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Cover page i

Title page ii

Acknowledgments iii

Preface iv

Brief History of School of Technology Education v

Address by the Dean, School of Technology Education, Federal University of Technology, Minna vii

Address by the Vice Chancellor, Professor Musbau Adewumi Akanji Vice-Chancellor, Federal University of Technology, Minna, Niger State, Nigeria xi

Table of Content xiii

1. Innovation and Entrepreneurship in Science and Technology Education for Self-reliance **by David Mogari** 1
2. Entrepreneurship Education in Nigerian Universities: Current Status and a Proposal for Enhanced Implementation **by Professor Innocent I. Ekoja** 10
3. Entrepreneurial Skills Needed By Craftsmen for Establishing Small and Medium Scale Enterprises In Electrical/Electronics in Lagos State. **by Owodunni, A. S. Usman, G. A., Saka-Alikinla, I. & Kadir, J. O.** 18
4. Entrepreneurship in Library and Information Science/Technology for Self-Reliance in Nigeria **by Katamba Abubakar Saka** 28
5. Repositioning Adult and Non – Formal Education for Sustainable National Development: Issues, Challenges and Agenda for 2020 and Beyond in Nigeria **by Adamu Zubairu Evuti & Anri E. Umeh** 33
6. Entrepreneurship in Technical and Vocational Education: A Strategy for Self-Reliance **by Olawoyin, R. O. & Ojewale, J. A.** 42
7. Applications of Remote Sensing Data for Environmental Modelling and Analysis **by Onuigbo, I. C; Odumosu, J. O; Adesina, E. A.& Iwuchukwu, K** 52
8. Entrepreneurial Library Education in Nigerian Universities: A Sine Qua Non For Academic Librarians. **by Ogbonyomi, Abel Adegoke & Ayodele, Rachael O.** 60
9. The Role of Information and Communication Technology in Managing Religious Insecurity and Fundamentalism in Nigeria **by Philip U. Akor** 71
10. Refocusing Innovation and Entrepreneurship Skills Acquisition in Agriculture as an Instrument for Self-Reliance in Nigeria **by H. M. Makusidi** 79

11. Influence of Entrepreneurship Education on the Development of Self-Reliance Skills among NCE Business Education Graduates in Minna, Niger State, Nigeria **by Osuorji, Anne Nwada & David, Seyi** 87

12. Causal Relationship between Entrepreneurship and Unemployment in Nigeria **by Abubakar S. Garba & Salisu L. Indabawa** 93

13. Entrepreneurship in Library and Information Technology for self Reliance **by Habiba Muhammad Barau & Muhammad Alhaji Muhammad Enagi** 102

14. Instructional Television Programme: Panacea for Classroom Teaching In the 21st Century **by Aniah, A. & C. C. Nsofor** 109

15. Entrepreneurship in Micro, Small and Medium Renewable Energy Enterprises: A Tool for Sustainable Development in Nigeria **by Saba, T. M., Okwori, R. O., Saba, H. A. & Balami, S. Y.** 114

16. Standards as Information Resources for Promoting Entrepreneurship for Self Reliance **by Joel J. Kolo** 123

17. Information Brokerage for Self-Reliance by Librarians and Information Technologists in Nigeria by Abubakar Mohammed Bitagi &Alfred Micheal Obaje 130

18. Entrepreneurship Skills Acquisition in Science and Technology Education Curriculum for Self-Reliance by Idris, A. M., Umar, A., Hassan, A. M. & Gimba, R.W 138

19. Entrepreneurship in Library and Information Technology for Self Reliance by Surakat, Fatima & Owokunle, Bolaji Abdool'lah 146

20. Technology Skills Improvement Needs of Electronics Technology Teachers in Oyo State for Self-Reliance **by Adedeji, S. A & Oyedoja, K. O** 157

21. Students' Academic Performance in Engineering Drawing in Nigerian Polytechnics: A Case Study of the Federal Polytechnic Bida, Niger State **by Medupin, R.O., Abubakre, O.K.; Adebayo, S. A. Enock, O. I. & Sulayman, F. A.** 166

22. Impact of Entrepreneurship Education for Self-Reliance among LIS Students in Ahmadu Bello University, Zaria **by Hamza Ukashatu Musa, Abdulkadir M. Gana M. F. Mohammad, Yahaya Abubakar, &[4]Rachael Olubusayo Ayodele** 177

23. Creating Self-Reliant Opportunities through Entrepreneurial and Functional Educational Technology: A Panacea for Nigeria's Youth Unemployment **by Nsofor, C. C; Bello, Ahmed &Idris, A.W** 187

24. Entrepreneurship Skills in Vocational and Technical Education: A Tool for Reducing Unemployment and Poverty for Sustainable National Development **by Akinlabi, Wole Idowu & Ayano Samuel A.** 195

25. Entrepreneurship in Technical Vocational Education and Training for Self Reliance. **by Atsumbe, B. N., Tongshuwal, J. M. & Fittoka, S. B** 201

26. Innovations in Junior Secondary School Curriculum and Pre-Vocational Education towards Self Reliance **by Robert Ogbanje Okwori, B. N. Atsumbe, T. M. Saba, Muhammad I. D. Chado** 207

27. Technical Education as a Tool for Curbing Terrorism in Nigeria **by Raymond, E & Mohammed, A. M** 213

28. Entrepreneurship Education in Technical Vocational Education and Training (TVET) For Self Reliance among Youths in Makurdi Metropolis of Benue State **by Afaor, Nathanjel N; Agishi, Solomon, K & Ajula, Matthew Ter** 219

29. Influence of Entrepreneur Education on Job Creation and Self Reliance of Graduates of Tertiary Institutions in Nigeria **by Bashir Ahmad Usman, Adamu Yahaya, Adamu Ibrahim, Abdullahi Usman Musa & Jibril Alhaji Haruna** 226

30. Innovations in Technology Education: The Millennial Challenges for Large Scale Assessment of People with Special Needs **by Jumbo, Muhyideen** 231

31. Content-Specific and Pedagogical Knowledge: An Approach for Enhanced Science Education for Self-Reliance in Nigeria **by Bello, M. R., D. I. Wushishi & A. T. Dagoli** 237

32. Entrepreneurial Skills for Employability, Job Creation and Productivity for Library and Information Technology Practitioners **by G. A. Babalola & F. P. Abifarin** 243

33. Nature and Types of Maltreatment Suffered By Students of Secondary Schools in Niger State **by J. Gyong, J. Hellandendu & J. Kolo** 252

34. Factors Responsible For Child Maltreatment among Students of Secondary Schools in Niger State **by J. Kolo, J. Gyong & J. Hellandendu** 258

35. Skills Acquisition and Entrepreneurship: Prerequisite for Self-Reliance and National Development **by Ewuga Daniel Asele** 266

36. Entrepreneurship Education as a Tool for Job Creation and National Development **by Sani Isah Dantani & Nma Aliyu Ibrahim** 275

37. Innovative Tools for Teaching Science and Technology Education: Beacons for Self- Reliance **by Idris, U. S. B., Babagana, M.& Yaki, A. A.** 283

38. Entrepreneurial Skills Required By National Diploma Building Technology Graduates in the Construction Industry **by Abdul Bello Kagara** 288

39. Entrepreneurship Education: A Vital Tool for Reducing Poverty through Technical Vocational Education and Training **by Umar, I. Y., Udu Iliya, C. O. Igwe & Mohammed Kudu Abubakar** 295

40. Using the Mobile Phone in Teaching English Language in Nigeria Secondary School **by Amina Gogo Tafida & Shuaibu Umaru Sharru** 301

41. Innovations in Music Technology Education for Self Reliance: Improving the Tonal Structure of Kundung Xylophone **by Festus Ife Olisaeke** 310

42. Effectiveness of Locally Constructed Amplifier on Secondary School Physics Students' achievement and Motivation towards Learning Energy Concept in Minna, Nigeria **by Tukura, C. S, Falode, O. C, Alabi, T.O, Bello, A. Dibor, M. T. & Akoson, A. F** 318

43. The Challenges of Entrepreneurship in the Road Transport Industry: A Study of Crime along Minna –Kontagora Transport Sector **by Usman, Isah Ndashiru A.&Salihu, Nma Alhaji Haruna** 325

44. Entrepreneurship in Library and Information Technology for Self Reliance **by S. J. Udoudoh, G. A Babalola, Abubakar Mohammed Bitagi & K. A. Saka** 332

45. Effects of Two Modes of Innovative Instructional Strategies on Chemistry Students' Achievement in Senior Secondary Schools In Minna Metropolis, Niger State **by Chado, A. M; D. I. Wushishi & Sunday Obekpa** 341

46. Functional Mathematics Education: A Platform for Innovation and Entrepreneurship Development in Science and Technology Education for Self Reliance **by Hassan Usman, Chado Umar Doko & Kure Isah Danjuma** 347

47. Innovation in Educational Technology for Self-Reliance and National Development **by Oboh, C. O.; Umeh, E. A. & Gana, C. S** 353

48. Entrepreneurship in Vocational and Technical Education and Training (VTET) For Self-Reliance **by Ahuwan Martha .F. & Salihu, Maryam Ozavize** 358

49. Entrepreneurship in science Education: A remedy to Youth and Undergraduates Unemployment in Nigeria **by Duru Patrick Tobechukwu, Kubo Baba Gana & Aliyu Mohammed** 364

50. Perception of Lecturers and Students on Impact of Entrepreneurial Skills on Self Reliance of Business Education in Plateau State College of Education, Shendam **by Bashir Ahmad Usman, Adamu Yahaya, Adamu Ibrahim,** 371

51. Mapping Out a Strategy for Synergizing Science and Technology Institutions and Industries in Research and Skill Development in Nigeria **by Shehu Abdullahi Ma'aji, & Usman Yunusa** 377

52. Refocusing On Entrepreneurship Education, As a Major Tool for Self Reliance and National Development in Nigeria Schools and Society **by Celestina Imade Harry** 389

Information Brokerage for Self-Reliance by Librarians and Information Technologists in Nigeria

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Abstract
This paper explains how printing and printing technology led to publication explosion. Efforts made by libraries and librarians to control and provide needed information resources and services to library users were explained. The inability of libraries to provide needed information using print information resources was also explained. The difficulties arising from resources and services provision by librarians led to the introduction of ICT which is supposed to be the best thing that happened to libraries worldwide. However, Nigerian libraries, especially public libraries were observed to be ill prepared in the use of ICT facilities due to financial constraint. It was therefore observed that the gap created by inability of libraries to provide needed information to the public could better be handled by information brokers who could be regarded as entrepreneurs. The terms entrepreneur, entrepreneurship and information brokers were therefore highlighted. The need for entrepreneurship training for successful information brokerage was also discussed. The nature of curriculum to be covered by the training was adequately treated. The professional areas for information brokerage by libraries and information managers were identified. Factors that could militate against information brokerage service in Nigeria such as lack of unanimity on what the practitioners should be called and the demand for information through librarians were observed to be below average etc. were equally identified. The paper concluded that even though information brokerage is new in Nigeria, if the professionals and practitioners put their heads together a new, important and thriving business is in the making. The paper then recommended that practitioners in Nigeria should be called Information Service Providers (ISP) with one association to be known as Nigerian Association of Information Service Providers (NAISP), among others.

Key words: Libraries, Librarians, Information Technologists, Entrepreneur, Entrepreneurship, Information, Information Brokerage, Self-reliance, Nigeria.

Introduction

The introduction of printing and printing technology led to mass production of information resources in print format. At certain times information resources in print format led to what is known as publication explosion. That is, it was not only the coverage of information resources on a given or specific discipline that matters, but also how to identify and manage what was published about a given area of specialization and by who, The effort of various libraries to provide, by various means, all relevant and related information resources to their user communities could not be achieved wholly due to financial resources available at the disposal of such libraries and geographical barrier which inhibited easy access to published information, among others. While in relation to these problems Aziagba and Umeazor (2008) found out that principal among factors militating against the provision and utilization of information resources by libraries, Bitagi (2014) observes that funding is really the mother of all problems militating against library development in Nigeria since it is required at all levels of activity.

It is however, noteworthy that librarians have tried much as possible to disseminate to the users available information resources by compiling various types of bibliography and providing information services that was intended to keep them informed of the contents and stock of their libraries. This, to a great extent could not meet or reach all intended users because the effort was not only limited in scope but also affected by geographical factors.

It is this wilderness of information resources and services provision that the Information and Communication Technology (ICT) was introduced. The introduction of ICT in the provision and management of information resources and services by libraries is supposed to be the best thing that ever happened to libraries worldwide. This is because Aliyu (2011) observed that the use of technology to inform and make teaching, learning and research conducive is almost limitless. The author further emphasized that with technology playing an ever more significant role in people's homes, lives and working places, the world is in the midst of a communication and information revolution, complemented by an explosive growth in knowledge. Unfortunately however, these authors have observed that most libraries in Nigeria and especially public libraries that are supposed to be accessible to all, irrespective of status, age, qualification, religion, political learning and tribe etc. are yet to meet automation requirementand standard to fully meet the diverse information needs of their registered and potential users through the ICT. Where ICT facilities are available, the potentials are not fully tapped for everybody's utilization but designed to benefit a few privileged or targeted audience such as employees of institutions or organizations.

In view of the above situation, a gap is created in the provision of information resources and services to meet the generality of people's needs for private, corporate and or institutional purposes. This justifies the need for information brokerage services by individual or group of librarians so as to provide the needed information required to enhance the operation of other business enterprises to everybody after making a few charges so as to become self- reliant. Such a person or librarian is regarded as an entrepreneur.

Entrepreneur is derived from the French verb "Entreprendre" which means to undertake, to attempt, to try in hand, to contract for or to try. Haruna (2011) defines the entrepreneur as somebody who establishes a business and bears the risk and uncertainty for the purpose of making profit or growth by identifying significant opportunities and assembling the necessary resources, to capitalize on them. Thus, an information broker who bears the risk and uncertainty for the purpose of making profit in his/her business is also an entrepreneur.

Entrepreneurship has recently been defined in a variety of ways by different authors to suit their interest and circumstance. For example, Entrepreneurship Centre of Miami, University of Ohio in Malumfashi (2011) defines entrepreneurship as:

> A process of identifying, developing and bringing a vision to life. The vision may be an innovative idea, an opportunity or simply a better way of doing something. The end result of this process is the creation of a new venture formed under conditions of risk and considerable uncertainty

From the foregoing, it could be argued that irrespective of the way and manner entrepreneurship is defined, it has to do with risk bearing of acquiring all types of information through a variety of means and selling such information for a token fee with a view to make profit. This profit is what really keeps the information broker in business.

Entrepreneurship plays a great role in the development of individuals, societies and nations all over the world. To buttress this point, Ogunleye and Petinrin (2013) observed that the role of entrepreneurship in the developing economy is progressively becoming significant. The authors note that the advantages of entrepreneurship have been well recognized as it forms the bedrock of industrialization in developed and developing nations.

An information broker could be regarded as an individual who searches for information for clients. Information brokers use various resources including the internet, online services that specialize in data-bases, public libraries, books and CD-ROMs. Information brokers provide,

for a fee, information retrieval from publicly accessible data sources, most often online databases. However, information brokers really do more than data gathering. From the information gathered, brokers provide such services as writing reports that analyse the data they obtain, creating internal databases for clients to manage their in-house information, maintaining current awareness services that update a client whenever new information on a given topic becomes available etc.

The importance of information brokerage on the part of librarians and information technologists cannot be over-emphasized. Jonathan (2014) in a submission believes that vibrancy of youths must be invested in a youthful enterprise so that we can celebrate our youth for creativity and breaking new grounds in innovation, science, technology and other forms of beneficial human endeavours so that much needed jobs can be created. The emphasis here is that we, as enterprising Nigerians need to be self-reliant and rather, than looking to government for white kola jobs, such jobs can be created and provided by individuals. Thus, they will become owners of businesses. In another direction, it has also become imperative that focus must be shifted from mere acquisition of certificates by librarians and information technologists to the development and application of skills for which they are best suited. In that direction therefore, the art or science of developing and applying skills must be thoroughly taught and learnt in library schools as major component of their studies. This is expected to provide the basis upon which professionals may learn to practice such activities that could enhance their future lives, whether they are employed or not.

The Need for Entrepreneurship Training for Library and Information Scientists and Technologists

Unlike in the years before the late eighties when jobs were easily available, the present day Nigeria is witnessing unprecedented unemployment problem of graduates from tertiary institutions. Thus, hundreds of thousands of graduates roam about the streets searching for jobs that are not easy to come by. Consequently, the need to look inward for what graduates could do by themselves to be self-employed becomes imperative. Osagie (2009) corroborate this view when the author observes that in recent times, with falling standard of education and huge pool of unemployed graduates, it has become mandatory for the individuals to look inwards, discover their talents and acquire knowledge on independent wealth creation. It is notable that unlike in the past where there were very few library schools across the country, the current situation is faced with the fact that every federal, state and private university is struggling to establish its own library school. Thousands of students are therefore, graduated on annual basis. Unfortunately however, even with the establishment of numerous libraries and expansion of existing ones, they fall short of accommodating every graduate in library and information science/technology. In view of that, there is the need to redefine library and information science/technology curriculum to accommodate well-designed entrepreneurship training.

The establishment of entrepreneurship programme specifically tailored towards the need of library and information science graduates has become imperative because after graduation, students may not need to wait for white kola jobs but with some amount of capital, they could become self-dependent.Osagie (2009) is also of the view that entrepreneurship training for students is necessary because it enables graduates to engage in entrepreneurial activities, to become self-reliant, job and wealth creators. In the same vein, the National Policy on Education (2004) provides for the acquisition of appropriate skills from schools for self-reliant nation and by extension, self-reliant individuals who would not depend on the nation to provide a means of livelihood. Volery (2003) further observes that entrepreneurship training help to identify opportunities and bring technologies and new concepts into active commercial use.

In view of the above observations, it could be argued that factors that necessitate

entrepreneurship training for potential librarians and information managers include:

1. A very competitive employment or labour market and fewer openings in all the tiers of government and industries in Nigeria.
2. The high rate of inflation which has resulted into an equally high cost of living.
3. The inability of employees generating additional income through employment.
4. Failure of earth-while lucrative sectors such as finance houses, banks and consequential overloading of the labour market.
5. A nation with acquisitive culture.
6. The already inclusion of entrepreneurship training by the National Universities Commission (NUC) in the curricula of all schools.
7. The need to recognize the potentials of youth to innovate, create, invent, manage and successfully drive their chosen businesses.

Designing an Effective Curriculum for Entrepreneurship Training in Library and Information Science and Technology

An effective curriculum for entrepreneurship in library and information science and technology must first of all, put into consideration, the availability of qualified lecturers in the discipline, training materials, equipped laboratories, necessary equipment and established related business centres where students coud do their SIWES. Christozov, Denchev, Toleva-Stoimenova and Rasheva-Yordanova (2008) in this direction observes that such project requires allocation of significant resources such as human and intellectual, financial, material and information resources.

In a study on entrepreneurial librarianship for self-employment in Nigeria, Saka and Ahmed (2014) identify entrepreneurship courses in undergraduate LIS curriculum to include:

- Information brokerage
- Publishing/book trade
- Information business
- Public relations
- Library building (design/architecture)
- Basic statistics
- Consultancy services
- SIWES programme
- Private libraries/Archives
- Preservation of libraries/Archives.

In their contribution on the form the curriculum of LIS/T programme should look like, Christozor et al (2008) identifies that at undergraduate level, library and information/technology students should focus on "fundamental and specific" courses. According to the authors, the fundamental aspects of the curriculum are:

- Mathematics (Algebra, Analysis)
- Informatics Fundamentals (Discrete Mathematics)
- Information systems
- Information Science Fundamentals
- Information Society and Policy
- Data/Document Processing
- Documental Sources
- Knowledge Organization and Management etc.

On the other hand, specific courses recommended by the authors include:

- Information Brokerage
- Information Management
- Probability and Statistics

- Systems Analysis
- Theory and Practice of Consulting
- Introduction to Information Brokerage (IB) Law and Legal Regulation.
- Mathematical Foundations of IB

The authors still maintained that LIS/T students should be trained to acquire technical skills which according to them will enable the potential information broker to collect, summarise, process and interpret data and information in design, development and implementation of contemporary systems. Such courses include:

- Optimisation
- Applied Software
- Internet
- Database Design and Integration
- Programming Fundamentals
- Computing Systems Architecture
- Computing Networks and Communications
- Information Security
- Software Ergonomics
- Projects Design and Management.

The other segment of the training that need to be included in the LIS/T curriculum is the Social and Business Skills which will make it possible for IB to function effectively within the society in which they find themselves. These authors are also of the view that the practical aspect of entrepreneurship training should be emphasized so that new graduates could operate on their own after the NYSC.

Professional Areas for Information Brokerage

Professional areas of practice for library and information brokers are numerous. For example, Saka and Ahmed (2014) note that professional areas of self-employment opportunities for librarians include: information business centre, consultancy services, designing of library services, information broker, publishing/book trade, public relations/advocacy, private library/archives, presentation of printed materials/archives.

Igbeka in Onaade (2012)listed some of the work information brokers are doing in Nigeria. These include:

- Indexing
- Abstracting
- Retrospective Conservation
- Cataloguing and Classification (Contract Cataloguing)
- Literature Reviews
- Print searches for users
- Owning a library or bookshop with the cooperation of nearby libraries in the area of interlibrary loan
- Packaging information
- Editing and Publishing
- Developing hyper media products
- Translation
- Marketing management of libraries
- Organization of seminars, conferences and workshops
- Presentations (e.g. Microsoft power point)
- Creating databases and website design

Bjorner (1995) identify types of services to be rendered by information brokers to include providing research services, document delivery, seminars and training, writing and publishing,

Recommendations

1. Since information brokerage, among libraries is relatively new, the practitioners should come under one name to be called Information Service Providers in Nigeria (ISPN). They should then organize themselves into one registered association to be known as Nigerian Association of Information Service Providers (NAISP). Such an association must develop a constitution to guide the conduct of the activities of its members, employees, and regulations governing business practices etc.
2. Alternative sources of power supply may be needed to thrive efficiently and effectively.
3. The proposed association governing the practitioners should serve as a guarantor between the potential brokers and financial institutions so as to procure loans for their businesses.
4. The jurisdiction of librarians in rural areas should not be limited to providing information resources but also extended to organize people for learning to read and write especially in English and any other major language that could assist the rural people in accessing required information for self and national development.
5. All library schools should, as a matter of priority provide well equipped laboratories and provide requisite training for their staff so as to enhance teaching and learning in information business.
6. There is need to adequately publicize and market information brokerage business by both the association and individuals involved in the business.
7. The trainers in library schools need to be adequately retrained such that their retraining will conform to the present realities in entrepreneurship training.

References

Aliyu, M. (2004). The Use of Internets by Academic Scientists in ModdiboAdama University of Technology, Yola. *Samaru Journal of information studies*. 11 (1and 2), 1-12.

Aziagba, P.C and Umeozor, S.N. (2008). Electronic Resources and Use in Nigerian University Libraries. *Middlebelt journal of library and information science*. 8 (1and2), 27-36.

Bitagi, A. M. (2014). Information Resources Utilization for Research by Scientists in Agricultural Research Institutes in Nigeria. Ph.D Thesis submitted to the Department of Library and Information Science, University of Nigeria, Nsukka. P 113-114.

Bjorner, S. (1995). Who are these independent information brokers?. Retrieved from http://www.assis.org/Bulletin/feb-95/bjorner.htm on 25th August, 2014.

Christozov, D., Denchev, S., Toleva-Stoimenova, S., and Rasheva-Yordanova (2008). Training information brokers: A curriculum model. *Issues in information science and information technology*. 5, 87-94.

Federal Government of Nigeria (2004). National Policy on Education. Abuja: NERDC Press

Haruna, I. (2011). Entrepreneurship education in Librarianship: A panacea for self-employment. A paper presented at the bi-annual national conference of National Association of Library and Information Science Educators (NALISE) held at the Assembly Hall, A.B.U. Zaria from 8th – 12th November.

Jonathan, G.E. (2014). President Jonathan Urges Youths on Entrepreneurship. Campus News, F.U.T. Minna. Friday, June 27 (518), 1.

Laidre, Armin (2014). Top characteristics of a successful entrepreneur. Retrieved from http://www.iplannernet/business-financial/onine/how-to-articles.asp on july 3, 2014.

Malumfashi, M.U. (2011). Entrepreneurship education for library and information science in Nigeria. A paper presented at the bi-annual national conference of the National Association of library and Information Science Educators (NALISE) held at the Assemby Hall, A.B.U. Zaria from 8th – 12th November.

Ogunleye, J. K. and Petinrin I. O. (2013). Entrepreneurship Education in Nigeria: Catalyst for peace and national development. A paper presented at the National Annual Conference of the National Association for the Promotion of Studies in Religious, Education, Language and General Studies at Ila-Oragunbetween 16th-19th April.

Onaade, O.J. (2012). Information brokerage: An entrepreneurial approach to information services in Nigeria. *Global journal of management and business research*. 12 (20), 12-19.

Osagie, A.U. (2009). Change and choice: The development of private universities in Nigeria. Benin City: Rawel Fortune Resources.

Saka, K. A. and Ahmed, A. O. (2014). Entrepreneurial librarianship for self-employment. Paper presented at the 16th National Conference of the National Association of Library and Information Science Educators (NALISE) at Abia State University Auditorium Oturu, April 28th -May1st 2014.

Volery, T. (2003). Entrepreneurship: The engine of growth and development. Effective Executive: *The management digest*. V (3), 15-21.