



**KNOWLEDGE AND LEARNING  
MANAGEMENT [KALM]:  
PRINCIPLES, OPPORTUNITIES,  
APPLICATION AND CHALLENGES**



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Table of Contents

SECTION A

GENERAL PRINCIPLES AND THEORIES OF KALM ..... 1

Knowledge and Learning Management: Principles and Practice Joel B. Babalola .....	1 – 15
Bureaucratic Principle and its Application to Modern Educational Administration in the Nigerian Educational System. Suleiman Habiba .....	17 – 22
An Application of Developmentally Appropriate Practice in Nigeria’s Pre-Primary Education Schools Idogo, G. ....	23 – 29
Application of Bolman and Deal’s Leadership Framework to Educational Challenges by Educational Administrators: Implications for Knowledge and Learning Management in Nigeria Onuselogu, A. P. & Uzoehina, G. O .....	31 – 38
Principles and Theories of Knowledge: Philosophical and Epistemological Evolution, Critique and Implications Ekpe O. Ekpe .....	39 – 44
Application of Multi-Models Principle in Quality Home Economics Teachers Production for Knowledge and Learning Management Nwokolo, C. K. ....	45 – 54
Improving Teaching and Learning in Nigerian Schools through Total Quality Management (TQM) Principles Obi, C. N .....	55 – 61
Leadership and its Challenges in Contemporary Education System in Nigeria Pobish, S. B., Inusa, Z & Okai, A. ....	63 – 68
Systems Theory, Knowledge Management and the Nigerian Educational System: Strategies towards a New Dawn Isah, E. A. & Oyekan O. A. ....	69 – 78
Towards Efficient Cost Control in Public Secondary Schools in Nigeria: An Empirical Application of the Systems Theory. Isuku, E. J. ....	79- 86

## SECTION B

### POTENTIAL CHALLENGES TO LEADERSHIP IN EDUCATION ..... 87

Conflict Management as Tool for Effective Administration and  
Leadership in Nigerian Secondary Schools

Tarda, B. A. .... 89 - 98

Empowering and Enhancing Women Managers' Positions in  
University Management through Knowledge Creation

Omoike, D. O., & Ayanka - Imalele, D ..... 99 - 106

Supervision, Knowledge and Learning Management in Nigerian  
Schools: A Symbiotic Relationship

Afianmagbon, B.E. & Nwokocha, L.K. .... 107 - 114

Linking Human Resource Management in Education System to  
Knowledge Management

Okorie, S. N., Alozie, L. & Iheonunekwu, S. .... 115 - 124

Influence of Principals' Leadership Styles on Academic Achievement of  
Secondary School Students in Nigeria

Igu, N.C.N & Ogba, F.N ..... 125 - 130

## SECTION C

### POSSIBLE OPPORTUNITIES TO EDUCATION SYSTEM EFFICIENCY AND EFFECTIVE GOVERNANCE ..... 131

Improving Knowledge and Learning through Management of  
Learning Facilities in Secondary Schools.

Anyanwu, A.O ..... 133 - 140

Facilitating Effective Management of Classroom Learning in  
Nigerian Schools

Onuka, A.O. & Isah, E.A. .... 141 - 149

Knowledge and Learning Management: Panacea for Capacity  
Building in Education

Unachukwu, G & Undie, J.A ..... 151 - 156

Enhancing Sustainable Development through Knowledge and Innovation Management Yusuf, L. A. ....	157 – 164
Planning For Educational Efficiency in Nigerian Schools and Colleges: Problems and Strategies for Improvement T. L. Adepoju & J. T. Ajiboye .....	165 – 175
Administrative Challenges of Building Secondary School Principals' Capacity in Abia State, Nigeria. Onwuchekwa,G.U., Ezeh,S.C & Onuigbo,N. ....	177 – 185

## SECTION D

### PRACTICAL APPLICATIONS OF KALM TO EDUCATIONAL ADMINISTRATION..... 187

The Administrator's Perspective of Challenges in Implementing Knowledge and Learning Management Principles in Nigerian Colleges of Education Enyi, D. & Odoemenam, R.I.....	189 – 195
Application of Knowledge and Learning Management (KLM) by Principals in the Administration of Secondary Schools in Enugu State, Nigeria. Oboegbulem, A.I. ....	197 – 203
Application of Knowledge and Learning Management in Teacher Event and Programme Planning Delivery Ikwuegbu, P.N & Nwaneri, P.N. ....	205 – 211
Information Communication Technology: Veritable Tool for Knowledge Management and Development Alabi , O. C. ....	213 – 219
Knowledge and Learning Management in Nigerian Universities; Implications for Sustainable Development Uche, C. M. ., John, A. E. & Nwankwo, F. E. ....	221 – 227
Enhancing Secondary School Principals Administrative Capacity in Edo State Through Internally Generated Revenue Okosun, M.....	229 – 236
Educational Leadership: A Distributed Perspective Ibara, E.C .....	237 - 244

An Overview of Principal's Administrative Leadership Ability in the Management of Secondary Schools in Nigeria Aigboje C.D. ....	245 – 251
---	-----------

## SECTION E

### PEDAGOGICAL OR CURRICULUM IMPLICATIONS ..... 253

Challenges of Curriculum Planning and Implementation in Nigeria in the Context of Learning Management. Ibrahim Danjuma & Undie, J.A. ....	255 – 260
--	-----------

Hirstian Theory of Forms and its Curricular Implications for the Rejuvenation of Religious Instruction in Nigerian Secondary Schools Ekpe O. Ekpe .....	261 - 267
--	-----------

Expanding Research Operations in Education through New Conceptualization on Ethnicity - The African Perspective. Duvie, A. N. ....	269 – 273
---	-----------

Managing Knowledge Creation for National Economic Transformation in Nigeria. Isah, Emmanuel .A and Ayeni, Abiodun . O. ....	275 -283
--	----------

Knowledge and Learning Management in Modern Organizations: Implications for Educational Settings Iheonunekwu, S.& Nwamuo, C.N. ....	285 – 293
--	-----------

English Phonemic Transcription, Knowledge Creation and Pedagogy for Television Newscasters in Nigeria Aladeyomi, S.A. ....	295 - 302
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# Systems Theory, Knowledge Management and the Nigerian Educational System: Strategies towards a New Dawn

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## Abstract

Knowledge is as a major ingredient for rapid transformation of any society. There is a strong bond between education and knowledge. It is observed that knowledge can be created, directed and disseminated. A knowledge created but not disseminated may not be utilized and knowledge not utilised has no usefulness despite its potentialities. Knowledge creation, utilisation and management have different stages, processes and levels. This paper looked at the Nigerian Educational system using the Systems approach to investigate the possibilities embedded in managing created knowledge for developmental purposes. The paper investigated the challenges involved in knowledge creation at primary secondary and tertiary education levels while viewing the potentials of good knowledge management for a plural society like Nigeria that desires urgent economic emancipation.

## Introduction

The systems approach articulates Management and managerial functions from a systemic point of view. This approach according to Nwankwo (1981), developed from the works of Aristotle but was amplified by Gordon Hearn (1958), and Von Bettalanfy in 1972. Other theories that arose from this development include the input/output theory that was popularized by Economics Nobel Laureate; Wassily Leontiff in the 1920s (Isah, 2011). Nwankwo (1981:21) explains that a system may be defined as ...a series of interrelated and interdependent parts, such that the interaction of any part (Sub-system) affects the whole... It is essentially believed that any system is interrelated with other parts of the system known as the subsystem. Nwankwo (1981:30) described the systems theory using the systems model comprising the society supra system, the political system, the economic system, cultural system, school system, educational system, and the child system. By this simple model, Nwankwo (1981), explained the interrelationships and interdependence of a system. The child must of necessity interact with all these systems and subsystems before becoming developed.

This paper examines the application of the systems theory to the possibilities of transforming Nigeria to a knowledge economy through the management of knowledge. The paper will examine current issues in the Nigerian transformation process and explore the Nigerian educational system especially its structure.

## Systems Theory and its Application to Nigerian Education

With the definition given at the introduction, it is known that the systems theory is applicable to any enterprise. The Nigerian educational system comprises of interrelated and interdependent parts for example, the National Policy on Education of the Federal Republic of Nigeria (FRN, 2004) succinctly explains that its educational levels are; Primary, Secondary and Tertiary. The National policy ascribes 'Pre' to education before

primary hence primary education also has preprimary section purposely to prepare Nigerian children for primary education. After primary school, there is the secondary tier that used to be three years apiece but a section is now merged with the primary that gives nine years of basic education and thereafter another three years of full senior secondary school prior to four years of tertiary education. The systems theory emphasizes the inter relationship and inter dependence of these sections. The systems theory enables Planners in any endeavour to look at an organisation as a whole taking cognizance of its constituent parts.

The transformational objectives of Nigeria cannot be attained without a system view. Obanya, (2011), explained that to achieve transformation, there must be benchmarking that must look into where we are, what we want to do and how we want to attain that. Nwankwo (1981), still on the inter relatedness of the system looked at the structure of the Nigerian Education system. He was able to show the replication of some aspects of administration but differences in scope and operations; for example, the objectives and operations of institutional heads as Vice chancellor, Provost, Rector, Principal and Headmaster are essentially the same that is using men to achieve organisational objectives but their scope of operations essentially differ. While the Vice chancellor leads men and resources in the university setting, the Provost leads men in Colleges of Education and some other Monotechnics, the Rector in Polytechnics, Principals in secondary schools while the Headmasters/Headmistresses are leaders in primary schools. Essentially their jobs are the same, but scope varies, it also indicates that their competences vary.

In contemporary Nigeria, there is the need for the application of the systems theory as no national objective may be achieved without looking at the system from a systemic viewpoint (seeing the system as a whole with its subsystem). Take for example, the complexities in recent years and the fast rate of growth of tertiary institutions as well as their changing roles of ownership, governance, (Mbat, 1992).

These changes identified above require that the system be examined from a systemic perspective. Courses and nature of studies must in the same way respond to societal demands. In recent years, innovations into learning and new course content and curriculum have kept educational developments rising at an alarming rate. Baumol(1988), Kuratko and Hodgets (2004), attested to the increasing variations in tertiary education courses that gives young people independence in terms of career choices. Viewing the foregoing against the back drop of transformational patterns expected of Nigeria in the near future, the concept of knowledge society, knowledge economy and knowledge management, educational foundations and requirements for creating a knowledge society, the challenges of creating a knowledge society, prospects of managing a knowledge society/economy and the policy implications of a knowledge society and economy will be discoursed as they are of paramount importance to Nigeria, sub Saharan Africa and other developing countries .

An insight into the workings of a system using the systems theory, Nwankwo (1981), Model of the Society and Child relationship in a system is herewith presented.

### A Conceptual Model of the interactions and interdependence of the Application of Systems Theory



Fig 1-Source: Adapted from Nwankwo, J.I. *Educational Administration – Theory and Practice* Page 30

#### Knowledge Society, Economy and Management

Wikipedia and Wikimedia (2009), described a knowledge economy as that whose focus is the management of production using knowledge technologies. The Organisation of Economic Cooperation and Development (OECD, 1996), described a knowledge based economy as economy propelled by heavy industrial production occasioned by technology especially those in the Information Communication Technology. A knowledge society comprises of those who live in a knowledge economy. What then is knowledge Management (KM)? Wikipedia (2009) describes a knowledge economy as one that comprises a range of strategies and practices used in an organization to identify, create present, enable adoption of insights and experiences. Such insights and experiences comprise knowledge either embodied in individuals or embedded in organisations as Human Capital. Knowledge Management has its scope, dimensions, strategies, motivations and technologies. In preparing for the management of a knowledge society and economy, the elements of management must be taken into consideration and they include; planning, organising, coordination, supervision etc

To successfully implement a knowledge economy programme IBRD (2004), requires that the country must have carried out its knowledge Assessment using known methodological process. Among the requirements listed include; A sound and institutional economic regime, good educational system, good telecommunications system, Information Communication Technology (ICT) and Innovative system. In line with the foregoing, Danlman and Aubert (2001:3) in describing the emergence of China and some countries of East Asia using Knowledge Economy principles asserted that "a key aspect of the knowledge economy is greater investment in education". Again the IBRD (2008) in explaining the principles of economic growth for countries operating the knowledge economy also explained that "the quality of governance has a big impact on economic growth, corruption discourages investments, distorts resources allocation in ways that hurts the poor. More funds will be available to create access to education and reduce infant mortality".



### Pillars of a Modern Knowledge Economy/Management

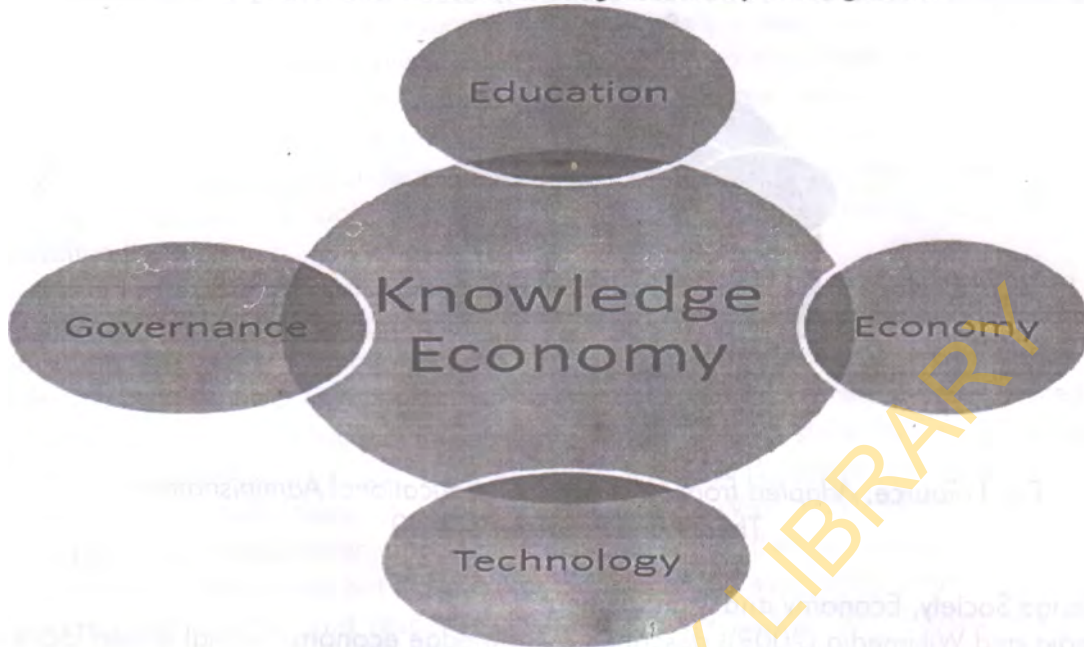


Fig 2 Source: Designed by researcher

From the foregoing, it becomes important to find out, is the Nigerian Economy ripe for a knowledge economy? The answer to the above question will reflect on a discussing on the four pillars identified above. We need to point it out here, that the systems theory proves applicable here as a good researcher must first look at the subsystems identified by Nwankwo (1981). In this regard, the Knowledge economy represents the Supra System, Education is a subsystem, Economy a subsystem, governance is another subsystem and Economy a subsystem.

#### Education

To properly expect a harvest of knowledge generated in Nigeria, it is first important that we get a view of the Nigerian Educational system. (FRN, 2004) emphasises the 6-3-3-4 system of education with six years spent at the primary level and a three, three tier in both Junior and Senior Secondary Schools (JSS and SSS) and there after, there is another four years of tertiary education. Also, the administrative structure of education in Nigeria emphasises the systems theory as shown in Nwankwo (1981:50). The study showed that Federal, States and Local governments are closely linked in the administration of education. It further revealed that there appear to be a duplication of personnel and offices at the various levels of operation but scope and content varied for example, there is a Federal Minister of Education and there is a State Commissioner for Education and there is a Supervisory Counselor at the Local Government level for Education. Nwankwo (1981) advocated that there should be a synergy of policy and operators (Administrators). In considering the Nigerian educational system using the systems approach, a dynamic system must be evolved that will look at knowledge generation at the primary, secondary and tertiary levels simultaneously and eventually come up with a comprehensive whole (total) body of knowledge. It might be practically impossible to disengage one part from the other in developing a knowledge management structure. It could lead to fragmentation of the system and inability to realize stated objectives.

Nigeria as a multi ethnic and multicultural nation stands to benefit from its composition if education can be developed to involve community participation. This paper

foresees education contributing immensely to national economic growth through the modification and integration of cultural values to western type values and ethics. For example, children in formal primary schools could be taught handicraft, transform many of these handicraft at JSS into semi processed goods, research them at tertiary level to completely finished products for export. This paper also views that a syndication group be set up that collects all such inventions and innovations and eventually package them as Nigeria's 21<sup>st</sup> century products. These are applicable in agriculture that hitherto exports goods and services in their raw forms but however, if the goals are not to the international market, Nigeria has a large local market. If these products are developed and acceptable to Nigerians, it will reduce dependence on foreign goods and thereafter increase Nigeria's foreign reserves.

The Nigerian educational system along side the Nigerian society has the extraordinary advantage of transforming into a technological economy (knowledge) economy if the various levels of education can integrate local instructors into the school system to compliment teachers. Local instructors enter the classrooms or laboratories with tacit knowledge that is a form of knowledge not broken down into scientific formats. This knowledge is transformed into coded knowledge that can be taught in schools and exported to other nations (Ayeni, Isah, Erwat and Ileuma, 2009). A good linkage according to Obanya (2011) can be seen in the Model Below.

A Model Showing the Role and Processes of Education in knowledge Societies

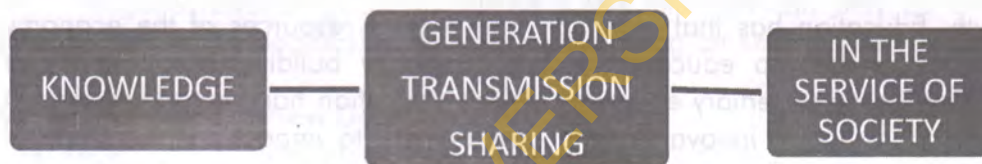


Fig 3: Source: Adapted from Obanya 2011

### Economy

In the perspective of this paper, the economy serves a dual purpose. The first is that the purpose of knowledge is to transform the economy while the second purpose is to use what is available in the economy to improve the economy for example; the Nigerian economy has been suffering from the effects of a monoprodukt economy requiring diversification (Erwat, Isah and Fabunmi, 2009). The Nigerian economy has been unfortunate to be depending on a single export product called crude oil. The unfortunate issue is that Crude oil is a primary product and its price is universally determined. Nigeria has no control over its income and hence in the face of competing needs in national resources allocation, the price of crude oil which is most unstable can either dip or rise. It was so in 1982 and led to the introduction of 'austerity measures' by the then civilian regime of Alhaji Shehu Shagari of the National Party of Nigeria (NPN). It was so again in 2008 and 2009 during the regime of Alhaji Umaru Yar'Adua arising from the Global Economic Melt down. In the light of the above, there has been a request by Nigerians that the economy be diversified and this diversification has only been seen to come from developing the resources that can lead to successful exploitation of Nigeria's rich potentials. Obanya (2011) and Kabbaj (2001) both identify capacity building as one of the requirements. Capacity building for which and what level? In the view of the systems

theory and in the perspective of the Nigerian education system, capacity must be developed through primary, secondary and tertiary education.

#### Model Showing the Dual Nature of Education in the Development of a knowledge Economy

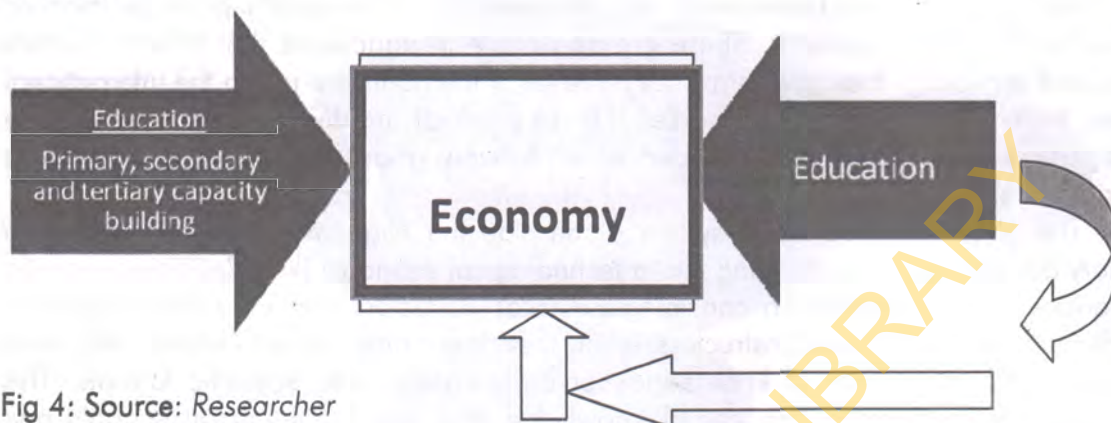


Fig 4: Source: Researcher

The above model explains the dual nature of education and the complementary role of the economy to the development of a knowledge economy showing interdependence of parts, subsystem and the system. In the first instance, the purpose of education is to build requisite resources that will transform the economy to bring about economic growth. Education has that potential. The present resources of the economy must be prioritized to develop education through capacity building at all levels as innovations are not limited to tertiary education. When education has been developed, it comes back through research, innovation and development to impact positively on the economy through the society. There is an interdependence of sorts between education and economy both playing complementary role within and outside the confines of the system and subsystems.

#### Technology

Encarta Dictionaries (2009) describes technology as " process by which human beings fashion tools and machines to increase their control and understanding of their material environment" Merritt (2009) explains that there is a relationship between science and technology which is causal. Science and technology employ empirical methods that involve empirical demonstrations that can be repeated.

Technology develops through formal and informal means. CTA-ASTI/TOT (2009) was able to explain that knowledge of technology especially as it pertains to development involves coded and tacit knowledge. Coded knowledge is that possessed by the locals in preservations and medicine. For example, most tropical plants contain medicinal and pharmaceutical ingredients known to Native Doctors etc. Such knowledge is coded and cannot be transferred unless the possessor decodes it and in most African contexts such knowledge is embedded and could die with the possessor. The Tacit knowledge is the transformation of Coded knowledge through cooperation, understanding and mutual trust between the locals and the scientist to merge coded knowledge with tacit knowledge in such wise, technology has began to evolve.

It is well known that using the concept of systems theory, technology can not be in isolation. The whole system is enmeshed in research and development (R&D) but its development is in the subsystems. After primary and Junior secondary school, there are

technical colleges where skills and principles in technology are developed focused or reshaped. These developments in Technical Education keep researchers focused.

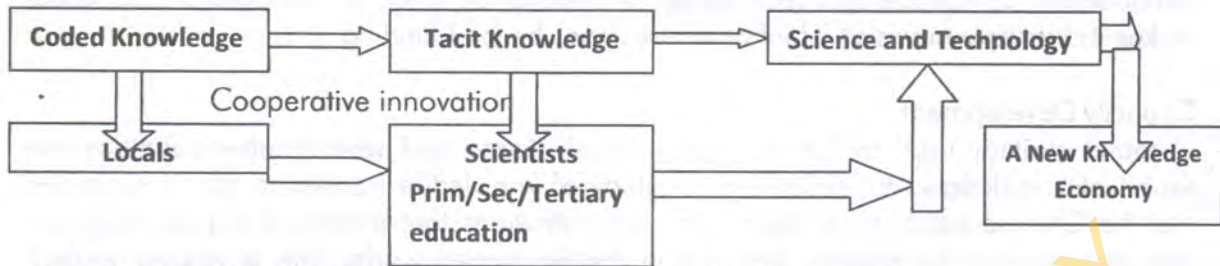


Fig 5: Model of the Technological Transition process by the researcher

### Governance

This refers to the creation of National Leadership. IBRD (2008) and Ribadu (2006) both agree on the role of leadership in any endeavour. While IBRD (2008) emphasises the positive role of good leadership to economic growth, Ribadu (2006) decried the poor leadership capacity of African leadership. In most African nations, leaders lack the capacity for good governance especially with corruption all over the continent. Again, the absence of workable direct policy focus and initiatives compound African nations' problems. Lundu and Mbewe (1993) decried the absence of good policies among African leaders.

Nigeria requires good articulated leadership that can only be attained through effective democratic leadership that has been lacking for several years.

### Strategies towards a New Dawn in Nigeria

The 'New Dawn' in the perception of this paper looks at the new dawn as the new era desired. What is the desired destination, its is the diversification of the economy with education (knowledge) as its foundation and pivot. Some of the strategies that can be applied are as follows;

#### Integrated knowledge Development

This paper is of the view that there must be a synergy of knowledge. Such knowledge syndication must not be left to the universities alone. While several scholars might call for the creation of a Ministry of Knowledge Development, this paper agrees but such a ministry must be created in line with the various areas in focus. For example, the ministry must have specialized subsystems. While a part will handle coded knowledge, another will work on tacit knowledge and the other will work on the synergy of both. There could also be the argument that, since there is already a Ministry of Education, there is no need for that ministry. The answer is no as each Ministry's mandate varies. The terms of the ministry should be well defined. The Ministry is different from those of science and technology, Education etc. The purpose is to harvest all innovations, creativity and inventions both by local citizens and educated ones for the development of a Nigerian home fashioned technology. Importantly too, the Ministry is to look at all levels of education discovering talents and people embedded with untapped capacities for development towards a new Nigeria.

#### Infrastructure

The dearth of infrastructure cannot be over emphasised in Nigeria. To facilitate the needed transformation, government must of necessity provide infrastructure. Such

infrastructure will rejuvenate industries and research. Again, infrastructure should be understood to mean the provision of the basic needs of all those involved in the development of science and technology. It involves all levels of education. This paper makes it clear that provision of infrastructure goes beyond funding.

### **Capacity Development**

A major strategy used by China, Japan, Israel, Korea and several other countries was export of knowledge. Wu (2007) in the study of knowledge transfer in China explained that the Chinese established universities and institutions that produced quality graduates who had to look for greener pastures in the developed world. The advanced western nations did not holistically agree endorse knowledge transfer. However, the capacity acquired in the industries of the western nations by the Chinese and Japanese nationals was now transferred to their economies after their sojourn. Nigeria needs to learn lessons from the examples of those nations. Government must give priority to capacity development at all levels Danlman et al (2001).

### **Benchmarking**

Benchmarking is strategy that is capable of transforming any nation. (Obanya, 2011) recommended benchmarking to enable government assess their present rates of development using their Human Development Indicators (HDI). An understanding of the HDI will enable government to set targets and work towards the attainment of such targets. Nigerian has been involved in benchmarking but more still needs to be done in all areas for example, the 'Vision 20-20 agenda' of the Federal Government of Nigeria (FGN), the Nigerian 'Transformation Agenda' and the Global 'Millennium Development Goals' (MDG) etc.

### **Developing Links and Linkages**

Applying the systems theory, links and linkages should form a major aspect of knowledge management. There should be encouragement of local entrepreneurs, researchers and inventors to meet and exchange ideas with their counterparts all over the world. This gives exposure to creative ideas that need transformation. These links and linkages should of importance include the development of 'knowledge fairs' that brings industry and research together with industries being encourage to finance and fund applicable researches.

### **Benefits of a Knowledge Economy**

There are several benefits to a transformed society. Prominent among them are;

#### **Improved and Enhanced GDP**

A transformed economy enjoys the benefits of additional income through the adoption of science and technology as the driving force in that economy. It gives a big boost to the manufacturing sector impacting positively on the human development, macroeconomic and welfare indices of that economy for example, an economic transformation will improve the earning power, disposable income and other microeconomic indices of the household with the creation of employment whose multiplier effect will be tremendous. Such empowerment will impact positively on the human development indices of the society and bring about a transformed nation.

#### **True Economic Independence for Nations**

A transformed society will usher in true economic prosperity as presently absent from countries of sub Saharan Africa. Most African countries engage in the production of

primary products for example; Nigeria produces crude oil, others export mined products as phosphates, coal etc in their raw untransformed natural state to the industrialized world. Such goods are repackaged and imported back at higher cost to the producing nations making them poorer and enhancing the economies of the advanced countries with their meager resources.

### Improved Technology and Infrastructure

The drive to transformation will lead to the urge to provide requisite infrastructure. Such infrastructure improves the development process through capital stock accumulation. Transformation of infrastructure gives additional input and production capacities to small and medium scale enterprises recognised in this century as the engine of growth in most economies including the USA (IBRD, 2008), Kuratko and Hudget (2004) and Baumol (1988). Development of local technology is advocated by proponents of knowledge economies. Most African nations have codified knowledge that need to be decoded into usable formats. Such coded knowledge needs research to be decoded and modified. Modification involves the development of curriculum to be able to transfer decoded knowledge. An improvement in local technology will increase knowledge export as is currently the case in the countries of East Asia.

### Enhanced National Capacity

Knowledge economies require transformed human capacities to be able to function appropriately Kobbaj (2001). Poor capacity can negate all investments. Also, enhanced capacity could form an export product for a knowledge economy for example; exportation of high caliber capacity building by Jews and the Indians to the USA from the latter part of the 20<sup>th</sup> century into the 21<sup>st</sup> century greatly impacted on local technology in their home country. Export of improved human capital in the form of enhanced capacity results in heavy repatriation of FDI's annually that results in heavy foreign exchange accumulation. Further to this, China and other countries of East Asia through enhanced capacity development exportation and utilization have been exposed to the development models of the advanced world that has formed the bedrock of their own economic emergence.

### Conclusion

This paper examined the Nigerian educational system in relation to the development of a knowledge economy using knowledge management with systems theory forming its theoretical framework. The investigation examined the principles of systems theory and was able to observe that for the nations to make a break in industrialization, knowledge management (Creation, utilisation and dissemination) holds the key. The study looked at the emergence of nations like china and Japan and came up with strategies that could transform any economy. Benefits from the knowledge economy were revealed.

### References

- Ayeni, A.O., Isah,E.A., Erwat, E.A and Ileuma, S (2009). Managing inventions in Nigeria through Educational Research, Innovations, Creativity and Policy Reforms. In Babalola, J.B., Akpa, G.O, Ikediugwu, N., Ayeni, A.O and Atanda, A.I; Managing Inventions in the Nigerian Educational System. A Publication of the Nigerian Association of Educational Administrators and Planners (NAEAP) Pp 17-29
- Baumol, N.J (1988) Entrepreneurship and Productivity. Journal of Development Planning No 18 Pp 90

- CTA-ASTI/TOT (2009). Knowledge, Learning and Economic Development. Workshop Training Programme Manual Module 1. Abuja - Nigeria. European Union Training Programme, Wageningen, Netherlands.
- Danlman, C.J and Aubert, J.E (2001) China and the Knowledge Economy: Seizing the 21<sup>st</sup>. World Bank. Washington, USA Pp 3
- Encarta Dictionaries (2009) Microsoft® Encarta® 2009 [DVD]. Redmond, WA: Microsoft Corporation, 2008.
- Erwat, E.A., Isah, E.A and Fabunmi, M (2009) Economic Diversification and Perspectives from the Asian Tigers: Lessons for Nigeria. *Journal of Management and Liberal Studies* Vol. 8, No.2 Ghana Pp 224-241
- FRN (2004) Nigerian National Policy on Education. Federal Government Press, Lagos, Nigeria.
- IBRD (2004) Presentations of the Knowledge Assessment Methodology (KAM) Knowledge for Development Programme, World Bank Institute, USA Pp 4
- IBRD (2008) World Development Reports. An IBRD Publication. Washington, D.C, USA
- Kabbaj, O (2001). Capacity Building, Governance and Economic Reforms in Africa (Access to Education) Training and Capacity for Professionals. In Descent, M.A and Ubogu, R. (Eds.) Joint Africa Institute. IMF Publication Series, Washington, D.C. USA
- Kuratko, D.F and Hodgets, R.M (2004) *Entrepreneurship : Theory, Process and Practice*. Mason, O.H: Southwestern College Publisher, USA
- Lundu, M.C and Mbewe, G (1993) Factors Restraining the Formulation and Implementation of a National Information Policy (NIP) Process: The Zambian Experience. *African Journal of Library and Information Science* Vol. 3, No. 1, Ibadan, Nigeria. Pp 23-33
- Mbat, D.O. (1992) Issues and Problems Facing National Agencies and Institutions Responsible for Human Resources Development (ASCON). Spectrum Books Ltd. Ibadan, Nigeria Pp 154-160
- Merritt, R.H (2009) Technology Microsoft® Encarta® 2009 [DVD]. Redmond, WA: Microsoft Corporation, 2008.
- Nwankwo, J.I (1981) *Educational Administration, Theory and Practice*. Bisi Books, Ibadan. Nigeria Pp 20 - 67
- Obanya, P.A.I (2011). The Responsive Social Engagement Mission of Higher Education. Lead Paper Presented at the 6<sup>th</sup> Regional Conference of the Higher Education and Policy Network, Lagos, Nigeria.
- OECD (1996). *The Knowledge Based Economy*. General Distribution OCDE/GD/96(102) Paris. France Pp 1
- Ribadu, N (2006) Nigerian Leaders Stole \$380b. BBC News, 26<sup>th</sup> March, 2006. <http://www.news.bbc.co.uk/2/hi/africa/6069230.stm>
- Wikipedia Encyclopedia (2009) Knowledge Economy: Wikimedia Foundation of the Wikipedia Project. <http://www.wikipedia.org> Retrieved 17<sup>th</sup> August, 2011
- Wu, W (2007). Building Research Universities for Knowledge Transfer: The Case of China. The World Bank, Washington D.C, USA. Pp 185-197