product obtained when the cane is being processed for chewing. The peels are obtained from peeling of the sugarcane stem with a sharp knife. This exposes the inner tissues of the cane and gives easier access to the underlying, soft parenchyma tissue, which contains the juice. The peels consist of soil particles, wax pigments, fibrous materials and some of the underlying parenchyma cells (Ayoade, 2007). So far no work has been done about the quantity of sugarcane peels but there is much availability of sugarcane peels more especially during the dry season (October – February) in northern Nigeria because sugarcane is chew locally and the peels are thrown everywhere when the sugarcane was processed locally by peeling. (Ayoade, 2007) identified two methods of local processing of sugarcane as scraping and peeling.

Experimental Location

The study was conducted at the Federal College of Education (Technical) Bichi, Department of Agricultural Education, Livestock Farm. The Farm is located within the College at about 40km west of Kano city in Bichi Local Government Area of Kano State. Kano is located within the general area demarcated by the lines of longitude 8⁰E and 9⁰E and latitude 12⁰N and 13⁰N in the semi-arid zone of northwestern Nigeria. The area has two distinct seasons, a wet season (May – September) and dry season (October - April) with annual rainfall of 787mm and 980mm. (Kano Agricultural Development Authority, KNARDA, 2001)

Experimental Animals and their Management

Twenty (20) male lambs used in the experiment were purchased from Bichi market, Kano State. The animals were quarantine in the College Farm, for two weeks, dewormed with Banmith II® (12.5mg/kg body weight), sprayed with Triatic® against extoparasite and treated with oxytetracycline HCl (a broad-spectrum antibiotic). Prior to the experiment, the animals were managed intensively and group-fed with cowpea hay and wheat offal.

Experimental Feed Preparation

The principal ingredient for the experimental feed was sugarcane peels collected from the selling points within the metropolitan area of Kano State. The peels were sun dried on a floor for a period of 3 – 4 days depending on sunlight intensity and finally milled with a hammer mill to produce sugarcane peels meals. Other feed ingredients for the preparation of the feed include the following: groundnut haulm, cowpea husk, bone meal, wheat offal, and maize, cotton seed cake and salt which were purchased from Kano metropolitan market.

Experimental Diet Formulation

Four complete experimental diet were formulated using varying levels of sugarcane peels to replace cowpea husk at 0(control), 15, 30, and 45% inclusion levels (Table3.1). The four experimental diets were used to feed twenty (20) growing lambs. The diets were designated as diets 1, 2, 3, and 4 representing experimental treatments.

Experimental Design and Feeding Procedure

A Randomize Complete Design (RCD) (Steel and Torrie, 1980) was used in this experiment with number of animals representing replication and graded levels of sugarcane peels representing treatments. Five (5) animals were allocated to each treatment and were balanced for weight. Each animal was housed in a pen measuring 2m x 1m x 2m, which was previously disinfected. Each group was assigned to one of the experimental diets and fed *ad libitum* in the morning and evening for 90 days. Water and salt lick were also offered *ad libitum*.

Data Collected

Daily feed intake was kept for the whole 90 days feeding trial and weekly live weight changes of the animals were also taken. Prior to weighting feed were withdrawn at least 6 hours before the weighing

Statistical Analysis

SAS (1988) Software was used in the statistical analysis of the data and LSD was used in the separation of mean.

Results of Experiment

Proximate Composition of Experimental Diets and Test Ingredients

Table 1 shows the proximate composition of the experimental diets and test ingredients fed to growing lambs. The dry matter (DM) contents of the experimental diets varied between 93 and 95%. Crude protein (CP) content was higher for treatment 1 (16.43%) and lower for treatment 2 (16.13%) while crude fibre (CF) content increased from treatment 1 (28.41%) to treatment 4

(31.36%) which means that CF content increase as the level of sugarcane peels increased in the diet. Acid detergent fibre (ADF) followed similar trend. Ether extract (EE) is higher in treatment 2 (6.63%) and lower in treatment 1 (2.39%). Ash content followed the same pattern with the EE. Nitrogen free extract (NFE) was higher in treatment 1(41.46%) and lower in treatment 3 (35.77%).

Table1: proximate Composition of the Experimental Diets

Parameters %	Treatments (Graded levels of sugarcane peels)			
	(0)	(15)	(30)	(45)
Dry matter (DM)	95.41	94.67	95.00	93.72
Crude Protein (CP)	16.43	16.13	16.35	16.25
Crude Fibre (CF)	28.41	29.74	29.68	31.36
ADF	36.93	38.66	38.58	40.77
Ether Extract (EE)	3.39	6.63	4.85	5.42
ASH	10.31	11.51	9.78	10.63
NFE	41.46	36.05	35.77	36.31

Growth Performance by Growing Yankasa Lambs Fed Varying Levels of Sugarcane Peels.

Table 2 shows the growth performance per kg live weight gain by growing Yankasa lambs fed varying levels of sugarcane peels. From the table it can be seen that feed intake and Average daily gain (ADG) were not significantly affected ($P>0.05$) by the inclusion of sugarcane peels in the diets of the lambs. However, dry matter intake was significantly higher ($P<0.05$) in treatment 2 (905.47 g/day) compared to that of treatment 4 (817.05 g/day) whose value did not differ significantly ($P>0.05$) between other treatment means. Dry matter intake as % body weight was significantly higher ($P<0.05$) in treatment 1 (92.78 g/day) compared to treatments 2 (2.58 g/day) and 4 (2.49 g/day) whose values did not differ significantly ($P>0.05$) between that of treatment 3 (2.61 g/day). Feed efficiency in treatment 1 (0.17) did not differ significantly ($P>0.05$) between those of treatment 3 (0.19) and 4 (0.2) whose values also did not differ significantly ($P>0.05$) between that of treatment 1.

Table: 2. Growth Performance by Growing Lambs fed Sugar Cane Peels

Parameters %	Treatments (Graded levels of Sugarcane peels)				LSD
	(0)	(15)	(30)	(45)	

Average Initial weight (kg)	17.98	17.88	17.90	17.96	
Average final weight (kg)	30.78	35.08	32.3	32.96	
Feed intake (g/day)	897.8	956.47	723.1	867.8	253.76
Dry matter intake (DMI) (g/day)	856.93 ^{ab}	905.47 ^a	840.87 ^{ab}	817.05 ^b	83.17
Average daily gain (g/day)	142.22	191.11	160.00	166.67	350.78
Dry matter intake as % body weight (g/day)	2.78 ^a	2.58 ^b	2.61 ^{ab}	2.49 ^b	2.37
Feed efficiency	0.17 ^b	0.21 ^a	0.19 ^{ab}	0.20 ^{ab}	0.04

Means in the same row with different super scripts are significantly different ($p < 0.05$).

Cost of Production by Growing Yankasa Lambs Fed Varying Levels of Sugarcane Peels.

Cost of feed consumed decreased significantly ($P < 0.05$) as the level of sugar cane peels increased in the diets from 38.77 naira in treatment 1 to 18.06 naira in treatment 4. Cost of feed per kg live-weight gain was significantly lowest ($P < 0.05$) in treatment 4 (112 .74) compared to the rest of the treatment means while significantly the highest ($P < 0.05$) value was recorded in treatment 1 (274.58). However, values from treatments 2 and 3 did not differ significantly ($P > 0.05$) between each other.

Table 3: Cost of Production by Growing Lambs fed Sugar Cane Peels

Parameters %	Treatments (Graded levels of Sugarcane peels)				LSD
	(0)	(15)	(30)	(45)	

*Cost of Feeds/kg diet (N)	43.19	35.51	28.74	21.43	-
Cost of feed consumed/day (N)	38.77 ^a	33.96 ^b	25.42 ^c	18.60 ^d	3.26
Cost of feed/kg Live weight gain (N)	274.58 ^a	180.81 ^b	161.35 ^b	112.74 ^C	38.65

Means in the same row with different super scripts are significantly different (p<0.05).

**Feed cost/kg was calculated on the bases of prevailing market prices of ingredients as at November, 2007 (\$1Dollar = ₦128.00)*

DISCUSSION

Proximate Compositions of Experimental Diets

Characteristics of the experimental diets results on proximate composition showed that crude protein content (16.13 - 16.43%) of the experimental diets were within the values of 15 - 18% recommended by ARC (1990) for growing sheep. Bawala *et al.* (2008) reported 8.76 – 17.82% CP levels when they replaced sugarcane tops (grass) with *Leucaena leucocephala* foliage in the diet of growing sheep. The slightly decreasing level of CP as the level of sugarcane peels increased in the diets might be compensated by the increasing level of ether extract as the level of sugarcane peels increased. Crude fibre (CF) increased as the level of sugarcane peels increased in the experimental diets. However, EE, CF and NFE values obtained from the present study were comparable to the report of Muhammad, (2006).

Performance Characteristics of the Experimental Animals

Results of this experiment indicate an increase in feed intake with increasing levels of sugarcane peels in treatment 2 even though treatment 3 and 4 had a lower feed intake compared to treatment 2 but all the treatments are significantly the same (P>0.05). Variations in feed intake between all the treatments could be as a result of individual differences among the experimental animals. One possible reason for this is that, the animals were obtained from different sources with possible differences in management system. This has led to individual animal differences as regards to their adaptation to the feeding conditions, even though measures were taken to eliminate these differences at the beginning of the experiment. Payne (1990) and Lynch (1992) had earlier reported that individual variation affects the rate of feed intake in sheep and other ruminants. This experiment also indicated that, the average daily gain (ADG) of 199.11g/day obtained for animals on 15% sugarcane peels diet was better than the ADG of 90.58 g/day

reported by Bawala *et al.* (2008) when they replaced sugarcane tops (grass) with *Leucaena leucocephala* (legume) foliage. Maigandi *et al.* (2002) reported an ADG of between 68 and 93g/day when they replaced fore-stomach digesta (FSD) with cowpea husk in the diet by growing sheep. The lower value of ADG exhibited by animal on treatment 1 (0% sugarcane peels diet) could be associated with high level of cowpea husk (45%) and low fibre content of the treatment compared to others. The 45% cowpea husk level was above the 30% reported by Maigandi (2001) when he used cowpea husk as a replacement for fore-stomach digesta. The author found out that weight gain starts to decrease when the level of inclusion exceeded 30% in the diet of growing sheep. Likewise Mc Donald *et al.* (1988) reported that sheep and other ruminant poorly utilize low fibre diets. Another explanation for the relatively good ADG at 15% inclusion level of sugar cane is probably the level of crude fibre content might be the most acceptable level for growing sheep. Also the Average daily gain (ADG) recorded for this experiment (142 – 191g/day) is comparable to what had been reported for conventional feed ingredients. For example, Adu and Brinkman (1981) reported ADG value of 78 - 183g/day when they fed fatten sheep with varying levels of guinea corn and *Digitaria smutsii* hay as source of roughage. The decrease in DM intake from treatment 3 (30% sugarcane peels diet) to treatment 4 (45% sugarcane peels diet) is an indication that 15% of sugar cane peels in the diet might be the optimum level of inclusion.

Results on economics of incorporating sugarcane peels in the diets of growing lambs in this study indicated that cost of feed per kg live – weight gain was lowest (N112.74) at 45% inclusion level of sugarcane peels followed by 30% inclusion level of the sugarcane peels (N161.35) and then 15% level (N180.81). Thus, the control diet (0% sugarcane peels diets) is more expensive (N274.58) in terms of cost compared to other treatments. The results of the present study indicated that once sugarcane peels are included in the diet of growing sheep even at 15%, the cost of feed per kg live weight gain will be significantly reduced. It is evident, therefore, that the use of unconventional feeds can reduce the cost of livestock production. Similar observations were made by Maigandi *et al.* (2002) when they used fore-stomach digesta in the diet of growing sheep and Muhammad, (2006) when he used rice milling waste in the diet of growing sheep.

Conclusions

The sugar cane quality and its positive effects on the performance of growing lambs is an indication of its potential as an alternative feed ingredient for growing sheep. Furthermore, the sugarcane peels are waste obtainable from all the peeling centers free of charge. Therefore, its inclusion in the diets of ruminants will reduce the cost of livestock production and reduce urban solid waste which is polluting our environment in terms of air (when burnt) and blocking our water ways (drainage).

Recommendations

Finally, it is recommended that sugarcane peels could be incorporated into the diet of growing sheep up to 45% level without significantly affecting performance. For best economic returns the inclusion rate should be up to 45%. Results of such experiments could be used by the

entrepreneurs to formulate cheaper feed packages to be used as supplement for sheep and other ruminants especially during the long dry seasons.

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CHEMISTRY EDUCATION AND ENTREPRENEURSHIP PROGRAMME

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ABSTRACT

This paper focuses attention on the central role of Chemistry education (or chemical education) as an instrument of self-employment through the inculcation of the correct entrepreneurial skills and competencies on its beneficiaries. It analyzes the concept of quality and functions of an entrepreneur and relates this to preparation in chemical education to minimize unemployment problem. Possible impediments like style of teaching, staff competence and staff motivation, entrepreneurship and curriculum issue to the realization of this objective are identified. Teachers retraining, motivation, the creation and maintenance of an enterprising culture in schools has been highlighted as ways to solving the problems identified.

INTRODUCTION

An Entrepreneur is a person who has a possession over a company, enterprise, venture and assuming significant accountability for the inherent risk and the outcome. Entrepreneurship according to Onuoha (2007) is the practice of starting a new organization or revitalizing mature organization, particularly new businesses generally in response to identified opportunities. Entrepreneurship is often a difficult undertaking, as vast majority of businesses fail. Entrepreneurial activities are substantially different depending on the type of organization that is been embarked upon. Entrepreneurship ranges in scale from solo projects (even involving the entrepreneur only part-time) to major undertakings creating many job opportunities.

Large scale unemployment is one of the greatest problem facing Nigeria today. In spite of the abundant natural resources that the country is endowed with, unemployment especially among young school leavers remain a serious problem (Blunt 1983).

As a country in a haste for technological growth and national development, Nigeria's cardinal educational objective radiate around becoming a united, strong and self-reliant nation. The

national policy on education therefore, makes a special focus on entrepreneurial education in the hope of producing graduates to serve the industries or be self-employed. But since most industries are operating below capacity (Akibu 1997) and many are indeed folding up, self-employment through development of entrepreneurship deserves attention.

Entrepreneurship education seeks to provide students with the knowledge, skills and motivation to encourage entrepreneurial success in a variety of settings. What makes entrepreneurship education distinctive is its focus on realization of opportunity, where management education is focused on the best way to operate existing hierarchies. Both approaches share an interest in achieving "profit" in some form (which in non-profit organizations or government can take the form of increased services or decreased cost or increased responsiveness to the customer/citizen/client).

Opportunities can be realized in several ways. The most popular one is through opening a new organization (e.g. starting a new business). Another approach is to promote innovation or introduce new products or services or markets in existing firms. This approach is called corporate entrepreneurship or intrapreneurship. A recent approach involves creating charitable organizations (or portions of existing charities) which are designed to be self-supporting in addition to doing their good works. This is usually called social entrepreneurship or social venturing.

Entrepreneurial Competencies in Chemical Education

Entrepreneurship is the practice of starting new organizations or revitalizing mature organizations, particularly new businesses generally in response to identified opportunities. Entrepreneurship is often a difficult undertaking, as a vast majority of new businesses fail. Economists describe an entrepreneur as a risk taker because of his willingness to recognize and take challenges either in starting a new business or in developing a new product or exploring a

new locations all in an attempt to meet unsatisfied demand at a profit. This demands self-confidence and optimistic individualism. Competition is inevitable in business, and this is a major differential factor between the public and private sector. Competition necessitates a distinctive competency which is the ability, based on education, training and experience to compete effectively and excel above all others. The business culture is survival of the fittest.

Entrepreneurship also demands originality, an entrepreneur has to be knowledgeable, versatile, flexible, forward-looking, resourceful and innovative or creative. These are the essential ingredients of distinctive competencies of an entrepreneur.

The foregoing attributes are necessary to enable an entrepreneur execute his/her functions successfully. Kolawole (1997) identified six main functions of an entrepreneur as follows:

1. Identification of opportunities: understanding the needs and wants of potential customers
2. Evaluation of opportunities and choice making: This involves evaluating the profitability index, personal interest or desire of the entrepreneur.
3. Decision on form of enterprise: This include the cost and procedure of starting the business/legal requirements in the formation and operation of the business, talents, skills needed etc.
4. Factor combination: This entails decision on what to produce, where, when, how, by whom and machines and equipments with which the assignment is to be carried out.
5. Business Directorship: This include putting in place the entire management structure and function, planning, organising, staffing, coordinating and controlling
6. Risk management: This is the creative response to an investment opportunity through the development of new product, new technology or the modification of existing one to serve a better need.

Preparation in Chemistry Education for Entrepreneurial Competencies

Chemistry education (or chemical education) is a comprehensive program that includes areas related to the study or description of the teaching and learning of chemistry in secondary schools, colleges of education, polytechnics and universities. Topics in chemistry education might include understanding how students learn chemistry, how best to teach chemistry, and how to improve learning outcomes by changing teaching methods and appropriate training of chemistry instructors, within many modes, including classroom lecture, demonstrations, and laboratory activities. There is a constant need to update the skills of teachers engaged in teaching chemistry, and so chemistry education speaks to this need.

The curriculum design for chemistry education in Nigeria tertiary institutions is meant to cater for entrepreneurial competencies and eventual self-employment. These programmes are mounted by polytechnics, technical colleges of education and technical teacher's education.

The focus of Chemistry is on understanding the basic properties of matter and employing this knowledge in the design, synthesis and characterization of substances with novel and useful properties. Chemistry education strives to develop all aspects of the student's chemical knowledge via a broad range of lecture and laboratory courses. Chemical research is an integral part of the chemical education, and students are encouraged to participate in projects as a method of expanding their chemical training and developing an understanding of what is involved in the chemical research enterprise. Chemistry plays a key role in a number of interdisciplinary areas,

particularly as it interfaces with biological and materials science. Chemistry is taught in schools to achieve the following objectives:

1. To provide basic literacy in chemistry for functional living in the society.
2. To acquire basic concepts and principles as a preparation for further studies.
3. To acquire essential scientific skills and attitudes like the making of soap,

detergents etc as a preparation for the technological application of chemistry.

4. To stimulate and enhance creativity.

Correspondingly, Chemistry education provides a broad range of employment opportunities in the following areas:

1. All area of industry, from oil, chemical and pharmaceutical industry, fertilizer production, plastics, glass, metallurgy, ceramics, soap, detergents, food, drinks and a host of small enterprises producing new and specialist products.
2. In public health and environmental protection.
3. In teaching at all level.
4. In forensic science.
5. In research in universities, government institutes, industry and private agencies.
6. In numerous other occupations which make use of their scientific knowledge.

Problems of Chemistry education in Developing Entrepreneurial skills/competencies.

Style of teaching: teachers should display dexterity when it comes to practical demonstration as a method of teaching.

Staff competence and staff motivation: very many members of staff in this category lack the practical competencies in their discipline and are only good in theory; such staffs need to be identified for retraining especially in area where technological advancement is rendering their acquired skill obsolete.

Teacher motivation is a typical issue in Nigeria today. The reward system has been faulted by many observers and social critics. An old adage that a dissatisfied worker is an unproductive worker hold firmly.

Entrepreneurship and curriculum issue: The non-inclusion of entrepreneurship as a course in the curriculum of most institutions is a major problem of the entrepreneurship programme.

Conclusion

Every entrepreneur believes his or her company will succeed; it is perhaps this very optimism that forms the foundation of an entrepreneur's character. And, it may also be this optimism and unflinching positivism that attracts many to study and to teach in the arena of entrepreneurs. Though research and entrepreneurial activities may compete for a scientist's time, the relationship between these activities need not be negative if they have mutually beneficial side effects.

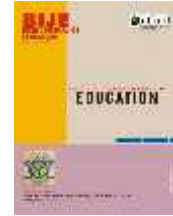
Much of the discussion in entrepreneurship education continues to focus on how to motivate young people as though these were motivations that they have never possessed. People are indeed born with ambition, motivation, and a willingness to take risks, but encounter barriers that erode this spirit of adventure (Rabbior, 1990); His message is one that we might still remember as we continue to develop new programs. We should examine our existing systems of education at all levels and seek to remove as many barriers, political and pedagogical, as possible that erode self-confidence and self-esteem and, along with them, the spirit of adventure and the willingness to take initiative and risk--the spirit of entrepreneurship

Recommendations

1. Entrepreneurship development should be made a compulsory course for all chemistry students in Nigeria tertiary institutions.
2. Teachers at this level should be given opportunity for occasional retraining and frequent exposure to the industrial world and interaction with practitioners.
3. Teachers motivation should receive attention from all tiers of government through prompt payment of workers salary and fringe benefit
4. The creation and maintenance of an enterprising culture in schools should be encouraged

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ROLE OF BUSINESS EDUCATION IN ACHIEVING ENTREPRENEURSHIP PROGRAMME

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ABSTRACT

This paper examines the role of Business Education in actualizing entrepreneurship programme. Generally, many of today's graduates in Business Education lack adequate skills. They often have difficulty in reading, writing and communicating, they are frequently unprepared to work in teams, think critically or solve problems and they may have poor work habits (Killinger,2009). No socio-economic, political and technological development can take place in any country if the citizens are not given quality education. The study adopted secondary source of data collection. The paper concludes that one of the ways out of the present unemployment crisis in this country is business education. Some of the recommendations made include: provision of adequate instructional facilities and equipment as specified by NCCE, and staff development programme to be emphasized to expose business educators to current trends in the field.

INTRODUCTION

Business is one of America's most profitable and fastest growing career fields. The U.S. Bureau of Labour predicts a considerable increase in job opportunities for marketing professionals, sales managers, and financial analysts throughout the next decade (worldwide learn, 2009). It has been recognized that no meaningful socio – economic, political and technological development can take place in any country if the citizens are not given qualitative education. Growing economies like Nigeria are faced constantly with the challenge of how to fully utilize education to develop people's abilities to manage and induce change as well as improve their living standard. In government, industry and commercial establishments, people with various practical skills are highly needed to carry out different tasks. Such practical skills are mostly provided by business education. With the rapid expansion in the activities of the Nigerian economy, there is need for a systemic plan and training of the right type of personnel through business education, Business education is a programme of instruction which consists of two parts, office education, a vocational education programme for office career through initial refresher, and upgrading education and general business education, a programme to provide students with information and competencies which are needed by all in managing personal affairs and in using the services of the business. Over the years, the critical role education plays in our economic success has become more and more apparent to us. Good, strong school systems encourage people to settle in

regions because industries are more apt to locate in areas that are attractive to potential employees. Also a well-educated population tends to spark community activism and involvement. Quality education causes our neighborhoods to become more vibrant, and as citizens to become more active moreover, good schools ultimately cause wages, personal income, and the economy to grow. Business generally finds that many of today's graduates lack adequate skills (Killinger, 2009) They often have difficulty in reading, writing and communicating, they are frequently unprepared to work in teams, think critically or solve problem and they may have poor work habits, based on the above, this paper examines the concept of business education, objective of business education, and its benefits. It also examines the concept of entrepreneurship, role of business education in entrepreneurship and the types of business or job opportunities for business education graduates.

CONCEPT OF BUSINESS EDUCATION

Business education is one of those major occupational areas of technical and vocational education. By extension it is an integral part of the total education package. Like other technical and vocational education programmes, it consists of organized educational programmes offered in a sequence of courses that are directly related to the preparation of individuals in paid or unpaid employment or emerging occupations. (Aluwong, 2007). Business education is taught to aid understanding of businesses today, as the business world is further developing it is essential to have some knowledge especially if you want to set up your own business. The Wikipedia Encyclopedia (2009) states that business education is the enterprise of education directed at the study and research of the field of business. It includes secondary education and higher education or university education, with the greatest activity in the latter. It is often or almost always oriented towards preparing students for the practice of an occupation in business or business related fields. Business education is becoming increasingly more popular as students must learn business skills to compete in a competitive economy. According to Adeshina (2008) - Business education aims at providing occupational and career orientation and exploration of job opportunities and requirements in business. It helps in the development of occupation, knowledge, attitudes and skills in the clerical, stenographic, book keeping and accounting, data processing, marketing and sales, office administration, business ownership and management fields. No doubt business education is a veritable tool for entrepreneurship development. It is not a course of study reserved for those with lower intelligence, but rather, individuals who are of high intelligence are now involved in studying it. Adeniji (2002) opines that business education is an education for business, or training in business skills which are required for use in business offices and clerical occupations. Business education programmes are designed to instill in students the basic theories of management and production. The main goals of business education programmes are to teach the process of decision making, the philosophy, theory, and psychology of management, practical applications, and business start-up and operational procedures. Business education encompasses a number of methods used to teach students the fundamental of business practices. These methods range from formal educational degree programmes, such as the master of Business Administration (MBA) to school-to-work opportunity systems or cooperation education.

Objectives of Business Education Programme At The Nigeria Certificate In Education Level

The National Commission for Colleges of Education (2002) minimum standards specifies the objectives of Business Education at the NCE level as follows:

- a. To produce well qualified and competent NCE graduates in business subjects who will be able to teach business subjects in our secondary schools and other related educational institutions.
- b. To produce NCE business teachers who will be able to inculcate the vocational aspects of Business Education into the society.
- c. To produce NCE Business Teachers who will be involved in the much desired revolution of vocational development right from the primary and secondary schools.
- d. To equip students with the necessary competence so as to qualify them for a post – NCE degree programme in Business Education.
- e. To equip graduates with the right skills that will enable them to engage in a life of work in the office as well as for self – employment.

To be able to achieve the above objectives at this level, (NCCE, 2002) the following facilities must be put in place.

- a. Classroom: Space that would take thirty (30) students conveniently with sufficient room for passage. Within the classroom space should be made available for lecture and seminar for each subject.
- b. Laboratories/studios: At least, one each of typing pool, short hand laboratory, model office and information technology room must be available.
- c. Staff offices: Each senior staff should be provided with a furnished office. The HOD should be provided with a computer facility. There should also be an office for support staff (typists, clerks, etc) with relevant equipment e.g. typewriters, reproduction machines, etc.
- d. Books in the library: There must be enough books to cover all the areas of the subject to the ratio of one student to ten books.
A departmental library is compulsory.

If the above facilities are provided by the various colleges of education in the right quality at the right time and to the right places, the above objectives would surely be achieved. Through this many youths would acquire skills that will make them self – reliant.

Benefits of Business Education

Business education have many benefits for learners.

Aimtrain (2009) identifies the following benefits:

- a. Students without prior business experience will be able to develop skills that are in demand and will have better career opportunities as a result of their business education.
- b. People who work in other fields will be able to develop basic business skills that can help them advance their careers.

- c. Business education programme may focus on topics such as marketing, money management, report writing, and management. All of this information can help professionals become more effective.
- d. Business education also has a positive impact on companies where continuing education is valued.
- e. When employees develop business skills, companies benefit in the form of efficient or increased production. This can help drive sales and reduce expenses caused by inefficiency.

CONCEPT OF ENTREPRENEURSHIP

According to Hirisch and Peters, in Peter, 2008 entrepreneurship is the process of creating something new with value by devoting the necessary time and effort, assuming the accompanying financial, psychic and social risks, and receiving the resulting reward of monetary and personal satisfaction and independence. Simply put, it is the act of creating something different to satisfy a need and assuming whatever risks and rewards incidental. There are four issues to bear in mind in this definition. First, making something different/new and it has value, secondly, time and effort are required, third, taking risk, and forth, the reward of being and entrepreneur. On his part, Balogun (2004) views an entrepreneur as a dreamer or visionary who translates the dream or the vision into a mission that he would use both mental and physical faculties and other endowments to achieve. An entrepreneur is a risk taker, an innovator who in spite of any odd uses focus, devotion and commitment to achieve his goal. Balogun (2004) further sums it up thus. Entrepreneurship therefore involves a significant amount of innovation, risk bearing, creativity and self – determination. Aluwong in (Koontz and Weihrich, 2008) reports that entrepreneurship does not apply to managing small business, but that the concept has been expanded to also apply to large organizations and to managers carrying out entrepreneurial roles through which they can initiate changes to take advantage of opportunities. From the foregoing definitions, it can be deduced that an entrepreneur is a key factor in fostering economic growth. Entrepreneurs are the pivot on which the economy of a nation rotates. A nation that has entrepreneur’s deficiency will find it difficult to industrialize and grow economically. Entrepreneurship is about using skills, aptitudes and attitudes to turn opportunities into reality, it is a way to improve every aspect of life, it is a way of life. This process, therefore involves time, planning, discipline, money and perseverance. The entity engaged in this process is the entrepreneur.

Entrepreneurship Objectives

Entrepreneurship is a necessary ingredient for stimulating economic growth and employment opportunities in all modern societies. Aluwong (2008) provides that entrepreneurship education as a tool for fighting poverty and unemployment has the propensity to continually:

1. Provide more vocational business skills to all Nigerians (youth and adult) irrespective of sex, intellectual ability, physical disability, culture, religions or ideology.
2. Produce more semi-skilled, skilled and professional manpower need to revitalize, operate and sustain the Nigerian economy.

3. Reduce unemployment and inescapably poverty brought about by lack of specific jobs skills and motivation.
4. Raise and sustain a generation of job creation rather than job seekers in the country, and,
5. Raise and sustain more honest Nigerians who will fight corrupt practices and other social vices

From the above objectives, it can be seen that entrepreneurship programme in Nigeria has a definite role in creating employment for both the youth and adult and reducing poverty. It is the process of teaching a man a fish instead of giving him fish to eat. It focuses on realization of opportunities, provides students with the knowledge, skills and motivation to encourage entrepreneurial success in a variety of settings. We shall also examine the objectives of the southern Mississippi youth Entrepreneurship programme to see the similarities with that of Nigeria.

Objectives of Southern Entrepreneurship Programme

The southern entrepreneurship programme is designed to enable the programme partners to empower the youth of the region to develop and maintain home grown business. The partners also intend to develop a practical and state of the art youth entrepreneurship programme that can be used throughout the mid-south region.

The objectives of the Southern Mississippi youth entrepreneurship programme are:

- a. To identify one or two classes of fifteen students per school district to participate in the nine-month training programme. In year two, an additional four school districts will participate in the programme. Programme participants will be identified in collaboration with the partnering school districts. School districts will engage the proposed training in their existing career discovery classes.
- b. To provide entrepreneurship training through the National Foundation for Teaching Entrepreneurship (NFTE) programme to the participants. This programme include basic accounting and marketing training and also results in the development of a business plan
- c. To provide students with Quick Books training enabling them to be more effective in their fledging business efforts.
- d. To increase the likelihood of new entrepreneur success by engaging existing business leaders to serve as mentors for the programme participants. Ideally, programme participants will be prepared with mentors in similar business fields.
- e. To provide stimulants for new business development by providing programme graduates opportunities to obtain private funding options. Programme participants will present business plans constructed in the programme to panels of finders for funding consideration. Business plan competition will also be held with monetary awards and support services provided to award winners.
- f. To conduct on going evaluation efforts throughout the programme development and implementation process to assure that all tasks in the effort are completed in an efficient and effective manner.

- g. To enhance and sustain the work of the University of Southern Mississippi and its local partners by enhancing their ability to maintain an on-going entrepreneurial development programme with local funds. (University for Southern Mississippi, 2009).

The end result of both programmes (Nigeria and southern missisipi) shall be increased economic development, increased entrepreneurialism, decreased brain drain, new networks of opportunity, and youth restiveness.

ROLE OF BUSINESS EDUCATION IN ENTREPRENEURSHIP

The role of business education as an aspect of vocational education has to do with the preparation of people for organizations as employees or employers, that is, self-employed. The basis of business education is to prepare her graduates for work which will earn them a living and for the development of the society. Business education makes her graduates self-reliant, self-employed and self-sufficient. Quality education and entrepreneurship programme can be achieved if the above minimum objectives are adhered to and the required facilities made available. This will make the students develop vocational skills that would lead them to be self - employed. Small businesses create jobs, decentralize economic power and give the youth a stake in the future. Owning a small business encourages personal freedom. Hundreds of thousands of graduates of different disciplines are roaming the streets of local government and state capitals seeking for paid jobs, but the graduates of business education who are well grounded and equipped with skills, attitudes aptitude and competences that are necessary to earn a living and be self – reliant are less affected. Business education empowers her graduates with the ability to establish and manage their own enterprises to improve their living standard or take paid jobs. To this extent, Killinger (2009) reports that - if we are to ensure economic vitality, we must all work together to produce the best educated citizens. Educator plays the key role, but parents and children also have important responsibilities. The author further stresses the role of business in education as follows:

- a. Businesses need to let the schools know what skills and capabilities students need to become successful employees. Business should also reinforce their needs at the local level.
- b. Business can lend their employees to help schools. These employees can provide service in their local schools.
- c. Business can also help with financial resources and in-kind contributions. Business can provide internships and work experience for students.
- d. Business can share knowledge on what it takes to run efficient and responding organizations.

From the above, we can observe that the role education plays in our economic success has become more and more apparent to us. The United Nations conference on trade and development (2006) reports two important roles of entrepreneurship thus:

- a. Economically, entrepreneurship invigorates markets. That is the formation of new business leads to job creation and has a multiplier effect on the economy
- b. Socially, entrepreneurship empowers citizens, generates innovation and changes mindsets. These changes have the potential to integrate developing countries into the global economy.

TYPES OF BUSINESS JOB OPPORTUNITIES FOR BUSINESS EDUCATION GRADUATES

Graduates of business education have strong written, oral and media communication skills and a broad knowledge of management, marketing and money; they have an amazing array of options as they enter the business world apart from becoming professional teachers. Worldwide learn (2009) identifies ten (10) such opportunities as follows:

- i. **Budget Analysis:** Budget workers develop and implement budgets while managing the resources and estimating future needs of organizations. They keep track of costs and income and guide over all funding decisions.
- ii. **Concept Testing:** Business education provides the recipient the skills to conduct concept testing, evaluate consumer's responses and quantify the results.
- iii. **Entrepreneurship:** Creativity can be taught, Business education programmes teach prospective business owners how to find venture capital to launch the new product or service.
- iv. **Investment Banking:** An investment banker investigates pitches, administers, and executes large-scale financial dealings. With a qualification in business a young banker's job will entail investment research.
- v. **Estate Planning:** An estate planner is both an advisor and an educator who helps clients reach their short and long-term money goals including planning for retirement.
- vi. **Knowledge Management:** These are big-picture administrators with one foot in information technology and the other foot in business. These managers protect and develop the knowledge infrastructure of a business.
- vii. **Management Consulting:** Consultants identify and solve performance problems and help with the development of more effective and efficient business plans.
- viii. **Nonprofit administration:** Wherever there is an arts council, film festival, aid organization, or social interest group, an administrator must oversee both its day-to-day operations and the implementation of its mission. Future administrators should have broad business skills and a passionate interest in the sector in which they seek employment.
- ix. **Purchasing Management:** Purchasers need business education in addition to several years of on-the-job training to learn the ins and outs of the business whose raw materials they manage.
- x. **Securities Analysis:** These number crunchers help their companies make sound investment decisions by keeping abreast of the latest corporate financial statements and commodity prices. They assess investment risks. Some securities analysts work

for mutual funds, banks, securities business, or insurance companies. Others work in commercial lending, assessing loan risks.

CONCLUSION

An extensive look has been made of business education within the context of entrepreneurship programme. The solution to self-reliant and economic growth lies in business education which provides skills to those already in the field and those aspiring to go into same. The one and only situation to the present unemployment crisis in this nation is business education. Business education gives entrepreneurship quality education which is required for self-employment and also creates employment opportunities. We need graduates who possess better skills or business will be forced to do extensive retraining.

RECOMMENDATIONS

To be able to achieve quality business education objectives and produce young entrepreneurs in our society to enhance our economic growth, we make the following recommendations.

-) Adequate and functional instructional facilities and equipment as specified by NCCE (2002) must be provided at the right time and in the right places and this should match the increasing number of students. If this is done it will enable the students acquire the necessary skills they need to become entrepreneurs.
-) The conditions of service of business educators should be comparable with that of other sectors of the economy in order to discourage brain drain. This will influence business teachers to remain in the academy.
-) Staff development programmes should be enhanced to achieve greater efficiency. The current manpower in business education should be exposed to training and retraining through seminars conferences, workshops, symposia, etc. This should be the responsibility of both federal and states governments and that will encourage young and prospective entrepreneurs to take business education seriously.
-) Adequate and relevant textbooks, journal, information communication technology (ICT) facilities should be provided to enable both the teachers and students to keep pace with the business world in terms of changes taking place.
-) Sufficient funds should be made available for the running of business education in our institutions. This will also enable teachers and students to go on excursion trips to some business enterprises to see and feel the practical aspect of business other than relying on theories only.
-) Government and distinguished entrepreneurs should create an enlightenment programme through the available media on the opportunities that abound in business education. This will open the minds of Nigerians towards becoming self-reliant other than waiting for paid or government employment.

-) No business can thrive efficiently without adequate and stable infrastructures. To achieve the entrepreneurship programmes, the requirement for good road, rail networks and efficient air travel service, stable supply of electricity, water and efficient telecommunication systems must be ensured by government.
-) In the area of trade policies and barriers, there should be consistent consultations between the entrepreneurs who form the bedrock of the private sector and the governments before policy formulations are finalized.

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THE ROLE OF ADULT EDUCATION AND ENTREPRENEURSHIP PROGRAMME

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ABSTRACT

Education is an empowerment process essentially and ultimately aimed at enabling people to be in control of their lives. Adult Education is among the vital programmes which can be used to develop individuals in order to enable them perform their responsibilities in any nation.

In this paper, attention is focused on adult education, the role of adult education in Nigeria, and the installing of adult education programmes for entrepreneurial development. Finally, recommendations were made for a successful development of entrepreneurship programmes in adult education. These include, provision of funds and facilities, periodic evaluation, government commitment e.t.c.

INTRODUCTION

Education is necessary for man in order to articulate himself and achieve fullness. However, the formal Education system, which is elitist, discriminatory and installment, cannot alone provide all the education one needs for self-fulfillment. The terminologies, such as, continuing education, recurrent education, education permanent and life-long education have been used by different bodies to stress that education should be co-terminous with life. Adult education in its complementary and supplementary roles in education affords citizens of a country opportunities for attainment of self-fulfillment. Nigeria recognizes the fact that the key to solving many of its social, economic, political and developmental problems lies in providing effective education programmes. This covers both formal and non-formal to its polity, especially in the crucial areas of agriculture, business, health and basic functional literacy. Given education, the citizen especially the adult is most likely to become more productive and continuously seek new ways to improve himself and his environment.

THE CONCEPT OF ADULT EDUCATION

One of the most crucial issues in the promotion and development of Adult Education is its problem of meaning. There is the tendency to define adult education by what one feels it should be rather than by what it was. This is yet compounded by its amorphous and diverse nature. However, our concept of adult education will continue to influence both, its character and the research we pursue. Despite this problem, adult education has been defined in many instances. For example, the Nigeria National Council on Adult Education (NNCAE) defined adult education as a process by which men and women undertake sequential and organized activities with the conscious intention of bringing about changes in information, knowledge or skills, appreciation and attitudes or for the purpose of identifying and solving personal, group or community problems (NNCAE, 1975). This definition assumes that men and women implies adult persons. While the bulk of sequential and organized activities entails educational experiences that are consciously arranged and articulated for his stimulation. Similarly, adult education has been defined as a process whereby persons who no longer attend school on regular and full time basis undertake sequential and organized activities with the conscious intention of bringing about changes in information, knowledge, undertakings or skills, appreciation's and attitudes or for the purpose of identifying and solving personal or community problems (Liveright and Haygood 1968). This definition assumes that, all adults have gone to school for some period of their childhood. It is conceived by scholars from developed countries where the societies are mostly literate and in which there was the quest by members to catch up with new ideas, upgrade their skills or use their leisure effectively. It does not also tie itself to the issue of adulthood alone but creates room for consideration of persons who are though not adults but

have no provision to forge ahead in the formal education system (school dropouts, unqualified graduands who attend extramural studies and remedial programmes). Furthermore, (Waller, 1966) also defined adult education as any organized arrangements for teaching adults' things (knowledge and skills) that they ought to know, needed to know or wish to know for helping them to learn such things themselves. Adults are usually taken to mean-people from the age of eighteen (18) onwards, the age to which they may be parents and are capable of earning a living.

CONCEPT OF ENTREPRENEURSHIP

According to Onuoha (2007) Entrepreneurship - is the practice of starting new organization or revitalizing mature organizations, particularly, new business generally in response to identified opportunities. According to Schumpeter in Akanbi (2006) entrepreneurship could be regarded as an innovative process of change, whereby new products, or new combinations or procedures were created. Inherent in this process is - creative destruction by which the innovative process interferes with established procedures and scatter, destroy or reallocate amassed resources,

structures and know how. Jonah (2001) defines entrepreneurship as the willingness and ability of an individual to seek out investment opportunities in all environments and be able to establish an enterprise successfully; based on the identified opportunities. Drucker (1970) sees entrepreneurship as taking risk. To them, entrepreneurship is all about willing to put career and financial security on the line and take risk in the same idea, spending much time as well as capital on an uncertain venture. However, Entrepreneurship refers to an individuals' ability to turn ideas into action. It includes creativity, innovation and risk taking, as well as the ability to plan and manage projects in order to achieve objectives. This supports everyone in day-to- day life at home and in society, makes employees more aware of the context of their work and better able to seize opportunities, and provides a foundation for entrepreneurs establishing a social or commercial activity.

THE ROLE OF ADULT EDUCATION

The issue of adult education concerns the illiterates who have never been to school and different completers of the formal education at different levels. Every person no matter the level of education attained needs adult education of one type or another. Hence, adult education is basically defined as any education programme designed for people regarded as adults in their communities. That is, designed for people who are mentally mature and are socially responsible. The National Policy on Education (NPE: 1998) states the objectives of the Adult and Non-formal

Education as follows:

- ❖ Provision of literacy education for adults who have never had the advantage of any formal education;
- ❖ Provision of remedial education for those who prematurely dropped out of the formal school system;
- ❖ Provision of further continuing education for different categories of completers of the formal education system in order to improve their basic knowledge and skills;
- ❖ Provision of in-service on-the-job, vocational and professional training for different categories of workers and professionals in order to improve their skills;

- ❖ Provision of giving adult citizens necessary aesthetic, cultural and civic education for public enlightenment.

As a matter of fact, these objectives are very comprehensive and laudable. If the objectives are fully implemented the country will be put on the right path of adult education for the benefit of adults in the country. However, adult education generally has not been fully backed up by the government over the years. Compared with other sectors it has not been fairly treated in financial allocations (Okedara, 1980: Osuji, 1984). However, it should be realized that while the formal system of education is selective, elitist and discriminatory, adult education takes care of a wider clientele and is non-discriminatory in any society. For instance, the formal system takes care of the youth in the perspective of the apprenticeship model of education, that is, education for preparing the youth for a working adult life. But adult education takes care of a person's whole life. It caters for educational aspirations of every adult at any point in time. Among the characteristic features of adults include, mental maturity and social responsibility. It is through adult education, that adults are helped to be mentally articulate so as to be able to understand issues and judge rightly, and are enabled to perceive reality and creditably discharge their social roles as parents, uncles and leaders. Thus, the role of adult education towards attainment of fullness and life fulfillment could be described in different ways. It could be conceived as a second chance or remedial to those who missed the opportunity for formal education. Here we have programmes, such as, literacy education for the illiterates and different continuing education programmes in forms of intellectual and vocational education. It could be described as complementary or supplementary. Adult education plays a complementary role because it stabilizes ones' educational attainment as it provides constant refinement of knowledge and skills. On the other hand, it plays a supplementary role as it takes over from where the formal system stops. Another way to conceive the role of adult education is in the context of horizontal and vertical dimensions. Vertically, at whatever age an adult finds himself, adult education is his companion as he interacts and gains experience. Horizontally, ones' association with other people, either in the smaller or the wider society, adult education enables him to attain education non-formally. Thus, the totality of ones' education is not to be seen only from the formal educational institutions he attended but mainly from the non-formal educational opportunities afforded him. Hence adult education could be seen as making continuous provisions for all the people within a society so as to make them up-to-date in their knowledge and skills, refine their thought and make them understand issues and fully be in control of their destinies. Also, adult education at whatever level is engaged with the context, social, economic and political realities of its location. Duke (1994:) has rightly put it that: The dominant shared purpose of adult education has always been ameliorative. It has been intended to enhance individuals' life opportunities; to widen their

horizons; to empower them; to alter the nature of the society of which they are... It is not, generally, seen as an end in itself. As a result of the necessity of adult education for human and societal survival, Nigerian should offer different adult education programmes to cater for various educational aspirations. In this way, the citizens will be enabled to attain fullness of life through adult education.

INSTALLING ADULT EDUCATIONAL PROGRAMMES FOR ENTREPRENEURIAL DEVELOPMENT

Adult Education in particular and in all its components has been deemed as purposeful in all sectors of national development. It was a conduit through which personal and societal development may be attained. While the learner is the ultimate beneficiary of any educational process, the society becomes the penultimate beneficiary of these process. It must be stated here that the levels of formal education will affect entrepreneurship (Ogundele 2004). In addition, the levels and types of technical, vocational, managerial and other forms of specialized training and

development will equally affect entrepreneurship. The other side of the coin is that the lack of appropriate and necessary training and development would adversely affect the pace of emergence, patterns of behaviours and consequently lead to a slow pace of performance of the economy. Therefore, appropriate entrepreneurial educational programmes must be provided for/included in adult education curriculum. Some forms of entrepreneurship education and development should be introduced, the best practice will be to ensure that students (Adult Learners) take, at least, a course in entrepreneurship in every year of their academic pursuit/programmes under varying titles such as entrepreneurship development, small business management, management of small scale industry, managing you own business e.t.c. Ogundele (2004 b) notes that, to produce effective entrepreneurs, training and development programmes at this level should be of three broad approaches namely, functional, behavioral and environment. The functional approach will equip the practicing and would be entrepreneurs with the planning; initiating, controlling, supporting, information, and evolution development of technical, enterprise building and managerial skills. The behavioral approach will focus on building appropriate entrepreneurial attitudes, values, beliefs, norms, customs, perception, motives and needs. it is the development of the entrepreneur spirit, characteristics and personality. The environmental aspect refers to the external environment which include the family environment, social and religious groups, government agencies and private initiatives, the legal and political framework, available technology and cultural system. (Ogundele, 2004) All of these must act as facilitators for entrepreneurial practice. In addition, there must be provision of necessary financial assistance and conducive rural and urban environments, for nurturing and supporting entrepreneurship.

CONCLUSION

The widespread level of unemployment has contributed to the very high level of poverty in the country. This could have been minimized if Nigerians of varying age groups and backgrounds were exposed to entrepreneurial training and development across levels especially the adult. To minimize the level of social parasites of the economy, every opportunity must be utilized to provide entrepreneurial development for the general populace. To cater for the educational aspirations of all citizens of Nigeria, adult education plays a very important role. It provides for the interests of beneficiaries and the non-beneficiaries of the formal system. Thus adult education plays both complementary and supplementary roles in education in a country. Consequently, Nigeria should heighten efforts in adult education so as to afford citizens opportunities to be creative to attain self-fulfillment.

RECOMMENDATIONS

Based on the analysis presented above, the following recommendations are outlined:

- ❖ There should be entrepreneurial education at all levels of education especially with adult education.
- ❖ There should be provision of necessary facilities and funds to translate acquired skills and knowledge into products or services.
- ❖ More government commitment is required in implementing adult education in the country.
- ❖ Adult education programmes must be evaluated periodically for effective implementation.
- ❖ Qualified instructors/teachers should be employed to handle adult education programmes.
- ❖ Appropriate techniques and methodologies should be adopted to stimulate entrepreneurial spirit.

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ENTREPRENEURSHIP EDUCATION; A KEY INSTRUMENT TO UNLOCK ECONOMIC POTENTIALS OF NIGERIAN CITIZENRY

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ABSTRACT

This paper examined Entrepreneurship Education as a key instrument to unlock economic potentials of Nigeria citizenry. It noted the economic potentials and the objectives of Entrepreneurship Education. The paper discussed the required basic skills that would help to unlock the potentials. Some problems/weaknesses of Entrepreneur were listed. The paper concluded by urging government to encourage financial institutions and other agencies to make fund available and accessible. It also urges the government to re-orientate the citizenry especially the youths on the need for positive change towards creativity since Entrepreneurship Education is a driving force of any country's economy.

INTRODUCTION

The global socio-economic and educational issues today are unemployment and poverty. The desire of every nation is to ensure sustainable socio-economic development through constructive employment of both human and material resources within its limit. Where this progress is stunted, there will be need for reconstruction to bring about the required economic relevance and development. Economic relevance as a process can be achieved through social co-operation amongst people living and carrying out economic activities in a given polity. If the socio-political terrain is conducive, it does open windows of business opportunities for individuals and corporate organizations that are ready to partake in the prevailing economic activities. However, the living together as human beings in such a social environment has an inherent presence of poverty, unemployment and other social problems. A formidable natural tool to unlock these social ills is entrepreneurship education. Entrepreneurship education is thought to be the only instrument that can unlock the economic potential of the citizenry. It could be of interest to every individual no matter what the individual's calling is. This is because

Entrepreneurship education is about creating market from one's resources, it is about job creation, poverty alleviation and about poverty alleviation, it is about useful living. Entrepreneurship Education can help individuals in the management of small scale business enterprise, thereby leading to self-reliance as well as poverty alleviation. No meaningful achievement would take place in any society without the presence of Entrepreneurship Education to facilitate economic and industrial development and self-reliance amongst the citizenry. This paper therefore advocates the proper re-positioning of teaching and learning of Entrepreneurship Education with a view of optimizing its social and economic benefits not only to the learners but also to the country. This would translate into meaningful national development.

Clarification of Concepts

Entrepreneurship according to Usman (2006) is - an attempt to create value, through recognition of business opportunity, the management or risk-taking appropriate to the opportunity and through the communicative and management skills to mobilize human, financial and material resources necessary to bring a project to function. Asuquo (2007) citing Lankford defined Entrepreneurship as the process of creating something different with value by devoting the necessary time and assuming the accompanying financial, psychic and social risks and receiving the resulting rewards of most personal satisfaction Schumpeter in Egele (2006) defines Entrepreneurship as an innovative process of change whereby the new products were created. Entrepreneurship therefore involves the ability to set up a business enterprise as different from being employed. The ability should be acquired and should differ in some aspects from the abilities required to enable a person obtain a paid employment. It involves the acquisition of skills, ideas, and management abilities necessary for personal self-reliance of individual. That is, the ability and right to set one's own goals and realizing them as much as possible through one's effort, using one's factors. The individual's self-reliance effort when put together transforms into self-employment which enhanced the gross national product (GNP) and income per capital. The foregoing explains the fact that entrepreneurship does not only mean creating a new firm, bearing the risk of buying at certain and or selling at uncertain price nor one's need for advancement and risk-taking propensity. But an attempt to create value through recognition of business opportunity and combining both human, financial and material resources necessary to bring a project to function. This indicates that entrepreneurship is widened in scope to accommodate entrepreneurship in both emerging and established firm. Entrepreneur according to Bureau of public service reforms (2009) is a person who is able to come up with a specific idea of business from virtually out of nowhere and the major skill to generate an idea and transform it into a viable and growing business is an important characteristic of entrepreneur. Egele (2006) defines entrepreneur as one who organizes, manages, and assumes the risk of a

business or enterprise . The enterprise or venture can be based on totally new idea; new way of doing things, a new location or attempting something no one else has done before. In other words, an entrepreneur is seen as a person who detects a previously untapped opportunity to make substantial profit. The locked economic potential rest on hidden self-reliance of individuals and when this is summed up it becomes the hidden national economic reliance. Reliance is simply less dependency on external help for productive investment but rather dependent on local resources in order to excel Egele (2007).

Objectives and Required Basic Skills of Entrepreneur/Entrepreneurship The objectives of entrepreneurship education include among others the following;

- |) To initiate creativity and innovativeness into trainees;|
- |) To equip them with the ability to be able to manage small and medium scale size business.|
- |) To develop in trainees positive attitude towards business enterprise;|
- |) To be able to seek the right type of business information; and|
- |) To become less risk averse. Bureau of public service reform (2009)|

The basic required skills of an entrepreneur that prepares him to take entrepreneurial decisions includes the following:-

Getting Business Ideas: How does one get idea? At any point in time ideas are used. A good thing to do is that whatever idea that comes, one should be able to write down and have idea bank . Form this idea bank he should be able to sieve out the one which can be turned into a business action. One should be able to learn that these ideas can come from anywhere may be

self-inspiration, work experience, visits etc. the important things is being able to develop the idea in order to be creative.

Ability to Identify and Select Right Business: It is important to inform the trainees that consideration of areas of passion and interest is very necessary. This is because one is likely to do better where his passion and interest are; one need also to be choosy in selection and if possible consult experts and do some market survey of the venture by considering its success, risk, profitability, attractiveness, sustainability etc.

Setting Objectives: When the business has been identified and selected, the next thing is to set the objective. The objective is subject to the type of the business venture.

Setting Business Plan: The purpose of a business plan is that it forces one to think through every single critical issue that will be dealt with in the future. The plan will include every money spent to achieve the goal and it defines the business, identifies the goals and specifies the directions through which the business will be conducted to achieve its goals. Entrepreneur should be aware that business spending should be separated from the private spending.

Ability to Innovate and Create: Creative thinking is when one starts a thing or idea which were previously not there. In doing this, a mindful attempt to understand and deal with some personal need is required. A fallow period takes place when the problem is slept over before coming back to it. The moment of enlightenment is also required, may be through experience, then the implementation of matching action with idea, which is now the process of turning creative idea into reality.

Ability to Take Correct Decision Every Time: the ability to take correct decision every time depends on the understanding of business environment, in terms of strength and weakness, opportunities and threats. The Entrepreneur should be able to study the prevailing economic, policies, rules and regulation of government, in terms of tax, business registration, consumer protection, insurance etc.

Egele (2008) enumerated other business environments which a good entrepreneur should have knowledge as technological, cultural and religious, legal and political, social, demographic, competitive and ecological factors. She concluded that firms that ignore or discount the influences of these factors often fails.

Ability to Start the Dream Business: The starting of the business is not an easy task. An entrepreneur should avoid waiting for all the conditions to be right, such times never exist, starting the business enables the entrepreneur put all plans, ideas, visions etc into action. Returns can only be gotten when action is taken. Entrepreneur will just have to decide to take off and do it. That is only when he will be able to realize the full benefits of entrepreneurship.

Basic Weaknesses and Growing Problems of an Entrepreneur

The biggest problem of Entrepreneur is time management. Some entrepreneurs start their businesses in base mates' spare bedrooms, garages and kitchen tables. They dedicate a few hours

of the week to start something that could keep them moving. Many entrepreneurs are successful. The key is working well and enjoying. Below is a list of the weakness and problems:

- (1) **Negative attitude:** The tendency to focus on the negative aspects of problems and spend a lot of time and energy to worry about them.
- (2) **Fear of Failure:** Fears of looking foolish or being laughed at when they fail. But remember that failure is a necessary condition of a stepping stone to success.
- (3) **Executive Stress:** Not having time to rest because they are workaholic. The overstressed person finds it difficult to think objectively at all. Unwanted stressed reduces man's ability to think properly.
- (4) **Following rules:** Trying to be too rigid and not flexible. This kills innovation and hamper creative breakthrough.
- (5) **Making assumptions:** Many assumptions restrict creative thinking as well. Identify and examine the assumptions you are making to ensure they are not excluding new ideas.

- (6) **Over reliance on logic:** Depending too much on logical thinking. It has worked for Mr. A, therefore, it must work for me is often deceitful.
- (7) **Can't focus, lots of ideas run in circles:** The entrepreneurs always believe in ideas, often baskets of ideas which are useless if not matched with actions.

- (8) **Not good with details:** Entrepreneurs are not good with details; they want quick and fast way out.
- (9) **Strange:** Entrepreneur simply feel odd, different, alone, behave differently.
- (10) **Good at starting business, bad at running them:** This is very true of many entrepreneurs. Many entrepreneurs think they must run the business successfully and become good managers. 90% will never be great managers.
- (11) **They fail, and fail again:** They rise and fall each time the business is run. But just like a kid has to fall a couple of times when learning to ride a bike, so do entrepreneurs fail as they learn how to be successful.
- (12) **They exaggerate and are too optimistic:** Exaggeration is part of their ways. They are always in high spirit, dreaming of the number of chickens when the eggs have not been hatched. They always exaggerate how well things are going to be, they always have faith. They believe in projections.
- (13) **Always at edge financially:** Entrepreneur has proven time and time again, that they are resourceful, can survive and bounce back from adversity. This is great! But

they need to direct their energy into creating a healthy savings account instead of leveraging so much to be successful.

- (14) **Family of the Entrepreneur suffers:** You didn't just marry a man/woman or a business man/woman. You married an entrepreneur.
- (15) **Sales dip:** Sales dip because the entrepreneur has turned over some or all of the sales function to others. Everyone must sell. He has to spearhead the selling.

Other Problems of Entrepreneur:

According to Bureau of Public Service Reforms (2009) other problems of entrepreneur are lack of experience, poor business location; insufficient capital, poor credit arrangement, poor inventory management and unexpected growth.

Recommendations and Conclusion

Government has already taken initiatives through many programmes such as National Directorate of Employment (NDE) Business Incubation Centers, States Investment

Companies, National Association of Small Scale Industrial (NASSI), Nigerian Association Chambers of Commerce, Industries Mining and Agriculture (NACCIMA). Federal Institute of Industrial Research (FIIR), Raw Material Research and Development Council (RMRDC), Project Development Agency (PRODA) etc. to support entrepreneurship education . However there is need also to make concerted effort to encourage financial institutions, credit unions, non-governmental organization and other agencies to make their facilities available and accessible to entrepreneur. Also, it is time to let the citizenry know that the future of a great and dynamic nation lies with individual business ability to creativity today, therefore effort should be made to re-orientate youths towards participating in entrepreneurship activities. Entrepreneurship is about change, hence entrepreneur always search for change, respond to it and exploit it as an opportunity. It has benefits to the society, it fosters economic growth, it increases productivity and creates new technologies, products and services. Thus it can be safely concluded that entrepreneurship education is the driving force of any country's economy because it represent the wealth of a nation and its potentials to create employment at all levels.

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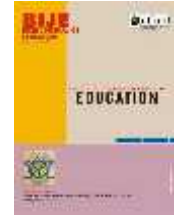
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ENSURING QUALITATIVE TECHNICAL TEACHER EDUCATION THROUGH ENTREPRENEURSHIP PROGRAMME

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ABSTRACT

As the demand for education increases, so it the demand for job. Education is a backbone for a nation's development. Since no educational system may rise above the quality of its teacher, teacher education shall continue to be given major emphasis in all educational planning and development. Teaching is facing some problems with all the legal backing it has. Consequently the paper makes an attempt to recognize the role of technical teacher education in career awareness through proper implementation of entrepreneurship as a programme.

Introduction

Education in Nigeria is an instrument - par excellence for effecting national development. The purpose of technical teacher education is to prepare the teacher adequately for successful training of the students from junior secondary school to higher level of education. In general terms, technical teacher education involves the acquisition of strategies, techniques and competencies that can help the teacher to impart knowledge to students, which will lead to the production of technicians, technologies, engineers as well as skilled personnel who will function in small, medium and large scale industrial enterprises.

The National Commission for Colleges of Education (NCCE, 2002) states the philosophy of technical teacher education as the provision of technical teachers with the intellectual and professional background adequate for teaching technical subjects and to make them adaptable to any changing situation in technological development not only in the country but also in the world at large . This philosophy cannot be achieved without a

well-planned educational system with good and qualitative objectives. (NCCE, 2002), further stated the objective of the programme shall be:

- To provide qualified technical teachers and practitioners of technology capable of teaching introductory technology in the junior secondary schools.
- To produce technical NCE teachers who will be able to inculcate scientific and technological attitude and values in the society.
- To produce qualified technical teachers motivated to start the so much desired revolution of technological development right from the Nigerian schools.
- To prepare technical teachers so as to qualify them for a post – NCE degree program in technical education.

One vital problem confronting many developing countries today is how to deal with poverty, disease and unemployment. According to Ihekoronye, (2000) in Manabete and Kamaunji (2005) The creation of employment and other income earning opportunities has remained a challenge for leaders . In Nigeria educational system today this gives birth to the entrepreneurship

program. Entrepreneurship is a comprehensive and up-to-date program on business management. Accordingly Gana (1995) defined entrepreneurship as The willingness and ability of an individual to seek out investment opportunities in an environment, and be able to establish and run an enterprise successfully based on the identified opportunities . The entrepreneurship centre at (Miami University Ohio, 2003) in Usman, Aliyu, Kurya and Kurfi (2006) give a comprehensive definition to entrepreneurship as The process of identifying, developing and bringing a vision to life. The vision may be an innovative idea, an opportunity, or simply a better way to do something. The end result of this process is the creation of a new venture.

Formed under conditions of risk and considerable uncertainty . This of which are the main task to address and be reduce to minimal if not eliminated. In this case, it aims at helping technical teachers to effectively package learning experiences more attractively in order to ensure their suitability to students of various stages with resulting acquisition of knowledge through appropriate teaching method and the use of instructional materials in imparting knowledge for quality education. Indeed a teacher has to be exposed to many different ways of teaching so as to have practice in selecting suitable instructional materials and activities. Osakunih (1986) in Nuhu (2005) states the factors that determined the competence of a teacher as follows:-

- a) The teacher's ability to use the method
- b) Age and class of students

- c) The nature of the particular learning experience
- d) The facilities and equipment available.

EFFECTIVE CAREER AWARENESS IN TECHNICAL EDUCATION/ENTREPRENEURSHIP AS THE WAY FOR NATIONAL DEVELOPMENT

According to National Teachers' Institute (NTI, 2008:6) The term career in technical education is mainly concerned with education for work, both paid and unpaid. It involves awareness and exploration of self as related to the world of work . With the ever increasing technological complexities in today's world, there is a greater awareness of the need for people who must be better prepared to cope with the society. If individuals are to meet their responsibilities correctly, school must provide more useful educational experiences that will help them achieve economic independence, personal fulfilment and a better understanding of their capabilities. This, in essence, is the primary function of career in technical education. According to Burkett (1978) in (NTI, 2008:6) The central purpose of career in technical education is to prepare youth and adult for productive and rewarding life ... an approach to technical, counselling and learning that give particular attention to helping the individual; prepare for intellectual decision making . Hence, the inclusion of skill oriented subjects into school curriculum will enhance the scope of employment for the graduating students. When the subjects are properly handled by qualified teachers, the product will have improved chances of selecting from wide range of occupations. Adamu (2000) in Adamu (2005) lamented that A technical teacher must be amenable to innovations due to the emergence of new technologies. He must be repertory of new knowledge and facilitator of learning than the teacher who is conservative and reluctant to change . A qualified technical teacher must be innovative and good counsellor to the students. Commenting on this, Abdulwaheed (2009) with the training these students are going through outside the normal class work, they can easily be independent and self-employed when they complete their studies in the secondary school . According to (NTI, 2008:7) the followings are the things Nigeria can achieve through effective career awareness.

-) Conserving and developing the vast, natural resources available in the country.|
-) Ability to look inward and exploit the local material resources as well as traditional ingenuity of ours.|
-) Bridging the gap between school, business and industry.|

-) Giving students’ realistic and relevant understanding of career opportunities, job clusters, and job advancement possibilities.|
-) Helping students develop an appreciation for dignity of work.|
-) Giving every youngster a genuine opportunity to develop intellectual and occupational skills to equip them.|

Vocational Courses for Entrepreneurship Programmes

National policy on education (NPE, 2004) categories vocational courses into pre-vocational, vocational and tertiary level.

At the post – primary school level pre-vocational courses are:

- | | | | |
|----|-------------------------|---|--------------|
| 1. | Introductory Technology | - | Core Subject |
| 2. | Agriculture | - | Elective |
| 3. | Business Studies | - | Elective |
| 4. | Home Economics | - | Elective |
| 5. | Local Crafts | - | Elective |
| 6. | Computer Education | - | Elective |

While at the technical colleges, models of employable skills are being offered. The range of courses in technical colleges shall be as wide as possible and include but not limited to:-

1. Agricultural implements and equipment mechanism work
2. Automobile engineering practice
3. Mechanical engineering craft practice
4. Electrical engineering trades
5. Hospitality: catering craft practice
6. Printing trades etc.

At the tertiary level entrepreneurship program is part of the curriculum within three different levels, which are:-

1. Colleges of Education
2. Polytechnics/Monotechnic
3. University.

Furthermore, the (NPE, 2004) stated among the goals of tertiary education:

-) Access to training funds such as those provided by the Industrial Training Fund (ITF);|
- |
-) Student Industrial Work Experience Scheme (SIWES).|

Accordingly the (NCCE, 2002) stated the objectives of SIWES as:|

-) To introduce the students to the industry|
-) To expose the students to operation and use of industrial machinery|
- |
-) To acquaint the student with the management structures of industrial organization and|
-) To develop good work habit.|

This program can only be achieved by a qualified and competent teacher. As has been said by (NPE, 2004) Since no education system may rise above the quality of its teacher, teacher education shall continue to be given major emphasis in all educational planning and development .

Need for Educational Re-structuring for National Development

Since education is dynamic and the need of nations economic growth and self-reliance the (NPE, 2004) empowered the National Board for Technical Education (NBTE) to continue to re-structure vocational courses to be offered on a sandwich basis for school based students and on part – time day – release and block-release for industry – based students. This legal backing give birth to the launching of Vocational Enterprises Institutions (VEIs) and Innovation Enterprises Institutions (IEIs) by the NBTE for the training of youths and the citizenry to acquire skills to enable them employable. At the launching of the programme the Minister of Education Dr. Sam Egwu (2009) said The VEIs and IEIs are established to provide opportunities that would not

only widen access to technical and vocational education and training (TVET), but also serve the immediate needs of the Nigerian industry and enhance self-employment . While according to the executive secretary of NBTE Dr. Nuru Yakubu (2009) The VEIs operate at the post-basic level with intake from products of nine year basic education while the IEIs admit holders of senior secondary school certificate with not less than five credit passes .

Need for Adequate Funding and Proper Utilization

The development of any nation depends on the fund the nation gives toward the development of education. In the words of Nuhu (2005) A wealthy country is one that is capable of meeting its economic, social, moral and political obligation, but these can only be achieved if the wealth is properly managed. For any country or nation to claim wealthy or economically viable, the people of that country must be knowledgeable in all aspect . Also magaji (1992) in Nuhu (2005) Many nations and communities of the world more than ever before have recognized the necessity of providing functional education for their youths (male and female) in a committed effort to achieve and to sustain individual and national development and productivity.

Problems Facing Nigerian Teachers

The Nigerian teacher is suffering with educational problems, ranging from lack of adequate facilities, inadequate supply of teaching/learning materials. Beside all these, lack of qualitative teachers who are professionally trained in different fields. Morgan (1994) in Nuhu (2005) discovered that - Good education is expensive so a good quality means fund pumped into education. The funds are facilities, employment of teachers, car loan and host of others brings benefits. Lack of funds could limit the carrying out of some academic programme such as field trips, without finance no education programme would exist . Similarly, providing quality technical teachers in a great numbers who would be able to meet the present global challenges is a very serious issue for developing countries. Although this is a challenge, it goes beyond just designing technical teacher education programme to meet these challenges, Umar, Bawa and

Audu (2005) Teacher training programmes must be supported with input, input in form of materials for teaching/learning. The teacher trainers themselves are put in a dilemma where such of training facilities are not available. Instead of showing or practicalizing teaching skills, they

(trainers) end up telling students who to teach . According to Manabete and Kamanji (2005) - Skill training in entrepreneurship programme is a mirage without the necessary enabling environment . Enabling environment must be created for the programme to succeed teachers‘ students’ and institutions must be fully equipped with all and every kind of training materials and equipment. Hence forth, for the teacher education and entrepreneurship to prosper in the country the promise of the present administration must be fulfil and implemented. According to Federal Government of Nigeria (FGN, 2007) The two-fold reforms in the educational sector will ensure firstly, the minimum accepted international standard of education for all. With that achieved, a strategies educational development plan will ensure excellence in both the tutoring and learning skills in science and technology by students who will be seen as the future innovators and industrialist of Nigeria. This reform will be achieved through massive injection into the education sector .

Conclusion

It has been mentioned education is an instrument - par excellence for affecting National development and that no nation hope to achieve meaningful development without a well-qualified teachers, attention has been called to the fact that sustainable human and social development cannot be meaningful and effective without correct funding, proper utilization and career awareness. This career in technical education can alleviate the problems of unemployment. It is also provide opportunities for self-employment.

Recommendations

1. Technical teachers should endeavour to use career awareness effectively to enable them teach technical/entrepreneurship programme meaningfully. They must also be amenable to innovations due to the new technologies.
2. Need for proper implementation of entrepreneurship as a programme.
3. Need for adopting principles of policy implementation and consistency by the Nigerian administrators.
4. Government should strive toward allocating the United Nations minimum standard of 26% of the annual budget to education sector.

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ENTREPRENEURSHIP DEVELOPMENT IN METALWORK EDUCATION A KEY TO NATIONAL DEVELOPMENT

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ABSTRACT

The economy of nations is developed by quality of high-level man power produced by educational institutions. Thus, educators must prepare individuals for entrepreneurial training that will richly transform the economy, obtain through quality education. This paper tries to discuss entrepreneurship development in Metalwork Technology Education, through quality planning, entrepreneurship development in Nigeria, general attitudes and dispositions expected by Metalwork education, the relevant of practical work in teaching of Metalwork technology, entrepreneurship development role in government and non-governmental organizations, characteristics for success in self-employment, public policy and scientific development, myth of technology and efforts of Nigerian government towards technology entrepreneurship for the attainment of national development as a way forward for self-reliant and success to the national development entrepreneurship. The finding of the paper shows that quality of teachers, students is a factor of influence, and is obtained through proper planning to analyze capabilities of resources with effective use of teaching learning approaches. Recommendations was made on equipping students to live effectively on modern age of science and technology through implementation of policies on curriculum designed, use of resource materials facilities with adequate funding of entrepreneurship education to enable Metalwork more entrepreneurial.

INTRODUCTION

Metalwork is the study of metals and its properties identification and various ways of making use of them, John and Zakaria (2008). In manufacturing process, the use of welding, forging, extrusion, spinning, casting, pressing, work hardening etc are all an entrepreneurial processes associated with metalwork. Thus metalwork is an act of manipulating metals in entrepreneurship involving such fields like foundry, forging, sheet metal, heat treatment all in an art of skill acquisition in making a living. Education as a backbone to social development and economic

transformation is of no doubt a tool for rapid development. Entrepreneurship remains a vital tool for the enhancement of the economy, the individual and the society. Skills acquisition in metalwork education helps in the attainment of entrepreneurial development. The quality of education is obtained only when quality of learning and teaching in any subject takes place when pupils interest and curiosity are stimulated and motivated. This can only be obtained in a well-planned courses and lessons, using appropriate teaching method, using effective presentation, setting clear targets goals to be achieved, and ensuring pupils needs are addressed. Entrepreneurship has been defined by different authors. Timmons (1994) as cited in Omole (2008), describes entrepreneurship as a human creative act involving the building of an enterprise or organization. Others like Kourilky (1995) cited in Omole (2008), argued that the

true entrepreneurship is characterized by three attributes: opportunity recognition, marshalling of resources and creation of a business venture. Therefore, entrepreneurship is said to be an ability to seize opportunity and turn ideas into action, ability to plan and manage projects.

Quality Planning

In technical education, the quality of both teachers and students can be a factor of influence. Planning is a crucial and has influence on level of attainment. Thus, departments that plan their work take full account of the extent of pupils' prior knowledge and experience. Then they analyze capabilities of resources, and plan their courses in planning and assessing them. Later the use of an effective learning and teaching approaches and procedures with sound advance on appropriate progression in future course choice.

Entrepreneurship Development in Nigeria.

An enterprising mind sets generate models of wealth creation. The dispensation of entrepreneurship education provides the awareness in them after successful completion of entrepreneurship education programme on how to begin a small scale business. Entrepreneurs obtain awareness and some practice opportunities, challenges, procedures, characteristics, attitude and skill needed for entrepreneurship. Now that Nigerian government felt that entrepreneurship is the only way out on the educational agenda due to downsizing, retrenchment and other restructuring programmes. It is believed that as engines of the economy, entrepreneurship education plays a vital role in-shaping attitudes, skills, and culture and by widespread exposure of people to entrepreneurship will make them become entrepreneurs in the future. Today our colleges are producing graduates in specialized skills, in the areas of vocational, technical and business education. The colleges are required to adopt the entrepreneurship education programme of government which shall be compulsory for all the students and specifically to equip students with enterprising attitudes capable of turning them into self-employees on completion of course of study.

General Attitudes and Dispositions Expected by Metalwork Education Entrepreneurs

Landkard, (1996), enumerated the followings as the general dispositions required by technical graduates: ambitions, cooperative/helpfulness, adaptability, resourcefulness, independent, initiative, accuracy, precision, efficient quality of work, speedy achieves results, responsiveness following directives, dependability, punctuality, responsibility, neatness, orderliness, good manners, personal appearance, carefulness, alertness, perspective, dedication, devotion, honesty and loyalty.

Entrepreneurship as described by Sahlman (1987) cited in Omole (2008), as the relentless pursuit of opportunity without regard to the resources currently controlled. In the opinion of Halligan (1989), entrepreneurship is described as reform, innovation, wealth and risk taking. In fact Izedonmi (2006) said only the fools down tools, if you want to remain a poor man, be an employee only; an employee is always a servant and a servant cannot create wealth. In other words, people without entrepreneurial thinking or ability remain at the lower level of the ladder of wealth.

The Relevant of Practical Work in Teaching Metalwork Technology Education Entrepreneurship.

Olaitan (2001) describes - learning by doing as a method of imparting knowledge help to match theoretical with practical knowledge. Thus, practical work assist in developing potential that will enable them to discover relevant new ideas and techniques. Therefore theoretical knowledge is only valuable with adequate practical work. As such metalwork is a practically oriented trade with entrepreneurial teaching. Uwameiye (1998), regards vocational and technical education as a medium of providing youth with employment in industries, commerce and other enterprises by exposing them to experiences that provide the manipulative, cognitive, and attitudinal skills that make them to qualify for a job or career. Thus, skill training remains to be the central focus of practical work in metalwork entrepreneurship. Practical work molds the minds of students about the world of work, and so explore various areas of self-employment.

Entrepreneurship Development Role in Government and Non-Governmental Organisation

The establishment of institutions for man-power development at various levels, result in oriented policy objectives as a Nigerian's strategy to plan human resource for economic development and

to promote entrepreneurial activities and develop investor confidence. The considerations to look in includes:

1. Making the economy market – driven and private sector.
2. Ensuring safety of lives and properly through fighting the increase crime wave across the nation.
3. Encouraging ventures that will create jobs and alleviate poverty.
4. Promote production and security for the populace.
5. Rehabilitation of collapsed infrastructure resulting from prolonged military rule-roads, power, power supply, pipe-born water, health facilities, educational facilities, telecommunication etc.
6. Setting up strategies for action against corruption.

Characteristics of Success in Self Employment

The necessary characteristics for a successful entrepreneurship development are as follows:

- i. Entrepreneurs must pose confidence to make decisions. This helps to determine success or failure.
- ii. Entrepreneurs must have determination and persevering.
- iii. Entrepreneurs should possess creativity and innovating
- iv. Successful entrepreneurs should have a need to achieve. This helps constantly achieving new goals.

The Federal Government of Nigeria set up industrial development centre in various states of the country aimed at development viable and modern small-scale industries for the realization of millennium development goal and to improve the existing small-scale industries through efficient techniques of production and better organization and management methods. The point here is that the place of small scale industries may have a strong link to the boost of large scale industries. They help in reducing extreme poverty, hunger, promote gender equity and empower women thereby leading to environmental sustainability. The main functions of industrial development centres is to:

- i. Provide employment opportunities
- ii. Provide training of entrepreneurs and staff including management and staff.
- iii. Applied research into industrial products design.
- iv. Provide industrial extension services.

Public Policy and Scientific Development

Science and technology has been the greatest intellectual adventure of our age, and great hope of our troubled and restless world. Science represent the best and greatest hope for mankind. There is clear cut between the world of politics – a world of hate and danger of irrational beliefs and fears of mass manipulation and disgraceful blots on human history. In contrast science different values international in scope, forging friendship and working relationships across national boundaries and political system encouraging habit of thought, and ultimately leading to fresh knowledge and technology that would benefit all mankind. The connection between science and policy become increasing due to scientific education among the public rise in specialized advocacy groups which have been effective in getting publicity and shaping policy. Scientist best serve public policy by living within the ethnics of science, not those politics.

The Myth of Technology and Efforts of Nigerian Government Toward Technology Entrepreneurship.

Metalwork as a technology based serve as a cause of social development to the developing countries must stand a chance of becoming true elements capable of helping develop a new civilization. In an effort towards fostering technology entrepreneurship, the federal government of Nigeria invested and controlled some vital projects which were fundamentally crucial in expanding economic absorption capacity of technology. This explains why government invested heavily in oil, refineries, fertilizers and petro-chemicals etc. Other infrastructure federal government plays role in nations technology includes the road construction, water and sea transport development, ports development, electricity and manpower, telecommunication. In addition, bilateral cooperation were made with industrialized nations to form profits aims at transferring technology to Nigerians in iron and steel complex Ajaokuta, machine tools at Osogbo, Peugeot automobile, Steyr (Nigeria) Limited and Volkswagen of Nigeria, Lagos. To this, the effort towards the myth of technology to Nigerian entrepreneurship has been past dreaming

Conclusion

The entrepreneurship in metalwork technology is of no doubt science and technology based through manipulation and turning ideas into action. When planned, and by setting clear targets will lead to an enterprising through which small and large scale business will strengthen individual, and the economy of the nation. The uses of practical skill knowledge assist in developing the potentials with mold of minds leading to success in self-employment. The advent myth of science and technology efforts however helps greatly in metalwork entrepreneurship in various fields of endeavours like foundry, forging, welding, sheet metalwork, heat treatment, extrusion, casting to mention but few, this helps in economic transformation and social development. The quality of an enterprising mind depends on the characteristics that may help in

constantly achieving the goals desired for. The setup of development centres by federal government on governmental and non-governmental organizations helps greatly towards entrepreneurial development in Nigeria especially in metalwork technology.

Recommendations

The followings are recommendations made by the researcher.

1. The curriculum designed should equip students to live effectively in modern age of science and technology.
2. The curriculum should be diversified to cater for all talents to participate in open opportunities.
3. Need for proper implementation of policies e.g. UBE programmes.
4. More credit unit load should be allotted to entrepreneurship courses.
5. There should be provision of resource materials infrastructural facilities, development and utilization.
6. Employing successful entrepreneurs helps teach students on how to succeed in business.
7. Adequate funding of entrepreneurship education
8. Provision of interest free loan facilities to the graduates to enable them enterprise in their choice.
9. Gender disparity should be discouraged to the bearest minimum level.

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PHYSICS EDUCATION AND ENTREPRENEURSHIP PROGRAMME

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ABSTRACT

Entrepreneurship is reaching new areas in which the concept of business is more or less unfamiliar and remote. This paper focuses on the teaching, and learning of physics for development of entrepreneurship skills among students. The aim is to gain a deeper understanding of the entrepreneurship directed educational approach in a programme targeted at learners in physics. It examines the concepts of entrepreneurship and physics education for entrepreneurship. Problems facing the teaching of physics are highlighted and possible recommendations made. Promoting entrepreneurial skills in Physics education will, no doubt, give physicists from developing countries the attitudes and skills that they need to bring their innovations to the market place. It is therefore very imperative to start teaching Physics in schools to bring-out in our students creativity and innovations with which they are endowed with.

INTRODUCTION:

Physics is an underpinning discipline to other sciences, technology and engineering. It involves the study of interactions of matter at the fundamental level from subatomic to cosmic scales, including many materials and phenomena of great importance to human culture. The science of nature or of natural objects; that branch of science which treats of the laws and properties of matter and the forces acting upon it; especially that department of science which treats of the cause (as gravitation, heat, light, magnetism, electricity e.t.c) that modify the general properties of bodies, natural philosophy. Physics is pivotal to economic, intellectual, social and cultural development of a nation. Ajibade (1993) submits that education is a means by which any nation could permanently close the door to poverty and ignorance and at the same time opens that of

prosperity in terms of economic buoyancy, social advancement and civilization. Aghenta (1992) and Ajayi (1998) agreed that the primary purpose of education is to impart knowledge, skills

attitudes and ability to transmit certain values. The aim of education should therefore be to teach us rather how to think, than what to think - rather to improve our minds, so as to enable us to think for ourselves, than to load the memory with the thought of other men.

The concept of entrepreneurship

Many definitions of entrepreneurship can be found in the literature describing business processes. The earliest definition of entrepreneurship used it as an economic term describing the process of learning the risk of buying at certain prices and selling at certain prices. Early this century, the concept of innovation was added to the definition of entrepreneurship. This innovation could be process innovation, market innovation, product innovation, factor innovation and even organizational innovation. An entrepreneurship is therefore a person who perceives the (market) opportunity and then has the motivation, drive and ability to mobilize resources to meet it. Entrepreneurship, according to Onuoha (2007), is the practice of starting new organizations or revitalizing nature organizations, particularly new business generally in response to identified opportunities. Schumpeter (1950) defined an entrepreneur as a person who is willing and able to convert a new idea or invention into a successful innovation. The acts of entrepreneurship are often associated with true uncertainty, particularly when it involves bringing in something really novel to the world, whose market never exists.

Characteristics of an entrepreneur

Considerable effort has gone into trying to find the major characteristics of entrepreneurs. A vast literature studying the entrepreneurial personality found that certain traits seem to be associated with entrepreneurs.

) Mc Clelland (1961) primarily motivated by an overwhelming need for achievement and strong uses to build.|

) Collins and Moore (1970) tough, pragmatic people driven by needs of independence and achievement. They seldom are willing to submit to authority.|

) Bird (1992) mercurial, that is prove to insight, brainstorm, deceptions, ingenious and resourcefulness. They are coming opportunistic, creative and unsentimental.|

Other characteristics of entrepreneur include:|

) The entrepreneur has an enthusiastic vision, the driving force of an enterprise.|

- |) The entrepreneur's vision is usually supported by an interlocked collection of specific ideas not available to the marketplace.|
- |) The overall blueprint to realize the vision is clear, however details may be incomplete, flexible, and evolving.|
- |) The entrepreneur promotes vision with enthusiastic passion.|
- |) With persistence and determination, the entrepreneur develops strategies to change the vision into reality.|
- |) The entrepreneur takes the initial responsibility to cause a vision to become a success.|
- |) An entrepreneur is usually a positive thinker and a decision maker.|

Advantages of entrepreneurship

Every successful entrepreneur brings about benefits, not only for himself/herself, but for the municipality, region or country as a whole. The benefits that can be derived from entrepreneurial activities include:

1. Enormous personal financial gain.
2. Self-employment, own bossing, offering job satisfaction and flexibility of the work force.
3. Employment for others.
4. Development of more Industries especially in rural areas or regions disadvantaged by economic changes, for example due to globalization effects.
5. Encouragement of the processing of local materials into finished goods for domestic consumption as well as for export.
6. Income generation and increased economic growth.
7. Health competition thus encourages higher quality products.
8. More goods and services available.
9. Development of new market.

10. Promotion of the use of modern technology in small-scale manufacturing to enhance higher productivity.

Physics education and entrepreneurship.

Physics education provides the knowledge and understanding about how the physical world works. Through training in physics, one develops within himself/herself the analytical skills required for problem solving and problem management. This is because physics learning is not just about facts but also the science process. The fundamental principle of entrepreneurship as a field of study is that it deals with the organization of knowledge in each and every subject in such a way that it commands more area of self-employment and job creation that is with systems of ideals and values that are not ordinarily treated as part of the normal curriculum. The function of entrepreneurial studies at the school level is to enable students to discover, whilst undertaking their normal/regular course of studies, what other relevant work experience, other than those in paid employment of government and other existing agencies, are going on in society or what additives or modifications can be done to existing agencies in our society for the betterment of all. Therefore, any teaching and learning of physics devoid of entrepreneurship gives far little thought to disorderliness of creative freedom, which calls for innovation and creativity. The essence of physics education is problem-solving. Physicists are very good at solving problems, real and imaginary (that is, even when it is not clear what the problem is).

The essence of physics education and entrepreneurship programme is;

1. Problem identification.
2. Problem modification.
3. Problem solving.

The result is physicists are empowered not only with excellent training and the problem-solving skills needed to prosper in high-Tec businesses, but to use their creativity and innovative minds to strike out on their own in an innovative business venture. Promoting entrepreneurial skills in physics education is designed to give physicists from developing countries the attitudes and skills that they need to bring their innovations to the market place. It is therefore very imperative that physics should be taught in schools to bring out in learners innovations and creativity, as earlier stated that education should teach us rather how to think, than what to think-rather to improve our mind, so as to enable us to think for ourselves than to load our memory with the thought of other men.

Problems facing the teaching of physics for entrepreneurship

Many problems facing the teaching and learning of physics have been identified by scholars. Some identified problems are;

1. **Physics Curriculum:** Many school science curriculums are relatively static and remote from exciting contemporary developments, and unrelated to important contemporary issues such as medicine, energy and the environment. (Hussaini, 2008).
2. **Poor Teaching Methods:** Science teaching, as observed by scholars, do not encourage, to any appreciable and significant extent, the development and sustenance of process skills, among science students in general and among physics students in particular.
3. **Inadequate Training of Teachers:** For a physics teacher to effectively teach in a way that will lead to the development of desirable level of techno-scientific literacy and creativity, he/she must be well-groomed, be of sound knowledge in physics and he/she must obtain the relevant professional teaching qualification(s) along with required specialization knowledge of instructions.
4. **Inadequate Laboratory Facilities:** Physics, being a physical science, requires a great number of experiments and demonstration, for its concepts to be fully understood and for creativity and innovations to be geared in intending students but apparatus/equipment for the required experiments and demonstrations are just not there.
5. **Lack of Instructional Materials:** Instructional materials specifically designed to aid the teaching of physics in order to remove ambiguity are scarce. This has made physics to be labeled as a difficult, dry and dull subject. Such perceptions of physics appear universal, which has led to low enrolment of students in the subject.
6. **Lack of Basic Social Amenities:** Without basic amenities, innovations and creativity cannot come from the mind. In other words, an innovative and creative mind is definitely not an hungry mind or a mind deprived of good shelter and health facilities. Lack of these basic social amenities makes the mind to be unsettled and hence blot-out innovation and creativity thought from the mind.

Recommendations:

-) Bajah (1975) observed that for any curriculum development with an ambition of positive by changing the society to be successful. A number of factors are agent of change. Such|
- factors include the universities, the parents, the teachers and the government. For instance, University physics department can organize a physics curriculum developments, with physics scholars providing academic leadership, those in education can give guidance in the methodology to be adopted while secondary school teachers can form the link between the project and the students who are consumers.
-) The methods of teaching physics should be activity-oriented. It is widely accepted among physics educators that physics should be taught using methods such as guided-discovery, demonstration, laboratory, inquiry and project methods among others. The use of these methods is now fully recognized as being potent in physics teaching. The usage of these methods should therefore be enforced on physics teachers.|
- |
-) The training programme of a prospective physics teacher should be expanded to allow more sufficient exposure to relevant subject matter content and to include existing innovation and creative opportunities the society can gained from each subject matter content.|
- |
-) Improvisation should be encouraged among physics teachers and students for inadequate laboratory facilities and lack of instructional materials to be resolved. Improvisation is the practice of acting, singing, talking and reacting in response to the stimulus of one's immediate environment and inner feelings. This can result in the invention of new thought patterns (ideas), new practice, new structures or symbols and/or new ways to act.|
- |
-) Provision of basic social amenities, Access to uninterrupted electricity, all-encompassing good health programme and government policies that would boost the standard of living of the generality of people would no doubt gear-up people towards innovations creativity and hence entrepreneurship.|

Conclusion

The essence of physics education is problem-solving. Physicists are very good at solving problems even when it is not clear what the problem is. Promoting entrepreneurial skills in physics education is designed to give physicists from developing countries the attitudes and skills that they need to bring their innovations to the market place. It is therefore very imperative to start teaching physics in schools to bring out in our students creativity and innovations with which they are endowed with.

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AGRICULTURAL EDUCATION AND ENTREPRENEURSHIP EDUCATION

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ABSTRACT

The paper highlights the concept of Entrepreneurship and traced the history of Entrepreneurship in relation to the new dispensation. The current situation with rising population, food scarcity and high unemployment rate calls for entrepreneurship education. The paper further discussed the benefits accrued from a School Farm as a laboratory for entrepreneurship education. It recommended among others, the establishment of a functional School Farm in institution training students in agriculture; review of curriculum to incorporate entrepreneurship education, adequate funding and retraining of teachers in line with the entrepreneurship education. It concludes that, skill development for ability to perform in agricultural production, food processing and preservation are very essential for entrepreneurial education in order to achieve economic growth and development.

Introduction

The concept entrepreneurship has a wide range of meanings. On the one extreme, an entrepreneur is a person of very high aptitude who pioneers change, possessing characteristics found in only a very small fraction of the population. On the other extreme of definitions, anyone who wants to work for himself or herself is considered to be an entrepreneur (Egele, 2006). Entrepreneurship is generally defined as individual's ability to seize opportunities and to turn ideas into actions; ability to plan and manage projects in order to achieve objectives; and be creative innovative and ready to face risks. It is believed that as engines of the economy, entrepreneurship education plays a critical role in shaping attitudes, skills and culture.

Widespread exposure of students to entrepreneurship will make it more likely that they become entrepreneurs in the future. In the National Policy on Education (2004) the Federal Government accords technical and vocational education a recognition as a matter for skill development and for the survival of the citizenry in today's fast changing societies. Lawal (1978) explained the

usage of factors of production on the manipulative role of the entrepreneurship, and entrepreneurship emanates from here. Thus, entrepreneurship education in technical and vocational education seeks to impact and establish such entrepreneurial skills that can lift up and promote productivity in the field of technical and vocational enterprises. An important dimension to entrepreneurship is profit making. The man who set up a business, says Lawal, (1978) is an entrepreneur who may be a sole trader or in partnership or a shareholder in a joint stock company. Any business organization or enterprise is for production of certain goods and services and desires to attract profits. In making profits, it is essential that proper steps are employed for coordination, administration and control of factors of production like land, labour and capital. Therefore, it is expected that the factors of production will contribute immensely to entrepreneurship in vocational and technical aspects. It will seek to tailor thoughts and ideas with a view to making the entrepreneur of modern times fit into the position of influencing profitable levels for technical and vocational enterprises. The aim is to enable individuals and the nation to survive and maximize economic growth.

Historical Development of Entrepreneurship

In the 1950's, small and medium sized Enterprises (SME's) were of keen interest. In recent years, the phenomenon of Entrepreneurship as a broad concept has increasingly been taken over. Researchers i.e Halligan (1989) have been looking into issues of the individual as an Entrepreneur, Entrepreneurial process and business growth. Entrepreneurship could, in a larger context, be regarded as a part of enterprise cyclically. A new idea is developed into a marketable concept. Then a business is set up, or a department within an existing business is given the task to set about to exploit the idea. Initially there is a benefit of being an early player within a field

that consecutively is exposed to the competition of the other companies, who also wants to exploit the new concept. The market will then mature and yield profit to the player at relatively low maintenance effort. Then the cycle starts all over again; as new ideas and concept replace the old ones which fade out.

In 1990's, new trends and conditions have brought significant changes in rural development strategies in all parts of Europe (Dabson, 2004). The main objective is to improve the living condition and strengthen the economic potential of the rural areas within changing markets. Most Central and Eastern European countries have elaborated rural development strategies after recent political, economic, and social changes. The problems and changes they are dealing with are mostly the same. In general, they are preoccupied with agrarian reform and the privatization process. The issue here is to present the most crucial problems, changes and challenges the countries in the transition are facing in the field of agriculture and rural development by

highlighting the situation and experiences in Slovenia, the northern republic of the former Yugoslavia. The concept of entrepreneurship as a vital force for rural development is illustrated through practical experiences. (Egele, 2006) At the beginning of the 1990's, the rural sector in Slovenia faced the same problems as other countries, such as small farm size, part-time farming and increasing market disparities in agriculture, combining depopulation trends, lack of employment opportunities in other sectors and low quality life in general. The democratization and privatization processes that started with the structural reforms have introduced crucial changes in rural development policy orientation for a long term solution of the basic problems. In 1992, the agricultural development strategy had two basic conclusions in Slovenia.

) Development of agriculture can only be seen in the content of rural/regional development. Agriculture can no longer be the sole economic base for long-term sustainable development of rural areas.]

|) Sustainable development of rural areas as a global objective can only be achieved by maintaining their identity and diversity. Defining and activating local development|

potential in diverse geographical, cultural, natural and human resources is the new development orientation.

The concept of rural development through entrepreneurship was built up by new actors and supported by new development measures. The basic of development policy in this new concept is to stimulate and generate the idea of business, using existing local resources and to support the development of small scale business by providing the necessary information, knowledge and infrastructure.

In Nigeria, government realizing the over saturation of its labour market as a result of hundreds of thousand of school leavers every year that still join the labour market in search of gainful employment and other restructuring programme like privatization, thus felt that the only way out is to initiate programmes that strongly put entrepreneurship on the education agenda. Ubenyi, (2007) stated that the new dispensation in entrepreneurship education is not necessarily aimed at making young people to become self-employed or entrepreneurs but to provide the awareness in them after successful completion of entrepreneurship education course on how to start a small business or increase the productivity level in them. He further stressed that entrepreneurship education is not necessarily targeted to have the young people begin their careers as entrepreneurs or self-employed people. Rather, it is to give them an awareness and some practice of opportunities, challenges, procedures, characteristics, attitudes and skill needed for entrepreneurship. The Need For Capacity Building For Agricultural entrepreneurs Agricultural entrepreneurship is a bias approach in setting a business outfit in a sustainable manner for the

production of food (e.g maize, cassava, eggs or meat) and services (Tractor Hire, Work bull or spraying) and or production of raw materials (e.g rubber, groundnuts or hides) for industries or for export for the overall growth and national development. The intended entrepreneur has varieties and diversified range of choices, to make depending upon ones aspirations, resource availability, location, weather, access to markets and comparative and competitive advantages among other things. It is of paramount importance that students should be well informed and counselled properly before making a wise choice. Vocational Education as it stands today is not meeting the full needs of the beneficiaries i.e they do not prepare students with the skills needed to succeed after graduation. Our schools must rise up in order to transform students to skillful young adults, well equipped to become leading members of their society. A brief look at the benefits of a School Farm will enhance the understanding of the discussion on relevant factors required of a School Farm. Basically, the School Farm assists both students and teachers in agriculture in interpreting theory in the classroom into practical (Olaitan, 1984). In other words, the School Farm can be regarded as the Laboratory where theoretical classroom ideas are tested with a view to gaining practical experience. The following benefits can thus be derived from the establishment of a School Farm.

(a) Generation of Money

The cultivation and production of crops and animals when carried out in the School Farm serves as a way of generating funds to develop agricultural programmes. For instance, crops such as maize, yam, groundnut, rice just to mention but a few are grown in the school. The School Farm also accommodates rearing of poultry, goats, rabbits and sheep. When they are sold, they provide money which can be used to provide additional facilities for the training of the students. Students are further opportune to earn money if harvest produce from plots allocated to them are sold. Ige (1985) opined that School Farm experiences spur students to become Self-employed.

(b) Acquisition of Practical Skill

Any agricultural facts taught in the Classroom and misunderstood by the students can be corrected while in the field. When supplemented by practice on the school farm theoretical facts learnt in the classroom are retained longer.

(c) Useful Background for Future Agricultural Development

The School or College Farm gives students the opportunity to develop their managerial skills in farming enterprises thereby providing them useful background for successful future agriculturists.

(d) Provision of Farming Practice

The establishment of School Farm serves as a suitable place whenever new farming techniques can be practiced and tested by the teacher, students and above all the College community. The School Farm is also an avenue where agricultural experiments can be tried so as to be able to draw reasonable conclusion about them.

(e) Provision of Opportunity to Demonstrate the Dignity of Labour

As much as possible, the School Farm serves as an appropriate place where students are opportune to work as a group (Aduayi, 1981) gradually introducing the realization of the dignity of labour in them. They are thus able to exchange good ideas and gain from their cooperative experience.

Establishing a School Farm that will combine entrepreneurship and agricultural education at the same time will go a long way in making learning interesting, challenging. Also firsthand real life situations awaiting students after graduation. Emphasis will be more on practical

than too much theory and students will be allowed to develop their talents according to the individual needs and aspirations.

The main focus is to develop and harness creativity, innovation and problem solving in real life situation. While the school curricula should focus an encouraging autonomy, independence, innovation, creativity as well as risk taking. Students should also be encouraged to make decision and accept mistakes as part of the learning process.

Conclusion

With the current economic meltdown featuring mass unemployment, increasing food prices, increasing population, there is no time to act than now. We cannot afford to fail, to do so is a recipe for disaster. We must refocus the minds of our teeming youths into much more sustainable food production through entrepreneur education. Such education must, at the end of the day, help to develop the ability of food production, food processing and preservation, food and nutrition.

Skill development for ability to perform and produce in these and other areas is the epitome of this entrepreneurship education.

Recommendations

-) entrepreneurship education should be introduced into the curricula of all technically and vocational biased tertiary institutions in Nigeria.]

- |) Vocational and Technical Schools should be expanded to further improve their basic training skills to meet up with the community's aspiration and economic needs. |
- |) A functional School Farm should be set up in Schools where there is none while existing ones be well funded and equipped in all the Universities, Polytechnics and Colleges offering agricultural courses. |
- |) The existing curricula of Agricultural education in operation at all levels should be reviewed to lay more emphasis on practical entrepreneurship. |
- |) Teachers meant for agricultural entrepreneurship education must be retrained for them to be able to bring the desired change. |
- |) Graduates of this module of training should have access to soft loans, with one to two years moratorium for loan repayment in order to start their own business. |

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QUALITY ENGLISH LANGUAGE EDUCATION: A TOOL FOR ACQUIRING ENTREPRENEURIAL COMPETENCY

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ABSTRACT

Language plays an important role in all areas of human endeavour. Everything we do as humans cannot be done without language. More so, the attention that a language receives in a country is dependent upon the role and status accorded it. This paper then examines the place of quality English language education in acquiring entrepreneurial competency. The paper contends that quality education that guarantees entrepreneurial competency is unattainable without a conscious and deliberate attempt to ensuring quality English language education for products of our school system. The paper highlights the concepts of quality education, quality English language education, and entrepreneurial competency. Challenges of acquiring quality English language education and the various strategies that can be used to overcome those challenges are also discussed.

INTRODUCTION

Language plays a vital role in all areas of human endeavour. Man uses language in virtually all situations he finds himself – at work, social gathering, religious centres, during sleep, when thinking etc. Apart from its use in different situations by individual users, languages are also accorded some roles in the day-to-day running and conduct of affairs in society, hence the classification of languages into native languages, second languages and foreign languages Alisah in Ajiboye (ed) (2005). It is the role a language is accorded in a country that most often influences the language planning and policy the country will put in place to ensure it functions effectively in the discharge of the role. The English language though a second language in Nigeria, has remained Nigeria's official language through which virtually all affairs of the country – education, politics, law, communication, etc – are conducted since independence. For

this reason, the English language has been made compulsory to be studied as a subject at all levels of Nigerian education system and passing it made a prerequisite for moving from one level of education to another (NPE 2004). Also, the language is also made the language of instruction in Nigerian schools without which acquiring formal education is impossible. Despite all the attention so far given to promoting the use of the language for spoken and written communication, very little has been achieved in the areas of use of good English and also in its use in promoting entrepreneurial instinct in Nigerians. These then serve as the quest of this paper.

Concept of Quality Education

The term quality is used in various senses. Tijjani (2007) defines it as the degree of excellence of something both in input and output. He states further that quality education refers to the degree of excellence both in educational input and output. Oguntimehin in Tijjani 2007 defines quality as the concept which emphasizes the worth or appropriateness of the resources available to education. From the definitions above, quality in education should be viewed in terms of the relevance, validity and appropriateness of the education given, that is input on the one hand, and functionalism, excellence and efficiency on the achievement of educational goals and priorities – output on the other. This accounts for the reason why quality in an institution or enterprise has always been viewed in two perspectives. These are

- i. Quality assurance – the procedures and steps taken by an institution to make sure that it provides products or services of a high quality.
- ii. Quality control – the procedures used to check and assess the quality of the products or service – evaluation.

Quality in education is determined by the extent to which the education programme put in place goes in achieving the overall objectives of the education system. Its success guarantees quality while its failure spells a fall in standard of the system .

English Language Education

Aduwa – Ogiegbaen and Iyamu (2009) view language education as a branch of applied linguistics that includes the teaching and learning of a language. The authors establish that though it can be used to include improving a learner’s native language, it is more commonly used with regard to second language acquisition. From the foregoing, English language education therefore may be said to include the teaching and learning of the English language more especially in a second language contexts like Nigeria. If English language education were to be all about teaching and learning the language in second language contexts as portrayed above, it implies that the quality of the input, that is teaching/learning be ascertained in order to have a

worthy output-attaining linguistic and communicative competence out of it. Quality English language education is guaranteed when English language education, like most fields of activity, satisfies the needs of its clientele learners, parents, employers, society in general in state education; those who are purchasing English language courses in the private sector Ogiegbaen and Iyamu (2006). Ensuring quality English language education requires aiming for high standards and to set criteria by which the quality of teaching/learning will be adjudged. In summary, quality teaching and learning of the English language will require: a good lesson, a good teacher, a successful course, an efficient school, and a fulfilling educational experience Heywoth (2009).

Objectives of English Language Education

The objectives of English language education programme and by extension any language education programme in Nigeria as contained in NCCE Minimum Standard include the following:

- (a) To help students develop a confident and competent knowledge of spoken and written English.
- (b) To equip successful students to teach English effectively at the primary and junior secondary school levels – applicable to NCE holders only as SSS level is handled by Degree holders.
- (c) To enable students to develop interest in creative works through exposure to works of competent writers.
- (d) To prepare students for further studies in the subject.

Entrepreneurial Competency

Entrepreneurship is concerned with attitude modification to create and develop an enterprising mind. Ubenyi (2007) defines entrepreneurship as individual's ability to seize opportunities and to turn idea into action, ability to plan and manage projects in order to achieve objectives and be creative, innovative and ready to take risks. Competency according to Robenson (2001) is, however, the ability to do something to a level that is acceptable to an individual. Therefore, entrepreneurial competency according to Kiggundy (2002) is an individual's behavioural, managerial and technical capacity to successfully manage a new business. It is the sum of the entrepreneur's requisite attributes for successful and sustainable entrepreneurship. The attributes include attitude, values, belief, knowledge, skills, abilities, personality, wisdom, expertise, mindset and behavioural tendencies. Mershal and Sriram 2008 identify four critical areas of entrepreneurship competency. These are financial

management, capacity management, supply chain management, and quality management. Of these, capacity management and quality management deserve to be given priority attention if the quality of Nigerian education will be enhanced at all levels. Doing this is only practicable with quality English language education to be taught to students as a subject and to be used in the course of instruction in schools.

Challenges of Acquiring Quality English Language Education

There are many obstacles identified to have been militating against the acquisition of quality English Language education in Nigeria. Although poor use of English becomes more noticeable among products of our various institutions after graduation from institutions of higher learning – colleges, polytechnics and universities, the problem according to Aduwa – Ogiegbaen and Iyanmu (2006) ‘may have its roots at the secondary school level’. This is because it is at the secondary level that the students are expected to be given adequate foundation in the use of English good enough to prepare them for further education. Some of

the major problems facing the teaching and learning of English in schools include the following:

- Lack of Personnel: - It is a known fact that specialists in English language are very rare to get. This has forced most of our schools into either employing NCE holders in English with limited knowledge of the language to teach across all classes – JSS I – SS III. In few schools with graduate teachers of English, the teachers’ workload sometimes may be more than they can cope with or they are lacking completely in professional skills for teaching English. Worse still is the fact that the teaching of the language in Nigerian schools – primary and secondary are, as noted by Salami (2008), ‘handled more by non-specialists than specialists’. All these have produced, and will continue to produce poor output and decay in our use of English for communication. This eventually results in poor preparation of students for future acquisition of knowledge and skills.

- Poor Instructional Resources/Media: - A study conducted by Ogiegbaen and Iyanmu (2006) revealed the dominance of textbooks, dictionaries, chalkboard, workbook (in few cases) and posters in the teaching of English language in secondary schools in Nigeria. Modern media such as audio and video tapes, language laboratories, programmed texts, flash cards, computers, magazines and newspapers are either simply unavailable or are rarely used for teaching English. This situation is equally true of most of Nigerian institutions of higher learning. The implication of this trend is that teachers and language educators are not altering their instructional practices in line with new and emerging instructional technologies. This eventually deprives

student access to benefitting from the use of these new media and also make teachers to still remain ‘the chief performers and dispensers of knowledge in the classroom’ Ogiegbaen and Iyanmu (2006).

- Poor instructional Techniques: - The teaching of English in Nigerian secondary schools is characterized with prevalent use of traditional lecture method in English alternated with occasional use of the debate and group methods of teaching. This has affected greatly the output of the language teaching and learning.
- Limited Exposure in the Language use: - Students exposure in the use of English for communication is very low. It is not an overstatement that graduates of our institutions of higher learning that have never for any reason read one literary work of art – novel, drama or even poetry – are countless. As this continues to prevail, it will be narrowing down the scope of the student’s knowledge and use of the language not only in day-to-day communication but also in their on-the-job professional interaction.
- Poor Learning Environment: - The nature of the learning environment has a lot to do with the success of the instructional process. As observed by Ogiegbaen and Iyanmu (2006) schools and institutions in Nigeria are characterized by environmental deficiencies such as poor location, dilapidated buildings, overcrowded classrooms, lack of electricity and inadequate staff room and offices. All these will result in nothing but ineffectiveness in the teaching and learning of English. This consequently affects the quality of Nigerian graduates in both the areas of language use and skills acquisition.
- Grossly inadequate time allocated the teaching of the subject is another problem.

Strategies for Enhancing the Acquisition of quality English Language Education for Entrepreneurial Competency Development

Ensuring quality in language education programme entails having a clear and coherent ideas of what are the right things that we are doing, and procedures for checking that we are doing things right . This involves reviewing the present state of the teaching and learning of English for quality assurance and examining the quality of the feedback from the process. The following World Bank study report quoted from Aduwa – Ogiegbaen and Iyanmu 2006 to have been reported in ‘The Guardian’ of 19th February, 2001 summarizes the ‘state of the art’:- Nigerian University graduates are poorly trained and unproductive on the job. Graduate skills have steadily deteriorated over the past decade (P.1). The report equally indicated the poor performance of Nigerian graduates to be particularly evident in two areas: poor mastery of the

English language and lack of requisite technical skill. The author contends that the lack of requisite technical skill might not be unconnected with poor mastery of the English language since instruction is given using the language, textbooks written in the language, on-the-job interaction is most often English – based. Another inadequacy in the feedback process is evident in the great disparity in the results obtained in the subject in WAEC and NECO, SSCE compared to student real proficiency in the use of the language for communication. If this ugly trend will be reversed, the following decisive steps need to be taken

Employment of More Qualified Teachers: -

- (1) Qualified Teachers needed across all levels of the education system should be provided and in sufficient number. This is important since no education system can rise above the quality of its teachers (NPE, 2004).
- (2) Workshop and Conferences: Conferences and training workshops to update the English teachers' knowledge in the use of modern instructional resources and materials as well as new instructional technologies in language teaching should be organized.
- (3) Improved Teaching Technologies: - Teachers in schools and institutions in Nigeria should improve on their English language teaching techniques. They must in the language of Galliher et al (1995) assume the role of resource brokers. This implies that they should become familiar with a variety of instructional delivery methods and stop relying on one 'best way'. In this connection, Cleve (1992) and Oluike (1979) quoted in Aduwa – Ogiegbaen and Iyanmu (2006) were said to have advocated the use of methods such as guided controlled and free writing techniques in essay writing in addition to the use of lecture method. Whichever technique or techniques a teacher has chosen, their appropriateness should be determined by their conformity with quality language teaching principle proposed by European Commission 2000 in A Guide for the Evaluation and Design of Quality Language learning and teaching Programmes and Materials as cited in Heyworth (2009). These are relevance, transparency, reliability, attractiveness, flexibility, generativeness, participation, efficiency and socialization.
- (4) Teaching/Learning of Literature – in – English Literature – in – English should be introduced to pupils right from primary schools and should be made compulsory to be studied and passed by students at both Junior Secondary and Senior Secondary levels. This will afford students a wide range of opportunities to see the English language in use.

It will also make the teaching and learning of English more concrete and practice oriented as the application and use of rules, vocabulary and other aspects of the language will be

demonstrated in texts. Literature makes language learning, easier, more meaningful and more permanent.

- (5) Review of Time Allocation: - The time allocated to the teaching of the language is too short for achieving any positive result. In that light, it is suggested that the 40 minutes period per day in secondary school be doubled to afford students more interaction with their teacher and the language. Also, the one-hour period of General English should be doubled too.
- (6) Curriculum Review: - The curriculum of English language education should be reviewed to cover all aspects of competence in the language required to function well in the society after graduation. An expansion of General Studies English beyond the scope of the courses and classes taught will be a necessity in this direction. Finally, curriculum of English courses such as Business English, Technical and Engineering English, English for Science Students etc. should be designed and build into the requisite courses to be passed in their various departments before graduation. This will surely reduce the problem of the use of the language for specific purposes and enhance their skill acquisition opportunity.
- (7) Examinations and Assessment: - There is no doubt that all public examinations on the English language are considerably lacking in credibility and reliability. Or how do we explain that a candidate who had a credit pass in English could not construct simple and error free sentences in English? Majority of students in institutions of higher learning are just celebrating credit in English without average competence in the language to show for it. As a result, it is suggested that students' progress in the language should be measured through their performance in the language than programmed written tests. With this in place, perhaps the students will enjoy a more objective assessment and make them intensify their effort at learning and passing the language as a requirement for further education.
- (8) A more conducive environment favourable for language learning should be provided.

CONCLUSION

The success or failure of the education system depends largely on the quality of the teachers implementing the curriculum. The quality of the language use in the teaching process determines whether a teacher is teaching or 'cheating'. If students will need to be well taught

before acquiring all entrepreneurial competencies needed to be enterprising after graduation, all the strategies recommended should be taken into cognizance.

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QUALITY AGRICULTURAL EDUCATION: A KEY TO SUSTAINABLE ENTREPRENEURIAL COMPETENCY IN AGRICULTURAL PRODUCTION

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ABSTRACT

Agriculture has been described as the mainstay of the economy of any nation. It is described as work oriented programme that is capable of providing the needed knowledge and skills for human resources development which will in turn contribute towards national development. This paper therefore discusses the concept of quality agricultural education, entrepreneurial competency, challenges of quality agricultural education as well as the strategies for sustaining entrepreneurial skills in agriculture through quality agricultural education, it was recommended that adequate finding be extended to the various vocational training and agricultural research institutes to ensure the sustainability of already acquired skills in agricultural production. Also, Seminars and Workshops should be organized by vocational education institutions for industrial workers, supervisors, and students on how best to provide entrepreneurship skills in agriculture.

Introduction

Agriculture is the activity most essential for human survival; it feeds people, produces basic commodities for society and provides gainful employment for the majority. Yet with rapid population growth in Nigeria, demand for agricultural products outstrips supply with the result that natural resources are being depleted through deforestation, soil degradation, pollution and loss of biological diversity among others. The search for sustainable forms of agriculture and rural development is related to the need to provide quality agricultural education that will inculcate entrepreneurial skills, generate employment, increase food production and above all prevent the depletion of the natural resources or promote climatic change.

Concept of Quality Education

The standard of education and the level of achievement can be measured by the quality of its input and output. Quality education refers to the degree of excellence both in educational input

and output. Oguntimehin in Tijjani (2007) defines quality as the concept which emphasizes the worth or appropriateness of the resources available to education. Quality is the degree of conformity to standard and interest or enduring good traits or characteristic that makes a person somewhat special or superior. According to Fadipe (2004) quality in education deals with issues of relevance, validity, functionalism, excellence and efficiency in the achievement of educational goals and priorities.

Vocational Education

Vocational education is an educational programme that prepares individuals for the world of work as a teacher, office employee or to be self-employed. A lot of definition, have been given to vocational education by many authors. According to Okoro (1993) vocational education is any form of education whose primary purpose is to prepare person for employment in recognized occupation. Similarly, Oranu (1992) perceives vocational education as the training that enables one to carry on successfully a socially useful occupation. He stated that this definition refers to vocational education as training for useful employment in trade and industrial, agricultural, business, home making etc. vocational education therefore is a process of getting people ready and keeping them ready for the types of services needed by the society.

Agricultural Education

Osinem (2005) saw agricultural education as a programme designed to inculcate skills, abilities and knowledge in vocational agriculture to youth who make up about 80 percent of any country's labour force. It is aimed at raising the productivity of people by improving their skills, enterprise, initiative, adaptability and attitude. Quality Agricultural Education therefore is that type of agricultural education that is capable of providing the needed competency (knowledge and skills) in various aspect of agriculture such as tillage, crop production, animal production, processing, storage, soil conservation, irrigation, drainage just to mention few for sustainable agricultural production; these needed competencies could be referred to as the entrepreneurial competency required by an individual to be successful in agricultural production.

Entrepreneurial Competency

Entrepreneurship deals with attitude modification to create and develop an enterprising mind. Entrepreneurship has been defined in a variety of ways by different authors, Ubenyi (2007) described entrepreneurship as individual's ability to seize opportunities and to turn idea into action, ability to plan and manage projects in order to achieve objectives and be creative, innovative and ready to take risks. While competency according to Robenson (2001) is the ability to do something to a level that is acceptable to an individual. Therefore, entrepreneurial competency, according to kinggundy (2002) refers to the sum of the entrepreneur's requisite attribute for successful and sustainable entrepreneurship, these attribute includes attitude, values,

belief, knowledge, skills, abilities, personality, wisdom, expertise (social, technical and managerial) mindset and behavioural tendencies. Also Cunningham and Lischeron (1991) identified six schools of thought on entrepreneurship that explain what constitutes an entrepreneur, of the six schools, three assert that entrepreneurial traits are innate and cannot be developed or trained in the classroom. The other three schools of thought hold that entrepreneurial skills and competencies can be acquired through formal training. Rabbior and Lang (1996) mentioned some entrepreneurial skills that should be given priority attention by teachers and managers of training institution to include coaching and mentoring, effective sharing of information, thinking in new ways, seeing opportunities that others do not, seeing the need for something not produced, innovating and using new and existing technology in new ways, considering more than one solution to a problem, seeing problems as opportunities in disguise and recognizing trends and changes. The aforementioned attributes can only be transmitted through quality agricultural education for improving entrepreneurial competency towards the realization of the objectives of agricultural education.

Objectives of Agricultural Education

The following are objectives of agricultural education as stated by Drawbough and Hull in Olaitan (1996).

1. To develop agricultural competencies needed by individual engaged in or preparing to engage in production agriculture.
2. To develop an understanding of and appreciations needed to enter and progress in agricultural occupation.
3. To develop agricultural competencies needed by individuals engaged in or preparing to engaged in agricultural occupations other than production agriculture.
4. To develop the ability to secure satisfactory placement and to advance in an agricultural occupation through a programme of continuing education.
5. To develop those abilities in human relation which are essential in agricultural occupation.
6. To develop the abilities needed to exercise and follow effective leadership in fulfilling occupational, social and civic responsibilities.

Challenges of Quality Agricultural Education

Providing quality agricultural education is hampered or impeded as a result of mountains of setback especially in Nigerian setting. Some of these challenges include.

Inadequate facilities; equipment in the training institution. Vocational Institution like every other educational institution are inadequately equipped. Classroom, and desks, workshop, laboratories, libraries, school farms are inadequate for effective teaching and learning, tools and equipment

necessary for imparting knowledge are inadequate. The ones available are obsolete. Olaitan (1996) vocational education cannot achieve much in producing quality skilled human resources when facilities necessary for the training are inadequate.

Poor organization and supervision of industrial training, the essence of industrial attachment is to provide students the opportunity of acquiring the much needed industrial experience to make up theoretical classroom instruction. The number of well-equipped industries to take in students is indeed very limited and the number of students for these few chances is increasing by the year. Even at that, some organization for certain or inexplicable reasons reject students posted to them for industrial training, one major problem facing proper training for the world of work is the inadequate facilities for attachment. Okoro (1993) stated that, the responsibility for placement has been shifted to students, some of who spent half of the allocated time canvassing for places that would suit their selfish interest rather than their vocational development.

Poor staffing: poor staffing in most of our vocational institution is a direct result of poor remuneration. The situation is most glaring in our public secondary schools where most vocational and technical subject are taught by unqualified teachers or not taught at all due to scarcity of qualified teachers. Our institution have lost most of the qualified staff to the industrial sector who are willing to give them higher pay and incentives. Those that stay do not perform their duties with joy and satisfaction and sometimes engage in private practices that help them make both ends meet.

Stigma: stigma according to Ibrahim et al in Sani (2008) found that vocational education is often regarded as education for the mentally handicapped, the less privileged in the society and for those who cannot do well in other popularly accepted fields of study. This is often traced back to the fact that the colonial masters and early policy makers who pioneered education were themselves literary men and women who had qualifications in classics and similar disciplines. Vocational education is therefore poorly managed right from the beginning, as it was left in the hands of those who know little or nothing about it. Other problems are poor funding of training institution and research institutes as well as vocational education programmes and projects.

Inadequate provision for practical teaching and field work. Most students of agriculture are presently not doing enough practical and field work which ordinarily supposed to have provided them with firsthand experience of how to practice agriculture. Laogun (1981) stressed that students should be allowed to do some interesting job in the farm like planting, watering, observing, using improvised institutional materials, students learn best by participation in productive experiences. He added that they become stimulated and interested more by exposure to and discussion of actual experience than from reading a paragraph in a book.

Strategies for Sustaining Entrepreneurial Skills in Agriculture.

1. Establishment of vocational institution – In order to sustain and improve entrepreneurial skills in agriculture, there is need for the establishment of more vocational institution, some of the institution are required at the state level, this include the universities of agriculture, agricultural research institute, colleges of agriculture. While others are required at the local level and towns. These include the vocational training centres, technical colleges, women development centre etc. If these institutions are well located as stated above many people will be trained, human resources will be improved and people will be employed either by government or industries or be self-employed.
2. There should be co-operation and commitment by agricultural industries and companies with vocational education institution in order to support financially and otherwise, in support of this idea, the fourth common wealth education conference (1986) recommended that industries should be closely associated with technical education in and through policy making, human resource planning, curriculum development, provision of opportunities for industrial experiences, consultancy services, part time courses and vocational guidance. It also stated that this cooperation would ensure that the technical education produce the number and quality of technical workers required for industry.

This will greatly help to build up the country's economic status and the require self-reliance.

3. Proper organization and supervision of industrial attachment, qualified and committed staff and supervisors should organize industrial attachment, students of agriculture should be attached to the appropriate industries and farm centres to ensure the acquisition of real life experience in agricultural activities.
4. Updating industrial strategies and content through Information Communication Technology (ICT). A resourceful teacher could generate most recent knowledge both for himself and for his student through the ICT. This technology involves creation, processing, storage, retrieval, transmission of data and information using computers and telecommunication. I.C.T. is categorized into two – The Low Technology Media and the High Technology Media (Ameh in Ugwu 2006) the high technology media include the computer internet, electronic mail (e-mail) facsimile (fax), electronic bulletin board, data base, telephone, teleprocessing, teleconferencing, the world wide website (www). Each

of these or their combination could provide any teacher of learners with all that he needs to keep abreast with new knowledge in every field of endeavour.

5. Government should provide social amenities for good administration of vocational education institution, the social amenities such as water, electricity, good road will facilitate the use of tools, equipment and machines for teaching and learning. It should be extended to the rural area to help our rural industries and various vocational centres grow. This will encourage young graduate in the rural area, to start off business on their own.

Conclusion

The nature and quality of education has been the concern of man since inception. Man has been striving to improve the quality of education for the benefit of the society. Quality agricultural education is an integral part of general education which can make the students to become an effective citizen with adequate practical skills and attitude that are essential for success in a specific vocational occupation. The present economic down turns notwithstanding, a well-articulated effort should be made towards the enhancement of vocational agriculture that is capable of providing and sustaining entrepreneurial skills in learners. This will be a right step in the right direction. The aims of vocational agriculture are loud able and if pursued vigorously and

implemented through quality agricultural education it will go a long way in providing employment, reducing poverty as well as improving the economic status of the nation.

Recommendations

1. Adequate funding should be extended to the various vocational training institution and agricultural research institute as well as vocational education programmes and projects to ensure the sustainability of already acquired skills in agricultural production.
2. Seminars and workshop should be organized by vocational education institution for industrial, workers, supervisors, and students on how best to provide entrepreneurship skills in agriculture for their students’.
3. Government poverty alleviation programme such as NAPEP and MDG could be introduced to vocational education students in our various tertiary institutions. Those students with outstanding performance in entrepreneurial skills acquired should be empowered financially or materially on graduation. This may encourage them to set up their own small scale business enterprise.

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APPLICATION OF INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) AS A TOOL FOR ENTREPRENEURSHIP COMPETENCES AND DEVELOPMENT.

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ABSTRACT

This paper examined the application of ICT as a tool for entrepreneurship competences and development. It discussed different entrepreneurship opportunities in ICT infrastructures and resources. The paper also looked at integration of ICT in entrepreneurship for competences and optimal service delivery and posited that with ICT infrastructure as a dynamic tool, several strategies can be developed through international knowledge and skills to enhance entrepreneur competences and priority. Epileptic supply of electricity which has render ICT less reliable, depreciation in quality of service by internet service provider which has reduce full functionality of ICT, lack of privacy and also piracy among others are areas of shortcomings of ICT identified with useful suggestions. To cap it all, recommendations such as; encouragement of Entrepreneurs should be taken serious by making fund (loan) available to enable them to start up small scale business, that Government should assists in providing equal opportunities for people in both rural and urban to acquire ICT training, in addition, Government should work with the private sector and civil society to ensure affordable and sustainable access to ICT infrastructure e.t.c were postulated.

INTRODUCTION

Challenges are faced by many people in an effort to start and sustain their own business(s). Sources of information that are crucial and can be of help to an entrepreneur are brought into focus. If the wealth of information available on ICT (information communication technology) are to be utilized, prospective and engaged entrepreneurs will have greater social and economic opportunities towards closing the gap between technologically empowered and technologically excluded. This paper also spell-out lot of gains, one stand to benefit from ICT infrastructure, directly and indirectly, for purpose of entrepreneurship, indicating the need to fill the gaps in ICT knowledge and application. An entrepreneur should not be deterred in the quest of seeking the legitimate path, which leads to prosperity. For one to build up wealth, one has to be smart, hardworking, alert and an apt information user.

Who is an entrepreneur

An entrepreneur is simply a person who attempts to make money with his/her initiatives, by taking risks and ultimately becoming a robust business owner. About entrepreneurship, Steven(2000) says, it is the process whereby individuals become aware of business ownership as an option or viable alternative, develop ideas for business, learn the process of becoming an entrepreneur and undertake the initiation and development business.

Information and communication technology

Information and communication technology (ICT) represents the convergence of information technology and communication technology. Edafiogho (2007) outlines and explained the following basic terms in ICT.

Information technology (IT) is a term used to describe the items of equipment (Hardware) and computer programs (Software) that allow us to access, retrieve, store, organize, manipulate and present information by electronic means. Personal computers, scanners and digital cameras fit into the hardware category.

Communication technology (CT) is a term used to describe telecommunications equipment through which information can be sought, sent and accessed for examples, phones, faxes, modems and computers.

Information and communication technology (ICT) is therefore the combination of networks, hardware and software as well as the means of communication, collaboration and engagement that enable the processing, management and exchange of data, information, idea and knowledge. In order words, ICT includes the use of GSM Mobile phones, personal computer (PC) and internets which have been central tools that gave impetus to the most radical changes know today. Bill Gates, America's IT Tycoon, said that business will change more within the next ten years than it has in the last fifty years as a result of development in ICT (Akanbi 2007). This fact is already obvious within all sectors of Nigeria's economy.

Entrepreneur challenges for beginners.

Below are challenges that may likely be faced by an entrepreneur

1. Restricted access to institutional capital like Bank loans, Government credit facilities etc.
2. Restricted access to lucrative markets.
3. Poor branding and marketing.

4. Poor planning.
5. Business management skills and abilities.
6. Record keeping.
7. Business support.
8. Relating with regulatory bodies e.t.c.

ICT Relevance: ICT is about information and the time frame needed for various decision making process to be achieved and made available through the chosen medium. The challenges enumerated above can be overcome tactically with the availability of relevant information, because information is the eye of management, which is why availability of information is very important. What people lack is information; otherwise, everybody is the same if there is common access to information. Today information exists in unlimited scope in various disciplines meant to enhance validity in decision-making of an individual entrepreneur's process as no accurate or meaningful formulation of decision can be made without facts. Take for instance in the emerging technology (ICT), one can access any organization of his choice in another country in the world within seconds and in some minutes, get the required information at ease just from the computer on your desk. Thus offer individual to have business interaction with other entrepreneurs and companies across the world thereby expanding his/her scope of knowledge about career opportunities and likes. (to think globally even when one is acting locally).

Experiences worldwide suggests that if a business is not doing well, the problem may not be with the kind of business itself; perhaps, it is as a result of wrong business strides- a phenomenon ICT seeks to address. For instance, in Nigeria context, information provided by the Nigeria Law organization on companies Act, Nigeria Enterprise and promotion Act, insolvency Act and host of others are available on the internet as authority for information seekers in that capacity and application of such knowledge as a by-product go a long way to develop and promote whatever endeavour one is into. Unfortunately, most entrepreneur embark on business without having the necessary information for solving their problems especially at short up and continuity stage due to lack of proper knowledge of ICT usage to generate relevant information (Osunbo 2003).

Entrepreneurship in ICT

1. Telephone operation-based services

The availability of mobile phone network in the country opens up many opportunities for people. One common option is to purchase a mobile phone through a micro credit program to earn income by providing low cost phone calls to others.

2. Information intermediaries:

The wide spread use of English on the internet has created the need for local content and applications to enable non-English speakers to make effective use of it. For the poor in particular, the vast amount of information on the internet requires an intermediary to sift through it to identify what is relevant and then interpret it in the light of the local context and publish it as book or organize seminars for a fee.

Other alternative means can be through communication media like radio, television e.t.c. where one will need to buy air time and make it an unavoidable programme that would attract different sponsors and organizations to bid for placement of their adverts within the time frame of the program.

3. Opportunities for a commerce based entrepreneurship in remote communities.

Organizing centre that offers an internet connection health facility like telemedicine a classroom completer with distance learning equipment and business centers through which traditional cultural products can be sold via the internet. Traditional art, music, photography, legends and storytelling in small villages can be recorded and brought to global markets through the internet.

4. Income generation through cable television.

Another related opportunity for ICT generated entrepreneurship for people is through the purchase of satellite antennas to provide fellow villagers with paid access to cable television. Cable television system (government authorized or otherwise) have been installed in many developing regions to provide access to television channels (typically from a satellite) where people can watch different latest movies, football matches, wrestles, world news etc.

5. Telecom centers as entrepreneurship

This is a way of opening a business centre (telecom centre) where people are offered services of internet access and international calls for a fee. For instance, mini-telecom centers can be established in both remote and city areas to meet the pressing global demand and need for everyone to be ICT literate (Haag and Keen 1996).

ICT as a tool for entrepreneurship

1. E-advert as business tool for entrepreneurship to promote their goods and services to global audience i.e ICT offer entrepreneurs the opportunity to place their goods and services on internet for advertisement so as to be accessed by millions of potentials consumers who daily visit the internet for shopping.
2. Electronic mail(e-mail) : is a utility for sharing information and is said to be one of the most important productivity packages around, many entrepreneurs are using e-mails to maintain good communication rapor with their numerous customers and also as a means of exchanging data and document with their counterparts around the world which is critical to the task of re-engineering their business procedures.
3. Electronic conferencing (e-conferencing): small and large business institution use the internet for voice and video conferencing and others forms of communication that enable people to telecommute (work away from the office using computer) This offer the prospective entrepreneurs within and outside the country opportunity to dialogue on various pressing and technical issue regarding their business without being in the same location.
4. Electronic commerce (e-commerce): These are trade that take place via the internet. It is a global commerce conducted via the internet. For instance, a customer who wants a particular products services browse through the internet for the make, model, and price of the product and concludes the transactions right there. In addition to that, entrepreneurs use the internet for business transactions such as exchange on financial information and accessing complex database.
5. Entrepreneurs also normally explore internet resource to sought for information as a source of price quotation for their goods and services.
6. Online chat: This allows entrepreneurs to carry a discussion using written text for immediate response. Instant messages enable entrepreneurs to exchange text messages in real time.

Problems of ICT.

1. Electric power failure: In Nigeria, epileptic supply of electricity is still an apparent feature in all major cities and this has rendered ICT equipment less reliable, you may have a train load of crucial information in it, but as long as there is no

electricity there is no way out for one to carry out any operation on the net. The alternative for power failure is to get a generator. And that means additional cost.

2. **Computer viruses:** Recent times have witnessed a surge in the propagation of viruses and malicious codes (like ad ware and spy ware) The web is now a fertile route for spreading havoc created by known and unknown people, whose work may destroy precious information, or even render your PC useless. Viruses appearing monthly range between 300 to 1000 which means you are constantly under serious threats. Although there is more general awareness and safeguards available against this epidemic, the bad news is that virus and malicious code writers are always a step ahead and there must be victims before remedy can be created.
3. **Privacy and Piracy:** This is increasingly a major challenge in the IT world. How secure is the average user, with all those hackers on the loose? Is someone not spying on you? Because of the information sharing nature of the internet, it is now very easy for other people to get information about you without you knowing or giving your consent. Yet when you tender precious pieces of information you worked for, it is very easy for someone else to get hold of it and make the money (you should have been making) with it! Millions of Naira are lost daily to pirates. The use of pornographic materials also discourages open cultural acceptance of the web.
4. **Quality of service:** (Internet Service Provider ISP) depreciate in the quality of their service due to congestion of the information high way. Like any express way, when many people are on the network go-slow reduce the full functionality of ICTs (Laszlo and Castro 1995).

Useful Tips for entrepreneurs on ICT usage

1. Never be caught unaware, be wise and always backup the precious content of your personal computer (PC). You can use flash, diskettes, CD RWS, CD ROMs e.t.c
2. When new techniques fail, we turn to old ones. But don't wait for the new one to fail you, as this may be devastating . try to document on paper those indispensable things on your PC.
3. Check every new file and your entire system for virus, if you are online always update virus definitions of your Antivirus software to prevent the latest viruses.
4. Make it a habit not to download unknown, or suspicious files.

5. Get the latest system guards against intruders. Some software go for free on the web and you may have to buy some.
6. Create a virgin system, if you have sacred information on your PC it may be worthy to have an extra (virgin) system. Be the only person who uses it and keep it out of any kind of exchange link. Also keep its level of security very tight.
7. Cost cutting : find out easy way, through which you can cut your expenses with the services provided on the web.
8. Sales promotion/ Advertisement that is sending e-mail to regular and prospective customers. Must be carried out with caution.
9. Build and develop your own web designs and launch them on fee web sites.

Conclusion

Integrating ICT across prospective entrepreneurship; investing on ICT training and education for all and sundry and improve the impact of those investment, provision of adequate fund either informs of loans or otherwise to encourage entrepreneurship and availabilities of adequate ICT infrastructure at affordable prices among others will ensure effective Entrepreneurship competences and development through ICT.

Recommendations.

-) The federal state and local government should make funds available to entrepreneurs to enable them begin small-scale business. This is strongly supported by Akanbi (2007) where he opined that the usual start off point of any person venturing to become self-employed is to have a business idea with starting grant.|
-) Due to enormous benefits that one stands to gain by using ICT, all entrepreneurs should be ICT literate and government should provide equal opportunities for people in both rural and urban to acquire ICT literacy, technical skills in ICT and to look to ICT industries to provide employment or entrepreneurial opportunities for people.|
-) ICT education should be included in the school curriculum.|
-) Government are encouraged to use infrastructure development and appreciate trade and fiscal policies and legislature frameworks to create an enabling environment for ICT diffusion.|

-) Government are also exhorted to make greater use of both new and traditional information and communication technologies as a tools for development and close the ICT gender gap in terms of access to ICT.]
-) In addition, government should work with the private sector to ensure affordable and sustainable access to ICT infrastructure.]
-) Already engaged entrepreneurs should remain undeterred on the face of challenges especially at the early stage of business formation because that stage would soon be overcome.]

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CHEMISTRY EDUCATION AND ENTREPRENEURSHIP DEVELOPMENT IN NIGERIA

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ABSTRACT

Chemistry is very crucial for entrepreneurial skills development to students. But, the product from schools today seems to lack this competency. This paper therefore, examines chemistry Teacher education and entrepreneurship, and the factors that have militated against its effective achievement in colleges of education. It also makes some recommendations towards the improvement of chemistry for entrepreneurship.

Introduction

The desire of any nation is to see her population been fully involved in an activity that will lead to its development by increasing the income generation of its citizens. This informed why government introduces different empowerment strategies such as National Directorate of Employment (NDE), National Poverty Eradication Programme (NAPEP), and National/State Economic Empowerment and Development Strategy (NEEDS/SEEDS) in its reform strategy. Under the NEEDS/SEEDS education agenda, poverty reduction, enhancement of quality education and employment generation are some of the issues considered (Akale, 2004).

In this regard, Education is the key instrument for empowering children with the ability to take care of their lives in the future. It is also a veritable tool for social as well as economic enhancement of the individual member of the society (NPE,2004) and science education is the pivot of control. That is why Government emphasizes on science education as a mean of creating awareness among individuals and propelling the country into a technologically growth Nation. Ukpene (2001) re-emphasized that, Science and technology Education is prepared to teach skills acquisition that will enhance Gross domestic products (GDP), self-reliance and reduction in

unemployment. Chemistry in particular, has a vital role, and a science centre where technological applications have great impact in developing areas such as biotechnology, material science, the environmental area, etc. Therefore, the training of personnel who are able to transform knowledge, generating chemical technology, processes jobs and wealth is of great importance. However, the question is; during the academic life of our students is there any content, form of encouragement or support that may awaken in the students the entrepreneurial side? Or why the professionals in the field of chemistry and science in general always seek for government jobs? Not to talk of those trained as Teachers, who beliefs on teaching as the only potential job and automatic to Teacher Education certificate holders. Employment in government sectors is no longer easily available today and where it is, only few candidates are considered, as Jatto (2007) reported that, "out of an average of 30,000 qualified N.C.E. Teachers annually produced by N.C.E. awarding institutions, not up to 8% of these N.C.E. holders are employed". The situation is now posing a danger to the social security of the country. That is why education based only on the training for workforce is now an obsolete model, where the training of employees for public sector no longer in the modern context (Mary et al, 2005). Therefore, entrepreneurship development in schools is a very timely innovation, considering the fact that half of Nigeria's

population consists of children. Based on this the paper examines chemistry Teacher Education for entrepreneurship development.

Chemistry Education and Entrepreneurship

An entrepreneur is a person who manages business enterprises. Komolafe (2008) described it as an initiator of an economic activity in a free enterprise system especially in services of economic activities which comprises production and distribution of goods services. An entrepreneur may even have the ability to create a market that does not exist yet. An entrepreneur can also create business opportunities and innovative work and professional achievement to others. Entrepreneurship according to Ajagu (2006) is a factor of production, an act of creating business through innovation and risk-assuming management. Similarly, entrepreneurship is the process of doing something new (development) and / or something different (innovation) for the purpose of creating wealth for the individuals and aggregate value to the society (Kao et al, 2002). It is therefore, a process rather than a result. Entrepreneurial skills are acquired in youth, in a friendly and familiar environment where the culture encourage local initiative and not the dependence ,or an attitude ,skill or set of knowledge /skills that can be taught (Mary et al,2005). Chemistry as a science subject teaches skills to uncover the gift of nature for the maximum benefit of mankind. Its intrinsic as well as utility values in spheres of human activity necessitated its inclusion in the school curriculum. At the N.C.E. programme, chemistry is aimed at producing highly qualified middle-level manpower knowledgeable in the process of chemistry and capable of inculcating

these in the students (N.C.C.E, minimum standard ,2002).The graduates should have among its objectives, the competencies and ability to ;

- develop functional knowledge of chemistry concepts and principles,
- Observe and explore the chemical environment,
- Develop scientific attitudes such as curiosity etc,
- Manipulate simple apparatus for purposes of demonstration and use,
- Improvise simple equipment from available junk in the chemical environment, and
- Apply the skills and knowledge gained to solve day-to-day problems.

These objectives presuppose a prospect for self-reliance/employment to graduates of chemistry Teacher Education programme. To buttress the assertion, Joseph (2008) reported that, Teacher education programmes are structured to equip teacher trainees with necessary knowledge, ethics, skills, and attitude above the challenges in class room. Also the inclusion of courses such as chemistry laboratory techniques, metals and alloys, environmental and industrial chemistry, liquid state and colloids, organic and natural products chemistry and a lot of practical leading to synthesis, tests, and characterization of organic and inorganic substances etc, indicates a good design of the programme to entrepreneurial development skills. However, because of the several problems that have plagued in to the study of science, products from schools are bereft of initiative /innovation of productive thinking that may lead to self-employment. Among which implementation factor cannot be denied. Science education is now being taught with several problems, such as poor conditions of teaching and learning environments, inadequate funding, lack of chemicals/equipment, etc. The consequence of which, Hassan (2008) re-instated that, what is being practiced today in science is seem to be at the level of memorizing facts, principles, theories, and laws .These could not leads to the skills required for self-employment

.Therefore, for chemistry education to prepare for effective knowledge and practical skills for entrepreneurship (self-employment) all inadequacies identified below must be addressed.

Factors Militating Against Entrepreneurship Development

Implementation of any education curriculum contents rest squarely on the teacher. Thus, teachers' quality and effectiveness determine the quality of the products from schools. Therefore for chemistry teacher education to be effective and efficient in the discharge of this noble task, he/she must be knowledgeable enough in the subject matter. This is necessary because it's what

the teacher has that he gives out. This seems to be the anchor on which good classroom delivery of instruction hangs and which is reportedly lacking in the crop of chemistry teacher on the field (Olayiwola, 2007). Similarly, Olarewaju cited in Garba (2008) reported that, majority of teachers in secondary schools are not adequately prepared to teach the contents of science curriculum. It is then logical to reason that concepts or practical could not be properly handle due to lack of deep knowledge of the subject matter. Although, this is at secondary school level yet, it is a signal that the situation is not even better at the tertiary level where the teachers are trained. Another pre-requisite aspect to skills acquisition in schools is teaching materials. Teaching chemistry has its unique and attributes conditions without which it cannot be achieved well. Practical materials are very important in skills acquisition, unfortunately, a visit of our schools today proved disappointing. The conditions of laboratories with respect to chemicals and equipment for practical which could lead to entrepreneurial skills are deplorable. The situation compels lecturers to group students for demonstration of a practical supposed to be carried out individually. For instance, Imagine entrepreneurial education achievement in a situation observed (Garba, 2008) where a chemistry lecturer was completely surrounded by students and about 25% of the students were standing outside. Obviously, student brought out in this practice cannot think of being self-employed from the training, because he/she may not get what the lecturer taught. Funding is always a problem and a serious militating factor when it comes to running of schools. The fact has come to stay in colleges as the schools executives always emphasizes “there is no money”, but when the money eventually come department will never know. The implication for the inadequate teaching/learning materials in schools. The consequence of which many colleges of Education are viewed as glorified secondary schools and teachers trained under this condition cannot be said to be competent, talk less of being self-employed. The strong culture of seeking government employment and the belief that teaching is automatic and the only potential job for teacher education graduates is seriously killing entrepreneurial zeal’s of many students. Many students in colleges of Education believed on this as such they don’t think of any possibilities since they can easily have teaching employments. Also, absence of standard entrepreneurship courses in science education programme as the case is in many developed nations (Mary et al, 2005) is an inhibiting factor towards development of entrepreneurial behavior in students. Therefore, for quality education and entrepreneurship development the following recommendations are made.

Conclusion

Chemistry education graduate who have been exposed to different skills and practices has a better chance of succeeding in business for self-employment. Therefore, chemistry teachers should Endeavour in their task of imparting knowledge to arouse in their students the desire of being self-employed. With minimum encouragement gained in classroom and some financial

assistance, teacher education graduate can start their own business using the already acquired training skills. These enterprises can make them self-employed and contribute to the national development through the revenue generated.

Recommendations

- a. Qualified teachers capable of handling practical should be provided to teach and also seminars should be organized to both teachers and students on entrepreneurship.
- b. Enough teaching /learning materials should be available to all Teacher training colleges to guide against lack of practical skills to students teacher.
- c. Financing education should be a sole responsibility of government, if the desire objective is effectively required. Therefore, adequate funding of colleges is necessary for achieving effective entrepreneurial skills.
- d. Since Teacher education is not only preparing students for teaching, let the impression that, 'Teaching is the only potential job for Teacher education graduates' be corrected in the mind of students, by incorporating entrepreneurship training in science education and students be allowed to spend enough time under supervision to gain enough experience.

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ENHANCING VOCATIONAL AND TECHNICAL EDUCATION FOR EFFECTIVE ENTREPRENEURSHIP

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Abstract

This paper discusses strategies for improving the quality of Technical and Vocational Education as necessary step for insuring effective entrepreneurship. One of the serious socio-economic problems facing Nigeria as a Nation is high rate of unemployment. Most school learners usually depend on Government for employment since they have no quality skills to be self-employed and enterprising. In recent times, attention has been shifted to entrepreneurship by the Governments,

because they realized the potentials of this sector for employment generation and poverty reduction. Governments and institutions have therefore given attention and support in terms of credit facilities and enabling environment for entrepreneurship development. What remains to be done is to acquire the rightful skills, attitudes and values. The strategies for enhancing T.V.E that would produce graduates who will start owning successful business enterprise were high-lighted. The paper also recommends, among others, that there should be a link between industries and Technical and Vocational Institutions; Improvement of Professionalism, commitment and provision for better career prospects, special salaries, good conditions of service and incentives for TVE teachers and government funding for small and medium enterprises should be empowered for effective performance.

Introduction

Technical and Vocational Education (TVE) has been recognized to play a pivotal role in the economic and social development and in self - employment and employment creation (UNESCO, 2003). In Nigeria as early as in the 1980's Technical and Vocational Education had been made an integral aspect of general education. The 6-3-3-4 education system saw to the vocationaliation of the Post Primary School curriculum in Nigeria.

Technical and Vocational Education is said to have suffered enormous setback in Nigeria due to the low status accorded to it in general. Part of the problem seems to emanate from the various interpretations of Technical and Vocation education policy as well as by the implementation of such policies on Technical and Vocational Education. New policies are however, needed to clarify the important role of Technical and Vocational Education.

The National Board for Technical Education (NBTE), established in 1985, gives recognition to three broad classifications of Technical Institutions and their different missions in meeting the needs of the society. The three groups of institution are vocational schools, Technical colleges and Polytechnics/Colleges of Technology/Colleges of Education (Technical). Commenting on Technical Colleges, Section 6 NPE (2004) on Technical Education (i.e. Prevocational and Vocational Schools, the Technical Colleges, the Polytechnics and Colleges of Education (Technical) item 49 stated that, one of the aims of Technical Education should be to give training and impart the necessary skills leading to the production of craftsmen, technicians and other skilled personnel who would be enterprising and self-reliant.

Telentino (2004) observed that Entrepreneurship and enterprising behaviours are important objectives for education and lifelong learning policies. It is seen as a source of flexibility and innovation, as well as creator of jobs for the economy and at the same time, as an interesting possibility for individual development, fulfillment and citizenship. The question now is, are the products of the Institutions (Technical and Vocation Education) enterprising and self-reliant? If the answer is not in affirmative, then enhancement of Technical and Vocational Institutions for effective entrepreneurship becomes necessary.

Consequently, the quality of instruction at all levels of the education enterprise is geared toward values such as shared responsibility for the common good of society and acquisition of competencies necessary for self-reliance. Education is the key to national development. To this extent, it unlocks the economic potentials of a people; empowers and equips the individuals in the society to participate in, and benefit from their national economy; facilitates economic development; and provides the basis for transformation. Therefore, time has come for us to be repositioned in such a way that we can be wealth and job creators and not job seekers. Thus, Entrepreneurship education and programme should be encouraged in our education system. It is already happening in Europe, America, Canada, China (Wilson, 2007 and Wang, 2007).

Entrepreneurship programme has a definite role because it is the master key that unlocks the doors of prosperity.

Concept of entrepreneurship

Entrepreneurship is the willingness and ability of an individual to seek out investment opportunities in an environment, and be able to establish and run enterprise successfully based on the identified opportunities (Nwafor, 2007).

Aluwong (2008) defined entrepreneurship as using skills, aptitudes and attitudes to turn opportunities into reality; it is a way to improve every aspect of life; it is a new way to live, work and achieve; it is a way of life! This process, therefore, involve time, planning, discipline, money and perseverance. The entity engaged in this process is entrepreneur. In this paper, however, the term entrepreneur is used to describe any enterprising person working either within or outside an organization.

An entrepreneur, therefore, is a person (man or woman) who creates a business venture from the raw materials of his/her own ideas. An entrepreneur starts his/her own business from the scratch and nurtures it into a success venture. He is essentially a risk-taker and innovator because he/she uses various resources to create and sustain wealth; pursues opportunities even in areas other see as problems.

Types of entrepreneur

There are different of entrepreneurs, however, they can be classified into sole proprietors, partners, limited liability companies (private or public), corporation/public utilities, etc. The following are characteristics or traits of Entrepreneurs, as observed by Aluwong (2007). Innovation, Risk-taking; Self Confidence; Hard work; Goal-Setting; Accountability, Self-Reliance, Independence, Achievement drive. All of the above with some experience, market/product, good basic or general education and some capital to start with are necessary requirements for entrepreneurship.

Present status of technical and vocational education in Nigeria

Technical and Vocational Education is said to have suffered enormous setback in Nigeria. The policies measure intended to expand and improve Technical and Vocational Education have not been effective, just like other good policies of the Government; problems are experienced in the implementation process.

Generally, the problems of Technical and Vocational Education in Nigeria include:

1. Limited resources for expansion
2. Lack of guidance services
3. Inadequate training of technical and vocational teachers.
4. Lack of teaching resources.

Specifically, the problems associated with this type of education include: Firstly; the public

perceptions of Technical and Vocational Education as having low status; Secondly, the tendency of well-trained Technical and Vocational Teachers seeking jobs in the private sectors rather than in the public sector due to higher remuneration incentives and prestige offered in the private sectors; Thirdly, there is a significant mismatch between training and practice, especially between teachers trained abroad and those trained in Nigerian Institutions. It is worth noting that the Technical Teachers Training Programme, which was a scheme for training technical teachers abroad, was domesticated and subsequently scrapped; Fourthly, the existing policies on Technical and Vocational Education are said to be inadequate, and are not informed by experiences elsewhere, which might suggest strategies to produce both highly skilled professionals as well as Technical assistants. Lastly, the merger of technical education and science education units at the Federal Ministry of Education has impacted negatively on Technical Education due to lack of understanding of the peculiar funding needs for technical education. Funds for technical and vocational education are occasionally diverted to other sectors.

National seminar on TVE in Nigeria (2000) observed that, quantitatively, technicians are short in every technological field and qualitatively; the best brains look down on technology as unrewarding. Unless steps are taken to arrest this situation, economic development will be in everlasting jeopardy, self-reliance and entrepreneurship will be unattainable, importation will continue to grow and the value of Naira will continue to depreciate.

Strategies for enhancing technical and vocational education

1. Quality delivery of Technical and Vocational Education. Training for high quality skills require appropriate training equipment and tools, adequate supply of training materials and practice. Other requirements include relevant textbooks and training manuals and qualified instructors with experience in enterprises.
2. Enhancement status and attractiveness of Technical and Vocational Education. Technical and Vocational Education should be promoted as a tool for economic empowerment in Nigeria. For this reason, the use of role models in Technical and Vocational Education and the involvement of successful entrepreneurs in motivation campaigns will be necessary.

3. A National policy framework with clear implementation guidelines and policy roles for various actors as well as action plans for resources mobilization and allocation. There should be a political commitment to the revitalization effort TVE Programme.
4. Part-time programmes, Sandwich programmes, long vacation courses and weekend programmes should be introduced for workers as well as training programmes relevant to the needs of the society.
5. In this era of economic meltdown, emphasis should be on self-reliance. Programmes that appears to be out of tune with current realities should be scrapped Polytechnics and Technical Colleges should continue to offer a wide range of skills improvement courses ranging from few weeks to a session for different categories of workers.
6. There must be links between industries and Technical and Vocational Education. Where they exist, they should be improved and strengthened. There must be adequate funding and the quality assurance systems need to be revised and strengthened.

Need for technical and vocational education and entrepreneurship

The United Nations (one world. Net, 2007) warns that the whole Sub-Saharan Africa will fail to meet the goals set in 2000 for eradicating global poverty by 2015. From all indications, Nigeria may not achieve the MDGs by 2015. As at now, the entire world is, unfortunately, hungry because of natural disasters such as Isunamis, droughts, earthquakes (Aluwong, 2008). This situation is further aggravated by global economic crises where thousands have lost their jobs. The fight against poverty by 2015 seems lost.

The solution now lies in the type of education the citizens of this country have. The type of education that can bail us out of this economic crisis is Technical and Vocational Education which offers training in knowledge and skills acquisition for effective enterprising and self-reliance.

Entrepreneurship is a necessary ingredient for stimulating economic growth and employment opportunities in all modern societies. This is because small business enterprises are the primary engines for job creation, income growth and poverty reduction.

Entrepreneurship therefore, involves the ability to set up a business enterprise as different from being employed. According to Danko (2006) in Zahradeen, Aliyu, Kurya and Kurfi, this ability should be acquired and differ in some aspect from abilities acquired to enable a person obtain a paid employment. It involves the acquisition of skills, idea and management abilities necessary for personal self-reliance on an Individuals.

Entrepreneurship education, as a tool for fighting poverty and unemployment. According to Alwong (2008), has the prosperity to continually:

- i. Provide more vocational business skills to all Nigerians (Youths and Adults) irrespective of sex, intellectual ability, physical disability, culture, religion or ideology:
- ii. Produce more Semi-skilled, skilled and professional manpower needed to revitalize, operate and sustain the Nigerian economy.
- iii. Reduce unemployment and inescapably poverty, brought about the lack of specific job skills and motivation.
- iv. Raise and sustain a generation of Job creators rather than Job seekers in the country and
- v. Raise and sustain more honest Nigerians who will fight corruption practices and other social vices.

The personal or individual self-reliance efforts when put together transforms into national self-reliance because when the individual is gainfully employed and productive through self-reliance, entrepreneurship will be enhanced. Enhancing Technical and Vocational Education should include the entrepreneurship education being entrenched in its curriculum.

Conclusion

The present status of technical and vocational education calls for enhancement for quality TVE Programme to meet the present realities. Entrepreneurship education should be introduced into our school curricular. The issue of entrepreneurship education in all Nigeria's Higher Institutions cannot be over emphasized. It would be ground breaking to expose all our youths and adults to the world of entrepreneurship. If the objective of Technical and Vocational Education for self-reliant and enterprising are to be achieved, the quality of Technical and Vocational Education must be enhanced for effective entrepreneurship.

Recommendations

On the basis of this paper, I recommend:

The quality of the T.V.E should be improved at all levels. There should be a reform by a way of:

- i. Curriculum development of various TVE programmes by NERDC. Entrepreneurship education should be included at all levels of TVE programmes:
- ii. Specification on provision of minimum standards for infrastructures, Equipment, machines, tools, teaching materials for Technical Institutions by NUC, NBTE, NCCE, NTI, UBE etc.
- iii. Improvement of Professionalism, commitment and provision for better career prospects, special salaries, good conditions of service and incentives for TVE teachers by the Federal State and Local Governments.
- iv. Examination, assessment and certification should be used as a positive means of improving standard in Technical Institutions by NABTEB, Universities, Colleges of Education, and Polytechnics etc.
- v. The creation of Entrepreneurship Training/Initiative Centres. All institution of higher learning should establish Entrepreneurship Centres for the purpose of training and entrepreneurial initiatives.
- vi. That entrepreneurship should be accessible to all. Deliberate effort should be made to ensure that all Nigerians have access to entrepreneurship education.
- vii. That the government funding for small and medium enterprises should be more financially empowered. For effective performance.

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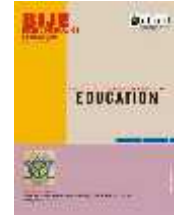
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THE ROLE OF INDIGENOUS VOCATIONAL TRAINING IN PROMOTING ENTREPRENEURSHIP DEVELOPMENT IN NIGERIA

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ABSTRACT

The role of indigenous vocational training in the development of entrepreneurship has been examined in this paper. The paper highlighted the concept and functions of entrepreneurship: creativity and innovation for self-employment and profitable venturing. The paper also gives a brief historical perspective of indigenous vocational training and different types of entrepreneurial activities that are taking place in form of crafts and trades. The authors recommend that government should reinvigorate the indigenous vocational training and apprenticeship system of training alongside with vocational technical education in order to enhance the speed in which the country moves towards its ambitious goal to become one of the world's top 20 economies in 2020.

Introduction

Nigeria has three different educational systems: Traditional (Indigenous), Religious (Islamic and Christian) and the modern (Secular school) system. The indigenous form of education involves participation in community life to train young people in farming, crafts and other occupations. Indigenous Vocational Training has been an age – long method used in training youth in trades and crafts, agriculture, business etc in Nigeria. Before the advent of the colonial masters there existed a kind of training in which skills were learned, practiced and used effectively to sustain a living and contribute towards the development of the entire community. Under the programme, individuals receive training in a variety of vocations such as carving, carpentry, catering, boat – making, mat – making, dying, painting and decorating, farming, building, smiting, sculpting etc.

Though western education has almost taken over the training of youth, but, the importance and relevance of Indigenous Vocational training remained very vital, considering the level of knowledge and skills acquired under the system. With the increasing wave of unemployment and the level of poverty coupled with the Nigeria's ambitious goals to become one of the world's top economies during the next two decades, the country needs to increasingly put more hands on apprentice work and Indigenous Vocational training that would promote entrepreneurship, reduce poverty, reduce unemployment and stimulate economic growth and development through enterprise development.

Conceptual Issues:

Indigenous Vocational Training:

Oranu (1998) posited that technological education (though not so named) had existed before the advent of the Europeans. It took the form of the apprenticeship system which youths were trained in local handicrafts such as smiting, carving, and waving etc. these handicrafts form the rudiment of technological education as they exist today.

Indigenous Vocational training given by craft and trade centers or by such master craftsmen or tradesmen, as black smith, farming, raffia works carving and pottery making. Traditional medicine men also train people in their profession (Anikpo, 1991). The system of training was mostly informal, with unwritten and unstructured curriculum. But, it was an effective means of imparting skills, knowledge and values to the young ones, (Oranu 1998). The training has implications whereby the youth that were trained and brought up under this method of training are almost the present independent entrepreneurs. The rate of entrepreneurs coming from indigenous vocational training are generally and reasonably high due to vigorous effort made by the government and private sectors on the improvement of indigenous technology as well as apprenticeship system of training in Nigeria.

Concept of entrepreneurship

Aluwong, (2008) revealed that the concept of entrepreneurship was first introduced in the 1700s and it is a French word which is derived from the root word, 'entrepreneur', meaning - one who undertakes tasks.

Hisrich (2002) defined entrepreneurship as the process of creating something different with value by devoting the necessary time and effort; assuming the accompanying financial,

psychological and social risk; and receiving the resulting rewards of monetary and personal satisfaction'. In line with Hisrich assertion, Kurya (2006) believed that entrepreneurship does not mean creating a new firm neither bearing the risk of buying at certain and or selling at uncertain price nor one's need for advancement and risk – taking propensity only, but an effort to create value through recognition of business opportunity and putting together human, financial and material resources necessary to bring a project to fruition. This is what indigenous vocational training is all about, that is about an individual creating a market from his ideas, expertise, skills and resources.

Promotion of Entrepreneurship through Indigenous Vocational training

Indigenous vocational training is one of the important and sensitive areas that have a positive with entrepreneurial activities. But, the stumbling block towards the achievement of effective entrepreneurship development in Nigeria is lack of effective support to informal educational sector like apprenticeship and indigenous vocational training; lack of adequate financial assistance to mobilize both human and material resources for easy retention and expansion of the trades and occupations.

As highlighted earlier, Indigenous Vocational training did not receive the required attention until recently, when government looked back and realized that the only way out for the country is to reinvigorate it (the indigenous vocational training) and apprenticeship system of training alongside with vocational and technical education. This would enhance the speed in which the country moves towards its ambitious goal to become one of the world's top economies in 2020.

Indigenous vocational training is a system of training where the recipient acquires technical and business skills on the job which in turn would help them to have a relevant experience for entrepreneurial activities. Fluitman (1994) opined that training in the work place result in inexperience in, and the development of general business and managerial skills, including customer relation skills, crucial to apprentices' future survival as independent entrepreneurs.

A survey on Ghanaian manufacturing enterprise, revealed that majority of traditional apprentices gained wage employment in the field in which they had training, 28.5% and gone on to start their own business; 37.5 continued working for the firm and only 1% were known to be unemployed (Frazer, 2006).

Kurya (2008) posits that the training given by the crafts, trades centers and industrial training organization in Nigeria; like National Directorate of Employment (NDE), Industrial Training

Fund (ITF), and Entrepreneurship Development programmes (EDP) and skills acquisition centers (SACs) throughout the federation signifies that the skills acquired by the graduates gave them the opportunity, zeal, motivation and understanding on how to start their own business enterprise. He further states that the micro-loan of equipment and complementary cash given to graduates of various trades in the skill acquisition centers will enable them to establish and run a business venture thereby becoming independent entrepreneurs.

Nigeria is a country with diverse human and material resources. Therefore, various communities were engaged in production of different products, such as clothes of local weavings of different styles, Dane guns with their local ammunitions, Iron casting, bronze, spears, cutlasses, hoes, mat-weaving, dying, aluminum pot making, gold smiting etc, Tanko (2009). There is no community, urban or rural in Nigeria without trades or occupations with special skills and the way in which they produce their goods and services. For example, towns like Bida is known for Iron casting, Sokoto leather work and dyeing; Kano leather work and plastic production; Zamfara, Cotton ginnery and black smiting; Abba, shoe making; Nwewi, Automobile spare parts; Osun, Soap making; Ondo, Cocoa Processing; Benue palm oil processing etc. this shows the traces of entrepreneurship activities in different parts of the country.

Conclusion

The nation's economy depends significantly on oil revenues. As the country tries to diversify away from dependence on oil, one would ask, how important is entrepreneurship to the future of the Nigerian economy? Virtually, Indigenous vocational training is desirable for the infusion of relevant and appropriate skills and competence that enable the recipients to be self-reliant and efficient in production. It also enhances entrepreneurial activities as well as indigenous technological development for the attainment of the national economic prosperity.

For entrepreneurship to thrive in Nigeria, our leaders should encourage it and give room for it to grow. Nigeria is blessed with great human (Onile, 2007) and natural resources and an average Nigerian possess a great entrepreneurial spirit. The government should embrace and fund small business in form of grants to help Nigeria in its quest for growth and development.

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DEVELOPING CREATIVITY AND PROBLEM -SOLVING SKILLS FOR QUALITATIVE AND ENTREPRENEURSHIP EDUCATION AMONG NCE CERTIFICATE HOLDERS

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ABSTRACT

The need for Nigerian graduates at various levels to acquire the necessary usable entrepreneurial skills in order to be self- reliant has become an issue of serious concern to the entire nation: One of the objectives of lifelong education is ensuring acquisition of entrepreneurial skills, problem solving skills, communicative and life skills as 'well as ethical, moral and civic values needed for laying a solid foundation for lifelong learning. This paper advocates developing creativity and the problem solving skills for qualitative and entrepreneurship, education among NCE certificate holders. The review looks into the implementation of entrepreneurship education and viable opportunities for NCE certificate holders, concept of creativity and problem solving skills for entrepreneurship, -workable agenda for creativity and entrepreneurship and the implications for educational system in Nigeria. Recommendations were made for positive changes. The paper concludes on a hopeful note that problems which could impede the success of entrepreneurship Skills acquisition can be overcome through proper planning.

INTRODUCTION

It is well known fact that education is the key to national and societal transformation (FGN, 1981, Afe 2000, Adeyanju, 2006). The desire of most developing countries, including Nigeria is to have a self- reliant and resilient economy capable of generating of an internally self

- sustaining growth. That is why government tries to provide qualitative and entrepreneurship education for her citizens. However, entrepreneurs mean a different thing to different people. To economists, an entrepreneur is one who brings resources, labour materials and other assets into combinations that makes their value greater than ever before and also one who introduces changes innovations and a new order. To other an entrepreneur appears as a threat, an aggressive competitor. Entrepreneurship according to Anastasiadu, (2002) is the practice of starting new organizations or revitalizing mature organizations, particularly new business generally in response to identified opportunities.

Entrepreneurship is absolutely inevitable in positioning education for creativity. Creativity skill have been identified as one of the most distinct of human attributes and are basic skills (Yanger, 1991). It is indeed a special case of problem solving in which the originality of the solution is emphasized. The encyclopedia Britannica, (1983) defines, it has the ability to make or otherwise bring into existence something new, whether a new solution to a problem, a new method or device or a new artistic object or form. Entrepreneurship has been recognized as a key factor to economic growth. By implication, therefore without entrepreneurship there can be no economic growth.

Entrepreneurship education is presently neglected in Nigerian schools, yet this aspect of education is necessary for economic development Youth need to acquire skills in creativity and problem solving, as well as Entrepreneurship education, so that they can become self- reliant. Awotunde and Uzor, (2002) defined creativity as the ability to produce a novel idea or product which society values as a breakthrough in the effort to solve certain problems From the above definitions creativity can be seen to be a process and product. The process component of creativity involves skills which are also employed in science processes. These skills are the foundation for both scientific inquiry and development of intellectual skills (Nwosu, 1994, 2004). The process skills are the mental and physical abilities and procession of strategies used for conducting scientific inquiries which are observing, measuring, classifying, communicating,

predicting, questioning, controlling variables, formulating models, designing experiment, and interpreting data. Creativity is synonymous with productive thinking, critical thinking and problem solving and it can be developed through training. Meyers, (2006) opined that creativity is said to be the fundamental premise and the genesis of entrepreneurial activity, while creativity encourages the growth of entrepreneurship, He further said there is a strong link between creativity and entrepreneurship. Vangundy (1992), Wankert and Oreoviczs, (2006) opined that problem solving process is a complicated process that involves the ability to generalize, evaluate, design, make

decisions, hypothesize, learn new skills. Ability to solve problems is said to be dependent upon the individual's ability to utilize the knowledge required to solve the specific problems.

Problems solving can also be seen as a product of creativity, both are therefore related. (Vanqundy, 1992). In the process of solving problems, ideas are generated, solutions found and evaluated so as to select the best ideas. Osborn, father of brainstorming suggested rules to guide the process of problem solving which includes use of quantity of ideas, and seeking combination of all ideas for improvement. The implication is rewarding. The more ideas generated, the greater the likelihood that a high - quality solution will result. Ability to defer judgment ensures that ideas generated can be evaluated. These processes help to encourage more conducive to creative ideas. Individuals involved in creative problem solving are encouraged to start with divergent search for data without necessary evaluation. However, convergent selection of important data follows after (Shallcross, 1996) added further a preliminary stage to include objective finding. This stage helps the individual identify a target area to solve, which includes the primary concerned the challenge or the opportunity. This process is best learnt by practicing it and receiving feedback on one's performance. It is a good strategy to be used in dealing with issues that affects entrepreneurship. This is because the use of will help the individual entrepreneur to processing ideas, data and find possible solutions to problems. Motivate and build confidence in the young entrepreneur, many also to ensure that one's knowledge is structured and patterns rather than single facts are recalled.

Entrepreneurship centres on innovation many introduction of something new, different and unique. An entrepreneur has a duty to reform or revolutionize the pattern of production by exploring an invention of an untried technological method or producing a new commodity or producing an old one in a new way. Furthermore, wealth creation and risk taking are all involved in entrepreneurship. Education has a lot to contribute in equipping individuals for entrepreneurship. In all levels of education (Onu, 2006) noted that "encouragement to form a company can be sustained by a teacher who can significantly influence individuals to regard entrepreneurship as a desirable and valuable career path. He opined that schools with exciting courses in entrepreneurship and innovation tend to develop entrepreneurs and can actually derive the entrepreneurial environment in an economic era. He further stressed that the more a number of entrepreneurship courses a person takes the more probability of starting a new venture.

Viable opportunity for NCE certificate holders

NCE certificate is a field of study with abundant opportunities for self- development, provided the learners are well prepared and groomed in the field. However, how well the learners internalize these opportunities depends on the competence of their teachers and enabling environment. The NCE graduate has potentials of going into full scale self -employment or could decide to go for corporate employment if he/she so desires, such as self - employment opportunities in crop protection, or set up consultancy services on crop protection or waste disposal.

Science education equips the learners with aptitudes with which they can establish small scale refuse collection and disposal outfit for individual homes and offices for a fee or embark on research assistance or field assistance which can help them develop skills in data collection and analysis. Holder of NCE certificate have great potential to embark on fish and poultry breeding, or establishing schools, which though is highly rewarding financially, but capital intensive. He/she could embark upon it if the candidates could raise soft loans from banks cooperative societies or from philanthropists. Holders of NCE certificate have great potential to contribute to Economic Growth of individual and nations in terms of job creation, employment opportunities moreover as a specialist in the field of physical and health education can engage in coaching, or instructors, health personnel, professionals in health education i.e Dieticians, journalists, security agents, which leads to growth and development of economy of society in which they live. Holder of NCE certificate in secretarial or business education as a result of her professional training she or he can embark in open outfit for professional training in secretarial work or computer operator / programming which enable him to contribute to economic growth of his country.

Concept of creativity and problem solving skill for entrepreneurship

The central problems of mankind are currently being linked to the manifestations of a fundamental lack of meaning in the lives of the vast majority of human beings. The resultant effect is their inability to discover, develop or engage their unique creative abilities in significant beneficial social and ecological actions. There is also the inability to recognize one's potentials, equally from institutions, economic, social and political arrangements and operating practices that artificially constraint people's capacities and potentials (Etuk, 2005). These patterns create an erroneous belief that makes people think that economic motivation rather than actualization of one's natural abilities to solve man's problem is the primary force in human life.

Maslows theory of hierarchy of needs has equally demonstrated the possibility of actualizing one's potentials, that is, realizing one's innate potentials or possibility, this states that however, can become a reality only after the basic human needs to live, socially and ecologically responsible lives have been met. Therefore, to achieve the much desired future positively,

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institutional arrangements and cultural patterns that will allow humans to express themselves as intelligent and creative individuals who are capable of evolving goals that are worthy of their commitment, time efforts and energies, need to be put in place. In order to accomplish this, bureaucracy, which is the mortal enemy of the creative process must be driven underground.

There is a strong relationship between problem solving, creativity and entrepreneurship. Creativity is an action and a result of imagination and ingenuity, (Cherwitz, 2006). It is also the application of ability and curiosity to discover something new. In other words, it is one thing to have the ability, yet another to actually apply one's ability in an innovative way by introducing new things, new processes, methods, devices, products and services for a useful purpose, that the spirit of entrepreneurship is ignited. Entrepreneurship is not a mere pursuit of opportunity without regard to resources currently controlled; rather, it is the process of creating value through unique resources combinations to exploit opportunity by implementing innovation; skills and qualities, characteristically inherent in or acquired by the entrepreneur are seen as experiences that can be stimulated through a series of challenging activities and exposure.

Entrepreneurship has also been seen as the creating and building of something of value from practically nothing (Tommons, 1994). Simeon, 1998 views entrepreneurship as the pursuit of opportunity. It acts with passion for a purpose, lives proactively, leverages, resources, and creates value. Gartner (1990) also view entrepreneurship as the creation of new organizations.

He noted that entrepreneurial activities start with willingness, and eagerness creates new venture in order to present a concept. Creation of new ventures in all fields of human endeavour.

Entrepreneurial activities are not restricted to business alone. As a process of culture innovation, it revolves around all aspects of endeavours ranging from the creation of wealth to the development of an attitude that engages the world. It involves risk taking, developing in the individual the quest to see opportunities, discover and create knowledge, innovate, collaborate and solve problems in any number of social realms, including corporate, non - profit organizations, government and education etc.

Educationally, intellectual entrepreneurship would therefore mean the ability to educate scholars who are accountable and who utilize their intellectual prowess to add to disciplinary knowledge and as a lever for social good (Cherwitz 2006). The academics therefore are seen as innovators with a focus on multi-disciplinary collaboration, aimed at translating advancements into real solutions to society problems and needs. These notions transcend the traditional notions of schooling, which until now had been for school sake and for the acquisition of certificates that

could barely be defended. Schooling should form the basis for which inventiveness and the spirit of creativity are cultivated in the learner. It should be the bedrock upon which training in creativity is allowed to form the basis of the learners' capital knowledge for a better tomorrow. Furthermore, in unleashing constructive creativity in business, education and society bottlenecks that always impeded fundamental functioning will diminish and promote in the citizenry the spirit to create something new. The resultant effect then would be the growth of knowledge capital.

WORKABLE AGENDA FOR CREATIVITY AND ENTREPRENEURSHIP EDUCATION

It is important to develop creativity and problem solving skills in individuals and making it compulsory and authentic, it should be predicted on the following:

- i. Restructuring the academic and professional training of entrepreneurship: Educators with emphasis on quality and technological advancement.
- ii. Designing an agenda for the future with includes skill analysis : This will mean ascertaining the level; of manpower development in all level of education.
- iii. Curriculum development: this simply means emphasizing on the skills acquisition, knowledge and attitude to the needs of the workers with work and life.
- iv. Follow – up survey: Schools / institutions should determine the level of job performance and the degree of job satisfaction and general level of career situation in labour market.
- v. Reappraising the teaching of entrepreneurship and problem solving skills: Content, process and attitude with emphasis on practical training and integration of related components

Designing a workable agenda for the future entrepreneurship education in Nigeria brings about the need to extrapolate as plausible from the pass and present trends into the future. It is expected that the future should be better than the past. Next is forecasting and planning followed by further planning and forecasting in a functional cycle. Since it has been established beyond reasonable doubt that entrepreneurship teaching needs to be reposition in Nigeria context for empowerment and technological development, the following need to be observed.

- a. Eliminating the current qualitative and quantitative inadequacies become the first hurdle on the agenda to be cleared.
- b. Encouraging better professional academic training for entrepreneurship and problem solving skills
- c. The entrepreneurship education that is fast gaining acceptability in the educational sector is a worthwhile area of focus in the education refocusing agenda. Its incorporation into the advancement upon completion of their studies. Other steps in the proposed agenda include re-orientation of teaching entrepreneurship and problem solving skills by inculcating elements of clear thinking and strong commitment to work in the students.

Training can be organized to ensure that the individuals' intellectual resources are put to better use. It requires that lecturers in institutions of higher learning put away their moribund lecture notes for a more dynamic promotion and utilization of information communication Technology (ICT), which has increased the inflow of most current information, creativity and invention.

Implications of developing creativity and problem solving skills for the education system

- ❖ The above situation calls for the need to revise the Nigerian National Curriculum for schools to rise to international standards within education. The new curriculum should reflect global perspectives to education as ideas and resources are made available to schools.
- ❖ Schools in Nigeria must reflect quality, coherence and effectiveness. Students should be empowered with techniques that will enable them to measure, assess and have a change in attitudes and behaviours.
- ❖ Students must be allowed to participate in programmes geared towards training, and the skill acquisition information exchanges, planning, monitoring, evaluation and professional development, and haven change their orientation concerning innovations.

Creativity and National Advancement and Entrepreneurship Skill

Creativity should dispose one to make and recognize valuable innovations, (Etuk, 2005) required divergent production or nothing which involves the ability to synthesize and recombine material to form new solution to problem (Onu, 2006). Creative approach to finding solution to some societal problem as seen in these areas is worthy of note.

- i. The fast growing demand for computer knowledge, means that computer education should be taught at all levels of education as an entrepreneurial skill.
- ii. School should accept the challenge of modern society to develop the total capacity of each child so that in adulthood he or she will be equipped with the entrepreneurship skills and knowledge to contribute effectively to the development of self and society.
- iii. Emphasis should be laid on the production of quality materials, as entrepreneurship education should be taught by specialist in the field to promote quality development and skill.

To achieve the broad aim of education, creative thinking and application of entrepreneurship knowledge stands out as innovative development with challenges in the world today; the resourcefulness, initiative and innovative skill of the individual can be a great Asset-Based on our discussion the following recommendations are made:

Conclusion

Creativity is inherent in all humans and therefore has a universal distribution. It has also been established that creativity can be likened to a driving force that drives human behaviour to shape their lives. It is necessary that individuals be given opportunities for the actualization of creative potentials or talents in them for meaningful existence, growth and development in all facets of human endeavours. These creative talents must be nurtured. In using creativity, new and useful things are developed, human lives and existence improved and contribution is made to the world of knowledge. Since creativity is developed through the process of solving problems, then children must be trained to learn to generate ideas, defer judgment, seek to combine all ideas generated, and evaluate their ideas. Furthermore, bureaucratic bottlenecks must be totally eliminated if human beings will engage their unique abilities and see themselves as participating and contributing members in their community. The education system must deliberately set out to raise students who will build new knowledge, be innovators and collaborate with others to advance real solutions to society's problems and needs, through creative problem solving and entrepreneurship.

Recommendations

- ❖ Skills and abilities that can enable students assume responsibilities for expansion of their own learning can be acquired through the learning periods if the learners are exposed to activities that will challenge them mentally and provide them with numerous opportunities to think their way out of such problems,
- ❖ Problem solving and training opportunities should be made available to update the skill and knowledge of the teachers, and in service should be mandatory, in service training should include the core curriculum and entrepreneurship education.
- ❖ Process approach: teachers can afford learners such challenging opportunities. Teachers should consider making this their goal for teaching by employing Activities methods, guided discovery and guided inquiry methods among others, which will challenge the curiosity of the learners in the learning process.
- ❖ A conducive learning environment should be created in all schools for effective teaching and public enlightenment should be mounted to educate parents and children regarding the positive attitude towards entrepreneurship and problem solving skills,
- ❖ Training in entrepreneurship education, should use pupil centered methods, specific to entrepreneurship education, enhance the communal planning and learning process and give guidance in the use of various entrepreneurial work methods in teaching.
- ❖ Training in entrepreneurship education and problem solving skill should be supported by public authorities with proper planning and supervision of the programme.
- ❖ Reflection in the interrelation of research, curricula and pedagogy should be intensified while knowledge of working life and business, industry should be enhanced among the education personnel.
- ❖ Self-motivated continuing professional education relating to entrepreneurship education should be targeted by national, regional and locally development projects.
- ❖ The core curriculum of entrepreneurship and problem solving should be included in initial teacher training.
- ❖ Curriculum reforms should also focus on promoting teachers' professional development.

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INFORMATION AND COMMUNICATION TECHNOLOGY AND ENTREPRENEURSHIP PROGRAMME AS A TOOL FOR QUALITY EDUCATION AND DEVELOPMENT IN NIGERIA

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ABSTRACT

In this dynamic and rapidly changing world of science and technology, it is apparently clear that the use of information and communication technology (ICT) to enhance teaching, learning, commerce and all other spheres of human endeavours is inevitable. Education stimulates young people to think about entrepreneurship and the role of the business community in economic and social development. This paper attempts to assess the capability of the usage of information and communication technology and entrepreneurship programme as a tool for quality education and development in Nigeria. The paper enumerates reasons for using information and communication technology and subsequently the role of entrepreneurship programme to the educational sector and the society at large.

Introduction

The role being played by information and communication technology in the world of science and technology, commerce and all other spheres of human endeavour is assuming different positive dimensions every day. The main purpose of information and communication technology consists just in the development of human mental resources, which allow people to both successfully apply the existing knowledge and produce new knowledge Shavinina (2001). Today, computers perform a host of functions in teaching

and learning as many nations are adding computer literacy, reading and writing literacy as skills students will need for succeeding in a technologically developed world (Thomas, 1987).

Meanwhile, entrepreneurship development skills in Nigeria is important and necessary especially in the area of economic globalization, where both young men and women should have the training and ability to practice entrepreneurship. Education stimulates young people to think about entrepreneurship and the role of the business community in economic and social development. So also, people gets an opportunity to analyze the changes taking place in their business and are encouraged to consider self-employment and enterprise creation as career choice.

Information and communication technology and entrepreneurship programme is indispensable to economic development, hence no economic development is possible without proper dissemination of information and entrepreneurship skills. A balanced information and communication technology, and entrepreneurial process will promote not only economic development, but education and productivity as well as the generation of improved individual per capital income.

Information and Communication Technology

The word information and communication technology (ICT) according to Burnett (1994) is the technology used for handling information, including multimedia and the Internet, and devices such as video, cameras and mobile telephones. ICT is often regarded as referring to a personal computer (PC) or laptop, with many potential functions and uses, and attached to the internet which provides access to large quantity of

information and enables the PC to be used as a communication medium. It includes other devices such as digital cameras, which are used in education and mobile telephones, seemingly best known in education for their nuisance value; (Adewa- Ogiebgen and Iyamu, 2005).

-Multimedia refers basically to the use of more than one medium to convey information. - Medium can refer to human senses (principally sight and sound), traditional means of conveying information (text, graphics, animated graphics, speech and music), or to the storage or communication devices employed (discs and tapes of various kinds, cable, radio, television and the internet). Interactive multimedia gives the user control over the information. The essence of the internet is that it enables computers and information applications to be connected to, and pass data between each other. This means that for

their users, they become devices, which can be used for communication. This shows that -ICT can be used in all spheres of human endeavours including entrepreneurship for educational development.

Reasons for using Information and Communication Technology

The use of ICT is widely spread and pervasive, and an integral part of everyday life. If education fails to make use of it, it will be failing people and society by failing to prepare the former for the latter. More specifically, the reasons relate to the following as explained by (Salomon, 1989):

- a. Improvements to learning resources the ability to create, maintain and deliver learning resources which are current, consistently presented, readily available, capable of simultaneous use by number of learner, and can be adapted to meet the needs of individuals.
- b. Enabling individual learning so that the activities of learners are directed towards their individual needs, abilities and preferences.
- c. Properly organized use of ICT results in increased efficiency and more effective working by learners, who in any case need to acquire ICT skills.
- d. Improved communication, regardless of location and time between and among learners, teachers, entrepreneurs and others.
- e. Testing, assessment and evaluation can be made more appropriate, realistic and practical, and the burden of routine tools can be reduced allowing more time for interaction between learner, teacher and others.
- f. Potential lack of teachers and the need to make better use of those who are available.
- g. Improvements to administration and management.
- h. Motivation

Agreeing with the above reasons is Becker (1986), who summarized that there are basically three reasons for using ICT in education. These are:

- To increase effectiveness so that what is learnt is more valuable to the learner and the society.
- To increase efficiency so that there is more learning for less resources.
- Because it is there. The above reasons by Becker and Salomon, we believe will summarily improve teaching/learning situation, improve efficiency and will make testing, assessment, evaluation and budgeting easy. It is also believed that it will improve the daily administration of schools, organizations and business enterprises.

Entrepreneur and Entrepreneurship Programme

The history of the word entrepreneur can be traced to the French language and it has been in existence before the entrepreneurial function. K.S. Bhattachargee and Atkins first used the word to describe people engaged in military expenditure as early as 16th century and by the year 1700, the word has been applied to French contractors involved in government projects and was later used for architects.

An entrepreneur today may be defined specifically in terms of the function, which the entrepreneur performs. The characteristics of an entrepreneur today are as numerous as the number of people involved in entrepreneurship and those seeking to define them.

According to Kilby in Hussayn U.I. and Abdullahi, M. (2008), defined entrepreneurship as - the ability to, and the willingness of an individual to seek out investment opportunity and run such enterprise successfully . While Inegbenebor in Hussaiyn, U.I. and Abdullahi, M. (2008), sees the entrepreneurship as being associated with various activities such as deciding to establish, operate and manage a business enterprise. These activities according to him include:

- Identification of investment opportunities.
- Decision making as to which of these investment opportunities to establish, operate and manage.
- An aggregation of the scarce resources required for production and distribution.

- Organization and management of human and material resources for the attainment of the objectives of the enterprise, risk bearing and innovation.

From the definition above it, can therefore be deduced that an entrepreneur is someone who has the ability to see and evaluate business opportunities, to gather the necessary resources and take advantage of them, to initiate appropriate action, ensure success, and take risks to achieve goals. The role the entrepreneur performs to achieve these goals is referred to as ENTREPRENEURIAL FUNCTION. The process is also called ENTREPRENEURSHIP, while the individual involved in starting the enterprise is known as entrepreneur.

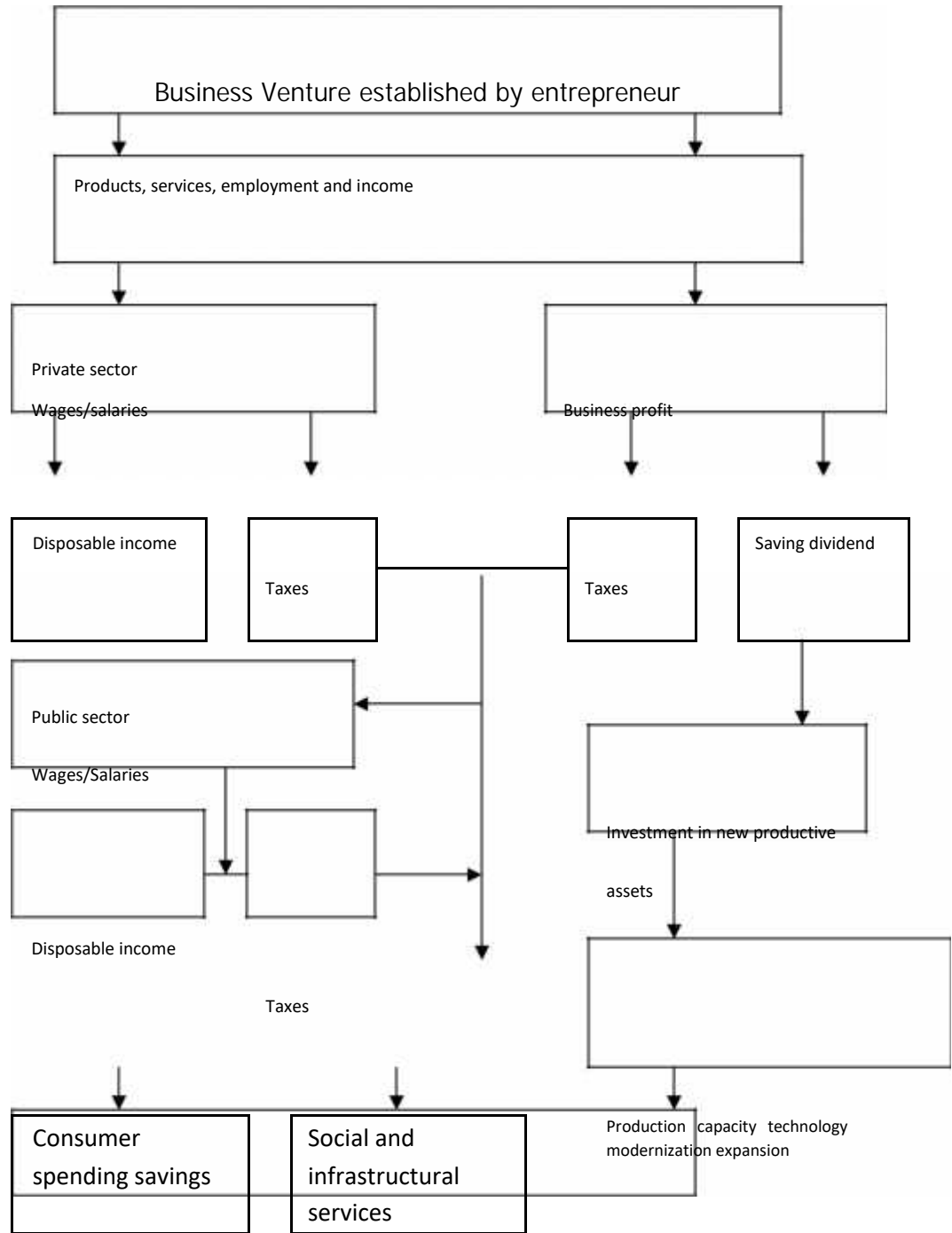
The entrepreneurship programme is seen as any comprehensively developed programme undertaken by an individual or a group of individuals or institutional agencies to develop competence in people leading to self-employment or employment generation.

Dividends of Entrepreneurship Programme

Stoner and Freeman (1992) opined that entrepreneurship programme has the following benefits to the society.

- i. It changes and rejuvenates market competition.
- ii. To serve as a guide and a useful device for influencing managerial behaviour and motivating managers to perform in line with organizational goals and objectives.
- iii. To evaluate performance and cost at the end of the budget period by making comparisons between the actual and the target set in the budget in order to determine any deviation and the corrective measures that may be taken without delay.
- iv. To provide a mechanism of ensuring control of activities by clearly defining targets of output, income and expenditure for each department or unit of an organization.
- v. It creates new technologies.

Similarly, Babakarewa (2009), summarized the role of entrepreneurship programme to the society in the table below:



The Role of ICT and Entrepreneurship Programme in Quality Education and Development

It is a universal believe that one of the most important roles of the school system in the society is that of serving as an agent of change and development. By implication therefore, it implies that whatever people desire in the society, has to be put into the school system Ukeje (1995). Subsequently, one of the main purpose of education is for mobilization of the entire citizens for social liberation or emancipation, economic empowerment and shaping of human behaviours. It is believed that if the individual is equipped enough to perform these tasks, definitely the development of the nation is assured. The question is; How will the individual get equipped to perform this tasks? The answer or solution to this question is not farfetched looking at the earlier discussions on the role ICT and entrepreneurship programme plays in the school and the society at large.

ICT and entrepreneurship programme in every sense is one of the fundamental factors of development without which no nation can achieve sustainable investment in human capital. Entrepreneurship and ICT enriches people's understanding of themselves, their immediate environment and indeed the world at large. When entrepreneur ideas are formulated and placed on the internet, individuals as well as the society can improve on their entrepreneurship programmes by retrieving the new ideas from the internet and applying it to the already existing ones. For instance, an entrepreneur in Nigeria can share new entrepreneur ideas with another entrepreneur in China, or USA or elsewhere in the world and vice-versa. There is no doubt that with proper and well integrated ICT and entrepreneurship programme, social benefits, productivity, creativity as well as self-reliance will be learnt and hence will play a great role in securing educational, economic and social up-lift of the individual, institutions and the society at large. ICT and entrepreneurship programme, social benefits, productivity, creativity as well as self-reliance will be learnt and hence will play a great role in securing educational, institutions and the society at large. ICT and entrepreneurship programme could be perceived as a driving force for improved transfer of knowledge, such as education and entrepreneurship, economic restructuring and a veritable tool for movement in the direction of achieving the Seven Point Agenda of the present administration.

Finally, it should be noted that ICT and entrepreneurship programme helps in the transformation of teaching and learning process and transformation of an economy from a low income traditional economy to a modern economy through the significant changes to production methods learnt or acquired through various means of disseminating information in which ICT plays a great role.

Conclusion

It is doubtless that teachers and students in educational institutions in Nigeria will have incredible resources available if they have access to the Internet. By integrating information and communication technology in our curriculum, fundamental shift in the way teachers teach and students learn will be evolved. However, to integrate ICT into teaching and learning in Nigeria, there must be proper and adequate funding and financing of education.

The education and training coupled with entrepreneurship programme will not be utilized if the fresh graduates cannot find a paid job and cannot raise the necessary capital with which to start an enterprise. In order to avoid this ugly situation, government need to set aside funds annually for financing graduates who intend to be self-reliant and employers of labour. An added positive implication is that our institutions will be turning out products that are not only competent and confident but products that are familiar with the rudiments of basic operations of the industry as well as entrepreneurship.

Recommendations

If the use of ICT and entrepreneurship programme for education and national development is to be as extensive and successful as envisaged in this paper. The following recommendations are put forward for consideration,

1. Provision of interest free loan facilities to the graduates to enable them establish enterprises of their choice. This will assist to reduce the level of poverty in the society.
2. Replacement of outdated equipment and facilities in our institution of learning.
3. Human and material resources should be made available to the institutions.
4. There should be easy and free access especially for students and teachers to the Internet and retrieval of information.

5. There should be increase in favourable policies in support of entrepreneurship and educational reforms.
6. The different access that men and women have in entrepreneurship and education system in some parts of the world should be discouraged i.e. gender disparity should be reduced to the bearest minimum level.

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