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TRANSPORT AND ENVIRONMENT FOR SUSTAINABLE DEVELOPMENT OF THE THIRD WORLD: STRATEGIES FOR NIGERIA

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Abstract
Non-polluting transportation systems that provide high level of amenities and are at the same time low in energy use are needed in both developed and developing countries, including Nigerian cities. Honest pricing of different means of transport (for both passengers and freight) and the introduction of more efficient and rational vehicles are among the most important steps that need to be taken. This study examines the strategies open to Nigeria to attain these objectives.

Introduction
Less than a hundred years ago, human and animal transport of people and goods was common. This is now largely replaced by transport involving petroleum burning engines on land, water and air. Transport infrastructure and provision have grown to immense proportions. Civil aircraft flew 1.7 trillion passenger kilometers in 1990. Over 400 million tonnes of freight are transported annually. And, there are now more than 500 million motor vehicles in the world (Banister et al, 1994)

The growth of transport has undoubtedly brought many economic and health benefits. But it has brought problems too, leading to environmental crises of energy, air pollution and congestion. It is not only the transport industry’s current size that makes it so
environmentally crucial, its continued rapid growth. Developed
countries already have extensive transport infrastructure – roads,
railways, airports, bus systems and others, yet many are still planning
further expansion (WHO, 2002; CEC, 2002).

In developing countries, the level of transportation provision is
much lower, but is expanding at an extremely rapid pace. For example,
car sales in Malaysia rose by more than 70% annually at the end of the
1980s. Globally, the car population is growing even faster than the
human one. Today’s half a billion vehicles are expected to increase to
one billion or more early in the next century.

The air has been severely polluted in the villages, towns and
cities, where most of the world’s population lives. Though the word
‘smog’ was coined in the United States, photochemical smog due to
vehicle emission is now turning many megalopolises both in developed
and the developing world into virtual disaster areas. Population in an
increasing number of areas is regularly exposed to air pollution levels
above the limits set by the World Health Organization (WHO, 2002;
Borzel, 2002; Robinson, 2004).

The hallmark of the policy thrust in the relationship between
transport and environment is a clear need for sustainable transportation
and environmental development. This is the focus of this paper with
specific reference to the Nigerian cities.

**Literature Review**

Following world conferences on the environment held in Stockholm in
1972, Rio de Janeiro in 1992 and Istanbul in 1996, there has been
greater concern for the global development process to seek for
integration of exploitation of resources and economic growth and
physical development. The need to improve the quality of life of city
inhabitants through their production and consumption activities,
without compromising the ability of future generations to meet their
economic, social, cultural, health and political needs, remains the focus
of sustainable urban development (Mitlin and Satterhwaite, 1998).

Mobility, which is perhaps the most fundamental human need in the
process of urban life, requires the consumption of non renewable resources. Sustainable mobility development, therefore, implies that consumption activities should be able to take into consideration effective utilization of available resources and develop environmentally friendly system for the mobility of the people that would not damage the natural resources, but rather have some positive effects on the same environment (Ogu and Adeniji, 1998).

In addition, car emissions also cause significant air quality problems. Hydrocarbons, nitrogen oxides and carbon monoxide undergo reactions in the atmosphere to produce ozone. Sixteen kilometers up in the stratosphere, ozone acts as a vital shield against the sun’s ultraviolet radiation; but in the lower atmosphere it is a pollutant. Nitrogen dioxide also causes direct health risks and its level in many big cities and the Nigerian cities in particular often exceed international health norms.

Government around the world have instituted vehicle emission limits to try and control transport air pollution.

Table 1.1 shows selected countries legal limits for nitrogen oxides, hydrocarbons, carbon monoxide and particulates. Limits are being made still tighter in many countries.
Table 1.1: Legal exhaust emission limits for cars in selected countries

<table>
<thead>
<tr>
<th>Country</th>
<th>Year</th>
<th>NOX</th>
<th>Hydrocarbons</th>
<th>CO</th>
<th>Particulates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>1986</td>
<td>1.93</td>
<td>0.93</td>
<td>9.3</td>
<td></td>
</tr>
<tr>
<td>Brazil</td>
<td>1990</td>
<td>2.0</td>
<td>2.1</td>
<td></td>
<td>24.0</td>
</tr>
<tr>
<td></td>
<td>1992</td>
<td>1.4</td>
<td>1.2</td>
<td></td>
<td>12.0</td>
</tr>
<tr>
<td></td>
<td>1997</td>
<td>0.6</td>
<td>0.3</td>
<td></td>
<td>2.0</td>
</tr>
<tr>
<td>EC Countries</td>
<td>1993</td>
<td>-</td>
<td>1.11</td>
<td>3.16</td>
<td>0.18</td>
</tr>
<tr>
<td>EFTA Countries</td>
<td>-</td>
<td>0.62</td>
<td>0.25</td>
<td>2.1</td>
<td>0.124</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>1992</td>
<td>0.63</td>
<td>0.26</td>
<td>2.1</td>
<td></td>
</tr>
<tr>
<td>Japan</td>
<td>1978</td>
<td>0.25</td>
<td>0.25</td>
<td>2.1</td>
<td></td>
</tr>
<tr>
<td>Mexico</td>
<td>1990</td>
<td>2.0</td>
<td>1.8</td>
<td>18.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1991</td>
<td>1.4</td>
<td>0.7</td>
<td>7.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1993</td>
<td>0.62</td>
<td>0.25</td>
<td>2.11</td>
<td></td>
</tr>
<tr>
<td>South Korea</td>
<td>1987</td>
<td>0.62</td>
<td>0.25</td>
<td>2.11</td>
<td></td>
</tr>
<tr>
<td>Taiwan</td>
<td>1990</td>
<td>0.02</td>
<td>0.75</td>
<td>2.11</td>
<td></td>
</tr>
<tr>
<td>USA</td>
<td>1987</td>
<td>0.62</td>
<td>0.25</td>
<td>2.1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1994-6</td>
<td>0.25</td>
<td>0.24</td>
<td>2.1</td>
<td></td>
</tr>
</tbody>
</table>

Source: Enviro 13, Swedish Environment Protection Agency (May, 1992)

Noise is another serious environmental problem caused by transport. Road traffic, high-speed trains and planes all cause a nuisance and harm to growing numbers of people. Over 100 million people in the OECD countries are exposed to road traffic noise in excess of 65dBA. One measure of the seriousness of the problem is that the European community recently passed a law to cut maximum allowable vehicle noise by 50% from 1996 (OECD 1995).

Transport generated waste is an under-recognized but growing environmental problem, especially waste from road vehicles. In regions where vehicle density has been high for some time, millions of vehicles are scrapped every year. Traditionally, the high steel content in vehicle scrap has been recycled and other components land-filled. Changing patterns of materials use, especially the growing proportion of plastic components in cars, has led to a disposal crisis in some countries (Mackenzie and Walsh, 1990)
Energy and the regulation of air pollution remain the biggest areas of research activity. Though, numerous companies and research institutions are experimenting with petrol additives or substitutes designed to cut air pollution or to take transport beyond its dependence on fossil carbon fuels (see Table 1.2), some of the new technologies are more experimental than others. In Brazil, cars have been running on a petrol/ethanol blend since 1975. Liquified petroleum gas is used routinely in Italy, Japan and other countries. Fuel oxygenate petrol additives are in widespread in the United States (UNEP, 1993; Chapman and Hall, 1992).

### Table 1.2: Comparison of Alternative Transport Fuels

<table>
<thead>
<tr>
<th>Fuel</th>
<th>Adequate resource Base</th>
<th>Manageable fuel properties</th>
<th>Green house gas and other emissions</th>
<th>Feasible hard ware modifications</th>
<th>Cost comparative (currently)</th>
<th>Available (market ready)</th>
<th>Effect of existing regulations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compressed natural gas</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+/-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Liquefied natural gas</td>
<td>-</td>
<td>-</td>
<td>+/-</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Methanol (Maize)</td>
<td>-</td>
<td>+</td>
<td>+/-</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>Ethanol (Woody biomass)</td>
<td>+</td>
<td>+</td>
<td>+/-</td>
<td>+</td>
<td>+/-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Reformulated gasoline</td>
<td>+/-</td>
<td>-</td>
<td>+/-</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>Oxygenated (MTEB/ETBE)</td>
<td>+</td>
<td>-</td>
<td>+/-</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Electricity</td>
<td>+/-</td>
<td>+/-</td>
<td>+/-</td>
<td>-</td>
<td>-</td>
<td>+/-</td>
<td>+</td>
</tr>
<tr>
<td>Hydrogen</td>
<td>+</td>
<td>+/-</td>
<td>+/-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Solar energy</td>
<td>+</td>
<td>+/-</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>+/-</td>
</tr>
<tr>
<td>Fuel cells</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>+</td>
</tr>
</tbody>
</table>

+ Advantageous  - Disadvantageous
+/- Both advantageous and disadvantageous

**Source:** steering & new course, union of concerned scientists (1991)
Almost all the major human induced affronts on the physical environment appear to be the direct or indirect result of cities (Boyce, 1982). In fact, cities are the catalysts of change for the physical environment. They are the centres from which landscape degradation emanates. Thus, cities are the focal points for all manner of physical inputs and the places from which all manner of manufactured and outcast materials are distributed.

It is clear that urban sustainability policy required operational insight into environmental quality conditions measured by means of indicators. In our discussion of urban environmental problems we will make a distinction between impacts on the natural and on the social environment of a city (Camagni, Capello and Nijkamp, 1995).

a. Environmental Problems with an Impact on the Natural Environment

Atmospheric Pollution
All pollutants discharged to the atmosphere are beyond critical concentrations – harmful to plants, animals and humans. Some are harmless in typical ambient concentrations; others have indirect effects that may be harmful. Some have effects that are local or regional, and some have global effects. The air pollution in many urban areas causes severe problems. We can distinguish between emissions which pollute the urban atmosphere.

Carbon Dioxide (CO₂)
Carbon dioxide emissions stem from the combustion of fossil fuels. They are seen as the main contributors to the green house effect. Even relatively high amounts of carbon dioxide have no direct known detrimental effect on personal health. The problem of carbon dioxide is that it represents heat escaping from the planet, which may generate climate changes. Climate modelling is indicating that by the year 2030 the atmospheric CO₂ concentration may result in an average temperature rise of the earth climate between 1.5 and 4.5 centigrade.
Transport, Environment and the Third World

The result of global warming include a rise in the sea level, caused mainly by the thermal expansion of the oceans, with the risk of coastal area floods. When we keep in mind that a large number of big cities is located near coastal areas, the CO₂ emissions are not only a global threat but also a local threat.

Nitrogen Oxide Emissions (NOₓ)
At trans-boundary levels, nitrogen oxide emission converted to nitric acid and combined with sulphur dioxide, form a significant component of acid rain which has serious detrimental effects on many ecosystems.

Sulphur Dioxide
Sulphur dioxide can cause bronchitis and other diseases of the respiration system, and it is the main contributor to acid rain. The consequences of acid rain include damage to aquatic life, forest and crop fields, and corrosion of structures and materials. Clouds beeting acids may travel hundreds or even thousands of kilometers across several borders to produce acid rain in regions other than the one producing the original emissions.

Carbon Monoxide (CO)
Carbon monoxide is especially a problem in urban areas where synergistic effects with other pollutants contribute to photochemical smog and surface ozone (O₃).

Particulate Matter
Particulate matter contributes significantly to visibility reduction and, as a carrier of toxic metals and other toxic substances, exerts pressures on human health.

Depletion of Energy Resources
Due to the high use of energy in the city by transport, houses and industry, many energy resources are over-exploited. Excessive exploitation of carbon-based fuels is often seen as the major problem.
Although the exploitation of the resources causes only little environmental problems in itself, the effects of over-exploitation cause severe negative effects on future generations. In this context, renewable energy plays a potentially important role in sustainable city initiatives.

b. Environmental Problems with an Impact on the Social Environment

**Noise**
In urban area especially, the noise caused by the different economic activities is a big problem. It has been estimated that about 110 million people in the industrialized world are exposed to noise levels in excess of 65dB(A), a level considered as unacceptable in OECD countries (Camagni et al, 1995). Noise has several different effects on health and well-being. These effects further induce psychological and physiological disorders, such as stress, tiredness and sleep disturbance.

**Negative Feedbacks of Transport Activities: Mobility versus Accessibility**
The negative feedback of transport activities is not irrelevant in modern societies, and risks to become even greater if efficient intervention policies in favour of environmental protection are not put in place. The list of cost is a long one: air and water pollution noise and vibration and road casualties are just some of the examples. According to Swedish studies, urban air pollution causes between 300 to 2000 new cases of cancer annually (Capello and Gillespie, 1990). Traffic accounts for 70% of the emission of carcinogenic substances that may affect the genes of people living in urban areas.

As far as cities in developing countries are concerned, the virtuous circle does not look the same as before (Table 1.3). Also in this case, the mechanism is activated by supply driven policies which develop transport infrastructures in cities. The first impact on
accessibility is the same as in the case of developing countries, but then:

More accessibility generates more development, as new activities are attracted or generated (transport infrastructures is a direct precondition for development); more development has two kinds of effects: from one side it acts on sustainability through more investments in the quality of social services, sewerage systems and sanitary infrastructures, at present very low in developing cities. All these have a positive impact on the quality of life in urban areas, and thus on sustainability. From the other side, economic and social development have a positive effect of per capital income growth in developing countries and have underlined the fast rise by the consumption of non-durable goods, such as cars and electric appliances, usually second-hand, high energy-consuming ones. What is even more worrisome is the fact that forecasts on the number of car ownership in developing countries estimate a substantial increase by the year 2025 (Houghton and Hunter, 1994).

As is the case in developed cities, in the long run more mobility generates more congestion and thus less accessibility. Most of developing cities are in fact already affected by congestion on urban roads, which is the result of an increase in car trips and very poor quality of transport infrastructures (roads and public transport services). Bangkok is a clear example of a highly congested city, with severe traffic problems: overall, Bangkok’s public transport carries only 33 percent of total annual passenger kilometers in the city, compared to an average of 64 percent in Singapore, Tokyo and Hong Kong. At the same time, Bangkok has 51 percent of daily trips by private transport, and is recognized to be the most severely congested city in the world (Paboon and Kenworthy, 1995).
Table 1.3: Social cost in relation to transport modalities (By percentage)

<table>
<thead>
<tr>
<th>Social costs</th>
<th>Air</th>
<th>Rail</th>
<th>Inland water ways</th>
<th>Road</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air pollution</td>
<td>2</td>
<td>4</td>
<td>3</td>
<td>91</td>
<td>100</td>
</tr>
<tr>
<td>Noise pollution</td>
<td>26</td>
<td>10</td>
<td>0</td>
<td>64</td>
<td>100</td>
</tr>
<tr>
<td>Land coverage</td>
<td>1</td>
<td>7</td>
<td>1</td>
<td>91</td>
<td>100</td>
</tr>
<tr>
<td>Construction/maintenance</td>
<td>2</td>
<td>37</td>
<td>5</td>
<td>56</td>
<td>100</td>
</tr>
<tr>
<td>Accidents/causalties</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>98</td>
<td>100</td>
</tr>
<tr>
<td>Total in billion DM/year</td>
<td>2</td>
<td>14</td>
<td>2</td>
<td>68-77</td>
<td>86-95</td>
</tr>
</tbody>
</table>

Source: Whitelegg, 1988

Transportation Scene in the Cities
The discourse on the transportation in the cities cannot be differentiated from the basic issues in the development and growth of the urban centres and cities. Two major factors continue to explain the pattern of growth of the cities in Nigeria: rapid rate of urban growth, in terms of the population and numbers of the settlements that are urban; and widening gap between demand for, and supply of infrastructure and services, including transportation (Oyesiku, 2005). The consequences of the rapid rate of growth and slow growth in the overall socio economic development include; shortages of infrastructure and services; fragmented city management structure; slow rate of response to urban problems; poor living standard; and mobility and accessibility difficulties (World Bank, 1996; Oyesiku 2001a, 2001b; Atubi and Onokala, 2004a, 2004b)

In the Nigerian metropolitan and intermediate cities that are experiencing chronic city transportation problems, sustainable transportation development requires direct government interest for environment, safety and improved health of the people. It may be argued that in an environment that there is inadequate transportation infrastructure, poor network, complete absence of bus-stops,
inadequate vehicles for public transportation system, that the issue of balancing production and consumption or transportation services may be meaningless. The argument goes further: that the level of the transport sector in Nigeria and in Africa in general has not reached that of Europeans or the Americans and therefore should not be of concern to the government and researchers; and that the transport sector being heavier polluter of the environment and also a contributory factor to landscape deterioration and climatic change, has no corresponding impact on the environment in the developing countries (Oyesiku, 2005).

The gap in this thought is that people need to wait till they experience the problem caused by transportation development in the developed countries before thinking of what to do. More fundamentally is the fact that fatality resulting from transportation and congestion in the third world countries is higher per capita than in the developed country. Thus, with recently experienced rapid rise in car ownership and mobility, the fatality rate is expected to increase. Similarly, the nature and type of congestion in many Nigerian cities show that an average resident traveling to work spend longer time than an average resident in any other part of the world. The cost and time implication of this is becoming unbearable, particularly as it is affecting work productivity and health of the residents.

The import of the foregoing is that living and working in the cities that are dependent on the use of private cars and motorcycles (that have no capacity restraint for accident) is increasingly at odds with sustainable development and the negative consequences of the effect of mobility must be addressed.

**Sustainable Transport Systems Policy Measures**

The conventional strategies of policy perspective of sustainable transport are in two directions:

a. Road pricing in form of tolls to finance improvement in the technology, roads infrastructure and reduce congestion to a tolerable limit; and
b. User charges to cover investment in new public transport and to compensate for external cost of use of transport.

The extent to which these policy strategies have worked even in the developed country is still being debated. Lack of consensus on the effectiveness of this policy thrust is to the extent that external costs are difficult to measure and the impact of the use of transport affects everybody. Nevertheless, the extent to which various modes of transport impact the environment and the population is not in doubt. Table 4 shows that rail network has the smallest impact on the two significant aspects of the use of transport, which are the soil and health of the people.

Table 1.4: Impact of the Environment by the Modes of Transport

<table>
<thead>
<tr>
<th>Mode</th>
<th>Air pollution</th>
<th>Water pollution</th>
<th>Soil pollution</th>
<th>Health and safety</th>
</tr>
</thead>
<tbody>
<tr>
<td>Road</td>
<td>***</td>
<td>*</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Rail</td>
<td>*</td>
<td>**</td>
<td></td>
<td>*</td>
</tr>
<tr>
<td>Inland water ways</td>
<td>**</td>
<td>**</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>Sea</td>
<td>*</td>
<td>**</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>Air</td>
<td>*</td>
<td></td>
<td>*</td>
<td></td>
</tr>
</tbody>
</table>

* Small impact ** Significant impact *** Great impact  

Source: Nijkamp, 1994

In the light of the impact of different modes of transport in the immediate environment of the population, policy strategies should be geared towards harnessing the mode that holds a lot of potential for easing city transportation problems, that does not pollute as such, takes limited space and provides a great deal of flexibility. Such a mode of transportation that improves the energy performance of transportation systems and moves the mass of the people in several directions at the same time should be the focus for sustainable development in the intermediate cities. Two of such environmentally sustainable related
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policies are: to encourage the use of bicycles rather than automobiles, and revitalization of the rail system and development of rapid and light rail system in the intermediate cities. The policy strategies aiming at sustainable modes of city transportation are less dependent on fuel, have a short run effect on the environment and have long range mobility sustainability (Oyesiku, 2005).

**Complementary Policy Measures**

A complementary policy strategy must comprise a broad set of measures that will improve the qualities and quality of the public transport system. Better co-ordination and management of the existing transportation modes as part of the development of the public transport should be a major focus of government attention. The public service approach to management of public transportation has failed as the operating costs are never covered and buses continue to depreciate, yet government operators charge the same fares as those of private operators (Oyesiku, 2005; Atubi and Onokala, 2006).

In addition, effective maintenance of the existing road network to improve the surface condition and connectivity is imperative. This policy measures must also be complemented by some user charges, such as regulator or prohibitive measure of parking within the commercial areas, higher taxes for vehicle licenses and renewal of the existing fleet and co-ordination of user charges (Wallace, 2000; Willoughby, 2001; Atubi and Onokala, 2005).

An often-neglected aspect of causes of traffic congestion and associated transport problems in the cities is lack of control of spatial location of activities. This particular deficiency in the overall physical planning of the cities has caused long hours of journey to work. To ensure good co-ordination between transport and land use, physical development policy must be designed to fully enforce land-use and physical planning regulations and effective development control of various land uses (without exception of the government agencies and religious organizations). The development guidelines should ensure redistribution of human activities and provision of guidelines for
emerging urban settlement that are sprawling in all direction of the cities (Atubi and Onokala 2004a).

Conclusion
The discussion of transport and environment in developing countries has given a number of conclusions and indications of conclusions which need further examination. It is also worthy to note that developed countries are attempting to reduce environmental problems caused by transport technology while Nigeria is encouraging the importation of used vehicles imported to the country and which aid the degradation of the environment.

The observed and discussed urban transport crisis is to pave way for a detailed discourse on sustainable transport development uses, with a view of ensuring a balance between modern transportation systems and achieving the objectives of mobility of the majority of the urban population viz. safety, comfort, effectiveness, efficiency moderate cost and just in time. The existing urban transport policy measures have not focused on sustainable transportation approaches that can meet the challenges of contemporary Nigeria’s development and at the same time ensure minimal mobility and accessibility crisis.

Nigerian government should avoid cumulative negative impacts of transport on urban environment. Therefore, environmental policy needs to be broadened and intensified. This is because, further transport development is inescapable. However, it must be done in a way that meets the needs of the present without compromising the ability of future generation to meet their own needs.

References
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EFFECTIVE MANAGEMENT OF TECHNICAL EDUCATION: AN OPTION FOR ACCELERATED DEVELOPMENT IN NIGERIA.

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Abstract
Technical Education offers several opportunities to help developing nations advance economically, technologically and industrially. This paper proffers measures for effective use of these opportunities. A 27-item questionnaire was used to elicit information from technical education and educational management experts selected from 20 Nigerian (federal and state) universities, on the roles technical education plays in achieving national development, factors militating against the effective management of technical education, and on measures that could be adopted to effectively manage technical education in Nigeria. It was found, among others, that technical education fosters creativity and innovations; lack of professional manpower, low morale and poor attitude of management of technical education in Nigeria, are some of the problems mitigating against management of technical education; and strategies for enhancing effective management of technical education.
education in Nigeria include private sector participation in funding technical education and the training and retraining of technical education teachers. It was suggested that some aspects of technical education should be made compulsory for all students at all levels of education in Nigeria.

Introduction

Every organism, including man, constantly interacts with the environment, which limits their behaviour and, therefore, the satisfaction of their needs and aspirations, in many ways. For man, his environment limits his behaviour physiologically and economically. Therefore, it influences his life. However, man has an innate ability for far-sighted planning as well as the ability to manipulate symbols and artifacts in order to conceive new designs, new arrangements, and new systems in response to his awareness of the inhibiting factors in his physical and socio-economic environment. This manifestation in man’s nature is a technological character (Okafor, 1988).

The Lord God gave man the divine mandate to till and subdue the earth (Genesis chapter 1 verse 28 of the Holy Bible). This implies battling against impediments and inhibiting factors within the cosmic environment of man. One may then ask: how is this technological character being manifested in Nigeria in this era of globalization?

In the developed world order, the effect and influence of advanced technology are ubiquitous. The good standard of living observable in industrialized nations is probably due to the production of adequate goods and services that meet the needs of the people. This, of course, is made possible by technological development solidly founded on planned and effective technical education (Yakubu, 2002).

Economic history reveals that technical education has contributed greatly to the technological, industrial and economic development of most developed countries like Britain, the United States of America and France. Also, the recent upsurge in Asian
countries’ economic development is attributed to technical education (Yakubu, 2002).

These nations appreciate the fact that technical education is man’s answer to a great deal of his cosmic and environmental limitations. Man’s ingenious expression manifests in his projection beyond the limitations of his own faculties, by which he exercises planned controls over some of his environmental impediments.

According to Okafor (1988), the distinction between the primitive man and advanced man is that, whereas the primitive man allows nature to control him, the advanced man kicks against this imposition by nature. For instance, where nature says you cannot fly, the primitive man stays on the ground, but the advanced man devices means to fly; where nature imposes an excruciatingly hot environment, the primitive man sweats and wipes the sweat continually, but the advanced man kicks against it by inventing air conditioners. These achievements and considerable success are made possible by technology through effective technical education.

**Statement of the problem**

The fundamental problem of developing countries, Nigeria inclusive, is traceable to their technological backwardness, which has given rise to widespread poverty, high rate of unemployment, rising frustration, etc. Rather than embarking on effective technical education, these countries rely heavily on imported, packaged and proven technologies. Even some of the researches embarked upon to locally adapt the imported technologies are mostly done abroad (Yakubu, 2002) probably due to lack of basic facilities in developing countries.

The problem of developing countries seems to lie in their inadequate management of technical education, which should aid them to advance technologically. This is evident from lack of interest most citizens exhibit in technical education issues and in poor administrative practices observed in the few technical schools available, when compared with secondary schools.
Management is the ingredient and force, which enables organization to function. Effective management is the total effort of the organizational members to achieve the organizational objectives. It also implies appropriate application of skills, devices, and techniques to enable the organization achieve certain objectives, which in this case, is the transformation of the country into a technological world, using available resources.

According to the Federal Republic of Nigeria, FRN (2004), technical education is a means of preparing for occupational career for effective participation in the world of work. It is perceived as an instrument for promoting environmental and sustainable development for poverty alleviation. It involves the study of technologies and related sciences as well as acquisition of practical skills, attitudes, understanding and knowledge relating to occupations in various sectors of economic and social life. To achieve the foregoing, Nigeria, in her National Policy on Education (2004), identified the goals of technical and vocational education as the (FRN, 2004:30-31):

- Provision of trained manpower in applied science technology and business particularly at craft, advanced craft and technical levels;
- Provision of technical knowledge and vocational skills necessary for agricultural, commercial and economic development;
- Giving training and imparting necessary skills to individuals who shall be self-reliant economically.

The achievement of the above objectives is the responsibility of technical education management. This implies effective management sought for by this study.

Purpose of study
The focus of this paper is, therefore, to investigate how technical education could help Nigeria transit from mere assemblers of finished products to designers and manufacturers of high quality goods and
services with minimum socio-economic disruption. The study sought to investigate ways of effective management of technical education in Nigeria, in terms of:

- the roles technical education plays in achieving accelerated economic development;
- problems militating against effective management of technical education in Nigeria; and
- the strategies that could be adopted for achieving effective management of technical education in Nigeria.

**Research Questions**
The following research questions guided the study:

1. What roles does technical education play in achieving accelerated economic development in Nigeria?
2. What problems militate against effective management of technical education in Nigeria?
3. What strategies could be adopted to achieve effective management of technical education in Nigeria?

**Hypotheses**

**H₀₁** There is no significant difference between the mean ratings of experts in technical education and educational management with regards to the roles technical education plays in achieving accelerated development in Nigeria.

**H₀₂** There is no significant difference between the mean ratings of the experts in technical education, and educational management with regards to the strategies that could be adopted to achieve effective management of technical education in Nigeria.

**Methodology**

**Population and Sample**
The population of the study consists of all the experts in technical education and educational management in Nigerian universities.
Sample and Sampling Technique
The sample comprised 60 experts in technical education and another 60 in educational management (planning and administration) selected by purposive random sampling from 10 federal and 10 state universities in Nigeria offering technical education and educational management (administration and planning). From each university, six experts (three in technical education and three in educational management) were selected by deliberate random sampling technique, giving a total of 120 subject experts from the 20 universities in Nigeria sampled for the study. The sampling was deliberate because the researchers used only those that were able to supply their e-mail addresses. However, efforts were made to assign equal numbers to each university and to each group of experts limiting the total to 20 universities, 60 experts in technical education and 60 experts in educational management.

Instrument for Data Collection
A researchers’ designed questionnaire, titled “Effective Management of Technical Education Questionnaire (EMTEQ), was used to collect data from the experts. The questionnaire has two sections, A and B. Section A collected the demographic data of the respondents, while section B contained three clusters with 27 items used to elicit information from the experts on a four-point rating scale provided for the respondents to indicate their opinions, as follows: Strongly Agree (SA), Agree (A), Disagree (D), and Strongly Disagree (SD). They were weighted 4, 3, 2, and 1 respectively.

Validation of the instrument
The instrument was face validated by two experts, one in Educational Administration and Planning, and another in Measurement and Evaluation at the University of Nigeria, Nsukka. Their corrections and inputs formed the bases for the modifications on the items of the instrument.
Reliability of the instrument
In order to ensure the internal consistency of the instrument, a trial test was carried out with ten Technical Education experts and ten Educational Administration and Planning experts from two universities not used for the study. Internal reliability for each of the three clusters was computed using, Cronbach Alpha ($\alpha$) statistics. The computation yielded a reliability index of 0.78 for all the clusters, indicating that the instrument is reliable.

Data Collection
The researchers used the internet services to collect data from the subjects. In other words, the instrument was administered online. This was to save time and cost. The researchers used link persons to reach the subjects and collect back the instrument from them, which were returned through courier services. On the whole, out of the 120 administered, only 104 (86.7%) responded in due time and were returned. They comprised 51 (85%) experts in Technical Education and 53 (88.3%) experts in Educational Administration and Planning.

Data Analysis
Mean scores and standard deviation were employed in answering the research questions. A criterion mean was 2.50 on a four-point rating scale. Any mean score above 2.5 was accepted, while any mean score below 2.50 was rejected. Z-test was used to test the two null hypotheses.

Results and Discussions
The data for answering the research questions and testing the hypotheses are presented in Tables 2.1 to 2.5.
Table 2.1: Mean ratings of the respondents on the role technical education plays in achieving accelerated development.

<table>
<thead>
<tr>
<th>S/N</th>
<th>ITEMS</th>
<th>TECH. EDU EXPERTS N = 53</th>
<th>EDU. MGT EXPERTS N = 51</th>
<th>TOTAL N = 104</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Roles of technical education in achieving accelerated development</td>
<td>X</td>
<td>SD</td>
<td>Decision</td>
</tr>
<tr>
<td>1</td>
<td>Technical education unemployment through provision of technicians</td>
<td>3.61</td>
<td>0.62</td>
<td>Accept</td>
</tr>
<tr>
<td>2</td>
<td>It nurtures creativity and potentials</td>
<td>3.61</td>
<td>0.61</td>
<td>Accept</td>
</tr>
<tr>
<td>3</td>
<td>Technical education fosters creativity</td>
<td>3.81</td>
<td>1.01</td>
<td>Accept</td>
</tr>
<tr>
<td>4</td>
<td>Technical education enhances the understanding of aptitudes</td>
<td>3.90</td>
<td>0.23</td>
<td>Accept</td>
</tr>
<tr>
<td>5</td>
<td>It enhances innovations</td>
<td>3.70</td>
<td>0.63</td>
<td>Accept</td>
</tr>
<tr>
<td>6</td>
<td>Technical education reduces poverty</td>
<td>3.60</td>
<td>0.84</td>
<td>Accept</td>
</tr>
<tr>
<td>7</td>
<td>Technical education lays foundation for higher technology</td>
<td>3.90</td>
<td>0.20</td>
<td>Accept</td>
</tr>
</tbody>
</table>

All the above seven items were accepted by the experts as the roles technical education plays in achieving accelerated developments.

Table 2.2: Means rating of respondents on the problems militating against effective management of technical education.

<table>
<thead>
<tr>
<th>S/N</th>
<th>ITEMS</th>
<th>TECH. EDU EXPERTS N = 53</th>
<th>EDU. MGT EXPERTS N = 51</th>
<th>TOTAL N = 104</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Problems militating against effective management of technical education.</td>
<td>X  SD  Decision</td>
<td>X  SD  Decision</td>
<td>X  SD  Decision</td>
</tr>
<tr>
<td>8</td>
<td>Irrational planning and implementation of educational plans</td>
<td>3.14 0.63 Accept</td>
<td>2.06 0.75 Accept</td>
<td>2.60 0.69 Accept</td>
</tr>
<tr>
<td>9</td>
<td>Neglect of the use of indigenous technological resources</td>
<td>2.43 0.76 Reject</td>
<td>2.41 0.64 Reject</td>
<td>2.42 0.70 Reject</td>
</tr>
<tr>
<td>10</td>
<td>Lack of professional trained personnel</td>
<td>3.58 0.78 Accept</td>
<td>3.48 0.66 Accept</td>
<td>3.03 0.72 Accept</td>
</tr>
<tr>
<td>11</td>
<td>Poor infrastructure</td>
<td>3.16 0.72 Accept</td>
<td>3.21 0.73 Accept</td>
<td>3.14 0.73 Accept</td>
</tr>
<tr>
<td>12</td>
<td>Lack of science equipment and materials</td>
<td>3.72 0.64 Accept</td>
<td>3.76 0.46 Accept</td>
<td>3.74 0.55 Accept</td>
</tr>
<tr>
<td>13</td>
<td>Poor budgeting allocation to education</td>
<td>2.06 0.76 Reject</td>
<td>2.51 0.62 Reject</td>
<td>2.29 0.69 Reject</td>
</tr>
<tr>
<td>14</td>
<td>Method of lesson delivery is theoretical</td>
<td>3.06 0.78 Accept</td>
<td>3.16 0.70 Accept</td>
<td>3.11 0.74 Accept</td>
</tr>
<tr>
<td>15</td>
<td>Use of obsolete equipments</td>
<td>3.27 0.84 Accept</td>
<td>3.06 0.86 Accept</td>
<td>3.32 0.85 Accept</td>
</tr>
<tr>
<td>16</td>
<td>Low morale and poor attitude to technical education in Nigeria.</td>
<td>3.56 0.60 Accept</td>
<td>3.42 0.74 Accept</td>
<td>3.49 0.67 Accept</td>
</tr>
</tbody>
</table>

Out of the above nine items, seven (items 8, 10, 11, 13, 14, 15 and 16) were accepted as problems militating against effective management of technical education in Nigeria while items 9 and 13 were rejected; implying that they are not problems to effective management of technical education in Nigeria.
Table 2.3: **Mean ratings of strategies to achieve management of technical education in Nigeria.**

<table>
<thead>
<tr>
<th>S/N</th>
<th>ITEMS</th>
<th>TECH. EDU EXPERTS N = 53</th>
<th>EDU. MGT EXPERTS N = 51</th>
<th>TOTAL N = 104</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>X SD Decision</td>
<td>X SD Decision</td>
<td>X SD Decision</td>
</tr>
<tr>
<td>17</td>
<td>Public mobilization and concentration on the countries technological backwardness</td>
<td>2.87 0.92 Accept</td>
<td>2.83 0.92 Accept</td>
<td>2.85 0.92 Accept</td>
</tr>
<tr>
<td>18</td>
<td>Providing Guidance Counselors in schools</td>
<td>2.47 0.88 Reject</td>
<td>2.84 0.91 Accept</td>
<td>2.64 0.86 Accept</td>
</tr>
<tr>
<td>19</td>
<td>Ensuring adequate infrastructures and facilities for science subjects</td>
<td>3.31 0.68 Accept</td>
<td>3.58 0.68 Accept</td>
<td>3.45 0.68 Accept</td>
</tr>
<tr>
<td>20</td>
<td>Emphasizing skill acquisition</td>
<td>3.06 0.72 Accept</td>
<td>3.58 0.68 Accept</td>
<td>2.98 0.88 Accept</td>
</tr>
<tr>
<td>21</td>
<td>Making pedagogy of teaching more practical mandatory for teachers at all levels of education.</td>
<td>2.48 0.70 Reject</td>
<td>2.47 0.88 Reject</td>
<td>2.48 0.79 Accept</td>
</tr>
<tr>
<td>22</td>
<td>Making concepts technical and vocational subjects in junior secondary schools</td>
<td>2.64 0.84 Accept</td>
<td>2.93 0.95 Accept</td>
<td>3.06 0.84 Accept</td>
</tr>
<tr>
<td>23</td>
<td>Attraction and retention of experts in sectional education with attractive remuneration and incentives</td>
<td>2.86 0.89 Accept</td>
<td>2.93 0.95 Accept</td>
<td>2.89 0.92 Accept</td>
</tr>
<tr>
<td>24</td>
<td>Involving the private sector actively in the funding of education</td>
<td>3.78 0.48 Accept</td>
<td>3.81 0.99 Accept</td>
<td>3.80 0.74 Accept</td>
</tr>
<tr>
<td>25</td>
<td>Training and retaining of teachers in science and technical subjects</td>
<td>3.52 0.64 Accept</td>
<td>3.67 0.78 Accept</td>
<td>3.49 0.67 Accept</td>
</tr>
<tr>
<td>26</td>
<td>Encouraging primary school leavers to read technical subjects and become experts</td>
<td>3.36 0.58 Accept</td>
<td>2.81 1.08 Accept</td>
<td>2.59 0.83 Accept</td>
</tr>
<tr>
<td>27</td>
<td>Establishment of out-of-school centres for continuing technical education.</td>
<td>2.32 1.04 Reject</td>
<td>2.46 1.08 Reject</td>
<td>2.41 0.06 Reject</td>
</tr>
</tbody>
</table>

From the table it could be observed that items 17, 18, 19, 20, 22, 23, 24, 25, 26, 27 and 26 were accepted by the experts as strategies for effective management of technical education.
Effective Management of Technical Education...

Table 2.4: **Summary of z-test between the respondents on roles technical education plays in accelerated development.**

<table>
<thead>
<tr>
<th>Respondents</th>
<th>N</th>
<th>X</th>
<th>SD</th>
<th>DF</th>
<th>LEVEL OF SIG</th>
<th>Z-CAL</th>
<th>Z-TABLE</th>
<th>DEC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tech. Edu. Experts</td>
<td>51</td>
<td>3.73</td>
<td>0.60</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Edu. Management Experts</td>
<td>53</td>
<td>3.71</td>
<td>0.49</td>
<td>102</td>
<td>0.05</td>
<td>0.19</td>
<td>1.96</td>
<td>Significant</td>
</tr>
</tbody>
</table>

\(H_0\) accepted

It is observable from the table that calculated z – value at 102 degree of freedom and 0.05 level of significance is 0.19. Since the calculated z-value of 0.19 is less than the critical table value of 1.96, the null hypothesis is accepted.

There is therefore no significant difference between the mean ratings of experts in technical education and educational management on the roles technical education plays in achieving accelerated development.

Table 2.5: **Summary of z-test analysis of the difference between the mean ratings of the respondents with regards to strategies for effective management of technical education in Nigeria.**

<table>
<thead>
<tr>
<th>Respondents</th>
<th>N</th>
<th>X</th>
<th>SD</th>
<th>DF</th>
<th>LEVEL OF SIG</th>
<th>Z-CAL</th>
<th>Z-TABLE</th>
<th>DEC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tech. Edu. Experts</td>
<td>51</td>
<td>3.22</td>
<td>0.76</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Edu. Management Experts</td>
<td>53</td>
<td>3.12</td>
<td>0.92</td>
<td>102</td>
<td>0.05</td>
<td>0.60</td>
<td>1.96</td>
<td>Significant</td>
</tr>
</tbody>
</table>

\(H_0\) accepted

It is observable from the table that calculated z-value at 102 degree of freedom and 0.05 level of significance is 0.60. Since the calculated z-value of 0.60 is less than the critical table value of 1.96, the null hypothesis is accepted.

There is, therefore, no significant difference between the mean opinions of technical education experts, and educational planning
experts on measures to be adopted to achieve effective management and utilization of technical education in Nigeria.

**Discussion of finds**

With reference to research question one, it was found that technical education enhances accelerated development of the society through the following roles; reduction of poverty and unemployment; production of technicians: nurturing and fostering of creativity: enhancement of the understanding of aptitudes and innovations and laying foundation for higher technology. These findings agree with the goals of technical education to give training and impart the necessary skills for the production of technicians, technologists and other skilled personnel who shall be enterprising and self reliant” and “to give exposure on professional studies in the technologies”.

The findings equally agree with the view of Yusuf and Omotayo (2002) that poverty can be alleviated through vocational skill development. The findings agree with the view of Okafor (1988) that technical education enhances creativity because it nurtures and fosters it. There is no gain saying that technical education properly conceived and applied will contribute phenomenally to a nation’s economic development. There are many problems facing Nigeria which demand urgent solutions.

Answering the second research question, the study found that some of the problems militating against technical education in Nigeria include; irrational planning and implementation of education plans; lack of trained personnel; poor infrastructure; lack of science equipment; poor method of lesson delivery; use of obsolete equipment, and low morale and poor attitude to technical education in Nigeria.

These findings agree with the findings of Ogwo (1996) that equipment for technical subject are not supplied with spare parts and that some equipment are outdated, while books on the subject for practical guide and activities are inadequate. The findings equally agree with that of Okoro (1993) that the technical subjects are not taught the way they should be taught because of lack of teachers
adequately trained to teach these subjects. These findings also support
the observation of Jimo-Kadiri (2002) that teacher effectiveness and
student’s motivation in technical education have been more or less
non-existent due to lack of books and other materials such as
inadequate school buildings, inadequate teachers/instructors in terms of
quality and quantity, as well as inadequate funding of the education
sector. The findings also share the view of Anakobe (2002) that poor
funding, use of obsolete equipment, inadequate and deteriorating
facilities, inadequate number and ill-trained teachers, and poor status
of library and research facilities and poor job opportunities are the
problems facing technical education. The graduates of technical
education in Nigeria, therefore, leave much to be desired in terms of
skill acquisition which may be attributed to inadequate personnel and
other resources.

It is interesting to note that poor budgetary allocation do not
constitute a problem. This is probably because the problem may not be
with budget allocation but with the actual release of the funds
allocated. More often than not, what is allocated differs significantly
from is released. No wonder the experts agreed that there are problems
of poor infrastructure, lack of equipment and professionally trained
management and technical education experts in Nigeria.

The answers to the third research question, as found in table
three indicate that the measures to be adopted for effective
management of technical education in Nigeria include; mobilization
and sensitization of Nigerians; provision of Career Guidance,
Counselors in schools; provision of adequate infrastructures for science
subjects; emphasizing skills acquisition; emphasizing technical and
vocational subjects in junior secondary; provision of text books and
instructional materials; involving the private sector actively in the
funding of education; training the re-training of teachers in science and
technical subjects, and encouraging primary school leavers to read
technical subjects and become expert technicians and technologists.

These findings agree with the suggestions of Yakubu (2002)
that improvement in teaching and learning of technical education calls
for mobilization of concerted efforts and resources through public mobilization for concerted efforts of government (federal, state and local), community leaders, voluntary agencies, NGO’s, politicians, technocrats, individuals and corporate bodies. The findings also agree with the views of Anakobe (2002) and Ozioko (2004) that efforts at producing technical teachers should be addressed, that financial attraction should be initiated and sustained to encourage teachers to remain in teaching, and that in-service training, industrial training workshops, and conferences should be regularly organized for technical education teachers.

The results also support the findings of Ukoha (1994) that in-service training, industrial training workshops and conferences should be organized regularly for technical education teachers. The findings equally agree with the recommendations of Idika and Iwuanyanwu (2002) that products of technical colleges should be involved in the Youth Employment Scheme (YES) to concretize the transition from school-to-work scheme, that adequate funds should be provided, that vocational guidance should be provided for students, and that private sector should help to finance technical education.

Nigeria should redirect her attention, efforts and resources towards making technical education effective so as to gain through technological advancement. The present laissez-faire attitude towards technical education has made Nigerians feel that technical education is for second-class citizens and unintelligent students.

Conclusion, Implications and Recommendations
Technical education gives the student great opportunities in manipulating his skills which invariably leads to socio-economic, techno-industrial and political power. The foundations of the solution to such problems like unemployment, lack of basic amenities, housing, communication, transportation, and health care services which stare the citizens of Nigeria in face which cannot be found in technological developed world are laid by technical education.
Nigeria as a developing nation is faced with the problems of nurturing and rehabilitating her internal workforce fostered through technical education. Without proper planned and systematically applied technical education, the nation will perpetually depend on the importation of foreign technological know-how with the resultant perpetuation of mental colonialism. Through proper orientation of citizens especially in the imperatives of technical education, our citizens will acquire skills in the various rudiments of technology needed for survival in everyday life using simple tools and machines.

**Recommendations**

The study recommends that:

1. Essential aspects of technical education should be made compulsory to students at all levels of education in Nigeria. This will help raise morale and give positive attitude towards technical education in Nigeria.
2. Technical education teachers should be given training and re-training intermittently to meet up with modern technologies of the developed world.
3. Innovation and creativity should be encourage and rewarded at all levels and endeavours.

**References**


THE INFLUENCES OF BUSINESS POLICY AND STRATEGY MODEL BUILDING ON THE DECISION-TAKER: A REVIEW

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Abstract
This investigation on influences on the decision-taker in relation to model building began with understanding of the pressures the influencing variables may have on the decision-taker in course of management of organizations systems. The study also looked into the variabilities of the influences on the decision-taker relating to organizational goals with the premise that organizations have conflicting and competing goals and objectives i.e. organizations are teleologically goal-oriented entities. The pursuit of these goals and objectives ontologically has much influence on the manager or decision-taker on any organizational systems. It is also noted that the concept of goals and objectives influences on the decision-taker or manager in any environment or system is among the most important and controversial concepts that confront decision-takers in the study of organizations.

Introduction
Every individual, group or organization has a lot of pressures impinging or exerting on him or the system where the individual or organization is operating. This pressure exerts a lot of influence on both individual and
organization's decision making process and systems set up.

An organization could simply be defined as two or more people working together co-operatively within identifiable boundaries to accomplish a common goal or objective. Implicit on this definition abound several important influencing ideas and issues. Organizations are made up of people (i.e. members) who divide labour among members and who also pursue shared goals and objectives in the organizational system.

However, the influence on the decision-taker or human component is important because of the complexity of socio-economic relationships and variability or diversity in humans. The human component and associated influences affecting the decision making process makes organizations among the most complex systems. This knowledge presents managers and organizational researchers with some of their most critical influences and challenges.

Some other critical organizational tasks may help us to define two different approaches influencing the decision-taker and delineating an organization’s systems boundaries. The first approach to systems boundaries emphasizes people and membership while the second emphasizes where activities take place. e.g. Production, Purchasing, Marketing, Personnel, Finance and Contribution to profit of what is sold. It is important to note that systems organizations are made up of people whose task is to bring into the organization necessary employees or members willing to exchange their contributions for wages or other rewards.

Another related critical task for an organization or decision-taker is to determine which activities should be attempted to perform and which ones should be left to other organizations in the external environment.

**Literature Review**

In the art of management, it should be noted that the task of management is enormous with varying pressures impacting on the organizational systems and manager or decision-taker. In dealing with
organizations, whether industrial, commercial, social or governmental, the decision-taker is also dealing with complex systems which are operating under a complex set of pressures in order to achieve ends and objectives which are ill-defined, ill-structured and possibly mutually conflicting. These situations in one way or the other export enough pressures which have a lot of influences on the decision-taker and system.

Systems theory provides a simple way to model organizations by focusing on the structure and relationships or interdependence among parts of the organization. This relationships and interdependence in the systems pose one type of influence or the other on the decision-taker in course of management model building.

A systems approach concept conveys the idea that organizations are made up of parts and that the parts interact with each other to accomplish the organizations goals. It is important to note that critical relationships or interdependence may exist among the organizational systems departments. For instance, the production and personnel units must work together to ensure that the organization and decision-taker have enough workers with appropriate skills required by the production subsystem. Production and personnel must of necessity, plan carefully to guarantee flows of raw materials necessary to produce products. In the related vein, oversupplies of raw materials can be costly, tying up capital and requiring storage.

Equally impacting on the manager or decision-taker are influences on innovative systems, such as just-in-time inventory control, change in nature of interdependence between production and purchasing, which also make coordination even more critical. Production and marketing must of necessity work together to plan how much of each product to produce and to match expected demands and scheduled promotions. If the marketing department aggressively promotes a new product before production is fully operating, the unexpected demand may place undue pressure and influence on the decision-taker regarding the level of production.

In systems concepts analysis, two additional and related
characteristics of systems that influence the decision-taker are holism and synergism. In the first instance, holism means that a system should be considered as a functioning whole. Changes in anyone part of the system are likely to have an impacting influence throughout the system as well as the decision-taker. If for instance, the purchasing department has difficulty in obtaining raw materials, it is likely that the production department will also suffer because it has no raw materials to convert to outputs. This situation invariably may also have tremendous influence on the manager or decision-taker. In a related development, if the organization implements a just-in-time inventory system, it is also likely to have profound impact or influence on the decision-taker’s need for communication between purchasing and production. This implies that in model building, the decision-taker should consider performance in all components of the organization when changes affect anyone component.

In the second place, synergism refers to the interactive effect of the parts of the system working together. It is to be noted that the sum of the interaction of the component parts of the organization working together is greater than the effect of the parts working separately. As each part of the system performs its role, it invariably enhances and influences the performance of other parts and that of the decision-taker. The organization's system creates separate departments in purchasing, production, personnel, and marketing because of the specialized knowledge and skills that each area requires. The influence on the decision-taker to build a model will enable him to coordinate the interaction of these departments, as well as ensuring that the organization achieves its goals.

As expressed by Hodge, Anthony and Gales (1996), systems theorists differentiate between close systems and open systems. Any type of system exerts one type of influence or the other on the manager or decision-taker. Closed systems are self-perpetuating and receive no outside energy or resources. They have no need to interact with their environments. It is of note that as closed systems run out of energy, they enter a state of collapse called entropy. A major advance in the
study of organizations and model building was the realization that organizations are not (and cannot be) closed systems because they depend on their external environments for energy, and accordingly has a lot of influence on the decision-taker.

Open systems can avoid entropy and create a state called negative entropy by importing energy in the form of physical, human, and financial resources. The approach presented in this work emphasizes how organizations as open systems attempt to manage relationships with their environment as well as their influencing relationships it has on the manager or decision-taker.

Open systems models theorists acknowledge that organizations must receive energy (inputs) in the form of important resources from their external environments.

Fig. 3.1: The Open Systems Model

It is important to note that the input and output portions of the open systems model are critical because they represent the organization’s interface with the external environment, which invariably exerts influence on the decision-taker. Together, these input and output functions are part of the boundary spanning subsystems. The input subunits of the organization are responsible for importing resources and information into the organization. In a typical business, these activities may include purchasing, receiving, personnel recruiting, and market research as well as links to investors, customers, local community, stakeholders, competitors, etc. These similarly influence the decision-taker. On the other hand, the output units are responsible for disseminating information about the organization and disposing of the firm’s outputs. These functions may include advertising, public relation and sales. Consequently, the products or sums of these activities may impact or influence on the type of decisions that the decision-taker may embrace.

The open systems model we discussed above provided us the first step in developing an organization’s framework in model building and this is what Hodge, Anthony and Gales (1996), refer as strategic systems approach. The open systems model identifies or implies the existence of several key components of organizations which influence the decisions of the decision-taker or manager.

Managers or decision-takers select organizational structures to respond to specific conditions that the organizations face. These conditions are called the organizational context or contingency factors, and include the organization’s goals, environment, technology, size, and culture. Each of these contextual factors has singularly or collective influences on the decision-taker in organizations. One of the most important points under the influences on the decision-taker in model building analysis, is that the essence of the strategic systems approach to organization relates that managers or decision-takers must attempt to maximize the fit between their choice of structure and the context of their organization faces.
The manager or decision-taker in the organization does not exist only to serve the organization, but primarily exist to serve himself. This contextual idea informs us that in our analysis or study of influences of decision-maker in model building, we must look at the situation in two lights – i.e. looking at him firstly as an employee of the organization. Secondly, we have to look at him as someone concerned with moving the organization forward for effective and efficient achievement of organization’s objectives.

Fig. 3.2: **The Industrial Firm and its Pressure**

![Diagram of the industrial firm and its pressure](source: Rivett (1980))
In organizational studies, it is noted that many types of goals exist in an organization and each type performs a different function. One major distinction, as expressed by Daft (1998), is between the officially stated goals or mission or philosophy of the organization and the operative goals the organization actually pursues. The mission describes the organization’s vision, its shared values and beliefs, and its reasons for being. It can have a powerful influence on the organization and the decision-taker. The mission is sometimes called the official goals, which are the formally stated definition of business scope and outcomes the organization is trying to achieve. Official goal statements typically define business operations and may focus on values, markets, investors, and customers that distinguish the organization.

Relatedly, operative goals designate the ends sought through the actual operating procedures of the organization and explain what the organization is actually trying to do. Operative goals describe specific measurable outcomes (i.e. objectives) and are often concerned with the short run.

Clearly and strictly speaking, goals and objectives when viewed at different levels serve different purposes. It is of note that the general statements of a mission or organization’s philosophy are different from the more specific operative goals (objectives). Nevertheless, goals and objectives serve different purposes which also may have tremendous influence on the decision-taker as hereunder stated (Daft, 1998):

- Guidance or Direction
- Motivation
- Legitimacy
- Standards
- Structure and Design
- Unification of Effort
Fig. 3.3:  

**Model for Determination of Goals and Objectives**

- Prescribe and understand primary and secondary beneficiary needs and expectations
- Review available technology
- Ascertain resource availability
- Interpret in light of management philosophy
- Determine regulatory or home-office mandates, if possible
- Review practices of others (e.g. competitors)
- Set initial objectives
- Conflict
  - (Successful Conflict resolution)
  - Finalize objectives and communicate them
  - Determine to what extent will satisfy all goals
- Compromise
  - (Unsuccessful conflict resolution)
  - Multiple and disparate goals
- Competition

Source:  Hodge, Anthony and Gales (1998)
This arises as a result of inevitable volume of tasks being executed by a manager or decision-taker in an organization. These tasks do conflict with each other in course of execution by the decision-taker. This invariably exerts a lot of influence on him, and the organization in general.

Rivet (1980), noted the underlisted as some of the more usual criteria of performance which have influence on the decision-taker and are also used to judge the effectiveness of control of organizations.

- **Purchasing**
  - Raw materials costs
  - Raw materials quality
  - Raw materials stocks
  - Comparison of costs with main competitor(s)
  - Comparison of costs with best possible or with average of costs.

- **Production**
  - Cost per unit produced
  - Percentage of orders produced on time
  - Percentage of capacity used
  - In-process stocks
  - Overtime worked
  - Accident rate
  - Production per employee
  - Production as function of labour costs
  - Added value per employee

- **Marketing**
  - Volume sold
  - Contribution to profit of what is sold
  - Finished goods stocks
  - Share of market
  - Sales per salesman
  - Sales as product of stocks
  - Deliveries on time/order delays
The Influences of Business Policy and Strategy Model Building on ...

- Cost orders
- Customer satisfaction
- Customer loyalty.

\* Personnel
- Dispute rates
- Labour turnover
- Absenteeism
- Training costs
- Sickness
- Accidents

\* Finance
- Return on assets
- Total Profits
- Profitability compared with main competitors
- Shareholders return
- Performance/Evaluation ratio

Influencing Decision-Takers with Business Policy and Strategy Model Building
Organizational decision making could formally be defined as the process of identifying and solving problems. The process contains two major stages, Daft (1998). According to Daft, in the problem identification stage, information about environmental and organizational conditions is monitored to determine if performance is satisfactory and to diagnose the cause of shortcomings. The problem solution stage is when alternative courses of action are considered and one alternative is selected and implemented.

Organizational decisions vary in complexity and can be categorized as programmed or non-programmed. Programmed decisions are repetitive, routinized and well defined; and procedures exist for resolving the problem. They are well structured because criteria of performance are normally clear, good information is available about current performance. Alternatives are easily specified,
and there is relative certainty that the chosen alternative will be successful. Examples include decision rules.

A non-programmed decision is novel and poorly defined, and no procedure exists for solving the problem. They are used when an organization has not seen a problem before and may not know how to respond. Clear-cut decision criteria do not exist. Alternatives are fuzzy. There is uncertainty about whether a proposed solution will solve the problem. Typically, few alternatives can be developed for non-programmed decision, so a single solution is custom tailored to the problem. It is to be noted that today’s managers are dealing with higher percentage of non-programmed decisions because of rapidly changing business environment. These invariably influence the decision-taker in one way or the other.

Rae (1977) identified at least six stages in the decision-making process.

- First, a decision problem will exist only if the decision-taker or manager is not completely satisfied with the results of his present operation. For example, is he earning “too little” or working “too hard”?
- Given the presence of incomplete satisfaction, the second step involves definition of its cause – i.e. the problem must be defined.
- The third step involves the specification of possible ways of overcoming the problem or alternative cause of action.
- Each alternative must be evaluated in terms of the improvements in goals likely to be achieved through its implementation.
- The best alternative can be isolated and put into operation.
- The manager or decision-taker must realise that a course of action may turn out precisely as planned and must therefore be prepared to accept the consequences of his actions.
Goals are defined as ‘ends or states in which the individual desires to be or things he wishes to accomplish (Gasson, 1973). Gasson noted that some goals are self-sufficient ends, while others are instrumental to gaining even more desirable ends that may have noticeable influence on the manager or decision-taker. Thus, a course of action could be seen to be ‘the achievement over time of a connected series of goals where attainment of one satisfies an immediate need and also provides a stepping stone to more ultimate goals, that may have an influence on the decision-taker or manager.

In contrast to goals, values are more permanent property of the individual and have more influence on decision-taker. They are less likely to undergo change with time and circumstances. It is also important to note that values are an individual’s conception of the desirable and as such serves as standards, influences the decision-taker’s goals and therefore his choice among alternative courses of action. Gasson (1973), places values that influence managers or decision-takers which they might also hold into four groups:

- **Intrinsic values** – those that concern production as an activity in its own right, such as ‘work enjoyment’, ‘independence’, and ‘outdoor activity’.
- **Expressive values** – those that concern production as a means of personal fulfillment (that would have influence on the decision-taker) such as ‘pride of ownership’, ‘self respect’, and ‘meeting challenges’.
- **Instrumental values** – those that view production as a means of obtaining income and security, such as ‘expanding business’, and ‘obtaining a satisfactory income’.
- **Social values** – those that concern interpersonal relationships, such as ‘belonging to a rural community’.

By purchasing further resources or by re-allocating existing resources among possible uses, the manager or decision-taker can influence the degree to which his goals are achieved. If a goal is to
maximise profits, he might produce more of those products that he considers to be profitable. If he desires more leisure time, he can produce products with a suitable low labour requirement, or further take on further hired help. Thus, the overall satisfaction, or utility, achieved by the decision-taker will have influence and depend upon the degree to which his goals are met. This in turn, will have influence and depend on the quantity of resources purchased, the nature of the resources, and the manner in which they are allocated among productive enterprises. Based on the influences such activities may generate, we therefore suggest the existence of a utility function

\[ U_j = f_j (U_1, U_2 \ldots U_n) \]  

This proposes that the overall level of utility (Uj) achieved from a given resource allocation by the jth individual will depend on, or is a function of, the degree to which various conflicting, goals are achieved.

In equation 1.1, the \( U_i, i = 1, 2, 3, \ldots n \), each refers to a specific goal; some writers term them ‘preference factors’ since they represent factors that help determine a managers or decision-taker’s preference for one resource allocation over another. It is to be noted that the utility function is a personal one, and will vary from person to person. It is said to be one-dimensional if it states that utility depends on the achievement level of only a single goal, such as the maximization of profits. The function is described as multi-dimensional if utility depends on the level of achievement of more than one goal.

In relation to our equation 1.1. above, if we consider first the one-dimensional utility function (1.2);

\[ U = f(U_1) \]  

In which \( U_1 \) represents the level of profit earned by the resources at the decision-taker’s or manager’s disposal.

The process of evaluating resource allocations in terms of a decision-taker’s utility function becomes more difficult when the utility function is multi-dimensional, particularly when goals conflict. As an example, suppose a decision-taker has stated that the satisfaction he obtains from his work depends on two preference factors
influencing him, one being profit and the other the size of his staff. If we further imagine that his satisfaction increases with increasing profit, but decreases as the size of his labour force increases. It is important to note that this latter influencing situation might arise if the decision-taker has problems in handling labour. In view of that, the utility function may now be written as:

\[ U = f(U_1, U_2) \]  

(1.3)

Where \( U_1 \) represents profits, and \( U_2 \) represents the number of men to be hired.

Thus, the alternative that maximises the value of utility will depend on the precise form of this utility function, and two possibilities exist (Rae, 1977). He noted that firstly, the decision-taker or manager might consider one preference factor to be overwhelmingly more important than the other and that the less important factor is only taken into consideration if more than one alternative action provides the same achievement level of more important factor.

### Table 3.1: Alternatives and Levels of Achievement

<table>
<thead>
<tr>
<th>Alternative</th>
<th>Level of profit (₦)</th>
<th>Number of men</th>
</tr>
</thead>
<tbody>
<tr>
<td>A₁</td>
<td>6000</td>
<td>5</td>
</tr>
<tr>
<td>A₂</td>
<td>3000</td>
<td>1</td>
</tr>
<tr>
<td>A₃</td>
<td>3500</td>
<td>3</td>
</tr>
<tr>
<td>A₄</td>
<td>6000</td>
<td>3</td>
</tr>
<tr>
<td>A₅</td>
<td>5000</td>
<td>4</td>
</tr>
</tbody>
</table>

In table 1, it is shown that two alternatives (A₁ and A₄) are both estimated to earn a profit of ₦6000, but if profit is considered overwhelmingly important, the decision-taker or manager would prefer A₄ to A₁, since three rather than five men would be required.

The second and more usual influencing possibility arises when managers are willing to sacrifice the achievement of one goal to some
extent, provided that the achievement of another can be increased as a result. This invariably implies that a trade-off between the levels of preference factors is acceptable to the decision-taker.

Fig. 3.4: *Showing the five alternatives, hypothetically represented*

It is important to note that from figure 4 above, that A_1 cannot be preferred to A_4, since A_1 requires a larger labour force but provides no higher profit than does A_4. We cannot also see that the decision-taker cannot prefer A_3 to A_4 since although both require the same number of men, A_4 provides a higher level of profit. The decision-taker could also deduce that A_4 would always be preferred to A_5 since the former alternative provides both higher profit and lower labour requirement than the latter alternative.
Information is the raw material that feeds decision making at all levels in the organization. To understand the role of information better, it is useful to digress briefly and examine decision making. Theorists have developed three models of decision making, and information plays important but different roles in each of these models. Table 3.2 summarizes key points of these three models.

Table 3.2: Decision-Making Models

<table>
<thead>
<tr>
<th>Model</th>
<th>Assumptions</th>
<th>Decision Processes</th>
<th>Decision Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rational/ Economic</td>
<td>1) Perfect information at no cost</td>
<td>Stepwise; linear. Begin with problem identification; end with solution implementation.</td>
<td>Utility Maximization</td>
</tr>
<tr>
<td></td>
<td>2) Perfect rationality</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bounded Rationality</td>
<td>1) Imperfect information-uncertainty-and information costs</td>
<td>Decision makers attempts to act in a stepwise, linear rational fashion, but rationality is bounded or constrained.</td>
<td>Satisficing</td>
</tr>
<tr>
<td></td>
<td>2) Power and personal preferences affect decisions.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3) Decision makers face cognitive limitations.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Garbage Can</td>
<td>1) Multiple, ambiguous and conflicting goals</td>
<td>Nonlinear process; no clear beginning or ending points; decision process can start at any point.</td>
<td>Solutions where there are no problems. Problems that go unsolved. Some problems get solved.</td>
</tr>
<tr>
<td></td>
<td>2) Means for achieving goals not well understood (ambiguous technology)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3) Fluid participation of members in decision making.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


**Conclusion**

A lot of emphasis is placed on the need to understand the influencing pressures which impact on the decision-taker and the organization in general and its respective subunits. These pressures consequently affect the type of decision to be taken. In view of these, the most that
the decision-taker or manager has to do is to assemble all available and relevant information relating to the problem, analyze them intelligently and choose a solution to the problem that appears best, both in terms of the available evidence and the manager’s or decision-taker’s preferences.

The choice of decision-taker should be strategically contingent, or dependent, upon the context that the decision-taker or organization faces. It is of note that some contextual conditions require one type of influencing structural response by the decision-taker or organization, while other conditions require different structural responses. Thus, equifinality and influence come to bear (Scott, 1992).

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THE ROLE OF TRADITIONAL RULERS IN MODERN ADMINISTRATION: A NIGERIAN PERSPECTIVE

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Abstract
During the colonial administration, African traditional rulers enjoyed latitudinal power over their subjects until the native authority system was laid to rest and the repayment of the 1976 returns that defined their status quo under the third tier jurisdiction. The paper examines the enormous tasks before the African traditional rulers regarding rural and community development, tax administration, and conflict resolution in areas under their jurisdiction. It suggests setting up positive mechanism in the enhancement of their function, since the sustainability of any society depends on the improvement of the traditional ruler in administration.

Introduction
African traditional rulers have been involved in different types of administration right from time immemorial. The indirect rule system was successful because of the conjugal involvement of the traditional rulers in the administration. To appreciate the background against which they now operate, scanty reference need to be made to their roles in the administrations under different regimes.

The term traditional ruler refers to an influential personality in a community, such as Emir in the Northern part of Nigeria, Oba in the
Southern and Obi in the Eastern part of Nigeria, who had complete sovereignty over his territory of administration and who was not subjected to any higher authority within or outside his domain. In this paper, we shall attempt to identify some paramount roles of the traditional rulers in administration devoid of social functions of honorary chieftaincy titles, in recognition of the services rendered to their communities.

Theoretical and conceptual framework
The theoretical framework that guided this paper is the role theory chosen to better explain the subject matter. Are (1989) observed that role describes the part to be played by the individual organization in fulfilling their job requirements. Role also effects the specific kind of individualistic behaviour required for carrying a specific measurable task certain in a specific job description. The role of African traditional rulers in administration is to help bring about efficiency and effectiveness towards the sustainability and the enhancement of the institution as well as modern administration.

Adedokun (1985) pointed out that role is used to designate the complete culture pattern associated with particular status position, attitudes, values and behaviour ascribed to the society, to any and all persons occupying a specific position, and this include the legitimate expectation of incumbents with respect to the behaviour of other persons. Under their administrative jurisdiction in the Nigerian society, the role perception of traditional rulers in administration is therefore to administer their domain towards meeting the aspiration of the subjects.

Who is a traditional ruler?
The success or failure of every community depends wholly on traditional ruler who serves as good gate keeper or the solid bedrock of that community. Therefore, the 1979 Constitution of the Federal Republic of Nigeria, in its third schedule part III, made provision for the establishment of council of chiefs in the state level (FRN, 1999).

Adedokun (1985) says that the traditional ruler:
is a person who by virtue of his area occupies the stool or throne of the area and who has been appointed to an area and who been appointed to it in accordance with the custom and tradition of the land and has sovereignty over the people of that area.

Since traditional rulers are the custodians of cultures and traditionalists who plays important role in the development of their communities as well have enormous latitudinal powers over their subjects, by this explanation, they came on board through dynasty.

Are (1989) rightly pointed out that the traditional ruler is the embodiment and custodian of the community, and any kind of modern development or civil legislation is built upon the traditional administration. His institution has been contributing grossly to the development of the society from pre-colonial era to the present day by ensuring good atmosphere and maintenance of peace.

**Functions of traditional rulers**

Adedokun (1978) traced the role of the traditional ruler from the era of former Empires of Benin, Borno, Oyo, and the Sokoto Caliphate. He argued that traditional rulers played very vital roles in the original conception and evolution of Nigeria. He states that:

*It is doubtful whether Nigeria as we know today, have existed but for the cohesion of so many divergent communities brought together. Examples are the Benin Empire, Borno Empire and the pacification exercise giving birth to Oyo Empire or for that matter, the effort of Usman Dan fodio.*

Nasarawa State Local Government (2005) posits that traditional rulers have role to play in securing cohesion of Nigeria. All that is needed is to have an articulate democratic policy that will guide their conducts.
Adedokun (1985) acknowledges this when he states that ward and village heads are the encyclopedia of the administration. They know every single individual in their locality and have detailed knowledge of their movements. They know the locations of all of them and have detailed knowledge of the wives a particular man has, how many children and their various ages.

Are (1989) states that traditional rulers have always been called upon and are used to neutralizing conflict. Besides, successful government realizes the surest way to win hearts and minds of the citizens on major issue of the day was through the traditional rulers regarding their significant role. Norman Miller in Are (1989) observes that, whatever the basis, the political survival of traditional leaders is significant because they provide the vital linkage between the government and the people. They influence the success of specific modernization schemes by serving as translators, interpreters, and mediators of government goals. With the foregoing argument on the position of traditional rulers, matters of national security is, therefore, very clear.

The traditional rulers also participate in policy formulation and also are used in different capacities for national development. Thus, the nation has had the National Conference of Traditional Rulers (1966), Northern conference of chiefs (1968), and Conference of Traditional Rulers to address federal government (1976) in Lagos, Nigeria.

Moreover, the 1979 Nigerian Constitution, third scheduled in II\(B\), made precise provision for the establishment of Council of Chiefs in the State level. The Council shall have power to advice the Governor or whenever requested to do so on any matter relating to customary law or cultural affairs, inter community relations and chieftaincy matters as Governor may direct.

Problems of traditional rulers
Despite the paramount roles of traditional rulers in the development of the society from time immemorial there are some scholarly contestations against the traditional institution. Adedokun (1985)
regrets the idea that traditional rulers have nothing as they are elementary or agents of retrogression in the grass root development. Although, the 1979 Constitution, in its third schedule part II(B) made provision for the establishment of Council of Chief in the States, the role of traditional rulers have been eroded and relegated advisory level at the request of the government. The 1979 Constitution also made the traditional rulers to be ceremonial members of the Council when they are suppose to pilot the affairs of communities (FRN, 1999).

The role by traditional rulers may never be underestimated, recognized, retained, respected and protested by many people, but it should be completely insulated from partisan politics. The abolition of school on the constitutional ground that portrays traditional rulers as embodiment of oppression and political retrogression is unacceptable. *Ceteris paribus,* traditional rulers still have stabilizing roles in the development of the society, despite the incessant conflicts between them and local government or state bureaucratic machineries.

**Recommendation on enhancing the effectiveness of the traditional ruler**

To enhance the effectiveness of traditional rulers in administration, there should be constitutional provision for State and Local Governments to give official recognition to them, such as the right to guard and watch committees. Also, a Police command should liaise with the traditional rulers to ensure peaceful co-existence in their domain. By so doing, there should be strong police community relations.

A separate ministry of chieftaincy affairs will make proper utilization of the traditional rulers. When traditional rulers were deprived of natural power by government, they should not be appraised for their role on the basis of mere administrative function, which they played during the yester years of colonial rascalism. The perfection of the dual mandate should also allow them to participate in decision making process and also ensuring that their roles are properly democratic in constitution.
As we progress to nationhood, let us not imagine that the future will be crisis-free, but work for stability. To this end, every institution that can contribute to stability and speedy resolution of dispute and crisis need to be preserved over the years whether it be under British, colonial civilian rule, independent or even under military rule with strong weapon of cover at our disposal. Traditional rulers have been called up and used to stabilize situations.

**Conclusion**

The central premise of this paper is the appraisal of the significant role of African traditional rulers in administration during the colonial years and post colonial era. From the time immemorial, they added their basic function in all aspect of human endeavor.

Traditional institutions were invented to face the challenges of customs and tradition operating in different levels of Nigerian political administration up to date. They serve as agent of development in their various communities. Matthew Kereko’s Benin Republic in 1971, traditional institution played a vital role in mobilizing the people to support and implement government policies, programs even though the government campaigned violently against traditional rulers. To give more credence to the position, Nicolo Machiavelli as quoted by Are (1989) stated that, “He who desires or proposes to change the form of government in a state or wishes to be acceptable and to be able to maintain to every one’s satisfaction, must need to retain at least the shadow of its ancient customs so that institution may not appear to its people to have changed, through fact radically difference from the old ones.

**References**


Edict No. 19 of 1995 on Functioning of Traditional Rulers under Local Government.


EFFECTS OF GLOBALIZATION ON THE AGRICULTURAL SECTOR OF THE NIGERIAN ECONOMY

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Abstract
The impact of globalization on the agricultural sector of the Nigerian economy was critically examined. The paper highlighted on the definitions and concepts of globalization, the ideology behind globalization, opportunities of globalization, and the contributions of globalization to agricultural development in Nigeria. It was recommended that the Nigerian government should give agriculture her pride of place in the economy through increased and sustained budgetary allocations to agriculture. Veritable strategies to improve national security and investment climate and private sector participation in agriculture should be designed and implemented to guarantee the sustainability of the gains/benefits of the various agricultural programmes in the country as a result of globalization.

Introduction
Definitions and Concepts
The term ‘globalization’ etymologically derives from the Latin word ‘globus’ which means sphere or ball. Globalization refers to the increasing interconnectedness of nations and peoples around the world through trade, investment, travel, popular culture and other forms of interaction. Some view it as a process that is beneficial key to future world economic development. Others regard it with hostility, and even fear, believing that it increases inequality between nations, threatens
employment and living standards, and thwarts social progress (Michael 2000).

Globalization refers to the multiplicity of linkages and interconnections between the states and societies which make up the present world system. It describes the process by which event, decision and activities in one part of the world come to have significant consequences for individuals and communities in quite distant parts of the globe. Globalization has two distinct phenomena: scope and intensity. On the other hand, it defines a set of process which embraces most of the globe or which operates worldwide. The concept therefore has a special combination on the other hand; it also implies intensification on the level of interaction, interconnections or interdependence between the states and societies which constitute the world community.

Globalization can easily be described as the new form of business structure in the world today. It is the development of global network in form of international consortia, cross-licensing, and agreements, joint ventures, the aim of which is to reduce the cost of production by finding low cost suppliers of factors of production and material inputs and intermediate products and also by expanding the market scope to enjoy economies of scale. Globalization firm attempts to sell in many markets its products for the purposes of benefiting from economies of scale at all levels.

Globalization is a process. It is systematic and it is real. The world is changing from what it used to be, from being country specific to being interwoven and interlinked. Globalization has been defined according to Nigerian Labour Congress, NLC, (2005), training manual as the process by which countries’ economies become increasingly interwoven and affected by each other. This comes about by the increased flow, across national borders of goods (trade), companies (foreign direct investment), money (finance), and people (migration).

Globalization is the process whereby economic, political, social and cultural links between countries, industries, companies and organizations and individuals of the world are increasing.
Globalization is not new, it has been happening for a long time, but since the 1970’s it has increased in speed and breadth, aided by technology. While the vehicle for globalization is the development of technology, the driver that determines the shape and direction of globalization is the trans-national corporations.

**The Ideology behind Globalization**

The set of ideas behind the process of globalization is referred to as “neo-liberalism”. A good understanding of this is important just as that of the characteristics earlier discussed, for a good comprehension of the impact of this process on the agricultural sector. The globalization ideology has its roots in the United Kingdom (UK) and the United States of America (USA) in the 1980s.

The core assumptions of this neo-liberal economic philosophy are (NLC, 2005):

- Over spending by the Keynesian welfare states of UK and USA led directly to the global economic crises of the past two decades (60s and 70s).
- The State should reduce its role in regulating the economy and allow market forces to allocate resources.
- The market is the most efficient means of allocating resources.
- The State should reduce levels of social spending so as to limit budget deficits, which are seen to be inflationary.
- Countries should liberalize and open their economies to foreign trade and investment
- Countries should adopt open-door policies on profit repatriation by trans-national corporations (TNCs).
- Labour markets should be deregulated to allow the flexibility required for business expansion and economic growth.
- Centralized collective bargaining leads to labour market rigidities.
- Wage increase should be kept in check as they are seen to be inflationary.
• Private management is intrinsically more efficient than public management.
• Private sector involvement and investment in state-run enterprises should be encouraged.

With the above ideologies in mind, one could see that the operations of Nigerian economy for long has been patterned to fit into the new world order, to move with the global economic trend so as not to be left behind. That is why one should not be surprised when the enormous impacts that this has made in the agricultural sector of this nation are unfolded.

**Characteristics of Globalization**
Globalization has been characterized by a number of features and developments, which are very salient. Some of these features are:

• The fast movement of capital across boarders. This is made possible by a new set of economic rules (produced by the World Bank, the International Monetary Funds-IMF and the World Trade Organization).
• Large Trans-National Corporations who compete aggressively with each other in order to maximize profits.
• The shift of investments from capital for productive activities to speculative investments.
• Economic powers are concentrated in fewer and even larger TNCs.
• A single global market is emerging
• TNCs are developing integrated global strategies with other companies.
• Globalization of technology is changing the work being done: smaller workforce, more contracted work (NLC, 2005: 37-38). Apart from the above features, globalization manifests itself in various ways in various segments. It touches cultures. The cultures of Western Countries are undermining that of poorer
nations in such areas as food, clothing, music etc. It touches governments. Every government especially of the developing nations is aggressively trying to offer the best deals to the TNCs in order to attract foreign direct investments in their countries in various sectors including agriculture.

**Opportunities of Globalisation**

Globalization is about increasing inter-connectedness and interdependencies among world’s, region’s, nation’s, government’s, businesses, institutions, communities, families and individuals. It not only integrates world economies but also the culture, technology and governance with religious, environmental and social dimensions. However, the economies aspect appears to be at the centre stage. Economic globalization refers to the process of change towards greater international economic integration through trade, finance flow, exchange of technology and information, and movement of people (Evbuomwan, 2004).

The opportunities of globalization are many: global markets, exposure to new ideas, technology and products, economies of scale in production, gains in efficiency in the utilization of productive resources, greater specialization between nations, better quality products and wide option for consumers, increased competitiveness and increased output, and ability to tap cheaper sources of finance internationally (Evbuomwan, 2004).

Greater integration with world economy through trade and capital flows has afforded some developing countries the avenue to partake in the opportunities and benefits of globalization, to develop their comparative advantages and gain access to never, more appropriate technology, while financial liberalization has increased their access to international private capital, permitting them to realize much higher rates of economic growth.

For instance, spectacular economic performances of the East Asian countries reflect significant benefits from globalization as opposed to the African countries, many of which are the world’s
poorest. While economic growth rates in East Asia and Pacific averaged 7.2, 7.1 and 6.7% percent in 1981 – 90, 1991 – 99 and 2001 – 2002, respectively, those in Sub-Saharan Africa (SSA) were just 1.8, 2.0 percent respectively. Furthermore, while the SSAs GDP per capita which was US$15.0 in 1999 dropped to US$450.0 in 2002 thus recording negative growth rates. In Asia, per capita incomes have been moving quickly toward levels in the industrial countries since 1970 averaging US$960 in 2002 (World Bank, 2004).

Globalization and Agricultural Development in Nigeria

The United Nations has been using the instrument of globalization to ensure the integration of world economies. All the countries that are signatories to the UN charters are obliged to obey and respect the content of those charters and they equally reap the benefits arising from such. Through the process of globalization, the UN has ensured that and encouraged their agencies to fund various aspects of agricultural development in various countries of the world including Nigeria. The above scenario could be divided into two segments, viz: periods preceding 1995 and post 1995 to the present period.

Pre-1995 Era

Akwuwa (1996) noted that apart from the funding provided by the various Nigerian governments and Non-Government bodies like banks, foreign investors and foreign sponsors have played and will continue to play very significant roles in agricultural development in Nigeria. Some of these aids received in the past can be classified as direct, indirect, technical and financial.

The World Bank (International Bank for Reconstruction and Development-IBRD) has been the major source of external finance for agricultural development in the country. According to him, before the onset of the third National Development Plan period (1975-1980), most World Bank lending to Nigeria was for non-agricultural projects, mainly infrastructural development. He substantiated this by saying that of the sum of US$617.2 million borrowed by Nigeria between
1958 and 1974, only US $27.2 million was for agricultural development. This trend however changed greatly from 1975 to date as most of the World Bank loans have gone to agriculture.

Apart from the World Bank, the International Fund for Agricultural Development (IFAD) and some other non-bank establishments outside the country have also played significant roles in funding agricultural projects in the country. IFAD’s funding was channeled through the Agricultural Development Projects (ADPs). They had prior to 1995 funded the development of roots and tuber crops including cassava. According to Akwuwa (1996), between September and October 1995, an IFAD mission had gone round the ADPs in the country to assess the impact of their previous funding in readiness for another phase of their programme captioned “Roots and Tuber Expansion Programme (RTEP) which was scheduled to take off as from 1996. This is a positive effect of globalization on the production of the nation’s staple food crops. In other words, this arm of the Bank is seeing the success of this programme as a positive step towards the sustained development of the nation and the world as a whole. Continuing further in the World Bank’s involvement in Agricultural Development funding Nigeria, Oyaide (traced their first loan for this purpose to 1971 when a loan of US $7.2 was approved for cocoa rehabilitation in the Western Region. Since then till 1981, he continued, the Federal Government has received the sum of US $763 million for agricultural developments broken down a follows:
Table 5.1  *World Bank Financed Projects in Nigeria (pre 1981)*

<table>
<thead>
<tr>
<th>S/N</th>
<th>Type of Project</th>
<th>Loan Amount (US $ Million)</th>
<th>As % of their Lending to Agriculture</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Tree Crops Development</td>
<td>122.7</td>
<td>16.1%</td>
</tr>
<tr>
<td>2</td>
<td>Integrated Rural Development (ADP)</td>
<td>561.8</td>
<td>73.6</td>
</tr>
<tr>
<td>3</td>
<td>Agricultural Manpower Development (Building of ARMTI)</td>
<td>9.0</td>
<td>1.2</td>
</tr>
<tr>
<td>4</td>
<td>Rice Development</td>
<td>17.5</td>
<td>2.3</td>
</tr>
<tr>
<td>5</td>
<td>Forestry Plantations</td>
<td>21.0</td>
<td>2.7</td>
</tr>
<tr>
<td>6</td>
<td>Forestry Plantations</td>
<td>31.0</td>
<td>3.1</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>763.0</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

*Source:* Akwuwa (1996)

From the above Table 5.1, there was the tendency towards small-holder projects and aggressive shift to the Integrated Rural Development Projects (ADPs) which accounted for 73% of the agricultural loans financed by the World Bank.

It has gone beyond 1981 to include all projects funded up to 1995 as presented in Table 5.2.
### Table 5.2: On-going projects under the Sponsorship of the World Bank as at 31st March 1995

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>L/stock Dev. 11</td>
<td>Federal</td>
<td>67.0</td>
<td>April 89</td>
<td>57.9</td>
<td>9.1</td>
</tr>
<tr>
<td>2</td>
<td>MSADP-1</td>
<td>Fed., Abia, Akwa Ibom, Anambra, Benue, C/River, Delta, Edo, Enugu, Imo, Ogun, Plateau</td>
<td>162.0</td>
<td>June 1987</td>
<td>63.1</td>
<td>98.9</td>
</tr>
<tr>
<td>3</td>
<td>Forestry 11</td>
<td>Fed., Bauchi, Borno, Jigawa, Kaduna, Katsina, Kebbi, Kogi, Ogun, Ondo, Plateau, Sokoto and Yobe</td>
<td>71.0</td>
<td>Sept. 1987</td>
<td>63.1</td>
<td>7.9</td>
</tr>
<tr>
<td>4</td>
<td>MSADP-11</td>
<td>Fed., Adamawa, Kogi, Kwara, Niger, Taraba</td>
<td>77.7</td>
<td>Nov. 1989</td>
<td>72.6</td>
<td>5.2</td>
</tr>
<tr>
<td>5</td>
<td>MSADP-111</td>
<td>Fed., Lagos, Ondo, Osun, Oyo, and Rivers</td>
<td>100.9</td>
<td>March 1990</td>
<td>88.7</td>
<td>18.1</td>
</tr>
<tr>
<td>6</td>
<td>National Seeds</td>
<td>Federal</td>
<td>14.0</td>
<td>Dec. 1990</td>
<td>8.9</td>
<td>5.1</td>
</tr>
<tr>
<td>7</td>
<td>Tree Crops</td>
<td>Fed., Abia, Akwa Ibom</td>
<td>56.0</td>
<td>July 1991</td>
<td>11.9</td>
<td>44.1</td>
</tr>
<tr>
<td>8</td>
<td>Nat. Agri. Research</td>
<td>Federal</td>
<td>78.0</td>
<td>June 1992</td>
<td>15.6</td>
<td>74.1</td>
</tr>
<tr>
<td>9</td>
<td>Fadama-ADP</td>
<td>Fed., Bauchi, Jigawa, Kano, Kebbi, Sokoto</td>
<td>67.5</td>
<td>February 1993</td>
<td>17.5</td>
<td>50.1</td>
</tr>
<tr>
<td>10</td>
<td>Environ. Managt. Support</td>
<td>Federal</td>
<td>25.0</td>
<td>March 1993</td>
<td>0.9</td>
<td>24.1</td>
</tr>
<tr>
<td>11</td>
<td>Agric. Tech. Support</td>
<td>Federal, Bauchi, Jigawa, Kano, Kebbi, Sokoto</td>
<td>42.5</td>
<td>June 1993</td>
<td>9.4</td>
<td>33.1</td>
</tr>
</tbody>
</table>

**Source:** Akwuwa (1996).

Some of the above projects had continued beyond 1995 while some got redesigned in order to attract fresh funding.

It should, however, be noted that the impact of globalization on agricultural development in the country does not lie only on its the funding of the sector. There has been some technical transformation and re-engineering of the concepts and approaches to agricultural development. On the basis of technical transformations, agricultural mechanization in all its ramifications is not an indigenous concept. Globalization has opened the country’s agriculture to various aspects...
of mechanization that the idea of traditional means of production was almost becoming obsolete, and emergence of tractorized big farms is taking root for developing the country’s agriculture and increasing food production. Through this system, small farm holdings were discouraged, more so with the promulgation of the Land Use Decree of the 1970s. The essence was to give government access to land and discourage land fragmentation and encourage the emergence of large scale farms. However, the emergence of the Agricultural Development Projects (ADP) changed the above view to give prominence to the small holder farmers.

The adoption of the ADP system using the Training and Visit (T&V) System of Agricultural Extension delivery can also be ascribed to the impact of globalization. The ADP system was a brain child of the World Bank while the use of the T&V system was adopted from India. The Training and Visit System of Extension has some salient features which made it significantly different from the various indigenous extension systems used in the country. Some of these features include:

- Single Line of Command
- Professionalism
- Field and farmer orientation
- Continuous training
- Time bound operations
- Linkage with the research
- Concentration of efforts.

The ADP system emphasized so much on the Small Holder farmers as veritable tools for agricultural transformation and increased food production. The system was a success.

**Post-1995 Era**

Some of the projects enumerated in table 2.2 had continued beyond 1995 while some got redesigned. One of such ones that got redesigned was the Multi-State Agricultural Development Programmes (MSADP-1). The original loan design from the IBRD had elapsed and the re-
Effects of Globalization ... Agricultural Sector of Nigerian Economy

design was now to enable various sector and project specific arms of the Bank to step in and finance aspects of the project. In addition to the ADPs, most of the agricultural programmes being ran in the country were World Bank intervention projects. These areas of intervention are as follows and they all came as a result of the World seeing herself as a global village where problems in one end of the globe affects the other ones:

1. IFAD’s Cassava Multiplication Project (IFAD-CMP):
   The project was financed by the International Fund for Agricultural Development (IFAD). It was conceived to counter the attack of two alien pests; Cassava mealy bug and Cassava green speeder mite in the late 1990s and early 1980s. The loan closed on June 30th 1997. These pests were said to be alien because they never originated from this country. They came down to the country in the first place from other African countries as a result of free flow of goods and materials through the boarders made possible by globalization. In any case, it was the globalization activity that made it possible for it to have received international attention. The programme no doubt was very successful. Left to Nigeria alone, that could have signaled the end to cassava production in the country. That means massive hunger and starvation, since cassava is a major staple food in the country. That would also have equally posed a very big threat to world peace and stability since Nigeria’s population formed one-fifth of Africa’s.

2. Root and Tuber Expansion Programme (RTEP):
   RTEP is another programme that has been made possible as a result of the impact of globalization. The Programme was formulated by the Food and Agricultural Organization (FAO) investment Centre in 1995, appraised by the World Bank as a follow-up to the earlier Cassava Multiplication Project which closed in 1997. It was approved by IFAD Executive Board in 1999. The Federal Government of Nigeria (FGN) signed the
loan agreement in May 2001 and disbursement became effective in June 2002. The overall objective of the RTEP was to increase small holder production of Cassava, yam, potato and cocoyam as well as their end-products, thus enhancing national food self-sufficiency and improved household food security and income within the Southern and Middle Belt States of Nigeria. The success recorded by the above programme was enormous. It has helped propel the country into becoming the leading producer of cassava in the world. This is a very positive effect of globalization on the nation’s agriculture. As a member of this global village, the success story in cassava production from Nigeria is having a spill over beneficial effect in the world economy. Chinese industrialists and others are now looking up to Nigeria for the supply of cassava chips and pellets for livestock feed production. Likewise details of research findings in the various utilizations for cassava recipe and other by-products are coming into the country, thus expanding cassava utilization horizon.

3. National Special Programme on Food Security (NSPFS):
In order to still ensure self-sufficiency in food production within the country, the international donor agencies were ready to partner with the country to ensure further development of the agricultural potentials of the small holder farmers in the country, since a threat to peace in Nigeria as a result of hunger will spill over to other nations of the world. They, therefore, partnered with the country in formulating and funding the NSPFS programme.

The NSPFS was initiated by the Federal Government of Nigeria (FGN) and the FAO as a means of ensuring food security for the nation. It commenced in Enugu State for instance in March 2002. For the selected states where it took off, it was on a pilot scale. Effectively, the programme commenced in 2001 and the pilot phase ended in 2005. The
expansion phase took off 2007 and is now renamed National Programme on Food Security, NPFS (ENADEP, 2006). The first phase of the programme involved the establishment of three sites per state with each site accommodating more than 300 farmers being funded in various agricultural enterprises of their choice. The second phase is an improvement on the first. It involved the establishment of six additional sites per state, bringing each state’s number to nine. Through this programme, millions of international funds are being pumped into each site in form of recyclable soft loans, thus energizing the nation’s agricultural development at the grass roots. All these because of globalization.

4. FGN/Chinese South-South Cooperation (SSC):
The objective of the SSC as conceived was to enhance an effective solidarity among the developing countries and to allow the recipient countries to benefit from the relevant experience and low cost technology of China in food production. The SSC technical assistance according to the agreement documents consists of few senior staff and a substantial number of technicians with strong practical field experience in agriculture. They are to work directly with farmers in the rural communities in Nigeria either as individuals or groups (ENADEP, 2006). In as much as the above programme was meant to be a means of technological transfer to the developing countries, one should not lose sight of the fact that it is a veritable means of ensuring integration and cooperation among nations. It has helped Nigeria develop her agriculture and to further cement the bilateral relations between Nigeria and China, thereby fostering the World peace.

5. Sasakawa Global 2000 Management Training Plots (MTPs):
This is a new technology that has been used to boost grains production in some countries and has been introduced into the country. It comprised close adherence to the time of planting, spacing and relevant inputs in the production of grains. It got to the country also as a result of free flow of technologies occasioned by globalization.

6. Presidential Initiative on Cassava Production:
One other area that the nation’s agriculture is currently benefiting through the positive effects of globalization is in the area of boosting of cassava production, processing and utilization through the opening up of international markets. This was made possible through the Presidential Initiative on Cassava Production, a policy trust put in place by the past Obasanjo regime. Through this programme, lots of cassava varieties were pushed to the farmers with the accompanying inputs to boost the production of the crop. Processing equipment were equally distributed to cassava producing groups to help them with the processing of the crop into various products that would be acceptable to both the local and international markets.

Through this programme also other sub-policies were put in place to further boost the production, processing and utilization of this crop. Such include the policy on the mandatory inclusion of 10% cassava flour by Flour Millers in composite flours for bread baking. There is no gainsaying the fact that this programme has further energized cassava production in Nigeria.

Apart from the above interventional funding, lots of direct foreign investments in the agricultural sector of this nation has been made possible, including the areas of agrochemicals production, because of free flow of technical expertise and technology. In the area of direct production we have the likes of the much celebrated case of
South African farmers that have settled in Kwara State of Nigeria. In the areas of other farm inputs, there are investments in fertilizer blending plants, animal feeds production, among others. There are other foreign assisted projects (World Bank funded in particular) that have promotional effects on agriculture also brought about by globalization. These include the National Economic and Empowerment Development Strategy (NEEDS) and State SEEDS projects which are helping to open up the rural areas for rural and agricultural development. Such programmes need to be further discussed as follows:

a) The Local Empowerment and Environmental Management Programme (LEEMP):

The above programme is being executed currently in nine (9) states of the federation. According to Onyenweze (2007), the policy instrument establishing the programme was signed between the Federal Government of Nigeria and the World Bank on December 3rd 2003, while the implementation took effect from April 2005. LEEMP is a Community Driven Development Project (CDD), which has helped among other things develop rural feeder roads and agro-processing projects.

b) The World Bank Rural Access and Mobility Programme (RAMP):

This is one of the latest positive effects of globalization on the Nigeria’s agriculture through the development of rural infrastructure.

RAMP is a comprehensive five-year action programme developed by the Federal Department of Rural Development (FDRD) of the Federal Ministry of Agriculture & Rural Development (FMARD) in close collaboration with the participating State government.
ministries, local governments and key stakeholders. The overall project development objective is to assist participating states and local governments improve access and mobility in their rural areas in a sustainable manner and thereby contribute to the improvement of their rural livelihood. The programme is being funded by the World Bank currently in three states of the federation.

Apart from the above, one salient area that globalization has had an effect on the nation’s agriculture and the economy in general, which tends to be overlooked, is the planning process. If one takes a closer look at most of the programmes above, it will be seen that the bottom-top approach was used in identifying the intervention areas in each programme. This is a complete departure from the practice in the past and has contributed to the success of the programmes. There is, therefore, no gainsaying the fact that the nation’s agricultural sector has had tremendous positive impacts from the influences of globalization.

**Structural Changes and Transformations**

Some structural changes have been observed in the agricultural sector as a result of globalization. With respect to technology transformation, there has been a gradual shift from reliance on traditional farm inputs (hoes, cutlass, low yielding plant and animal varieties) to modern ones (hybrid seeds/seedling, agrochemicals, fertilizers, farm machineries and implements). Furthermore, with the activities of research institutes and other agents of change (e.g., extension activities), crops, such as cassava, Irish potatoes and oranges, which were hitherto confined to certain ecological zones, are now grown in other ecological zones.

Generally, the greatest impact of globalization so far had been in the following areas:

- Transmission of new ideas to the farmers by the agricultural extension agents to upgrade technological conditions and increase output of agricultural products
Trade increase in tubers eg. cassava and in non conventional exports such as flowers and fruits helping to diversify the export base away from a reliance on a narrow range of traditional export whose markets were mostly stagnant. In fact, most traditional export products, such as groundnut, palm and cotton, disappeared from the export list. This was also a result of implicit and explicit taxation of cash crop producers. During the Structural Adjustment Programme (SAP), export earnings grew to N1,822.9 million in 1986-1990 for primary agricultural commodities alone. The export basket also expanded with non-traditional export commodities, such as tubers, fruits, and spices. In addition, export of manufacturers and semi-manufacturers of agricultural products, which earned only N37.2 million in 1981-1985, recorded the sum of N214.9 million in 1986-1990, as Nigeria became an exporter of textiles, soap/detergents, beer/beverages, tyres and processed skins in addition to cocoa products. Food imports also rose astronomically from N45.0 million in 1966-1970 to N163.8 million in 1971-1975. By 1976-1980, it had grown to N991.0 million, reflecting the food supply gap and the impact of depreciating exchange rate. To discourage further food importation after 1980, when the price of oil crashed and foreign exchange earnings declined considerably, the government imposed outright ban on the importation of major food items that had hitherto attracted quotas cum tariff protection (rice, maize, vegetable oils, wheat and poultry).

Conclusion and Policy Recommendations
Nigeria is virtually marginalized in the globalized world economy. According to the 1997 budget, the Nigerian economy is characterized by several problems, including import dependence, dependence on a single economic sector - oil, weak industrial base, a low level of agricultural production, a weak private sector and dependence on foreign loans. The gross domestic product grew by 3.25 percent representing a market improvement from 1.3 percent in 1994 and 2.2 percent in 1995. The agricultural sector grew by 3.7 percent. However, Nigerian agriculture has had some transformations. From its battered state in the 1970s as a result of shift of emphasis due to the impact of crude oil discovery and exportation, this sector is gradually coming to live. The major problem though is that given the long period of neglect and the
degree of disorientation of the economy away from this sector, it will really
take time and huge investment of funds to get it back on course. One obvious
World phenomenon that has helped pump in the required capital (funds) into
this sector has been globalization. Globalisation is the key symbol of the
changing world order (Olayemi, 2001). In as much as many multinationals
and foreigners have been involved in funding our agriculture, no nation can
develop her agricultural sector by largely depending on borrowed funds and
grants. Thus, there is the need for a radical and fundamental agricultural
revival in Nigeria. In order to do this, certain actions should be taken by the
government, which include the following:

1. It should be recognized that the problem confronting agriculture is
more than introducing mere policies without implementation. Sectoral analysis capability and implementation should therefore be
strengthened. This entails reconciling planning with implementation
and carrying out regular analysis of sector-specific issues, such as
markets, pricing and land policies.

2. There is a close relationship between security and investment
climate. The economic environment and security need to be greatly
improved in Nigeria to enable investors to willingly come with funds
to invest in the agricultural sector of the economy. Anomalies with
respect to lending should be rectified while private sector
investments should be encouraged.

3. Sustained development of agricultural institutions to contribute to
competitive marketing, pricing, and quality control of agricultural
produce should be accorded high priority by the present government.

4. For effectiveness, privatization of fertilizer procurement and
distribution should be functional with Agricultural Development
Projects (ADPs), farmers’ cooperatives and private individuals as the
major agents. This would ensure timely availability of farm inputs
and the desired impact on crop yields.

5. Farmers should be encouraged to adopt modern farming/husbandry
practices, such as planting of improved seeds/seedlings, agricultural
chemicals for pest and disease control and mechanization to reduce
drudgery and enhance yields. Farmers should be assisted to source
improved technologies capable of increasing output at reasonable
costs.
Effects of Globalization ... Agricultural Sector of Nigerian Economy

References
ARTIFACTS OF TECHNOLOGY:
INDICES OF PROGRESS IN DEVELOPMENT

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Abstract
Man has employed technology to conquer and manipulate the world. Recent technological developments, including the printing press, the telephone, and the Internet, have lessened physical barriers to communication and allowed humans to interact on a global scale. However, not all technology is benign. Using secondary information from literature, this review paper explains artifacts and technology, and relates artifacts of technology to development.

Introduction
Food, shelter and clothing remain the basic needs of man that must be addressed at all times for any meaningful development. But, driven by curiosity, man has gone beyond addressing these basic needs to conquering the world around him. Technology has been his handy ally in this quest.

Since ages, technology has impacted life and society profoundly. Survival and success depend on designing, making and selling goods and services that the customer wants at the time he wants it and at the price he is prepared to pay; innovating to improve quality and efficiency; and maintaining an edge over all competition, which science and technology represent (Eneh, 2008).

Using secondary information from literature, this review paper explains artifacts and technology, and relates artifacts of technology to development.
Literature Review

Artifact
In archaeology, an artifact or artefact is any object made or modified by a human culture, and often later recovered by some archaeological endeavor. Examples include stone tools, such as projectile points, pottery vessels, metal objects (e.g. buttons or guns), and items of personal adornment (e.g. jewelry and clothing). Other examples include bone that show signs of human modification, fire cracked rocks from a hearth or plant material used for food. Artifacts can come from any archaeological context or source, such as grave goods (buried along with a body) and also from any feature or other domestic settings, like Hoards, Votive offerings, etc.

Artifacts are distinguished from the main body of the archaeological record, such as stratigraphic features, which are non-portable remains of human activity, including hearths, roads, or deposits and remains, and from bio-facts or eco-facts, which are objects of archaeological interest made by other organisms, such as seeds or animal bone.

Natural objects which have been moved but not changed by humans are called Manu ports. Examples include seashells moved inland or rounded pebbles placed away from the water action that would have fashioned them. These distinctions are often blurred. For instance, a bone removed from an animal carcass is a bio-fact, but a bone carved into a useful implement is an artifact. Similarly, there can be debate over early stone objects which may be crude artifacts or which may be naturally occurring phenomena that only appear to have been used by humans.

The study of artifacts is an important part of the field of archaeology, although the degree to which they represent the social groupings that created them is a subject over which archaeological theoreticians argue. Focusing on the artifact alone can produce very intensive and enlightening work on the object itself, but can ignore surrounding factors which may shed further light on the manufacturing
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society. Traditional museums are often criticized for being too artifact-led, that is displaying items without any contextual information about their purpose or the people who made them.

Artifacts are often called "finds" when handled during archaeological excavation. They are used in archaeological analysis and tracking technological advances. They are related to the archaeological record by their position defined by the Archaeological context they are discovered in. This is important for Seriation and relative dating analysis and is closely related to work post excavation with the use of a Harris matrix created during excavation. An analysis of finds is often made during excavation for the purpose of spot dating, which is a process of assessing dates of contexts being excavated. It is used as a form of confirmation concerning phasing and highlighting any potential for further discovery on a given site as it progresses. Spot dating tends to rely on pottery typology. Apart from dating and supporting the process of excavation, artifacts lend themselves to a host of post excavation disciplines.

The characteristics of Ancient Egyptian technology are indicated by a set of artifacts and customs that lasted for thousands of years. The Egyptians invented and used many basic machines, such as the ramp and the lever, to aid construction processes. They used rope trusses to stiffen the beam of ships, unknown again until modern engineering. Egyptian paper, made from papyrus and pottery was mass-produced and exported throughout the Mediterranean basin. The wheel, however, did not arrive until foreign invaders introduced the chariot in the sixteenth century B.C. The Egyptians also played an important role in developing Mediterranean maritime technology including ships and lighthouses (Bernard Stiegler, 2003).

Technology
Technology is a broad concept that deals with the usage and knowledge of tools and crafts, and how they affect the ability to control and adapt to the environment. In human society, it is a consequence of science and engineering, although several
technological advances predate the two concepts. Technology is a term with origins in the Latin "technologia" ("τεχνολογία") - broken down to "technē" ("τέχνη"), meaning "craft" and "logia" ("λογία"), meaning "saying". However, a strict definition is elusive; "technology" can refer to material objects of use to humanity, such as machines, hardware or utensils, but can also encompass broader themes, including systems, methods of organization, and techniques. The term can either be applied generally or to specific areas. Examples include "construction technology", "medical technology", or "state-of-the-art technology". Other species have also been observed to have created and used technology, including non-human primates, dolphins, and crows (Ursula, 1989).

In general, technology is the relationship that society has with its tools and crafts, and to what extent society can control its environment. The Merriam-Webster (2005) dictionary offers a definition of the term: "the practical application of knowledge especially in a particular area" and "a capability given by the practical application of knowledge". Ursula (1989) gave another definition of the concept as "practice, the way we do things around here". Bernard Stiegler (2003) defines technology in two ways: as "the pursuit of life by means other than life", and as "organized inorganic matter."

Technology can be most broadly defined as the entities, both material and immaterial, created by the application of mental and physical effort in order to achieve some value. In this usage, technology refers to tools and machines that may be used to solve real-world problems. It is a far-reaching term that may include simple tools, such as a crowbar or wooden spoon, or more complex machines, such as a space station or particle accelerator. Tools and machines need not be material; virtual technology such as computer software and business methods, fall under this definition of technology.

The word "technology" can also be used to refer to a collection of techniques. In this context, it is the current state of humanity's knowledge of how to combine resources to produce desired products, to solve problems, fulfill needs, or satisfy wants; it includes technical
methods, skills, processes, techniques, tools and raw materials. When combined with another term, such as "medical technology" or "space technology", it refers to the state of the respective field's knowledge and tools. "State-of-the-art technology" refers to the high technology available to humanity in any field.

Technology can be viewed as an activity that forms or changes culture. Additionally, technology is the application of mathematics, science, and the arts for the benefit of life as it is known. A modern example is the rise of communication technology, which has lessened barriers to human interaction and, as a result, has helped spawn new subcultures. The rise of cyber-culture has, at its basis, the development of the Internet and the computer. Not all technology enhances culture in a creative way; technology can also help facilitate political oppression and war via tools such as guns. As a cultural activity, technology predates both science and engineering, each of which formalizes some aspects of technological endeavor.

Technology in Dynastic Egypt and as Index of Development

Significant advances in ancient Egypt during the dynastic period include astronomy, mathematics, and medicine. Their geometry was a necessary outgrowth of surveying to preserve the layout and ownership of farmland, which was flooded annually by the Nile River. Egypt also was a center of alchemy research for much of the western world (Parker, 2007; Pannekoek, 1961 and Evans, 1998).

A section of the Egyptian Book of the Dead, which was written and drawn on papyrus provides basic knowledge in this field. The word, paper, comes from the Greek term for the ancient Egyptian writing material called papyrus, which was formed from beaten strips of papyrus plants. Papyrus was produced as early as 3000 B.C. in Egypt, and sold to ancient Greece and Rome (Budge, 1990).

Egyptian hieroglyphs, a phonetic writing system, served as the basis for the Phoenician alphabet from which later alphabets were derived. With this skill and ability in writing and record keeping, the
Egyptians developed one of the - if not the - first decimal system (Kaplan, 2004; Stocks, 2003 and Bard, 1999)

The city of Alexandria retained preeminence for its records and scrolls with its library. That ancient library was damaged by fire when it fell under Roman rule, and was destroyed completely by 642 B.C., leading to loss of a huge amount of antique literature, history, and knowledge.

Structures and construction: Buildings

Many temples from Ancient Egypt are still standing today. Some are in ruin from wear and tear, while others have been lost entirely. The Egyptian structures are among the largest constructions ever conceived and built by humans. They constitute some of the most potent and enduring symbols of Ancient Egyptian civilization. Temples and tombs built by pharaoh Hatshepsut, famous for her projects, were massive and included many colossal statues of her. King Tut's rock-cut tomb in the Valley of the Kings was full of jewelry and antiques. In some late myths, Ptah was identified as the primordial mound and had called creation into being; he was considered the deity of craftsmen, and in particular, of stone-based crafts. Imhotep, who was included in the Egyptian pantheon, was the first documented engineer (Ursula, 1989).

The Lighthouse of Alexandria on the island of Pharaohs

In Hellenistic Egypt, lighthouse technology was developed, the most famous example being the Lighthouse of Alexandria. Alexandria was a port for the ships that traded the goods manufactured in Egypt or imported into Egypt. A giant cantilevered hoist lifted cargo to and from ships. The lighthouse itself was designed by Sostratus of Cnidus and built in the third century B.C. (between 285 and 247 B.C.) on the island of Pharos in Alexandria, Egypt, which has since become a peninsula. This lighthouse was renowned in its time and knowledge of it was never lost (Forbes, 1966).

Monuments
Egyptian pyramids: The Nile valley has been the site of one of the most influential civilizations in the world with its architectural monuments, which include the pyramids of Giza and the Great Sphinx - among the largest and most famous buildings in the world (Forbes, 1966).

Giza Plateau, Cairo: The most famous pyramids are the Egyptian pyramids - huge structures built of brick or stone, some of which are among the largest constructions by humans. Pyramids functioned as tombs for pharaohs. In Ancient Egypt, a pyramid was referred to as mer, literally "place of ascendance." The Great Pyramid of Giza is the largest in Egypt and one of the largest in the world. The base is over thirteen acres in area. It is one of the Seven Wonders of the World, and the only one of the seven to survive into modern times. The Ancient Egyptians capped the peaks of their pyramids with gold and covered their faces with polished white limestone, although many of the stones used for the finishing purpose have fallen or been removed for use on other structures over the millennia.

The Red Pyramid of Egypt (26th century B.C.), named for the light crimson hue of its exposed granite surfaces, is the third largest of Egyptian pyramids. Menkaure's Pyramid, likely dating to the same era, was constructed of limestone and granite blocks. The Great Pyramid of Giza (2580 B.C.) contains a huge granite sarcophagus fashioned of "Red Aswan Granite." The mostly ruined Black Pyramid dating from the reign of Amenemhat III once had a polished granite pyramidion or capstone, now on display in the main hall of the Egyptian Museum in Cairo (see Dahshur). Other uses in Ancient Egypt include columns, door lintels, sills, jambs, and wall and floor veneer.

The ancient Egyptians had some of the first monumental stone building (such as in Sakkhara). How the Egyptians worked the solid granite is still a matter of debate. Patrick Hunt has postulated that the Egyptians used emery shown to have higher hardness on the Mohs scale. Regarding construction, of the various methods possibly used by builders, the lever moved and uplifted obelisks weighing more than 85
100 tons. Any rigid object used with an appropriate fulcrum or pivot point to multiply the mechanical force can be applied to another object. This is also termed mechanical advantage, and is one example of the principle of moments. The principle of leverage can also be derived using Newton's laws of motion, and modern statics (Forbes, 1966).

**Obelisks:** Obelisks were a prominent part of the architecture of the ancient Egyptians, who placed them in pairs at the entrances of temples. In 1911, *Encyclopedia Britannica* wrote, "The earliest temple obelisk still in position is that of Senwosri I of the XIIth Dynasty at Heliopolis (68 feet high)". The word "obelisk" is of Greek rather than Egyptian origin because Herodotus, the great traveler, was the first writer to describe the objects. Twenty-seven ancient Egyptian obelisks are known to have survived, plus the unfinished obelisk being built by Hatshepsut to celebrate her sixteenth year as pharaoh. It broke while being carved out of the quarry and was abandoned when another one was begun to replace it. The broken one was found at Aswan and provides the only insight into the methods of how they were hewn.

The obelisk symbolized the sun deity, Ra, and during the brief religious reformation of Akhenaten, was said to be a petrified ray of the Aten, the sun disk. It is hypothesized by New York University Egyptologist Patricia Blackwell Gary and Astronomy senior editor Richard Talcott that the shapes of the ancient Egyptian pyramid and obelisk were derived from natural phenomena associated with the sun (the sun-god, Ra, being the Egyptians' greatest deity) (Tomkins, 1971). It was also thought that the deity existed within the structure.

**Pillars**

The Egyptians also used pillars extensively. It is unknown whether the Ancient Egyptians had kites, but a team led by Mory Gharib raised a 6,900-pound, 15-foot (4.6 m) obelisk into vertical position with a kite, a system of pulleys, and a support frame. Maureen Clemmons developed the idea that the ancient Egyptian used kites for work. Ramps have been reported as being widely used in Ancient Egypt.
ramp is inclined plane, or a plane surface set at an angle (other than a right angle) against a horizontal surface. The inclined plane permits one to overcome a large resistance by applying a relatively small force through a longer distance than the load is to be raised. In civil engineering the slope (ratio of rise/run) is often referred to as a grade or gradient. An inclined plane is one of the commonly recognized simple machines (Forbes, 1966).

**Navigation**

**Egyptian ship, 1250 B.C.:** The use of rope truss to stiffen the beam of ships in the red sea was very prominent. The Ancient Egyptians had knowledge to some extent of sail construction. This is governed by the science of aerodynamics. The earliest Egyptian sails were simply placed to catch the wind and push a vessel. Later Egyptian sails dating to 2400 B.C. were built with the recognition that ships could sail against the wind using the side wind. Queen Hatshepsut oversaw the preparations and funding of an expedition of five ships, each measuring seventy feet long, and with several sails. Various other instances of Egyptian sailing vessels exist, also (Wikander, 2000).

Although quarter rudders were the norm in Nile navigation, the Egyptians were the first to use stern-mounted rudders.

**Irrigation and agriculture**

Irrigation, as the artificial application of water to the soil, was used to some extent in Ancient Egypt, a hydraulic civilization (which entails hydraulic engineering). In crop production it is mainly used to replace missing rainfall in periods of drought, as opposed to reliance on direct rainfall (referred to as dry land farming or as rainfed farming). There is evidence of the ancient Egyptian pharaoh Amenemhet III in the twelfth dynasty (about 1800 B.C.) using the natural lake of the Fayûm as a reservoir to store surpluses of water for use during the dry seasons, as the lake swelled annually as caused by the annual flooding of the Nile (Wikander, 2000).
Glasswork
Egyptian knowledge of glassmaking was advanced. The earliest known glass beads from Egypt were made during the New Kingdom around 1500 B.C. and were produced in a variety of colors. They were made by winding molten glass around a metal bar and were highly prized as a trading commodity, especially blue beads, which were believed to have magical powers. The Egyptians made small jars and bottles using the core-formed method. Glass threads were wound around a bag of sand tied to a rod. The glass was continually reheated to fuse the threads together. The glass-covered sand bag was kept in motion until the required shape and thickness was achieved. The rod was allowed to cool, then finally the bag was punctured and the rod removed. The Egyptians also created the first colored glass rods which they used to create colorful beads and decorations. They also worked with cast glass, which was produced by pouring molten glass into a mold, much like iron and the more modern crucible steel (Ursula, 1989).

Astronomy
The Egyptians were a practical people and this is reflected in their astronomy in contrast to Babylonia where the first astronomical texts were written in astrological terms. Even before Upper and Lower Egypt were unified in 3000 B.C., observations of the night sky had influenced the development of a religion in which many of its principal deities were heavenly bodies. In Lower Egypt, priests built circular mud-brick walls to make a false horizon where they could mark the position of the sun as it rose at dawn, and then with a plumb-bob note the northern or southern turning points (solstices). This allowed them to discover that the sun disc, personified as Re, took 365 days to travel from his birthplace at the winter solstice and back to it. Meanwhile in Upper Egypt a lunar calendar was being developed based on the behaviour of the moon and the reappearance of Sirius after its annual absence of about 70 days heliacal rising.
After unification problems with trying to work with two calendars (both depending upon constant observation) led to a merged, simplified civil calendar with twelve 30 day months, three seasons of four months each, plus an extra five days giving a 365 year day but with no way of accounting for the extra quarter day each year. Day and night were split into 24 units each personified by a deity. A sundial found on Seti I’s cenotaph with instructions for its use shows us that the daylight hours were at one time split into 10 units, with 12 hours for the night and an hour for the morning and evening twilights. However, by Seti I’s time day and night were normally divided into 12 hours each, the length of which would vary according to the time of the year (Parker, 2007).

Key to much of this was the movement of the sun god, Ra, and his annual movement along the horizon at sunrise. Out of Egyptian myths, such as those around Ra and the sky goddess, Nut, came the development of the Egyptian calendar, time keeping, and even concepts of royalty. An astronomical ceiling in the burial chamber of Ramesses VI shows the sun being born from Nut in the morning, travelling along her body during the day and being swallowed at night.

During the Fifth Dynasty, six kings built sun temples in honour of Ra. The temple complexes built by Niuserre at Abu Gurab and Userkaf at Abusir have been excavated and have astronomical alignments and the roofs of some of the buildings could have been used by observers to observe the stars and calculate the hours at night and predict the sunrise for religious festivals.

The Dendera Zodiac was on the ceiling of the Greco-Roman temple of Hathor at Karnak. Claims have been made that precession of the equinoxes was known in Ancient Egypt prior to the time of Hipparchus. Some buildings in the Karnak temple complex, for instance, were oriented toward the point on the horizon where certain stars rose or set at key times of the year. Because of the precession, the stars in one "constellation" or section of the sky would be seen to be first in the nightly display each night until the precession moved along to the next section being first, with the previously-first constellation
below the horizon until the arch was completed. A few centuries later, when precession made the orientations of the buildings obsolete, the temples were rebuilt (Pannekoek, 1961; Gary and Talcott, 2006).

**Medicine**

The Edwin Smith papyrus is one of the first medical documents still extant, and perhaps the earliest document which attempts to describe and analyze the brain: given this, it might be seen as the very beginnings of neuroscience. However, medical historians believe that ancient Egyptian pharmacology was largely ineffective. According to a paper published by Michael D. Parkins, 72% of 260 medical prescriptions in the Hearst Papyrus had no curative elements. He also submits that sewage pharmacology first began in ancient Egypt and was continued through the Middle Ages, and, while the use of animal dung can have curative properties, it is not without its risk. Practices such as applying cow dung to wounds, ear piercing, tattooing, and chronic ear infections were important factors in developing tetanus. Frank J. Snoek wrote that Egyptian medicine used fly specks, lizard blood, swine teeth, and other such remedies which he believes could have been harmful.

Mummification of the dead was not always practiced in Egypt. Once the practice began, an individual was placed at a final resting place through a set of rituals and protocol. The Egyptian funeral was a complex ceremony including various monuments, prayers, and rituals undertaken in honour of the deceased. The poor, who could not afford expensive tombs, were buried in shallow graves in the sand, and because of the arid environment they were often naturally mummified (Budge, 1969).

**Other developments**

The Egyptians developed a variety of furniture. There in the lands of ancient Egypt is the first evidence for stools, beds, and tables (such as from the tombs similar to Tutenkhamen's). Recovered Ancient Egyptian furniture include a third millennium B.C. bed discovered in
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the Tarkhan Tomb, a 2550 B.C. gilded set from the tomb of Queen Hetepheres, and a 1550 B.C. stool from Thebes.

Some have suggested that the Egyptians had some form of understanding electric phenomena from observing lightning and interacting with electric fish (such as the Malapterurus electricus) or other animals (such as electric eels). The comment about lightning appears to come from a misunderstanding of a text referring to "high poles covered with copper plates" to argue this, but Dr. Bolko Stern has written in detail explaining why the copper covered tops of poles (which were lower than the associated pylons) do not relate to electricity or lightning, pointing out that no evidence of anything used to manipulate electricity had been found in Egypt and that this was a magical and not a technical installation.

The single representation of the image, called the "Dendera light" by some alternative suggestions, exists on the left wall of the right wing in one of the crypts of the Hathor temple.

Those exploring fringe theories of ancient technology have suggested that there were electric lights used in Ancient Egypt. Engineers have constructed a working model based on their interpretation of a relief found in the Hathor temple at the Dendera Temple complex. Authors (such as Peter Krassa and Reinhard Habeck) have produced a basic theory of the device's operation. The standard explanation, however, for the Dendera light, which comprises three stone reliefs (one single and a double representation) is that the depicted image represents a lotus leaf and flower from which a sacred snake is spawned in accordance with Egyptian mythological beliefs. This sacred snake sometimes is identified as the Milky Way (the snake) in the night sky (the leaf, lotus, or "bulb") that became identified with Hathor because of her similar association in creation.

Technological Progress: 19th Century to 21st Century
The British Industrial Revolution is characterized by developments in the areas of textile manufacturing, mining, metallurgy and transport driven by the development of the steam engine. Above all else, the
revolution was driven by cheap energy in the form of coal, produced in ever-increasing amounts from the abundant resources of Britain. Coal converted to coke gave the blast furnace and cast iron in much larger amounts than before, and a range of structures could be created, such as The Iron Bridge. Cheap coal meant that industry was no longer constrained by water resources driving the mills, although it continued as a valuable source of power. The steam engine helped drain the mines, so more coal reserves could be accessed, and the output of coal increased. The development of the high-pressure steam engine made locomotives possible, and a transport revolution followed.

The 19th century saw astonishing developments in transportation, construction, and communication technologies originating in Europe, especially in Britain. The Steam Engine which had existed since the early 18th century, was practically applied to both steamboat and railway transportation. The first purpose built railway line opened between Manchester and Liverpool in 1830, the Rocket locomotive of Robert Stephenson being one of the first working locomotives used on the line. Telegraphy also developed into a practical technology in the 19th century to help run the railways safely.

Other technologies were explored for the first time, including the Incandescent light bulb. The Portsmouth Block Mills was where manufacture of ships' pulley blocks by all-metal machines first took place and instigated the age of mass production. Machine tools used by engineers to manufacture other machines began in the first decade of the century, notably by Richard Roberts and Joseph Whitworth. Steamships were eventually completely iron-clad, and played a role in the opening of Japan and China to trade with the West. Mechanical computing was envisioned by Charles Babbage but did not come to fruition. The Second Industrial Revolution at the end of the 19th century saw rapid development of chemical, electrical, petroleum, and steel technologies connected with highly structured technology research.

The 20th Century technology developed rapidly. Communication technology, transportation technology, broad teaching
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and implementation of Scientific method, and increased research spending all contributed to the advancement of modern science and technology. Due to the scientific gains directly tied to military research and development, technologies including electronic computing might have developed as rapidly as they did in part due to war. Radio, radar, and early sound recording were key technologies which paved the way for the telephone, fax machine, and magnetic storage of data. Energy and engine technology improvements were also vast, including nuclear power, developed after the Manhattan project. Transport by rocketry: most work occurred in the U.S. (Goddard), Russia (Tsioivkovsky) and Germany (Oberth). Making use of computers and advanced research labs, modern scientists have Recombinant di-ribonucleic acid (DNA).

Despite the fact we have just entered into the 21st century, technology is being developed even more rapidly. Marked progress in almost all fields of science and technology has led to massive improvements of the technology we currently possess, the rate of development in computers being only one example at which the speed of progress continues forward, leading to the speculation of a technological singularity occurring within this century. Current ongoing developments include research into the scramjet, nanotechnology, bioengineering, nuclear fusion, new developments in amour, advanced materials and a plethora of other fields, leading to speculations among some circles of the development of devices such as powered armor in the near future.

Measuring technological progress
Many sociologists and anthropologists have created social theories dealing with social and cultural evolution. Some, like Lewis H. Morgan, Leslie White, and Gerhard Len ski, declare technological progress to be the primary factor driving the development of human civilization. Morgan's concept of three major stages of social evolution (savagery, barbarism, and civilization) can be divided by technological milestones, like fire, the bow, and pottery in the savage era,
domestication of animals, agriculture, and metalworking in the barbarian era and the alphabet and writing in the civilization era.

Instead of specific inventions, White decided that the measure by which to judge the evolution of culture was energy. For White, "the primary functions of culture" is to "harness and control energy." White differentiates between five stages of human development: In the first, people use energy of their own muscles. In the second, they use energy of domesticated animals. In the third, they use the energy of plants (agricultural revolution). In the fourth, they learn to use the energy of natural resources: coal, oil, gas. In the fifth, they harness nuclear energy. White introduced a formula $P = E \times T$, where $E$ is a measure of energy consumed, and $T$ is the measure of efficiency of technical factors utilizing the energy. In his own words, "culture evolves as the amount of energy harnessed per capita per year is increased or as the efficiency of the instrumental means of putting the energy to work is increased". Russian astronomer, Nikolai Kardashev, extrapolated this theory creating the Kardashev scale, which categorizes the energy use of advanced civilizations.

Lenski takes a more modern approach and focuses on information. The more information and knowledge (especially allowing the shaping of natural environment) a given society has, the more advanced it is. He identifies four stages of human development, based on advances in the history of communication. In the first stage, information is passed by genes. In the second, when humans gain sentience, they can learn and pass information through by experience. In the third, the humans start using signs and develop logic. In the fourth, they can create symbols, develop language and writing. Advancements in the technology of communication translates into advancements in the economic system and political system, distribution of wealth, social inequality and other spheres of social life. He also differentiates societies based on their level of technology, communication and economy: 1) hunters and gatherers, 2) simple agricultural, 3) advanced agricultural, 4) industrial, 5) special (like fishing societies).
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Finally, from the late 1970s, sociologists and anthropologists, like Alvin Toffler (author of Future Shock), Daniel Bell and John Naisbitt have approached the theories of post-industrial societies, arguing that the current era of industrial society is coming to an end, and services and information are becoming more important than industry and goods. Some of the more extreme visions of the post-industrial society, especially in fiction, are strikingly similar to the visions of near and post-Singularity societies.

Conclusion and Implications
People's use of technology began with the conversion of natural resources into simple tools. The pre-historical discovery of the ability to control fire increased the available sources of food, and the invention of the wheel helped humans in travelling in and controlling their environment. Recent technological developments, including the printing press, the telephone, and the Internet, have lessened physical barriers to communication and allowed humans to interact on a global scale. In many societies, technology has helped develop more advanced economies (including today's global economy) and has allowed the rise of a leisure class.

However, not all technology has been used for peaceful purposes; the development of weapons of ever-increasing destructive power has progressed throughout history, from clubs to nuclear weapons. Many technological processes produce unwanted by-products, known as pollution, and deplete natural resources, to the detriment of the Earth and its environment. Various implementations of technology influence the values of a society and new technology often raises new ethical questions. Examples include the rise of the notion of efficiency in terms of human productivity, a term originally applied only to machines, and the challenge of traditional norms.

Philosophical debates have arisen over the present and future use of technology in society, with disagreements over whether technology improves the human condition or worsens it. Neo-Luddism, anarcho-primitivism, and similar movements criticize the
pervasiveness of technology in the modern world, claiming that it harms the environment and alienates people. Proponents of ideologies, such as trans-humanism and techno-progressivism, view continued technological progress as beneficial to society and the human condition.

References
Artifacts of Technology: Indices of Progress in Development
HIV/AIDS PANDEMIC AND SUSTAINABLE DEVELOPMENT

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Abstract
HIV/AIDS is especially widespread in the developing countries. In some sub-Saharan countries, AIDS has more than doubled the death rate. As a result of AIDS, life expectancy also is falling substantially. The hallmark of HIV infection is the progressive loss of a specific type of immune cell called T-helper or CD 4 cells. As the virus grows, it damages or kills other cells, weakening the immune system and exposing the person to various opportunistic infections. The paper used existing literature to investigate the effects of HIV/AIDS pandemic on sustainable development. The paper discovered that HIV/AIDS have done a ravaging harm to the productive age in both the developed and developing countries. Finally the paper came up with some recommendations to guide policy makers on the matter.

Introduction
HIV stands for human immuno deficiency virus. It is the virus that causes AIDS. AIDS, on the other hand, stands for acquired immune deficiency syndrome. It is a disease in which the body’s immune system breaks down and is unable to fight infections, known as “opportunistic infections” and other illnesses that take advantage of a weakened system (Eneh, 2005).

The health of a country’s population determines, to a large extent, the wealth of that country. It is monitored using two statistical indicators – life expectancy at birth and under-five mortality rate. These indicators are often cited among broader measures of a population’s quality of life, because they indirectly reflect many aspects of peoples’ welfare, including their levels of income and
nutrition, the quality of their environment, and their access to health care, safe water and sanitation (Soubbotina, 2004).

HIV/AIDS has put a new dimension to the whole scenario by attacking mostly the future generation of a nation (15-50 years). For example, at the end of 1998, at least 33 million people had HIV/AIDS. Another 14 million, one adult in every 100 between the ages of 15 and 50, were infected with HIV.

HIV/AIDS is especially widespread in the developing world. In Namibia, AIDS already has become the single greatest cause of death. Also, in Botswana, Ethiopia, Malawi, Swaziland, Zambia and Zimbabwe, AIDS has significantly affected the peoples’ life expectancy (Eneh, 2005).

The effect of this pandemic on sustainable development is the focus of this paper. The World Commission on Environment and Development defined sustainable development as “meeting the needs of the present generation without compromising the needs of the future generation.” Thus, meeting the needs of the people in the present generation is essential in order to sustain the needs of future generation.

But, with HIV/AIDS syndrome ravaging the productive segment of a country, the needs of the present generation cannot be met to guarantee that of the future in the developing countries. And, the health conditions are already deteriorating in these countries.

This paper focuses on the effects of HIV/AIDS pandemic on sustainable development, using existing literature for investigations.

Statement of the Problem
Aziegbe (2007) observed that a country with a great number of its people between the ages of 15 and 65 years would have a large labour force, than one with a great number of its people belonging to the 15 years and below or 65 years and above age group. More importantly, anything that affects the productive age group (15-65 years) has affected greatly the country’s labour force vis-à-vis the economic growth of that country.
HIV and AIDS Pandemic and Sustainable Development

Research has shown that HIV/AIDS claim mostly the youths within this age bracket. It is then the aim of this paper to investigate the extent of havoc this HIV/AIDS pandemic has done to economic development of developing countries.

Theoretical Framework
The consequences of population growth on economic development have attracted the attention of economists even since Adam Smith wrote his “Wealth of Nations.” He submitted that “the annual labour of every nation is the fund which originally supplies it with all the necessaries and conveniences of life.” The growth of population has been an important factor in the economic growth of a nation. Substantial rates of population growth in Europe have led to high rates of increase in total product and per capita product, and per capital product has been accompanied by the growth of national product. The growth of national product, in turn, has been due to the enormous addition to population, which has led to large increase in working labour force.

The labour force in an economy is the ratio of working population to total population. Assuming 50 years as the average life-expectancy in an underdeveloped country, the labour force is in effect the number of people in the age-group of 15-50 years. By increasing the deathrate among this age-group, HIV/AIDS reduces the working labour force.

During the demographic transitional phase, the birthrate is high and the deathrate is on the decline. The result is that a larger percentage of the total population is in the lower age-group of (1-15 years). It means that the addition to the lower age-group is larger than in the working age group. A large percentage of children in the labour force is a heavy burden on the economy. It also implies that the labour force tends to increase with the increase in population and vice-versa.
Table 7.1: Estimated number of adults and children newly infected with HIV by region

<table>
<thead>
<tr>
<th>Region</th>
<th>No. of adults (15-50) and children infected with HIV</th>
<th>Life expectancy</th>
</tr>
</thead>
<tbody>
<tr>
<td>North America</td>
<td>45,000</td>
<td></td>
</tr>
<tr>
<td>Latin America</td>
<td>150,000</td>
<td></td>
</tr>
<tr>
<td>Caribbean</td>
<td>60,000</td>
<td></td>
</tr>
<tr>
<td>Eastern Europe and Central Asia</td>
<td>130,000</td>
<td></td>
</tr>
<tr>
<td>Western Europe</td>
<td>30,000</td>
<td></td>
</tr>
<tr>
<td>North Africa &amp; Middle East</td>
<td>80,000</td>
<td></td>
</tr>
<tr>
<td>Sub-Saharan Africa</td>
<td>3,800,000</td>
<td></td>
</tr>
<tr>
<td>South &amp; South East Asia</td>
<td>780,000</td>
<td></td>
</tr>
<tr>
<td>East Asia and Pacific</td>
<td>130,000</td>
<td></td>
</tr>
<tr>
<td>Australia &amp; New Zealand</td>
<td>500</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>5,300,000</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Source: UNAIDS, 2000

From Table 7.1, we can see that nowhere else is HIV spreading on a large scale as in the sub-Saharan Africa. The estimated number of adults and children newly infected with HIV during 2000 is about 3.8 million people. This means that HIV/AIDS has claimed about 100% of the total labour force of that region, which, on the other hand, affects the per capita product.

Among regions of the world, sub-Saharan Africa and the developing countries of Asia face the worst prospects for HIV/AIDS. More than 90% of all people infected with HIV live in these two regions. The Society for Family Health noted that two-thirds of all adults living with AIDS are in sub-Saharan Africa. The age brackets are mostly 15 to 50 years. This means a lot to sustainable development in sub-Saharan Africa because anything that affects...
HIV and AIDS Pandemic and Sustainable Development

labour force has affected human resource development and utilization. Darma (2007) noted that human resource is an important factor of production. Labour provides skilled, semi-skilled and unskilled workers as well as entrepreneurs. The quality and quantity of these classes of workers determine the level of economic activity in that country. This, in turn depends on the nature of the population from which they are drawn. An HIV/AIDS infected country shows that the health conditions of that country have been tampered with.

Okafor (2001) opined that understanding the health conditions of a country’s population will, to a large extent, ensure a better forecast of the future requirements of social service needs of the population and hence, ensure sustainable development. Also, Udensi (2006) agreed that rapid human population growth or decline could enhance or mar sustainable development. For instance, a rapidly growing population creates a steadily expanding demand for goods and services that provides further opportunities for investment. On the other hand, a slow rate of population growth limits the opportunities for investment and causes economic stagnation and underdevelopment (Darmar 2007).

High death rates occasioned by HIV/AIDS pandemic reduce the population growth rate. Population growth rate shows changing trend of the population and determines how much the population is going to double itself within a specified period of time. If HIV/AIDS reduces the population growth rate, the country’s labour force will be affected and there is generally going to be low output, investment and income which leads to vicious circle of underdevelopment.

Since the labour force is inadequate, there is a problem of under utilization of resources. As the existing labour force is not sufficient to boost output of goods and services, standard of living may be low. That is the situation of most countries ravaged by HIV/AIDS pandemic (Nigeria, Zimbabwe, Ethiopia, etc.).

Furthermore, in the hardest hit low income countries, AIDS has already lowered the average life expectancy by a decade or more. Since the disease first surfaced in the late 1970’s to early 1980’s, about
22 million people have died from it (including 3 million in the year 2000 alone) and 13 million children have lost one or both parents. About 3/4 of these deaths occurred in Africa, where AIDS is now the primary cause of death.

The Joint United Nations Programme on HIV/AIDS (UNAIDS) estimates that there are now 40 million people living with HIV or AIDS worldwide. Most of them do not know they carry HIV and may be spreading the virus to others. In the United States of America (US), approximately one million people have HIV or AIDS, and 40,000 Americans become newly infected with HIV each year. According to the Centre for Disease Control (CDC), it is estimated that a quarter of all people with HIV in the US do not know they are carrying the virus. Since the beginning of the epidemic, AIDS has killed more than 25 million people worldwide, including more than 500,000 Americans. AIDS has replaced malaria and tuberculosis as the world’s deadliest infectious disease among adults and is the fourth leading cause of death worldwide. Fifteen million children have been orphaned by the epidemic. What will be the fate of those orphans?

The Southern countries of Africa have the highest HIV infection rates in the world. In Botswana, Namibia, Swaziland, Zambia and Zimbabwe, between 180% and 260% of adults aged 15 to 49 are infected. About 10% of African adults infected with HIV live in Nigeria, the region’s most populous country. Nigeria’s adult infectious rate is now about 40% and is continuing to rise (Population Report, 2009).

About 3 of every 4 women and nearly 9 of every 10 children infected with HIV live in Africa. Because the HIV/AIDS epidemic in sub-Saharan Africa has from its start spread primarily through heterosexual relations, women and children have been more affected than in countries where HIV initially spread largely through male-to-male sex or sharing of intravenous drug injecting equipment. In Asia, there are many cases of HIV/AIDS because of the regions large population, but fewer than 12% adults are infected with HIV, and in most regions infections rates are higher in certain countries,
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particularly Thailand, Cambodia, and Myanmar, where about 2% of adults are infected.

In India, an estimated 4 million people are infected with HIV, the largest number of HIV infected people in any country in the world. HIV is spreading so fast in India that the number of infections could reach 1.2 million in the year 2000. In China, infection rates are low, but HIV appears to have begun spreading rapidly in South Western China through intravenous drug use and in relatively prosperous Eastern areas through sex workers (Health Survey, 2005).

In Latin America and the Caribbean, HIV is predominantly spread by men having unprotected sex with men and by intravenous drug users who share needles. In Mexico, for example, up to 30% of men who have sex with men and between 3% and 11% of intravenous drug users are infected with HIV (Health Survey, 2007).

In Eastern Europe and Central Asia, HIV infection rates are low. Currently only about 0.10% of the population is infected. Nevertheless, in Belarus, Moldova, the Russian Federation, and Ukraine, HIV infection rates have risen dramatically since 1994, largely due to unsafe drug injecting. In Kaliningrad, Russia, for example, a study found that one-third of sex workers were intravenous drug users infected with HIV (Health Survey, 2007).

Only about 0.1% of adults are infected in North Africa and the Near East. Within the region, the infection rate is highest in Sudan.

In developed countries, the AIDS epidemic may be peaking. In Western Europe, infection rates appear to be dropping. In the US, infection rates have not dropped, but the number of AIDS-related deaths is falling due to improved treatment. HIV prevalence has dropped among white men, but has changed little among Hispanic and African American men. It has increased among women (WHO, 2007).

Conclusion and Recommendations

About half of all infectious diseases and more than 5 million deaths a year can be attributed to HIV/AIDS in developing countries. The worst is that no effective vaccine has been discovered to fight the ailment,
but there are proven and cost effective ways to prevent this disease. HIV/AIDS has become a major development crisis.

HIV/AIDS has done more harm to the productive age group of both developing and developed countries than good to sustainable development. The health condition of the developing countries are deteriorating because of lack of improved medical technology, development of and better access to public health services particularly clean water, sanitation and food safety control in the developing countries.

Efforts should be on education, especially of girls and women, to make a difference, because wives and mothers who are knowledgeable about healthier lifestyles play a crucial role in reducing risks to their family health. If you are sexually active, protect yourself against HIV by practicing safer sex. Whenever you have sex, use a condom or “dental dam”. When used properly and consistently, condoms are extremely effective.

If you are injecting drugs of any type, including steroids, do not share syringes or other injection equipment with anyone else.

Several drugs can be taken to help prevent a number of opportunistic infections, including pneumocystis carinii pneumonia, toxoplasmosis, cryptococcus and cytomegalorirus infection. Once opportunistic infections occur, the same drugs can be used at higher doses to treat them.

Everyone can play a role in confronting the HIV/AIDS epidemic, in the following ways:

- Talk with young people you know about HIV/AIDS.
- Sponsor an AIDS education event or fundraiser with your local school, community group or religious organization.
- Local government officials to provide adequate funding for AIDS research, prevention education, medicare, and support services.

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HIV and AIDS Pandemic and Sustainable Development


BRIDGING THE GENDER EDUCATIONAL GAP BY USE OF COMICS AND CARTOONS TO TEACH PUPILS

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Abstract
Gender educational gap in Nigeria has become an issue. This study investigated the gender disparity in the learning achievement of pupils taught by use of comics and cartoons in Enugu South Local Government Area of Enugu State, Nigeria. The instruments were cartoon sheets and comic strips, achievement tests, and observations. The data were analysed using standard deviation. The study found out that girls achieved significantly higher than boys when taught reading using cartoons and comics as against using the conventional method of teaching reading. It was recommended that the use of cartoons and comics in the teaching process should be introduced in the curriculum of schools in Nigeria as a way to bridge the gender educational gap in the country.

Introduction
Gender educational disparity is an issue in Nigeria, where various discriminations against women and girls still thrive. Girls are denied the right of schooling or prematurely withdrawn from school for child marriage, child labour, and other girl-child unfriendly practices. Many of the girls that attend school often lag behind the boys because of discriminatory parental care, which often tilts in favour of educating the males, who are entrusted with preserving the family name, lineage and heritage. The result is widening gender inequality (Eneh, 2000).

The Universal Basic Education was launched in Nigeria in 1999, making education compulsory up to the Junior Secondary level.
Other measures to minimize the gender educational gap need to be introduced in the education system in the country. This study investigated the possible bridging of the gender educational gap by the use of comics and cartoons in the teaching process. Specifically, the study was aimed at finding out whether there is gender related differences in the achievement of pupils exposed to the use of cartoons and comics in teaching reading.

**Conceptual and theoretical framework**

Reading means recognizing letters and groups of letter as symbols that stand for particular sounds. The sounds, in turn, form words that express ideas in written or printed form (Lundsteen and Tarrow, 1981). Reading opens up the world of books to children and gives them valuable skills to unlock words and react to ideas in print.

Poor educational performance and the attendant drop from school have been traced to weakness in reading. Table 8.1 shows the results for English Language for the May/June West African Senior Secondary Schools Certificate Examinations 1998-2003.

**Table 8.1: English language results of SSC Examination, May/June 1998 - 2003**

<table>
<thead>
<tr>
<th>Year</th>
<th>Total entries</th>
<th>Total Sat</th>
<th>% Pass in credits 1-6</th>
<th>% failure</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td>694,227</td>
<td>689,245</td>
<td>32.54</td>
<td>52.46</td>
</tr>
<tr>
<td>1999</td>
<td>697,736</td>
<td>499,555</td>
<td>23.70</td>
<td>56.30</td>
</tr>
<tr>
<td>2000</td>
<td>726,138</td>
<td>636,064</td>
<td>10.81</td>
<td>64.18</td>
</tr>
<tr>
<td>2001</td>
<td>1,099,987</td>
<td>1,025,027</td>
<td>26.07</td>
<td>43.02</td>
</tr>
<tr>
<td>2002</td>
<td>1,215,832</td>
<td>909,888</td>
<td>24.57</td>
<td>42.61</td>
</tr>
<tr>
<td>2003</td>
<td>1,066,831</td>
<td>929,271</td>
<td>24.53</td>
<td>33.81</td>
</tr>
</tbody>
</table>

Source: WAEC Zonal Office, Enugu

Only 32.54% of the candidates obtained “credit” passes (grades 1-6) in 1998, 23.70% in 1999, 10.81% in year 2000, 26.07% in 2001, 24.57% in 2002, and 24.53% in 2003 (WAEC, 2004).
Bridging the Gender Educational Gap by Using Comics and Cartoons

One way to build interest in learning is by the use of comics and cartoons in teaching reading. Cartoons are preparatory drawings; any large sketch or design on paper, which represents scenes with or without reproduction of sounds, and are usually humorous. On the other hand, comics are a series of drawings that tell the sequence of a story in picture forms (World Book Encyclopedia, 2001).

Cartoons and comics are adventure stories in picture form, presenting the daily but dramatic activities of people. They help to explain complicated subjects, and contain valuable information in teaching or entertainment forms. The use of cartoons and comics as instructional materials brought about a new relevance to the educational system in America and beyond. They were added to give more information and boost the narrative flow of stories. Cartoons and comics have been used and found effective in teaching in America. They have been found to be effective in teaching Igbo L2 (Igbo as 2nd Language) in Lagos State of Nigeria. They have also been found to be effective in teaching French language. They may be effective in teaching reading (Winsor, 1980 and Hand, 2000).

Materials and Methods
The quasi-experimental design was used in the study. Specifically, the non-randomized experimental/control group, pretest–posttest design was adopted because the experiment was carried out intact-classes. Intact-classes were used to avoid disruption of normal classes. For this reason, there was no randomization of pupils into treatment and control groups (Table 8.2).
The study was carried out in Enugu South Local Government Area (LGA) of Enugu State of Nigeria. The target population of the study was all the 861 Primary Two pupils enrolled in the 25 primary schools in Enugu South LGA in the 2004/2005 school year (State Primary Education Board, SPEB, Enugu). The reasons for the choice of Primary Two are:

(i) The conventional method of teaching is most prevalent at this level.
(ii) Pupils at this level need to be given an early start with correct instructional materials and method in teaching reading.
(iii) Pupils of this level are within the “sensitive age” for the introduction of reading as recommended by Montessori (1970-1952) in Ellis (1975).
(iv) The comic audience consists mainly of children between the ages of seven and eighteen (Robinson, 1981), and Primary Two pupils are seven years plus.

First, purposive sampling technique was used to select two primary schools, based on the following criteria:
1. The Schools are public schools.
2. The teachers of the classes are of the same sex (female).
3. These teachers possess the same professional qualifications (TC II and N.C.E certificates).
A 30-pupil intact-class was randomly sampled from each of two primary schools in Enugu South LGA (Uwani area of Enugu Urban). This gave a total of 60 pupils. The one served as Treatment Class, while the other served as Control Class. The Treatment Class contained 12 male pupils and 18 female pupils. The Control Class contained 16 male pupils and 14 female pupils. Thus, total number of male pupils in the Treatment and Control Classes was 28, while the female pupils totaled 32 for both classes. Each of the classes was used intact because the school authority did not allow randomization of pupils into treatment and control groups to avoid disruption of normal classes in the school.

The instruments used for the study were:

(i) Comic strips and cartoon sheets;
(ii) Observation schedule; and
(iii) Achievement tests.

Two different researcher-made achievement tests were used to assess reading comprehension of the pupils. The two classes were observed by the researchers during reading lessons with the following aims:

(i) Identification and spelling of objects on the flash cards; and
(ii) Establishing reading fluency.

Cartoon sheets and comic strips (teaching aids), based on the topical content in the module from the National Primary Education Commission Curriculum, were prepared and presented to the teachers of the Treatment Class. These teachers were trained and used as research assistants. They taught the lessons and administered the tests. The teachers also recorded the scores. On their part, the teachers of the Control Class repeated the teaching process without comics and cartoons. The researchers did the observation and monitoring in both classes.
The period of reaching lasted for three weeks. The topics were based on the content in the module. The content was ‘Passages describing actions in the past’ and taken week by week as arranged below:

i) Week 1: Identification of letters of the alphabet and letter sounds.

ii) Week 2 Topic: Mrs. Agu the school teacher.
    Step I: Use of flash cards to introduce key objects in the first cartoon sheet. Step II: Reading of the comic sequence.
    Step III: Questions based on the cartoon sheets.

iii) Week 3 Topic: Chika and his school.
    Step I: Use of flash cards to introduce key objects in the second cartoon sheet.
    Step II: Reading of the comic sequence.
    Step III: Questions based on the cartoon sheet.

Results and Discussion
Table 8.3a contains the gender performance in reading when comics and cartoons were not used in teaching.

Table 8.3a: Gender performance in reading without using comics and cartoons in teaching.

<table>
<thead>
<tr>
<th>Groups</th>
<th>Gender levels</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td>Total</td>
<td>Male</td>
<td>Female</td>
<td>Total</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>X</td>
<td>SD</td>
<td>N</td>
<td>X</td>
<td>SD</td>
<td>N</td>
<td>X</td>
</tr>
<tr>
<td>Treatment</td>
<td>12</td>
<td>1.76</td>
<td>0.08</td>
<td>18</td>
<td>1.77</td>
<td>0.09</td>
<td>30</td>
</tr>
<tr>
<td>Control</td>
<td>16</td>
<td>1.73</td>
<td>0.04</td>
<td>14</td>
<td>1.72</td>
<td>0.06</td>
<td>30</td>
</tr>
<tr>
<td>Total</td>
<td>28</td>
<td>3.49</td>
<td>0.12</td>
<td>32</td>
<td>3.49</td>
<td>0.15</td>
<td>60</td>
</tr>
</tbody>
</table>

When the pupils were taught reading without comics and cartoons, the male pupils in the Treatment Group had a mean score of 1.76, while the females had 1.77, showing an inconsequential difference between the performance of the males and females. In the Control Class, the males had a mean score of 1.73, while the females had 1.72. Again,
Bridging the Gender Educational Gap by Using Comics and Cartoons

there was insignificant difference between the performance of the males and females.

Table 8.3b contains the gender performance in reading when comics and cartoons were used in teaching.

Table 3b: Gender performance in reading, using comics and cartoons in teaching

<table>
<thead>
<tr>
<th>Groups</th>
<th>Gender levels</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td>Total</td>
<td></td>
</tr>
<tr>
<td></td>
<td>N  X</td>
<td>SD</td>
<td>N  X</td>
<td>SD</td>
</tr>
<tr>
<td>Treatment</td>
<td>12 3.50</td>
<td>0.08</td>
<td>18 8.72</td>
<td>0.06</td>
</tr>
<tr>
<td>Control</td>
<td>16 1.75</td>
<td>0.03</td>
<td>14 2.00</td>
<td>0.06</td>
</tr>
<tr>
<td>Total</td>
<td>28 5.25</td>
<td>0.06</td>
<td>32 10.72</td>
<td>0.12</td>
</tr>
</tbody>
</table>

The average performances were 1.77 for females and 1.76 for males when teaching was done without comics and cartoons. This is in line with other research findings that girls generally perform better in reading than boys. Doman (1994) maintained that boys do better in subjects like mathematics and sciences than in reading. Jans (1997) opined that boys manifest traits such as competitiveness and leadership in class and are less interested in reading and languages. Also, female pupils achieved significantly better than their male counterparts, especially in tasks relating to verbal concepts studies (Mansaray, 1988; Okeke, 1994; and Eze, 1999).

According to a recent work, only 51% Level III male pupils passed into Level IV Class in English (broken into reading and writing), compared with their female counterparts with 63%. Also, 38% of the male pupils passed into the said Level IV Class, whereas 49% of female pupils passed the examination in 1997. Still in 2005, only 89% of boys passed the examination to Level IV, as against 91% of girls who passed the same examination in England (Sewell, 2006).

When comics and cartoons were used in teaching reading, the male pupils in the Treatment Group had a mean score of 3.50, up from the score of 1.76 when comics and cartoons were not used. This
showed 98.9% improvement in learning reading by males when comics and cartoons are used in teaching upon when they were not used. The females had a mean score of 8.72, up from the score of 1.77 when comics and cartoons were not used.

Learning reading improved for both male and female pupils taught reading with comics and cartoons, from when they were taught without comics and cartoons. But, the experiment showed 392.66% improvement in learning reading by females when comics and cartoons are used in teaching over and above when they were not used. It also showed that learning reading by females was better enhanced (by 392.66%) when the pupils were taught with comics and cartoons, than in the case of males enhanced by 98.9%.

Since, reading is a formidable tool for acquiring education, using comics and cartoons in teaching it will bridge the gender educational gap. While the males will move at a rate of 98.9% improvement, females will move at a rate of 392.66%, until the gap is bridged.

**Conclusion and Recommendations**

This study discovered that teaching reading with cartons and comics improved the performance of female pupils in reading better than it did for boys. The introduction of the use of comics and cartoons in teaching reading in schools is therefore recommended as a means of bridging the gender educational gap in Nigeria.

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Bridging the Gender Educational Gap by Using Comics and Cartoons


EFFECTS OF OIL EXPLORATION ON AGRICULTURE AND NATURAL RESOURCES IN THE NIGER DELTA REGION OF NIGERIA

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Abstract
An assessment review of the impact of oil exploration activities on agriculture and natural resources in the Niger Delta Region of Nigeria was carried out. The study showed that oil exploration activities adversely impacted specifically on soil/land resources, aquatic life/fisheries, water resources, crops, livestock and forests/vegetation. Oil spills have degraded most agricultural lands, reduced the availability of fish and fish products, caused the pollution of surface and ground water resources, destruction of arable and tree crops and death of farm animals in the region as a result of toxic materials in the soil and polluted water. Oil exploration activities have also resulted in the disappearance of some forest vegetation and animal species, including primates, fish, turtles and birds. The ultimate result of these impacts is a drastic reduction in farm productivity and animal farm income. Key policy recommendations include capacity building and empowerment of women and youths in the region as well as the establishment of a separate functional department of Agriculture and water resources within the newly created Ministry of Niger Delta Development (MNDD). Oil companies in the region should incorporate large scale agricultural development and natural resources management programmes in their community interventions.
Introduction:

The Niger Delta Region

The Niger Delta is a vast flood plain endowed with forests and wetlands that are built up by the accumulation of secondary deposits washed down by the Niger and Benue Rivers. The area is composed of four (4) ecological zones. These are:

- The Coastal barrier islands: The coastal barrier island forests are the smallest of the ecological zones in the Niger Delta. They are largely intact and have high concentration of biodiversity.

- The mangroves: The mangrove forest of Nigeria is the third (3rd) largest in the world and the largest in Africa. Over 60% of this mangrove is found in the Niger Delta.

- The fresh water swamp forests: These are considerably large forests that succeed the mangroves and continue in low lying places along water ways inland in the forest zone.

- Low-land rain forest: Although vegetation untouched by human activity probably no longer exists in Nigeria, logging and agricultural encroachment are degrading the forest zone (Ibeakuzie, 2001).

Population Characteristics: The Niger Delta states are generally more densely populated than the rest of the country, with a population density that is over the average population density of 100 persons/km² for Nigeria as a whole (Table 9.1). The population densities per habitable area are much higher where swamps and potential flooding restrict housing to the relatively small area of higher elevation (IFAD, undated).
Table 9.1: Population and Number of LGAs and Wards in the Niger Delta States

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<tr>
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<tbody>
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<td>17</td>
<td>185</td>
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<tr>
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<tr>
<td>Ondo</td>
<td>18</td>
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<td>3,218,332</td>
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<tr>
<td>Rivers</td>
<td>23</td>
<td>321</td>
<td>4,470,176</td>
<td>5,185,400</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>138</td>
<td>2,111</td>
<td><strong>21,324,405</strong></td>
<td><strong>31,224,577</strong></td>
</tr>
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</table>

The 1991 census indicated that the population of the Niger Delta Region was about 20 million people. This represents about one quarter of Nigeria’s population. With an estimated annual growth rate of almost 3%, this population will have grown to about 26 million in 2001 and is likely to double in about 15 years.

The census indicates the age distribution of the households showing a high dependency ratio with about 50% in the age category of 14 and below indicating that the population is growing at a fast rate. Many of the rural population are in the age category of 21-50 years and not many of the younger generation want to remain in the rural areas.

**Agriculture/Farming Activities:** Arable crop, livestock and fisheries production constitute the primary occupation of the majority of the population in each of the Niger Delta states. The main crops produced in the region include cassava, yam, cocoyam, sweet potato, maize, rice, grain legumes, melon (egusi), and different types of vegetables. Tree crops in the area include oil palm, rubber, cocoa, coconut, banana, plantain, guava, paw-paw, citrus, pine-apple, mango, bread fruit, etc.
Livestock rearing is an important socio-economic activity among the people. Major livestock species in the area are goats, sheep, rabbit, pigs and poultry. These animals are managed under traditional management practices. The population also depends on artisanal fisheries for their livelihood with such identifiable groups as fishers, fish processors, fish marketers, boat builders, net fabricators and outboard engine mechanics. Artisanal fisheries resources account for 70-90% of the annual income generated by the people. In addition, there is great potential for aquaculture development in the region.

Non-farm/fishing occupations are primary sources of income for many rural people. These include trading, carpentry, tailoring, masonry, bakery, etc. These activities are mostly small scale in size.

**Social Infrastructure:** In the Niger Delta Region, there is dearth of basic infrastructure, such as health, transportation, education, water and sanitation, power, credit and farm inputs.

With respect to health delivery services, infant and child mortality as well as maternal mortality are still high at 105 per 1000 and 800 per 100,000 births respectively. Health, water and sanitation indicators for the fishing communities are far worse than the national average. Less than 60% of Nigerians have access to potable water. Poor accessibility of the rural communities makes the movement of goods and people difficult with adverse effect on cost of inputs, access to health facilities and other social services. Lack of or poor electricity supply constrains industrial development, processing and preservation/storage of agricultural products in the region. The poor state of infrastructure in the area puts enormous strains on living conditions of the rural population (IFAD, undated).

**Pre-oil Economy in Nigeria**
Before the discovery of crude oil, Nigeria’s economy depended solely on the enormous potential, productivity and vitality of agricultural commodities. From historical records, palm oil became an export commodity for Nigeria as far back as 1558, and by 1830, the Niger
Delta, which now produces crude oil, had become the major source of palm oil which dominated Nigeria’s export list for more than 50 years. Cotton joined the export list in 1856, while cocoa was introduced and became an export crop in 1895. Together with rubber, groundnut, palm kernel and benni-seed in later years, these crops formed the main source of revenue, export and foreign exchange for government to provide social and economic infrastructure. Records show that 72% of the total national output of the economy, GDP, came from agriculture in 1950, as against 1.1% by mining and crude oil.

The dominant role of agriculture in the nation’s fortune continued in 1960 when its contribution stood at 66%, compared to 1.2% from minerals. Also, at independence in 1960, more than 70% of exports came from agriculture, while 95% of the nation’s food needs were locally produced. In 1970, GDP stood at N3.46 million, out of which crude oil contributed 7.5%. In respect of food, the nation was self-sufficient before the era of crude oil. Agriculture provided 95% of the food needed to feed Nigerians, such that food never appeared on the country’s import list until the early 1970s, when crude oil had already upstaged agriculture (Tell, 2008).

Oil Exploration in the Niger Delta Region
Nigeria is the largest oil producer in Africa and the seventh largest on the world. Its total oil production in 2006, including condensates, natural gas liquids and crude oil, averaged 2.45 million barrels per day (bpd), with oil accounting for 2.28 million bpd.

As at January, 2007, Nigeria’s proven oil reserves were estimated at 36.2 billion barrels. With the continuing discovery of new oil wells, it is estimated that by 2010, the nation’s proven oil reserves might increase to about 40 billion barrels.

Each of the states in the Niger Delta Region contributes to the national oil revenue: Delta (30%), Akwa Ibom (22%), Bayelsa (18.20%), Rivers (18.20%), Ondo (7%), Imo (2.52%), Abia 1.40%) and Edo (1%). Despite the estimated crude oil production (23,183.9 million barrels) and revenue (N29.8 trillion) in Nigeria (1958-2006)
from this region (FOS/NBS, 2006) with major contributions to the development of the Nigerian economy, especially in the area of infrastructure, industries and economic activities, oil exploration in Nigeria has generated numerous problems affecting the various sectors of the economy.

According to Hassan et al (2002), the history of oil exploration and production in Nigeria can be divided into three distinct phases based on the pace of exploration activity.

**Phase I: Commencement of Oil Exploration Activities in Nigeria (1908-1956)**

This phase began as far back as 1908 when the Nigerian Bitumen Corporation was granted license to exploit the bitumen deposits which were traced from the occurrence of tar in cretaceous rock outcrops in areas around Araromi in the present Ondo State. The pioneering efforts, however, ended with the outbreak of the First World War in 1914. The effective exploration of Nigerian petroleum started again in 1937. The Shell D’Archer (fore-runner of the present Shell Petroleum Development Company of Nigeria) was given the sole concessionary rights covering the whole territory of Nigeria. The activities were suspended from 1939 to 1945 due to World War II.

**Phase II: Oil Exploration Activities Continue (1961-1971)**

As Nigeria became independent in 1960, it allowed oil companies from other nations outside Britain and USA to participate in petroleum exploration activities in the country under this second era of petroleum exploration activities. With progressive Government policies and legislation, more areas became available for oil companies to explore. During this period, oil had become a significant energy source.

**Phase III: Government participating Interest in Oil Companies Operations (1971-date)**

The third phase of Nigeria exploitation history covers the period when she joined the Organization of Petroleum Exporting Countries (OPEC)
in July 1971. OPEC member nations under Resolution 16 Article 90 of 1968 were enjoined to acquire participating interest in the operations of the oil companies in their respective countries. Government would contribute proportionately to the cost of carrying out the oil operations of each company as well as receive its share of production in the same proportion.

The Effects of Oil Exploration on Agriculture and Natural Resources

The effects of oil exploration and production activities on the agricultural sector of the Niger Delta region could be examined in the context of soil/land resources, aquatic and livestock, forest resources/vegetation as well as farm labour and farm income.

Soil/land resources: All stages of oil exploration impact negatively on the environment, especially on the land. Oil spills have degraded most agricultural lands and have turned hitherto productive areas into wastelands (Odjuvwuedehie et al, 2006). With increasing soil infertility due to the destruction of soil micro-organisms, and dwindling agricultural productivity, farmers have been forced to abandon their land, to seek non-existent alternative means of livelihood.

According to Chindah and Braide (2000), oil hamper proper soil aeration as oil films on the solid surface acts as a physical barrier between air and the soil. In fact, oil pollution affects the physiochemical properties of the soil, such as temperature, structure, nutrient status and pH. Oil spillage also causes the release of liquid hydrobous and other toxic chemical substances into farmlands and surroundings which hamper agricultural output and productivity (Awobajo, 1981). Ifeadi and Nwankwo (1989) observed that in Nigeria about 62.8% of the oil spill incidents occurred on farm lands.

A major impact is the reduction in the availability of fish products, such as small fish, Cray fish, and other marine products, like
periwinkle crabs and frogs. These fish products are now relatively expensive.

Secondly, oil spill as a result of the oil exploration get the fishing nets stained thereby making them unusable if not properly cleaned up. Again, the heavy construction equipment and pipes of the oil companies often tear the fishermen’s nets. This is a common occurrence which the fishermen suffer without any compensation by the oil companies. Thirdly, most fishing ground has been taken over by either construction exploration sites/new platform or oil wells. This adversely affects the total output of fish products as a result of decreased fishing activities by the fishermen in the region (Hassan et al., 2002).

Naturally, fishing is the predominant activity in the coastal areas with men concentrating on the capture and female engaging in the processing of the fish. The activities of the oil companies have seriously affected local livelihoods due to water pollution, take-over of fishing grounds by equipment and installation and damage to fishing nets. Men are forced to go further out to sea for fishing which is more time consuming and dangerous. Women can no longer easily harvest small fish and marine products in the nearby streams and swamps. Fuel wood for sale and fish processing is also less prevalent (Hassan et al., 2002).

**Water Resources:** Water is as important as land as a factor of production in the Niger Delta region of Nigeria. Oil explorations in the area adversely cause pollution of surface and ground water alongside and indiscriminate dumping of municipal waste. Once there is oil spill on water, it spreads and undergoes a series of chemical process including evaporation, emulsification, photo-chemical oxidation and degradation. Oil slicks in the aquatic environment cause direct lethality and sub-lethal disruption of physiological and behavioural activity which leads to death owing to the interference with both feeding and reproduction. Other consequences are direct coating or
painting of water entry bodies of hydrocarbons into the food wall and alternation of biological habitat (Akpofure, 2000).

In the absence of potable water in majority of the communities, the citizens, who are predominately farmers and fishermen, depend on polluted water source for drinking and domestic uses. This indirectly and adversely affect the health conditions as well as the agricultural productivity of the farming population in the Nigeria Delta States.

**Crops and Livestock:** The inhabitants of most communities in the Niger Delta States grow plantation, yams, cassava, coconuts, groundnuts, potatoes and other crops. They also rear livestock, such as goat, sheep, pig, and poultry. Oil spill emanating from petroleum activities had negatively impacted on the farmlands of the communities. Crops are visibly withered due to the presence of toxic materials in the soil, a major blow to a population that depends on farming for its survival. Trees also gradually withered as a result of the effects of oil spills. (Abiola, 2002).

Lots of livestock (e.g. goats and sheep, etc.) die when they drink polluted water. Dead animals line the shore of streams, rivers and canals and progressively decay and generate odour that contaminate both the water and the surroundings. However, a health hazard associated with this condition is not yet determined. The Environmental Right Action (ERA) (1998) reported the death of 800 pigs at Miagen, 376 pigs, 84 cows and 120 sheep at Bale-Nla and the death of over 3,260 animals in total during the Chevrons’ oil spill in Ilaje, Ondo State, Nigeria in July 1998 (ERA, 1998).

A study on the effect of oil spill on crops production in the Niger delta reported that oil spill on crops causes great damage to the plant community (Chindah and Braide, 2000). Oiled shoots of crops, like pepper and tomatoes, may wilt and die off due to blockage of stomata which inhibits photosynthesis, transpiration and respiration.

In fact, germination, growth performance and yield of these crops are stifled by oil spillage (Anoliefo and Vwioko, (1994). In a study by Odjuwuedrhie *et al* (2006), the result showed that oil spill
reduced crop yield and productivity and greatly depressed farm incomes. A 10 percentage increase in oil spill reduced crops yield by 1.3 percent, while farm income plummeted by 5 and above percent.

**Forests/Vegetation:** Vegetation in the Niger Delta comprises extensive mangrove forest, brackish swamps forests, and rainforests. The large expanses of mangrove forests are estimated to cover approximately 5,000 to 8,580 km$^2$ of land (Nwilo and Olusegun, 2007).

Poor land management upstream from human impacts, coupled with the constant pollution of oil, has caused five (5) to ten (10) percent (%) of these mangrove forest to disappear. Both the volatile, quickly penetrating, and viscous properties of oil have wiped out areas of vegetation.

The effects of oil spills on mangroves are known to acidify the soils, halt cellular respiration and starve roots of vital oxygen (MERCK, 2007).

The loss of mangrove forests is not only degrading life for plants and animals, but humans as well. Mangrove forests have been a major source of wood for local individuals. They also provide essential habitat for rare and endangered species like the manatee and pygmy hippopotamus, including primates, fish, turtles and birds (Alexa, 2006).

**Farm Labour and Income:** Agriculture forms the most dominant economic activities in the Niger Delta region. Crop farming and fishing activities accounts for about 90% of all forms of activities in the area. About 50-68% of the active labour force are engaged in one form of agricultural activity or the other, including fishing an farming (Worgu, 2000; FOS, 1985).

Oil extraction and production has led to adverse environmental impact on the soil, forestry and water of the Niger Delta communities. This has ultimately affected peasant agriculture in a variety of ways, which have caused problem of environmental refuges. Some of the landless farmers migrate to other more fertile lands in other
communities putting pressure on scarce fertile lands. It contributes to deforestation through further encroachment on forest land and reduction in fallow times. Some of the displaced farmers, however, out-migrate to the urban areas in search of other means of livelihood.

The out-migration of the rural displaced farmers in the Niger Delta region as a result of environmental degradation caused by oil extraction in the region has led a significant percentage of the local inhabitants to remain in cyclical poverty and penury. This has meant greater environmental degradation as a result of the intensive exploitation of the few remaining fertile land in the region by the residents. It has also led to increasing urban blight in the urban areas in the region as more and more displaced rural inhabitants flood the urban areas in search of non-existent jobs (Worgu, 2000).

The displacement of farmers and the consequent out-migration of these farmers to other communities and urban areas drastically reduce their farm productivity and annual farm income. This also leads to unavailability of farm labour for farming and fishing activities in most communities of the Niger Delta States.

**Fisheries/Aquatic resources:** The fishing industry is an essential part of the Nigerian economy because it provides the much needed protein and nutrients for the populations. Higher demand for fish and fish products, amidst oil exploration in the Niger Delta, lead to over-fishing, climate change, habitat loss and pollution, which add pressures to these important ecosystem or marine communities (Molles, 2005). The Niger River is an important ecosystem that is home to 36 families and nearly 25 species of fish, of which 20 are endemic, meaning there are found nowhere else on earth (WWF, 2006).

**Conclusion and Recommendations**

Oil exploration activities have had serious impacts on agriculture and natural resources in the Niger Delta region, resulting in land/soil infertility, low yield of crops and death of fishes and other aquatic resources as well as livestock. It has also led to the emergence of
farmer refugees who relocate to other fertile lands, communities and urban areas, thereby putting pressure on available natural resources (e.g. forest/vegetation).

In the light of the above, the following recommendations are pertinent:

1. The newly created Ministry for Niger Delta Development (MNDD) should have a Department of Agriculture and Natural Resource with focus on agricultural development and national resources conservation and/or sustainability in the region.

2. The oil companies and other multinationals operating in the Niger Delta region should incorporate agricultural development and natural resources management programmes in their community development projects as a matter of priority. In order to achieve significant result, they should further partner with government and Non-Governmental Organizations (NGOs), target communities and other key stakeholders in the design, planning and execution of these programmes in the Nigeria Delta States.

3. The Federal Ministry of Environment (FME), in collaboration with the Ministry for the Development of the Niger Delta region, should work to enforce all environmental laws, policies and regulations guiding oil exploration activities in the Niger Delta region in order to safeguard the available natural resources and ensure sustainable livelihood and poverty reduction in the region.

4. There is the need for a well articulated capacity building programme for women and youths on income generating activities to mitigate natural resources degradation and increasing poverty in the Niger Delta communities. The National Poverty Eradication Programme (NAPEP) should anchor this project with the support of development partners and other key stakeholders in the Niger Delta States in order to achieve the desired objectives.
5. There is the need for further research on the socio-economic impacts of oil exploration as well as gender-poverty, natural resources and development linkages and issues in the context of oil exploration activities in the Niger Delta region. Research findings will provide the required benchmark for designing and implementing relevant development project interventions.

References


Environment Rights Action, ERA, (1998), Chevron’s Oil Spill in Ilaje in Nigeria’s Ondo State, Akure: ERA.


UNEMPLOYMENT CONUNDRUM: AN ANALYSIS OF DATA-BASED TRENDS, GOVERNMENT AND OTHER INTERVENTIONS, SOLUTIONS AND IMPLICATIONS FOR NIGERIA’S DEVELOPMENT

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Abstract
Nigeria’s population growth rates have been high at 3.2% in the late 1980s and 2.83% in the early 1990s. On the other hand, the employment generation rate in the real sector was low at 3.34% between 1999 and 2005. The public service employment, which was embargoed between 1986 and 2000, was zero. Yet, schools were churning out graduates, school leavers and school drop-outs, who drifted the streets. These factors combined to yield unemployment conundrum in Nigeria. About 28.9% of people in 15-24 age brackets have no job. The intervention programmes of successive governments have not helped matters. This paper reviews the unemployment conundrum in Nigeria, analyzing the data-based trends, government and other interventions, solutions and implications for Nigeria’s development. It recommends a number of measures, including the urgent revision of the curricula of the Nigerian educational system in line with the “appropriate education technology” approach, to address unemployment and underemployment in Nigeria.

Introduction
Nigeria’s population growth rates have been high at 3.2% in the late 1980s and 2.83% in the early 1990s (National Planning Commission
and UNICEF, 1995 and 1998). On the other hand, the employment generation rate in the real sector was quite low at 3.34% between 1999 and 2005 (National Bureau of Statistics, 2006: 52). Employment in the public service, which was embargoed between 1986 and 2000, was zero.

Yet, educational institutions annually churn out graduates, school leavers and school drops-out, who drift the streets in search of gainful employment or social vices of various shades and dimensions. The spread of educational access may be the single most significant development achievement of Africa in the past three decades (World Bank, 1988). In Nigeria, the number of primary and secondary schools rose annually by 12.72% from 55,598 in 2001 to 69,744 in 2003 (25.44% total increase). Total primary and secondary student enrolment rose by 438% from 6 million in 1975 to 32.3 million in 2003 (2.44% annual increase). The number of teachers in primary and secondary schools rose by 22% from 0.63 million in 2001 to 0.77 million in 2003 (11% annual increase) (Enueme, 2004; National Bureau of Statistics, 2006).

Similarly, Nigeria’s first indigenous university, the University of Nigeria, Nsukka, for instance, started in 1960 with 255 students in six foundation departments (Economics, Mathematics, Political Science, Sociology, English and History) in three faculties of Social Sciences, Natural Science and Arts. But, by the year 2000, the student population had risen by 11,638% to 30,047, giving an annual increase of 315%. The number of departments also rose by 1,567% from 6 to 100 (42.34% annual increase), while the number of faculties rose by 400% from 3 to 15 (10.8% annual increase) (UNN, 2001; Mbanefo, 2003).

The relative success of these educational efforts has backfired in unemployment conundrum. About 28.9% of people in 15-24 age brackets have no job. Unemployment is being created because practical skills are not being taught. There is no integration between the country’s needs and schools curricula. While Nigerian policy makers look to agriculture and private sector to spearhead economic
growth, courses and textbooks – largely inherited from colonial masters – have little to do with farming and entrepreneurship. Hence, school leavers and graduates are neither employable nor enterprise-ready. The intervention programmes of successive governments have not helped matters. The biggest challenges are to give the students functional education and to generate employment (Outreach No. 75).

Methodology
Employing the critical, theoretical and documentary research methods, this paper reviews the unemployment conundrum in Nigeria, analyzing the data-based trends, government and other interventions, solutions and implications for Nigeria’s development. It recommends a number of measures, including the urgent revision of the curricula of the Nigerian educational system in line with the “appropriate education technology” approach, to address unemployment and underemployment in Nigeria.

Definitions
Unemployment is defined as a state of worklessness. However, this definition is too general to be satisfactory because several categories of people who are without work should not really be regarded as unemployed. The Labour Code prescribes lower (15 years) and upper (60 years) age limits for the labour force or those who can be legitimately regarded as either working or available for work. All other age brackets fall outside the labour force. When such people are without work, even though they may be willing and able to work, they do not feature in unemployment statistics. Even within the age limits for labour force, there are people who should not be regarded as unemployed, even though they may be idle. These include the mentally and/or physically challenged – lunatics, cripples, beggars and others living on alms or charity, full-time students and trainees, members of the armed forces, housewives who devote their time entirely to looking after the home, etc. A minimum period of idleness is also considered in qualifying a person as unemployed. This period
varies from country to country: one or two days in some countries, one week in Nigeria and 3 months in other countries (Falae, 1971).

Underemployment exists when persons in full-time employment would be able and willing to do more work than they are actually performing, or when the income or productivity of persons in employment would be raised if they worked under improved conditions of production or transferred to another occupation, account being taken of their occupational skills. But, this definition is too general to be applicable, considering that every worker’s income and productivity would rise with improved technology and working conditions. A worker is underemployed if he worked less than a prescribed minimum number of hours per week. The degree of underemployment is a function not only of the hours worked but also of the efficiency of the work performed (Falae, 1971).

According to the International Labour Organization, ILO, (1963: 30-31),

The Rate of Underemployment = \( \frac{W - W_n}{W} \)

Where, \( W_n \) is the objectively desirable number of workers under existing technology required to produce a given output (O)

\( W \) is the number of workers who actually produce the output

Underemployment is exemplified in the engagement of dismissed labour in low-productivity and low-income activities, like the selling of match-boxes or the cutting and selling of firewood. These incentives enable those affected to subsist. In other words, the productivity of the underemployed is low, but positive. Disguised unemployment exists when, with agricultural techniques remaining unchanged, a large part of the population engaged in agriculture could be removed without reducing agricultural output. The marginal productivity over a wide range is zero (Falae, 1971).
All people have the same basic physical needs of food, water, shelter, clothing, health care, and the need to earn a living, as well as emotional needs - things which make us happy, make life worth living, such as love and self-respect. Emotional and physical needs are closely intertwined. For example, a person must work to get food to eat and a shelter, but having work to do also adds greatly to his self-respect (Outreach No. 74).

Man utilizes the education and technology he has acquired to work to get his needs. Education is not only a process of transmitting the cultural heritage, but also a means of developing the entire person to enable him live effectively and efficiently in the society (to take part in the present) so that he may advance it (make civilization of the future). It is the acquisition and the art of utilization of knowledge. It is not a matter of acquiring paper qualification, but functionality and utility. Meaningful knowledge is not ornamental, but must be utilizable. Knowledge must be acquired for application, not for window dressing. It must impact and change the possessor; otherwise, learning has not taken place (Ukeje, 1984).

Technology is a tool, machine or method used to undertake activities in nearly every aspect of life, including growing crops and preparing food, harnessing energy, collection and purification and storage of water, building structures, etc.

Appropriate education technology is one that calls for (Outreach Nos. 74 and 75):

✓ using the environment as much as possible when teaching, because the environment offers a rich source of teaching/learning material, and learners are able to gain knowledge skills and attitudes of the world around them through personal contact and experience;

✓ placing the emphasis not on the study of books, charts or passing examinations - useful as they may be – but, upon the acquisition and application of science knowledge, skills and attitudes for the purpose of improving the environment and the students’ living conditions;
the terms: explain, show, learn, grow, demonstrate, name, think, describe, etc., as directed at the student and not at the teacher, running through the syllabus, and implying that during and after the course students should be able to explain, demonstrate, etc.;

- some activities being planned for the whole class or small groups to be repeated or practiced by individual students at home and at school;

- the syllabus encouraging the teacher to make the teaching activity-based through student’s investigation, experimentation, exploration and demonstration;

- the teacher adapting the syllabus to the existing circumstances and to the school environment;

- the goal of teaching being to change student’s attitude and behaviour – and not for ‘head knowledge’;

- the syllabus employing a spiral approach which enables key topics to be recycled at different age-levels, to ensure that the subject matter and the desired skills and attitudes are gradually but thoroughly acquired;

- about 70% of the units in the syllabus to be covered over a number of years and 30% of the subject being devoted to the environment;

- the emphasis being on subjects that relate to local conditions, bringing the village into the classroom and marrying the school to the community;

- embracing “conservation education” which goal is to improve natural resource management and reduce environmental damage. This helps people to become aware of the value of the natural resources and the ecological processes that maintain them. It shows people what threatens the well-being of their environment and how they can contribute to its improved management. It motivates people to do what they can to improve environmental management. These three objectives distinguish conservation education from other types of education.
Increasing Educational Facilities in Nigeria

Educational facilities have tremendously increased in Nigeria since political Independence in 1960. Table 10.1 shows the rise in student enrolment in primary, secondary and tertiary educational institutions between 1975 and 2003.

**Table 10.1: Student enrolment in primary, secondary and tertiary institutions between 1975 and 2003**

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</tbody>
</table>


Total primary and secondary student enrolment rose from 6 million in 1975 to 32.3 million in 2003. Total student enrolment in tertiary institutions rose from 0.71 million in 2001 to 1.13 million in 2003.

Table 10.2 shows the expansion in the number of schools between 2001 and 2003. The number of primary and secondary schools rose from 55,598 in 2001 to 69,744 in 2003. The number of tertiary institutions rose from 214 in 2001 to 237 in 2003.

**Table 10.2: Expansion in the number of schools between 2001 and 2003**

<table>
<thead>
<tr>
<th>Year</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Primary and Secondary Schools</td>
<td>55,598</td>
<td>58,779</td>
<td>69,744</td>
</tr>
<tr>
<td>Total Tertiary Institutions</td>
<td>214</td>
<td>229</td>
<td>237</td>
</tr>
</tbody>
</table>


Table 10.3 shows the increase in teacher strength between 2001 and 2003.
Table 10.3: Increase in teacher strength between 2001 and 2003

<table>
<thead>
<tr>
<th>Description</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Number of Primary and Secondary Teachers</td>
<td>0.63m</td>
<td>0.66m</td>
<td>0.77m</td>
</tr>
<tr>
<td>Total Number of Teachers in Tertiary Institutions</td>
<td>27,339</td>
<td>36,099</td>
<td>40,245</td>
</tr>
</tbody>
</table>


The number of teachers in primary and secondary schools rose by 22.2% from 0.63 million in 2001 to 0.77 million in 2003 (11.1% annual increase). The number of teachers in tertiary institutions rose by 47.2% from 27,339 in 2001 to 40,245 in 2003 (23.6% annual increase).

Growing Army of Unemployed School Leavers and Graduates

Increasing educational facilities notwithstanding, unemployment rate has grown into the unacceptable double digit level. Table 10.4 shows the rates of unemployment among school leavers and graduates, their age-groups and sex in 2001.

Table 10.4: Unemployment rates among school leavers and graduates, their age-groups and sex in 2001

<table>
<thead>
<tr>
<th>Description</th>
<th>Year 2001</th>
</tr>
</thead>
<tbody>
<tr>
<td>National (composite) unemployment rate</td>
<td>13.7%</td>
</tr>
<tr>
<td><strong>Educational level</strong></td>
<td></td>
</tr>
<tr>
<td>No schooling</td>
<td>12.8%</td>
</tr>
<tr>
<td>Primary school leavers</td>
<td>8.7%</td>
</tr>
<tr>
<td>Secondary school leavers</td>
<td>13.0%</td>
</tr>
<tr>
<td>Graduates of tertiary educational institutions</td>
<td>9.5%</td>
</tr>
<tr>
<td><strong>Age group</strong></td>
<td></td>
</tr>
<tr>
<td>15-24</td>
<td>28.9%</td>
</tr>
<tr>
<td><strong>Sex</strong></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>10.4%</td>
</tr>
<tr>
<td>Female</td>
<td>14.1%</td>
</tr>
<tr>
<td><strong>All groups</strong></td>
<td>11.8%</td>
</tr>
</tbody>
</table>

The national unemployment rate stood at 13.7% in 2001. Among the unemployed were 12.8% of people who did not attend school, 8.7% of people who attended primary school, 13% of people who attended secondary school, and 9.5% of graduates of various tertiary educational institutions. About 29% of people in 15-24 age brackets had no job. Also, the unemployed included 10.4% male and 14.1% female.

In an earlier study, it was observed that a whole army of Nigeria’s youth leaves the early childhood education section, another army leaves the primary schools, another army leaves the secondary schools, and yet another army graduates from tertiary institutions of learning every year with nothing to show for the cumulative years spent in schools except dysfunctional certificates and the attendant disaffection and resentment (Eneh, 2008).

On the other hand, there is dwindling employment in the Manufacturing and Production sector (Table 10.5).

Table 10.5: Dwindling employment in the Manufacturing and Production sub-sector

<table>
<thead>
<tr>
<th>Economic activity</th>
<th>Total employment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1999</td>
</tr>
<tr>
<td>M &amp; P</td>
<td>1.92m</td>
</tr>
</tbody>
</table>


Despite increased population and number of school leavers and graduates produced within the period by numerous schools and tertiary institutions, employment in the Manufacturing and Production sub-sector dwindled from 1.91 million in 1999 to 1.84 million in the year 2000. It also dwindled from 1.94 million in 2001 to 1.85 million in 2002, and from 1.99 million in 2004 to 1.91 million in 2005.

Table 10.6 shows the employment in the Agricultural sub-sector.
Table 10.6: Employment in the Agricultural sub-sector

<table>
<thead>
<tr>
<th>Economic activity</th>
<th>Total employment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1999</td>
</tr>
<tr>
<td>Agric</td>
<td>76,540</td>
</tr>
</tbody>
</table>


Employment in the Agricultural sub-sector was very low at 76,540 in 1999. It did not significantly improve even by 2005, when it stood at 123,761. Yet, the key sectors that drive employment generation efforts are Agriculture and Manufacturing & Production (NEEDS-2, 2008).

The trend contrasts with the unemployment figures of the 1960s (Table 10.7).

Table 10.7: Statistical profile of unemployment (1966/7)

<table>
<thead>
<tr>
<th>Activity</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unemployment</td>
<td>1.7% of 15-55 age groups 8% in urban areas 0.5% in rural areas 2.4% male 0.86% female</td>
</tr>
<tr>
<td>Underemployment</td>
<td>20% of agricultural work force 18% of non-agricultural work force 19.7% average</td>
</tr>
</tbody>
</table>

Source: Falae, 1971

Unemployment rate was 1.7% among 15-55 age groups in 1966/7. The rate was 8% in the urban areas and 0.5% in rural areas, 2.4% for male and 0.86% for female. Underemployment rate was 20% for agricultural work force and 18% for non-agricultural work force, and an average of 19.7%.

Unemployment was not an issue in the 1960s in Nigeria. As far as the First National Development Plan (1963-68) was concerned, unemployment could not have been an important national problem, for
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nowhere was it given anything more than a passing treatment. In the Programme of the Western Regional Government, unemployment consideration was left out entirely in the listing of investment criteria.

In justifying the introduction of Education Reforms in Nigeria, the Federal Ministry of Education alluded to the unemployability of the products of educational institutions from Nigeria, which has generated corresponding rise in crime rate in the country (Federal Government of Nigeria, 2007b). In tandem with the observations and submissions from the Federal Ministry of Education, the Nigeria Association of Petroleum Explorationists (NAPE) lamented that Nigerian graduates lacked in the skills required in the oil and gas industry, which actually accounts for about 90% of the nation’s revenue base, adding that there was the need to bridge the observed gap in knowledge and skills in order to meet the expectation of employers in the oil and gas industry.

NAPE also observed a low quality turnout of geo-science graduates in the country, which in the last 20 years had only increased from 20 to about 100, and blamed the shortfall on dilapidated geo-science education facilities in the country’s tertiary institutions. It noted that those who had the skills in the oil and gas industry were ageing and that the oil and gas companies needed to invest in human capital development (Daily Sun, 2007).

In a similar development, the Manufacturers Association of Nigeria (MAN) complained that Nigerian universities were not providing workers to meet their needs. In the not-too-distant past, our university graduates were prized jewels sought after at home and abroad by employers of labour. But, the reverse is now the case. Corporate organizations demonstrate some level of caution in engaging our university products, who are hardly functional and utility-based. In fact, each year the Nigerian higher institutions of learning produce no fewer than 130,000 graduates, out of which only 13,000 (10%) get employed and others roam the streets (Makinde, 2007; Saturday Sun, 2007; Eneh, 2007).

Factors Responsible for Unemployment in Nigeria
NEEDS-2 (2008) submits that causes of unemployment are:

1. Three per cent (3%) population growth rate within a dependence ratio of 62.8% in December 2004;
2. High level of urbanization;
3. A disconnect or mismatch between skills acquired by graduates (people study what nobody wants);
4. The non-technical orientation of education and the defective character of economic growth;
5. Limited impact of government direct employment generation efforts;
6. Use of inappropriate technology;
7. Failure to properly mainstream employment generation into the national economic system.
8. Weak sectoral linkages as a result of low value added production and export,
9. Persistence of supply side constraints including inadequate/poor infrastructure, such as power, pipe-borne water, health facilities, etc.,
10. Inadequate attention given to the informal sector,
11. Limited complimentary efforts by the lower tiers of government,
12. Weak public-private sectors partnership in employment generation,
13. The character of agricultural practice, fraught with subsistence farming that is drudgery with low productivity and high post harvest losses,
14. Inadequate knowledge of or failure to focus on modern international investment priorities, especially in ICTs and other services that are knowledge-based but have high employment creation capacity, and
15. Inability of Nigerians to enter the global supply chains or create production chains that have employment generation at too low level in the country.
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Other factors fingered for the unemployment in Nigeria are the Structural Adjustment Programme (SAP) and Privatisation/Commercialisation of state owned enterprises (SOEs). In particular, the World Bank imposes the SAP - planned economic reform to reduce imports, promote “free market” policies, and relax state controls - as a pre-condition for its loans for development programmes in developing countries (DCs).

The late 1970s witnessed the global oil-glut. As nations felt the effects, they began to respond to it. As a measure to contain the glut, SAP was introduced in 1986 by the Babangida Administration. This led among others to:

1. Embargo on employment (which was lifted 16 years later in the year 2000 by the Obasanjo democratic government);
2. Devaluation of the Naira Nigerian currency;
3. Wage freeze;
4. Abolition of price controls;
5. Increase in interest rates;
6. Removal of import control;
7. Cuts in government expenditure.

Currency devaluation reduced the power of the national currency in the world market. It gave rise to inflation and more expensive imports. This affected the real sector. Manufacturing concerns began to limp, as they could no longer afford the new high exchange rate for imported raw materials and spare-parts of plants and machinery. They began to operate below installed capacity, and had to retrench redundant workers. Indeed, many of them soon went under.

Wage freeze added to the inflation arising from currency devaluation to compound the problems of the working class. Abolition of price controls and deregulation of downstream sector engendered further inflation, affecting savings, investment and demand for goods.
Increase in interest rates made local loans more expensive to service and unaffordable. With soaring cost of capital, manufacturing activities dwindled further. Removal of import controls encourages the importation of more goods, which are unaffordable with devalued currency.

Cuts in government expenditure meant less budget for social services, such as health, education, electricity, roads, water and others. It also meant cut or removal of subsidies given to government parastatals and SOEs, and their subsequent privatization and commercialization.

**Evil Effects of Unemployment**

The bad effects of unemployment are predicated on the evils of enforced idleness. Labour is a factor of production, and therefore, a national resource or asset. Its under-utilization in the form of unemployment or underemployment is forgoing resources for national production and consumption. This capacity under-utilization means national under-fulfilment. Man is not just an agent of production, but his aspiration is the *raison d’être* for national development. Unemployed citizen is unable to fulfill his aspiration. Unemployment could mean outright starvation or serious malnutrition, poor health, frustration and a feeling of being unwanted. Persistent unemployment destroys self-confidence and causes a feeling of hopelessness, which could lead to attempted or successful suicide, mental illness, alcoholism, or drug addiction. Alcoholism and drug addiction are capable of causing ill-health. Frustration can lead to crime and violence, which constitute a source of fear and danger to society. Unemployment is a potential threat to political stability, since the unemployed are understandably volatile politically and are favourably disposed to listen to utopian promises by ambitious politicians.

**Government and Other Interventions**

In 1963, the Federal Government introduced a programme for the expansion of small-scale industries as a means of providing
employment for school leavers. But, due to administrative or political indecision, the programme moved back and forth until it either died a natural death or was overtaken by the civil war.

On their part, the Eastern and Western Regional Governments, in pursuance of their policy of modernizing agriculture, introduced Farm Settlements as a way of making modern farmers of school leavers. But it had marginal or ineffective impact on unemployment because, \textit{inter alia}, the capital cost of settling each farmer was too high, probably due to fraudulent over-capitalization, and there are only a few thousand settlers (Falae, 1971).

To address unemployment engendered by SAP, the Babangida Administration established:

1. The National Directorate of Employment (NDE) to design and implement programmes to combat mass unemployment;
2. The National Economic Reconstruction Fund (NERFUND) to fund the activities of micro, small and medium enterprises;
3. Peoples Bank and Community Bank, to bring capital closer to cottage industrialists.

Other government interventionist measures to tackle unemployment include the:

4. National Poverty Eradication Programme (NAPEP), and

NEEDS targeted the creation of about 2 million jobs between 2003 and 2007. It took the following measures to enhance employment generation:

(a) Strengthening and deepening of poverty related agencies, such as the NDE and NAPEP;
(b) Establishment of the Virtual Poverty Fund (in 2006 Federal Budget);
(c) The Presidential Initiatives in Agriculture;
(d) The Micro Finance Policy/Framework;
(e) The creation of Federal Roads Maintenance Agency (FERMA) that adopts a direct labour based technology in its operations; and
(f) Creation of conducive environment for the private sector to generate most of the employment.

Ogbe (2008) submits that these interventions have failed to meet the yearnings and aspirations of Nigerians, adding that unemployment is still very much with us. There was a national composite unemployment rate of 12.58% from 2003 to 2006 and 30% average national youth unemployment rate between 2003 and 2005, giving incentives for deviancy, high crime rate and frequent conflicts. Nigeria obviously experienced growth without employment (NEEDS-2, 2008: 311).

**Implications of Unemployment for Nigeria’s Development**

There is a nexus between unemployment, poverty, deviancy, conflicts, social upheavals, insecurity and their implications for investment, growth and national stability. The incessant ethnic militia activities border on joblessness; hardly has any profitably employed person been found to abandon his work for such national anti-economic mischievous activities. Many foreign investors have withheld their plan to invest in Nigeria because of the insecurity conundrum. Anxiety mounts from time to time, peace evades so many in the country. Worse still, the ugly situation appears protracted, and there seems to be no solution in view, despite chicken-hearted laws being passed in State Houses of Assembly, whose members have been variously accused of being party to the militia deal.

**Solutions to the Unemployment in Nigeria**

In the past, some prescriptions against unemployment include (Falae, 1971):

(a) Use of labour intensive methods;
(b) Population; and
(c) Keeping the labour force in agriculture.

Government must adopt a holistic approach, focusing on both the demand and supply sides of the labour market to address the unemployment problem in the short to medium term. The policy objective should aim at substantial reduction in both unemployment and underemployment and improving the Nigerian worker productivity. To this end, there is the need to:

1. Pursue the smaller size families with appropriate incentives and adequate advocacy.
2. Put measures in place to reduce rural-urban drift.
3. Develop sub-urban areas.
4. Provide rural infrastructure, services and education.
5. Develop a technology-driven growth strategy that is more inclusive.
6. Develop a two-pronged strategy focusing on the private and public sectors.
7. Provide enabling environment for the private sector to thrive.
8. Explore opportunities in SME and agro-based enterprise.
9. Address the security situation, especially in restive areas.
10. Maintain macroeconomic stability, including ensuring fiscal and monetary policy co-ordination.
11. Enhance the linkage between multinational corporations and local micro, small and medium enterprises (MSMEs).
12. Institute and sustain MSMEs advisory and support services to assist MSMEs.
13. Encourage the modernization and capacity building for labour unions, employers associations and labour ministries for continuous healthy dialogue.
14. Promote cluster formation to increase the productivity of constituent firms, the capacity of innovation and stimulating new business formation.
15. Promote business partnerships and consortia.
16. Promote measures to ensure prompt payment of local contractors.
17. Sustain industrial peace with creative use of tripartism for engaging in social dialogue.
18. Mainstream decent work elements into the industrial system.
19. Emplace appropriate incentives for the development and use of appropriate technology to improve agricultural production, processing and preservation as well as MSMEs growth and development.
20. Put in place measures to facilitate access to Small and Medium Enterprises Equity Investment Scheme (SMEEIS) funds.
21. Ensure human capital development through functional education, skills acquisition and entrepreneurship growth and development.
22. Develop and encourage a code of social consciousness and skills acquisition in the private sector, using industrial attachment and NYSC schemes and mentoring.
23. Resuscitate the Technology (Industrial) Incubation Centres
24. Institute fiscal incentives to encourage research and development.
25. Set employment targets for sectors and industries and monitor compliance.
26. Finalize and rigorously implement a focused oil and gas policy targeted at increased local content, domestic jobs creation and activities in the Nigerian oil and gas operations.
27. Develop local technology capacity.
28. Survey and mainstream the activities in the informal sector into the national economic system through capacity building, upgrading of technologies and skills, formation of cooperatives and associations to become major players in employment generation.
29. Adoption of labour-based or appropriate technology in public sector activities.
30. Put employment creation at the centre of public investment to make growth more inclusive, pro-poor, pro-rural, more gender sensitive, technologically and environmentally friendly, provide safety nets to the vulnerable groups, infuse more competition into the contracts tendering and procurement processes, take the youths off the streets, thereby denying miscreants the opportunity of recruiting them for their nefarious activities and enhance the development of the local economy.

31. Switch from equipment-based to labour-based technology to increase labour content for some types of public works.

32. Revise urgently the curricula of the Nigerian educational system in line with the “appropriate education technology” approach to address unemployment and underemployment in Nigeria.

33. Teach practical skills to children. In Britain, it is still being advocated that children as young as 9 years old should be taught trades, such as carpentry, construction, catering, hospitality, tourism and bike maintenance, because technological advances reduce the number of jobs available to unskilled workers and turn ‘an army of unemployed’ teenage drifters into ‘an army of the unemployable.’ Teaching practical skills in primary schools would stop pupils becoming disillusioned with learning. Practical skills should not be confined to those who struggle academically. Some of these children could be introduced to the trades instead of being drilled to pass national tests in English and Mathematics (Clark, 2007).

**Conclusion and Recommendations**

High population growth rate, expanding educational facilities and very slow employment generation rate have combined to give rise to unemployment conundrum in Nigeria. A teeming population of unemployed school leavers and graduates of tertiary educational institutions roams the streets in search of unavailable white collar jobs.
Some have failed to meet the expectations of the local labour market, for having no skills or unmarketable certificates and enterprise-unreadiness.

The government measures to contain the challenges arising there-from are mere palliatives, far from cure. An urgent revision of the curriculum of the Nigerian education system in line with appropriate education technology approach has become imperative. Education in Nigeria should be re-directed at relating the activities of schools to the social and economic needs and day-to-day life of the people of Nigeria, thereby providing the requirements of industry, commerce, entrepreneurship and society.

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Unemployment Conundrum: Implications for Nigeria’s Development


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PERCEPTIONS OF HELPING AND NON-HELPING PROFESSIONALS ON CHILD LABOUR IN NSUKKA URBAN

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Abstract
Child labour, a global social problem, has attracted a lot of attention locally from individuals, groups and international organizations. Despite efforts to curb it, the problem still lingers. Peoples’ perception of things, their choice of a profession, and their professional training could influence the way they perceive such social vices. This study, therefore, investigated the perceptions of Helping Professionals (HPs) and Non-Helping Professionals (NHPs) on the forms of child labour and the factors that sustain it in Nsukka town. Using a survey design, a sample of 240 was drawn from parents in selected professionals in Nsukka. A 30-item questionnaire, designed and validated by the researchers, was used to collect data. Means, and standard deviations were computed to answer 3 research questions and T-test was used to test 2 hypotheses that guided the study. Results showed that the perceptions of HPs and NHPs on existing forms of child labour are similar. No significant difference was observed in their perception of factors that sustain child labour. Implications of these for anti-child labour activities were discussed and recommendation made with the
most common forms being wheel barrow pushing, street hawking and engaging children in domestic work for long hours.

**Introduction**

The issue of child labour is not a novel phenomenon that is beginning to manifest in Nigerian society. Rather, it is one of the numerous social problems of global concern for which Nigeria is not excluded. This problem has attracted the attention of educationist, researchers and international organizations like International Labour Organization (ILO), United Nations International Childrens Emergency Fund (UNICEF) and African Network for the Prevention and Protection of Child Abuse and Neglect (ANPPCAN) and other local groups that are interested in matters that revolve on the right and protection of the child.

Child labour is an aspect of child abuse. International labour organization, ILO (2002) refers to child labour as conditions where children below the age of 15 years are engaged in work or employment with the aim of earning livelihood for themselves or their families. ANPPCAN (2002) perceives child labour as a deliberate act designed by persons, group or society to inflict injury on a child or which prevents the child’s mental, physical, emotional and moral development. From these, child labour can be said to be a practice whereby a child under age of 15 years is prematurely engaged in works for long hours under conditions that negatively affect the child’s overall development. In essence, this practice involves destructive and exploitative treatments which manifest devastating effects on the development and well being of the child.

According to ILO (2002) about 250 million children between ages 5 and 14 years in developing countries are engaged in workforce. Of this 170 million are subjected to hazardous working conditions. UNICEF (2004) reveals that 100-200 millions of children work in both industrialized and developing countries as labourers. African children between ages 10 – 14 years constitute 25% of this number. In Nigeria, 12 – 15 million children are victims of child abuse as a result of abject

Studies have revealed that there is existence of child labour in Nigeria. This is exhibited in forms such as street hawking, domestic servants, child beggars, wheel barrow pushers, hotel attendants, plate washers in eating places, bus conductors, commercial sex workers, industrial and agricultural child labourers. (Oruwari, 1997; Ebigbo, 2003; Nnodum, 2006; Agulanna & Ibe, 2006; Osiruemu, 2007) These researchers have adduced reasons for the diverse nature and sustainability of child labour in the society. Among these are poverty, large family size, educational and socio-economic status of parents which are found to be the most significant factors fostering child labour. Other factors include age of parents, hunger and broken homes.

According to Maduewesi and Emenogu (1993) many parents in Onitsha are guilty of child labour because of their business oriented way of life. Hence, children are coerced into parents’ businesses irrespective of their tender ages. These children are made to hawk all sorts of things, push wheel barrows, wash plates in eating homes etc thereby denying them of school experiences. Nnachi and Uba (2003) noted that boys were the greatest victims of child abuse. Dantiye and Haruna (2004) noted that in Jos that child labour in terms of hawking was on the increase. The reason for this being the harsh socio-economic imperatives of the society. According to these researchers, hawking by girls was perceived by parents as a means of attracting suitors early for their daughters as well as a means of generating finance for the purchasing of items to be used during the marriage celebrations.

Similarly, Anagbogu (1999) noted that the need to meet up with family’s demands accounted for parents’ involvement in child abuse with child labour being practiced more in urban than in the rural cities. Parents who indulge in child abuse generally must have experienced early parental abuse. Daraven (1998) asserted that such parents perceive it as a normal way of training and socialization the child to becoming a strong, independent and income generating
individual. Oleribe (2007) on the other hand opined that the failure of government in curbing child labour was basically due to utilization of wrong principles hinging on operational cultural concepts rather than poverty or hunger in the nation. According to him, Nigerians need to have a re-orientation with regards to her cultural concepts of poverty, comparison of children by parents, laziness, parental past life experiences and that of incompetence. These he termed as 5 cultures of child labour that must be changed.

Child labour has been largely criticized on the grounds of its negative effects on the child specifically and the society in general. This practice exposes the child to barrage of problems such as sexual abuse, unwanted pregnancies, road accidents, contraction of sexually transmitted diseases like syphilis, gonorrhoea, Human Immuno Virus/Acquired Immuno Deficiency Syndrome (HIV/AIDS) to list but a few. It also predisposes a child to incidences of physical and psychological abuse which most often result in negative behaviours in children such as alcoholism, gambling, cultism, smoking and stealing.. (ILO 2001; Nnochi 2004; Mallum, 200).

Perception involves cognitive processes by which an organism’s sensory experience is organized and given meaning. It refers to how individuals view things and themselves in relation to their environment. According to phenomenological theorists, an individual’s interaction with his or her environment influences both his views and the environment. Peters and Schetzer (1974: 20) write that “Each person within an organization behaves within his own framework of reference. His perception in turn influences decision making process”. One’s perception is really one’s reality. As such, things are perceived differently and consequently react to things and issues differently. The problem of child labour is bound to be perceived differently by different people and therefore likely to elicit different reactions from different sets of people.

Helping profession is a term used to describe professionals in some occupations, including Counsellors, Social workers, Psychotherapists, Doctors, Nurses, etc. Basically, these people are
involved in interaction with other persons to bring about positive improvement or modification or enrichment in person’s behaviour. It describes people who have a nurturing and uplifting contact among people, in which one, a professional (helper) and the other, in need of assistance (helpee). Miller (1974) cited in Okeke (1997) defines helping professionals as those who “use a combination of specialized knowledge and skills, within a relationship which will enable people to cope more effectively with ordinary and extra-ordinary dilemmas and paradoxes which are characteristic of human life as they experience it”.

Helping professionists are *sine qua non* to Hollands (1959) personality type classified as Social or Supportive individuals who tend to gravitate towards person-oriented occupations such as teaching, counselling, nursing, preaching, social work etc. This class of individuals is naturally gregarious and derives comfort and joy in social interactions. On the other hand, the non-Helping professionals include those of personality types classified by Holland (1959) as Realists and Intellectuals who are non-person oriented individuals like engineers, doctors and architects. These persons are skilled in motoric things and in theorizing. According to this personality typology, an individual’s occupation to a large extent is exemplified in his/her personality type and the way the person perceives things.

The problem of ineffectiveness of previous approaches to stopping child labour motivated the researchers into adopting a fresh approach to this problem. They view child labour as a form of interpersonal relationship between the child and the adult, a helper and a helpee. In the training of helping professionals Patterson as cited in (Carkhuff, 1969: viii) insists that trainees are taught as helpers not to remain aloof from helpees, ‘presenting a mask and providing a sterile natural atmosphere but to be ruled by ‘agape’ or love which is characterized by high involvement, caring deeply, unconditionally, and non-judgmentally.

Carkhuff (1969: xii) describes the effective helper as one who
views the helpee as he views himself and would do anything for the helpee ... such an individual is committed to personal and intimate involvement with the helpee . . . there is no limitation to the helper’s commitment to himself or the helpee. . . He is committed to nourishing constructive forces and fighting destructive ones both within and between individuals whenever and wherever he finds them..

It is for this reason that the researchers suspect that the role of child labour will be appreciated more by persons in the helping professions and if so, they could be more easily mobilized to fight the social malaise.

Nsukka town is basically a university town and a zonal headquarters with markets and businesses that service the university community and some civil servants. Although, no documented study of child labour in Nsukka has been seen by the researchers, one observes different forms of child labour in the town such as street hawking by children and commercial wheel barrow pushing.

Child labour has been largely criticized because of its negative effects on the child and society. Efforts of local, national and international organizations to eradicate it has not succeeded. The way this social problem is perceived by different professionals could contribute to their awareness of the problem and of the factors that sustain it and consequently influence their preparedness to fight it. This study therefore seeks to find out if helping and non-helping professionals differ in their perception of the existence of child labour and factors that sustain it in Nsukka town.

The main purpose of this study is to ascertain the existence of child labour in Nsukka urban and identify the factors that sustain it. Specifically the study will provide a comparative survey on the perception of helping and non-helping professionals on the forms of
child labour that exists in Nsukka urban and the investigate factors that sustain child labour in Nsukka urban.

Research Questions
The following three research questions guided the study:

1. What are the most common forms of child labour in Nsukka urban?
2. Do the perceptions of the forms of child labour differ between Helping Professionals (HPs) and Non-Helping Professionals (NHPs)?
3. Will there be any differences in the perceptions of HPs and NHPs in factors that sustain child labour in Nsukka?

Null Hypotheses
Two null hypotheses below, which were tested at 0.5 level of significance, guided the study.

\[ H_{01} \] There is no significant difference between the perceptions of those in Helping Professions (HPs) and Non-Helping Professions (NHPs) on forms of child labour in Nsukka urban.

\[ H_{02} \] There is no significant difference between the perceptions of HPs and NHPs on factors sustaining child labour in Nsukka.

Methodology
Design: The cross-sectional survey design was used in this study so that the researchers can make generalizations about the forms of child labour and factors that sustain it in Nsukka town from a sample. This design was chosen because of its economy, the rapid data collection it offers, and the possibility of identifying attributes of a population from a small group of individuals (Cresswell, 1994).

Area of Study: Nsukka urban was chosen as an area of study because of its cosmopolitan nature. In addition, it is a major educational city in Enugu state of Nigeria and has a large population of professionals.
**Population:** The population for this study consists of all parents who are professionals in Nsukka urban. The actual figure of this population is not available anywhere.

**Sample:** Stratified random sampling was employed to select a sample of 240 professional parents. This comprised 114 Helping professionals like Counselors, Teachers and Nurses and 126 non-Helping Professionals, like, Accountants, Physical Scientists and Traders. From each of these strata 40 persons were randomly selected.

**Instrument:** Data was collected using Child Labour Practices Questionnaire (CLPQ) designed by the researchers. This questionnaire consists of three sections. Section A solicited information on respondents’ personal data, Section B demanded information on the forms of child labour in existence in the society while Section C contained items that dealt on factors that sustain child labour. These factors were compiled from literature and personal observations of the researchers. The 30-item questionnaire was on a 4-point likert type scale.

The instrument was subjected to face validation by two peers in Guidance and Counselling and Educational measurement. It was then trail tested on 10 HPs and 10 NHPs the outcome of this led to the deleting of unnecessary items and reframing of the ambiguous ones. Reliability co-efficient for CLPQ was determined using Cronbach Alpha and this yielded a co-efficient value of .74.

**Data Collection:** Copies of the CLPQ were distributed by the researchers with the help of two research assistants. Out of 300 copies distributed 240 copies comprising 114 HPs and 126 NHPs were properly completed, returned and used for the study.

**Data Analysis:** Information collected was coded and analyzed using SPSS.12.5. Means and standard deviation were computed for each item and a criterion mean of 2.5 was used to accept or reject the items which were placed on a 4-point Likert Scale. T-test analysis was employed for testing of the hypotheses at 0.05 level of significance.
Perceptions of ... Professionals on Child Labour in Nsukka Urban

**Results and Discussions**

Means and Standard Deviations were used for answering research questions 1 & 2 as shown in Table 11.1 below.

Table 11.1: *Means and standard Deviations scores of respondents in Helping Professions (HPs) and Non-Helping Professions on forms of child labour*

<table>
<thead>
<tr>
<th>S/N</th>
<th>Child Labour Forms</th>
<th>HPs</th>
<th>NHPs</th>
<th>HPs &amp; NHPs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>( \bar{X} )</td>
<td>SD</td>
<td>( \bar{X} )</td>
</tr>
<tr>
<td>1</td>
<td>Strict hawking by children</td>
<td>3.17</td>
<td>0.87</td>
<td>2.67</td>
</tr>
<tr>
<td>2</td>
<td>Commercial dish washing by children</td>
<td>2.28</td>
<td>1.01</td>
<td>2.13</td>
</tr>
<tr>
<td>3</td>
<td>Engaging children in long hours of domestic work.</td>
<td>2.84</td>
<td>1.03</td>
<td>2.83</td>
</tr>
<tr>
<td>4</td>
<td>Children pushing wheelbarrows in market places.</td>
<td>3.26</td>
<td>0.74</td>
<td>3.15</td>
</tr>
<tr>
<td>5</td>
<td>Children paid for load carrying in markets and motor-parks.</td>
<td>2.70</td>
<td>1.11</td>
<td>2.56</td>
</tr>
<tr>
<td>6</td>
<td>Children molding blocks.</td>
<td>1.91</td>
<td>1.15</td>
<td>2.08</td>
</tr>
<tr>
<td>7</td>
<td>Children carrying concrete blocks etc. in building sites.</td>
<td>2.24</td>
<td>1.12</td>
<td>2.21</td>
</tr>
<tr>
<td>8</td>
<td>Children working as bus conductors.</td>
<td>2.65</td>
<td>1.03</td>
<td>2.60</td>
</tr>
<tr>
<td>9</td>
<td>Children serving as waiters and bar attendants.</td>
<td>2.11</td>
<td>0.88</td>
<td>2.14</td>
</tr>
<tr>
<td>10</td>
<td>Children as commercial sex workers</td>
<td>1.66</td>
<td>0.97</td>
<td>1.67</td>
</tr>
<tr>
<td>11</td>
<td>Children working for over 6 hours in farms</td>
<td>2.56</td>
<td>0.97</td>
<td>2.35</td>
</tr>
<tr>
<td>12</td>
<td>Children servicing as beggars or beggar companions</td>
<td>2.71</td>
<td>1.08</td>
<td>2.39</td>
</tr>
<tr>
<td>13</td>
<td>Children working in factories/industries.</td>
<td>1.77</td>
<td>0.96</td>
<td>1.81</td>
</tr>
</tbody>
</table>

The analysis showed that the most common forms of child labour, as generally perceived by the Helping Professionals (HPs) and Non-Helping Professionals (NHPs), are wheel barrow pushing in...
market places ($\bar{X} = 3.20$), street hawking ($\bar{X} = 2.90$) and engaging children in domestic work for long hours ($\bar{X} = 2.83$), while the least three common ones are children working as commercial sex workers ($\bar{X} = 1.67$) children working in factories and industries ($\bar{X} = 1.80$), and children molding blocks ($\bar{X} = 2.0$). Comparatively while both categories of professionals considered wheel barrow pushing as the most common form ($\bar{X} = 3.2$ and $3.15$) respectively. The HPs ranked street hawking second ($\bar{X} = 3.17$) while the NHPs indicated long hour of domestic labour as second ($\bar{X} = 2.83$). For the third position, while the HPs perceived it to be engaging children in long hours of domestic work ($\bar{X} = 2.84$) the NHPs perceived it to be street hawking ($\bar{X} = 2.67$). Both groups perceived the least common of child labour to be children engaging in commercial sex work ($\bar{X} = 1.66$, $\bar{X} = 1.67$).

It is worthy of note that the HPs saw more forms of child labour in the society than the NHPs (HPs-items 1, 3, 4, 5, 8, 11, 12) (NHPs-items 1, 3, 4, 5, 8). The forms of child labour identified in this study are similar to those identified in previous studies in other parts of Nigeria (Maduewesi & Emenogu, 1993; Dantiye & Haruna, 2004; Nnodum, 2006). That HPs identified more forms of child labour in the society than the NHPs is an indication of their sensitivity to others which is in keeping with expectations of their training (Carkhauff, 1969). That the wheel barrow pushing was perceived as the most common form of child labour is reflective of the poor transport system in Nsukka city. Thus, many children are seen all over the city carrying loads, water and farm products in barrows when they should be in schools. This hinders the physical development of the child especially the girl child.
### Table 11.2: Means and Standard Deviations of HPs and NHPs Perception of Factors sustaining child labour

<table>
<thead>
<tr>
<th>S/N</th>
<th>Sustaining Factors</th>
<th>HPs, n = 114</th>
<th>NHPs, n = 126</th>
<th>HPs &amp; NHPs, n = 240</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>$\bar{X}$ SD</td>
<td>$\bar{X}$ SD</td>
<td>$\bar{X}$ SD</td>
</tr>
<tr>
<td>1</td>
<td>Poverty of parents</td>
<td>3.56 0.79</td>
<td>3.61 0.68</td>
<td>3.59 0.73</td>
</tr>
<tr>
<td>2</td>
<td>Low income of parents</td>
<td>3.38 0.89</td>
<td>3.48 0.70</td>
<td>3.43 0.79</td>
</tr>
<tr>
<td>3</td>
<td>Low educational level of parents</td>
<td>3.24 1.00</td>
<td>3.16 0.86</td>
<td>3.20 0.92</td>
</tr>
<tr>
<td>4</td>
<td>Hunger</td>
<td>3.15 0.94</td>
<td>3.23 1.01</td>
<td>3.19 0.98</td>
</tr>
<tr>
<td>5</td>
<td>Having many children</td>
<td>3.27 0.91</td>
<td>3.06 0.71</td>
<td>3.16 0.81</td>
</tr>
<tr>
<td>6</td>
<td>Lack of social welfare schemes for children</td>
<td>3.18 0.93</td>
<td>3.10 1.02</td>
<td>3.14 0.97</td>
</tr>
<tr>
<td>7</td>
<td>Cost of education</td>
<td>3.14 0.86</td>
<td>3.00 1.01</td>
<td>3.07 0.94</td>
</tr>
<tr>
<td>8</td>
<td>Non implementation of child law</td>
<td>2.71 1.16</td>
<td>2.79 1.03</td>
<td>2.75 1.09</td>
</tr>
<tr>
<td>9</td>
<td>Loss of father</td>
<td>2.63 1.03</td>
<td>2.10 0.89</td>
<td>2.67 0.89</td>
</tr>
<tr>
<td>10</td>
<td>Separation or divorce of parents</td>
<td>2.60 0.97</td>
<td>2.66 1.04</td>
<td>2.62 1.00</td>
</tr>
<tr>
<td>11</td>
<td>Adults seeing themselves and masters imposing duties on children</td>
<td>2.55 0.95</td>
<td>2.52 0.92</td>
<td>2.53 0.93</td>
</tr>
<tr>
<td>12</td>
<td>Loss of mother</td>
<td>2.62 0.90</td>
<td>2.40 0.90</td>
<td>2.50 0.91</td>
</tr>
<tr>
<td>13</td>
<td>Bad behaviour of children</td>
<td>2.39 1.16</td>
<td>2.57 1.03</td>
<td>2.48 1.01</td>
</tr>
<tr>
<td>14</td>
<td>Seeing children as mini adults</td>
<td>2.32 0.12</td>
<td>2.43 1.05</td>
<td>2.38 0.99</td>
</tr>
<tr>
<td>15</td>
<td>Inter-parent comparison of children’s activities/achievements</td>
<td>2.19 0.91</td>
<td>2.47 1.00</td>
<td>2.33 0.97</td>
</tr>
<tr>
<td>16</td>
<td>Using children to do adult works due to adult laziness</td>
<td>2.26 0.99</td>
<td>2.37 0.97</td>
<td>2.32 0.98</td>
</tr>
<tr>
<td>17</td>
<td>Cultural belief in child-labour as a means of socialization process</td>
<td>2.19 1.08</td>
<td>2.18 0.92</td>
<td>2.19 1.00</td>
</tr>
</tbody>
</table>

With regards to research question three on factors that sustain child labour in Nsukka urban, both the HPs and NHPs agreed in descending order on factors 1-12 as the major sustaining factors of...
child labour using criterion mean 2.50 and above for decision rule (see Table 11.2). Furthermore, both groups ranked cultural belief in child-labour as a socialization process lowest. The finding that peoples’ professions did not make a difference in their ideas about what sustains child labour is interesting. Since there is this kind of accord in identifying the sustaining factors, efforts can be jointly directed to these factors to curb the practice. It is worth noting that most of the factors identified are socio-economic and are linked with poverty. Others are governmental and deserve the attention of the government in enforcing laws and providing schemes for children.

**Null Hypothesis I**

Table 11.3: *T-test analysis of HPs and NHPs on forms of child labour*

<table>
<thead>
<tr>
<th>Variable</th>
<th>NPs; n = 114</th>
<th>NHPs; n = 126</th>
<th>df</th>
<th>Cal-t</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forms of child labour</td>
<td>2.45 0.52</td>
<td>2.35 0.48</td>
<td>238</td>
<td>1.53</td>
<td>Not Sig.</td>
</tr>
</tbody>
</table>

Result on the table shows no significant difference between the views of HPs and NHPs on forms of child labour existing in Nsukka urban (calculated $t = 1.53$, df 238, $P < .05$, critical $t = 1.96$). The null hypothesis was therefore accepted. This result implies that child labour actually exists in the city. This finding is in consonance with earlier studies discussed above. Child labour practice needs to be tacked to prevent its ravaging effects on the growth and overall development of the Nigerian children in general and the girl children in particular.
Table 11.4: *T*-test analysis of HPs and NHPs on sustaining factors of child labour

<table>
<thead>
<tr>
<th>Variable</th>
<th>NPs; n = 114</th>
<th>NHPs; n = 126</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>X</td>
<td>SD</td>
</tr>
<tr>
<td>Sustaining factors</td>
<td>2.79</td>
<td>0.42</td>
</tr>
</tbody>
</table>

*P < 0.05, critical t = 1.96*

The data analysis shown on Table 11.4 indicated no significant difference between the views of HPs and NHPs on the factors sustaining child labour in Nsukka. The null hypothesis was therefore accepted. This finding is supported by earlier findings that poverty level of the citizenry and poor wages of parents are major factors sustaining child labour in the society (Agulanna & Ibe 2006; Osiruemu, 2007). The fact that the NPs and NHPs did not significantly differ in their perceptions of the identified sustaining factors, their professional bias notwithstanding had already been discussed above.

**Conclusion and Recommendations**

This study has shown that both parents in helping professions and non-helping professions are aware of the existence of various forms of child labour in Nsukka. They also agree on the factors that sustain it. Having identified these factors, Counsellors individually and as a professional group (CASSON) may want to sensitize other professional bodies to jointly or singly form advocacy groups and work for the examination of the social malaise.

The researchers recommend that government should...

- discourage parents from child labour practice by providing educative programmes that will expose them on the need to handle children humanly so that they can grow to develop their potentials;
• ensure the implementation of the legislation on Universal Basic Education (UBE) and other rights of children;
• reduce poverty of parents by encouraging them in skills acquisition through non-formal education. Such a measure will help reduce their dependency on children in generating family’s income;
• Faith based organizations and schools should serve as agents for the education of parents on the importance of raising healthy, unabused children for development of the nation. Parents Teachers Association will serve as good agents for this purpose;
• NGOs and individuals can also be encouraged to campaign against child labour.

References
Perceptions of ... Professionals on Child Labour in Nsukka Urban


Orwari (1997), “Children and the built environment in Nigeria who should defend their interest in housing provisions,” in Oruwari,


RE-ENGINEERING HIGHER EDUCATION THROUGH PRIVATE SECTOR PARTICIPATION: REFORMS AGENDA

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Abstract
This paper focuses on re-engineering higher education through private sector participation. The study sought to investigate how private sector can participate in higher education. Three research questions and one null hypothesis guided the study. Stratified random sampling technique was used in categorizing the respondents into three groups – higher education administrators, general public and private sector managers. Purposive sample technique was used in selecting 100 higher education administrators, 250 private sector managers and 300 members of the general public. Mean and standard deviation were used in answering the three research questions, while a one-way analysis of variance (ANOVA) was used in testing the null hypothesis. The findings of the study show that there was no significant difference among the three groups of respondents in private sector participation in provision, access, funding, governance and management of higher education. Findings also showed that the private sector needs to participate in the provision of ICT equipment and facilities, offer sponsorship to education workers for international conferences, seminars and workshops, be adequately represented in the governing councils of higher institutions, among others. Schools should offer courses and skills relevant the private sector prevailing labour demand. Implications of the findings were identified. Among the recommendations were: private sector should make a compulsory annual contribution of a specific percentage of their profit before tax to higher institutions, entrepreneurship management (business-like
type) should be adopted in higher institutions while entrepreneurship education should be made compulsory to all students of higher learning.

Introduction
Higher education in Nigeria, like other systems of education worldwide, especially in developing countries, is experiencing millennium challenges. These challenges include competitions and efforts to attain the world-class university status. In today’s globalized economy, Nigeria cannot afford to be left behind in the attainment of millennium goals which is highly dependent on the calibre (quality and quantity) of human resources, especially high level of manpower available to the nation. One of the major roles of higher education is to produce the required high level manpower for sustainable economy.

Higher education, especially in developing countries, is bedeviled by various problems, which became a concern to the world since the mid 1990s. As a result, a mandate was given to UNESCO and the African meetings to find a way of addressing the problems of education in Africa (Obanya, 2002). Consequently, the meeting came up with a number of issues, including identification of the benefits of higher education, such as improved socio-economic status, enhanced earnings and awakening of human potentials.

Other benefits, according to Obanya (2002), are the enrichment of the individual through enculturation, acculturation; acquisition of intellectual skills for the pursuit of self-development, development of affective traits, and family inculcation of lifelong learning skills, which involve acquisition activities, habits, etc. that make one develop the spirit of enquiry and long-term thrust for knowledge. It has been agreed all over the world that there is a sustainable rate of return from costs of higher education. Some benefits of higher education identified by Obanya (2002) include acquisition of generic skills, which involve the acquisition of analytical power, communication, problem solving, team-spirit, creativity, versatility, lifelong spirit, information technology, etc.
These benefits notwithstanding, higher education in Nigeria has been facing various problems, such as lack of continuity in governance, inadequate plan for systematic development which seem to result to incoherent national philosophy of education, frequent disruption of policies and governance and most especially lack of university autonomy, giving rise to interference to the internal running of the university. The above problems gave rise to what Obanya (2002) described as:

- Unplanned expansion, rapid increase in the number of Nigerian higher institutions,
- increasing duplication of courses and programmes; deterioration of physical facilities; inadequate teaching, learning and research facilities; unpredicted increase in students enrollment; upsurge of social ills; internal and external brain drain, among others.

In the face of these countless problems, government still funds universities. Although government claims that higher education takes the lion share of the total funds allocated to education, it is clear that in Nigeria, higher education needs greater funding, as the so called lion share is not enough to “wet the appetite of the roaring lion”. Government, on its part, has publicly stated that it can no longer carry the responsibility alone, hence it needs assistance.

The foregoing problems are not peculiar to Nigeria alone. Meagan Van Harte (2006) observed that government supports the view of high rate of return to higher education. As a result, recipients of and those concerned with higher education are now being involved in sharing the costs of the education. This practice has led to the recent revenue diversification and cost sharing in most universities in the world.

Due to the accruing benefits of higher education, there is an increased demand without equivalent supply of higher education. Thus,
social ills, such as examination malpractices and overpopulation in higher institutions, are consequent upon inadequate facilities. Secret cult activities abound in the institutions. All these gave rise to poor quality and low standard of higher education. Higher education in Nigeria currently requires re-engineering, such that the private sector can participate in providing the necessary assistance demanded by government. This implies involving the private sector in higher education administration, such as provision of access, funding, improvement, governance and management.

In support of the above observation, Fagbamiye (2005) asserted that education calls for greater support of all and sundry because education is a private and also a social investment that have to be shared by individuals, employers, government and other groups. In line with the above assertion, Oboegbullem (2001) observed that achieving quality education and greater efficiency in financing higher education, lies in mobilizing greater private resources to sustain the dwindling public resources in the universities.

Private sector in Nigeria include private universities, polytechnics and colleges of education, private companies and organization, religious bodies, individuals, philanthropists, international organizations, professional organizations, and non-governmental organization (NGOs).

Re-engineering higher education involves a number of reform activities which include problem identification, research policy alternatives, evaluation of outcomes, implementation of policies and feedback.

The target of most universities world over is to become world class universities. The framework for assessing world class universities has been identified by El-Khawas (2001) as flexibility and responsiveness. She identified four areas of this framework as access to quality teaching and learning, financing, management and governance. For the purpose of clarity, the areas of this framework will be discussed and their current position in Nigeria, highlighted.
Flexibility implies non rigidity and ill-preparedness to change, while responsiveness involves changing to situations. It explores appropriate ways to adapt or change to responsive actions or situations. Access to higher education implies supply of higher education to meet the prevailing demand and attain equilibrium. Studies have shown that Nigeria has not been able to give access to higher education to many qualified students seeking admission to higher institutions. The National University Commission (NUC 2002) indicates that in Nigeria, access rate was above 10% only in 1996/97 session. In 1997/98, it was above 10%, but it fell below 20% in 1998/99 and further to 10% in 2000/2001 session. This indicates that only about 17.2% of candidates were able to enroll in Nigerian universities.

Also, when compared with other countries of the world, Nigeria ranked lowest in participation in higher education per 10,000 inhabitants world over, which was recorded as follows: Europe 3,288, countries in Transition 2,602, South African 1,524; other Less Developed Countries 824, whereas Nigerian participation was far below the others. For instance, in 1998/99, Nigeria recorded 677 per 100,000 inhabitants.


<table>
<thead>
<tr>
<th>Year of Application</th>
<th>Admission</th>
<th>%Admitted</th>
<th>%Denied</th>
</tr>
</thead>
<tbody>
<tr>
<td>1993/94</td>
<td>420,567</td>
<td>64,684</td>
<td>15.4</td>
</tr>
<tr>
<td>1994/95</td>
<td>451,734</td>
<td>71,568</td>
<td>15.8</td>
</tr>
<tr>
<td>1995/96</td>
<td>512,797</td>
<td>37,498</td>
<td>7.3</td>
</tr>
<tr>
<td>1996/97</td>
<td>475,923</td>
<td>79,904</td>
<td>16.8</td>
</tr>
<tr>
<td>1997/98</td>
<td>419,807</td>
<td>72,791</td>
<td>17.3</td>
</tr>
<tr>
<td>1998/99</td>
<td>340,177</td>
<td>78,550</td>
<td>23.1</td>
</tr>
<tr>
<td>1999/2000</td>
<td>417,773</td>
<td>78,550</td>
<td>18.8</td>
</tr>
<tr>
<td>Total</td>
<td>3,038,868</td>
<td>483,545</td>
<td>15.9</td>
</tr>
</tbody>
</table>

Source: Compiled from JAMB Records, Research, and Monitoring Evaluation Department 2001.

The data in Table 12.1 indicate that access to Nigerian universities falls below expectation. The data show that out of the
3,038,868 candidates who applied for admission into Nigerian Universities between 1993/94 and 1990/00 only 483,545 or 15.9% were offered admission, while 2,553,323 or 84.1% were denied admission.

Although efforts have been and are still being made by government to increase access to higher education in Nigeria, the fact still remains that Nigeria’s current stand on access to higher education, falls short of world class standard.

Quality teaching and learning in higher institutions in Nigeria is still a mirage. In addition to poor infrastructure, inadequate teaching and learning materials, Nigerian higher institutions still retain their curricular longer than their counterparts in developed countries. According to Hartnett (2001), the delays in constant reviews and changes in curricula lead to slow adjustment in science and technology. Higher education supervisory bodies, NUC, National Board for Technical Education NBTE) and the National Commission for Colleges of Education (NCCE) do re-accreditation of programmes every five years. This implies that existing curricula will not be reviewed until after the accreditation, when the supervisory bodies may have pointed out necessary changes, and where this is not done, the programme continues with the existing curricula till the next accreditation exercise. This implies that in Nigeria the curricula can last for ten years. There is also little or no innovations both in curricula and pedagogy in higher institutions in Nigeria (Hartnett, 2001). Dropout rates range above 50%.

The 1990/91 session NUC accreditation exercise in the universities revealed that only 11% out of 1,185 of the programmes in the universities got full accreditation and in the year 2000 the figure decreased, with only 21% of 830 programmes getting full accreditation (NUC 2002). Based on this, the quality of Nigerian universities was adjudged below standard.

Added to the poor quality of university programme is the supply of inadequate educational product to the labour market. In fact, higher education in Nigeria has been described as being labour-blind.
It is observed that administrative policies of higher education are not in the interest of individual student’s interests, but mainly to the senior secondary school (NECO, WAEC, or NABTED) grade, leading to absence of knowledge coalitions.

It is often said that no education can rise above the quality of its teachers. Higher education in Nigeria seems to lack quality programmes and also quality teachers and so Nigeria may find it difficult to attain world-class university standard in the near future. World Bank (2002) observed that Nigeria ranked least among the world scientists and engineers engaged in research and development. It is sad to note that Nigeria has only very few (15) scientists compared with developed countries, like India having 158, China 459, and USA 4,103 (Task Force, 2000). With very low instrument in research capacity and education, world class research and scientific publications may not easily be increased, if serious policy and administrative changes are not made.

These setbacks have been attributed to a number of factors including brain drain, strikes, lack of employee motivation, weak accountability of education. Efforts to address these problems and attain the world-class standard call for re-engineering and re-positioning of our higher education.

Appropriate funding will lead to increased access and quality of programmes and graduates adequately educated with appropriate careers for the labour market and above all sustainability of the economic development in Nigeria. Unfortunately, funding of higher education has been and is still a big problem due to poor per capital income and consequent low Gross National Product (GNP). Adeniran (2002) referred to the situation as the greatest challenge to education in the millennium.

Currently, higher education in Nigeria is basically funded through government support and students contributions, which is only about 1% of recurrent expenditure (Ade-Ajayi, 2001). Government is responsible for 100% capital expenditure, but has never been able to do so. For instance, from Table 12.2 showing the level of funding in the
Nigerian university system between 1990 and 2001, it could be observed that the amount received was less than what was requested for.

Table 12.2: **Level of Funding in the Nigerian University System, 1990-2001**

<table>
<thead>
<tr>
<th>Year</th>
<th>Total requested by Universities (in Naira)</th>
<th>Total amount received by Universities (in Naira)</th>
<th>Amount received as % of amount requested</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>1,216,601,329.00</td>
<td>734,770,950.00</td>
<td>60.40</td>
</tr>
<tr>
<td>1991</td>
<td>1,453,291,051.00</td>
<td>783,816,895.00</td>
<td>53.93</td>
</tr>
<tr>
<td>1992</td>
<td>3,663,212,945.00</td>
<td>2,985,237,346.00</td>
<td>81.49</td>
</tr>
<tr>
<td>1993</td>
<td>5,075,859,925.00</td>
<td>3,801,529,278.00</td>
<td>74.89</td>
</tr>
<tr>
<td>1994</td>
<td>7,342,861,713.00</td>
<td>4,370,880,770.00</td>
<td>59.53</td>
</tr>
<tr>
<td>1995</td>
<td>11,328,520,905.00</td>
<td>6,056,784,806.00</td>
<td>59.53</td>
</tr>
<tr>
<td>1996</td>
<td>12,442,699,358.00</td>
<td>7,535,594,529.00</td>
<td>53.46</td>
</tr>
<tr>
<td>1997</td>
<td>15,820,155,501.00</td>
<td>5,348,173,942.00</td>
<td>60.56</td>
</tr>
<tr>
<td>1998</td>
<td>22,767,530,158.00</td>
<td>8,974,631,294.62</td>
<td>39.42</td>
</tr>
<tr>
<td>1999</td>
<td>40,884,109,125.00</td>
<td>11,831,294.62</td>
<td>39.42</td>
</tr>
<tr>
<td>2000</td>
<td>68,579,997,692.00</td>
<td>30,143,004,497.91</td>
<td>45.96</td>
</tr>
<tr>
<td>2001</td>
<td>68,911,759,219.11</td>
<td>31,170,080,668.17</td>
<td>45.96</td>
</tr>
<tr>
<td>Total</td>
<td>256,486,598,921.11</td>
<td>113,736,435,248.68</td>
<td>44.34</td>
</tr>
</tbody>
</table>

Source: National University Commission 2003, Report

Between 1990 and 1997, the amount received was less than 82%. Between 1997 and 2001, the amount received dropped to 39.42%. This implies that the level of government funding in the universities has reduced.

The implication is that private sector participation is still very much required to make up for government’s short falls. The major contributors were the Education Trust Fund (ETF) and Petroleum Tax Fund (PTF). Other minor contributions included endowments, fees, levies, gifts and international aids (Babalola, Sikwibelle and Suleiman (2000). Chiaha (1998) had earlier warned that, for Nigeria to meet up with the challenges of the 21st century, it is very pertinent to encourage private sector participation so as to enable her public institutions attain world class standard. Therefore, the need for private sector participation in higher institutions in Nigeria is currently inevitable.
Responsiveness requires that higher education management and governance should be more business-like. This is very much operational in developed countries (Clark, 2001). Business-like management or entrepreneurship management involves accountability, quality assurance, and most importantly performance, monitoring and management innovations. Professional management technique is not yet very much in use in higher institutions in Nigeria. The use of Management Information System (MIS), Strategic Planning, e-management, e-learning and e-systems is still in infant stages, if at all. The supervisory bodies and higher institutions still lack enough staff with adequate professional educational management qualifications (Hartnett and Strassner, 2001). This is equally applicable to most officers without or with little training in educational management or similar qualification serving as managers of higher education in Nigeria.

If Nigeria has to attain the world-class university standard within the first quarter of this millennium, there is need for modern management skills of transformational leadership and entrepreneurship management. The foregoing suggest that Nigerian universities are yet to reap the full benefits of higher education that will enable them to join the race of becoming world-class universities.

The current study is designed to find an alternative way of funding higher institutions and attaining the required world-class university standards through the support of government efforts. Specifically, the study is carried out to investigate how higher education in Nigeria can be re-engineered for responsiveness through private sector participation.

Purpose of study
The purpose of this study is to:

1. Investigate ways in which private sector can provide enhanced access to higher education.
2. Find out ways private sector can participate in funding higher education.

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3. Investigate ways by which private sector can participate in governance and management of higher education.

**Research Questions**

1. In what ways can private sector provide enhanced access to higher education?
2. In what ways can private sector participate in funding higher education?
3. In what ways can private sector participate in governance/and management of higher education

**Hypothesis**

Only one null hypothesis was tested:

\( H_0: \) There is no significant difference among the mean ratings of university administrators, public sector managers and the general public with regard to private sector participation in higher education.

**Methodology**

**Research Design**

This study is a descriptive survey aimed at investigating the opinions of administrators, proprietors, government officials and public servants on private sector participation in higher education in Nigeria.

**Area of the study**

The study covers universities, polytechnics, colleges of education and public and private organizations in Enugu State of Nigeria.

**Population**

The population comprises 1,000 subjects made up of higher institution administrators (private and public), managers of private organizations and the general public made up of senior public servants, proprietors of private schools, politicians, government official and leaders of religious organizations.
Sample and sampling Technique
Stratified random sample technique was used in classifying the various categories according to ranks and positions. For example, administrators were made up of principal officers of universities and deans of faculties, and school proprietors. Managers in private sectors include those in banks, private hospitals and organizations. The general public constitutes the private individuals, public servants, and general public representing other groups.

Purposive sampling technique was adopted in selecting 100 higher institution administrators, 250 private sector managers and 300 members of the general public. This gave a total sample size of 650.

Instrumentation
The instrument for data collection was an 18-item questionnaire arranged under three clusters according to the three research questions. Each cluster has items covering the three major areas under investigation - access, funding and governance and management. The questionnaire was developed on a four-pointed modified likert-type rating scale of Strongly Agree (4), Agree (3), Disagree (2) and Strongly Disagree (1). The respondents were requested to rate their level of agreement or disagreement on ways private sectors can participate in funding, governance, and management of higher education in Nigeria.

Method of Data Analysis
Mean scores and standard deviation were used in answering the research questions. A criterion mean of 2.50 was adopted as an agreement level for the items.

The hypothesis was tested for the three groups using a one-way analysis of variance (ANOVA). Multiple comparisons of the three groups were also done.
Results and Discussion

The results of this study are presented in Tables 12.3 to 12.6, according to the three research questions and one null hypothesis that guided the study.

Out of the 650 respondents, 100 (16.7%) were university administrators, 250 (38.5%) were managers, and 300 (46.2%) were from the general public respondents.

Table 12.3: Mean responses and standard Deviation of University Administrators, General Public and Managers on ways private sector can provide access to higher education

<table>
<thead>
<tr>
<th>S/N</th>
<th>Items</th>
<th>H.I</th>
<th>G.P</th>
<th>Manager</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Not participate in the establishment of transport services</td>
<td>3.3 (0.95)</td>
<td>3.3 (0.89)</td>
<td>3.4 (0.98)</td>
<td>Accept</td>
</tr>
<tr>
<td>2</td>
<td>Participate in the provision of research and academic material for staff and students.</td>
<td>3.3 (0.81)</td>
<td>3.2 (0.89)</td>
<td>3.2 (0.89)</td>
<td>3.23 (0.88)</td>
</tr>
<tr>
<td>3</td>
<td>Participate in the provision of courses relevant to the prevailing labour demand.</td>
<td>3.2 (0.88)</td>
<td>2.8 (0.96)</td>
<td>3.1 (0.9)</td>
<td>3.03 (0.93)</td>
</tr>
<tr>
<td>4</td>
<td>Not be involved in the provision of private hostels for students.</td>
<td>2.7 (1.07)</td>
<td>3.2 (0.9)</td>
<td>3.04 (1.07)</td>
<td>3.08 (1.01)</td>
</tr>
<tr>
<td>5</td>
<td>Participate in the provision of ICT equipment and facilities</td>
<td>3.3 (0.9)</td>
<td>3.2 (0.8)</td>
<td>3.4 (0.9)</td>
<td>3.3 (0.9)</td>
</tr>
<tr>
<td>6</td>
<td>Not be involved in the provision of resource persons and facilities for research and teaching.</td>
<td>2.9 (1.0)</td>
<td>3.2 (1.1)</td>
<td>2.7 (1.1)</td>
<td>2.9 (1.99)</td>
</tr>
<tr>
<td>7</td>
<td>Establishing more private universities</td>
<td>2.9 (0.9)</td>
<td>2.8 (0.9)</td>
<td>3.3 (0.8)</td>
<td>2.9 (0.9)</td>
</tr>
<tr>
<td>Tot:</td>
<td></td>
<td>3.09 (0.39)</td>
<td>3.11 (0.48)</td>
<td>3.16 (0.51)</td>
<td>3.13 (0.48)</td>
</tr>
<tr>
<td></td>
<td>X = means</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Items 1 to 7 in the questionnaire provided the answer to research question 1. From the Table 12.3, the three categories of the respondents agree that the private sector can participate in providing access to higher education through participating in the establishment of transport services; participation in the provision of research and academic materials for staff and students; participation in the provision of courses relevant to the prevailing labour demand; involved in the provision of private hostels for students; participate in the provision of ICT equipment and facilities; be involved in the provision of resource persons and facilities for research and teaching; and in establishing more private universities.

Table 12.4: *Mean and standard deviation of respondents on ways private sector can participate in funding Higher Education*

<table>
<thead>
<tr>
<th>S/N</th>
<th>Items</th>
<th>H.I Grand</th>
<th>G.P</th>
<th>Manager</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>Participate in funding specific projects</td>
<td>3.64</td>
<td>0.55</td>
<td>0.21</td>
<td>0.85</td>
</tr>
<tr>
<td>9</td>
<td>Be involved in awarding scholarships to students</td>
<td>3.52</td>
<td>0.78</td>
<td>0.31</td>
<td>0.89</td>
</tr>
<tr>
<td>10</td>
<td>Partnership with higher institutions in income-generating activities</td>
<td>3.06</td>
<td>1.07</td>
<td>1.51</td>
<td>1.94</td>
</tr>
<tr>
<td>11</td>
<td>Sponsor staff for international conferences, seminars and workshops.</td>
<td>3.36</td>
<td>0.62</td>
<td>0.32</td>
<td>0.7</td>
</tr>
<tr>
<td>12</td>
<td>Make compulsory annual contribution of a specific percentage of their profit before tax to Higher Institutions</td>
<td>3.02</td>
<td>0.88</td>
<td>0.30</td>
<td>0.89</td>
</tr>
</tbody>
</table>
From the Table 12.4, all the means in items (8-12) are above, the criterion mean 2.50. Therefore, it is accepted that the respondents are of opinion the private sector should participate in funding higher education through funding specific projects awarding scholarship to students, partnership with higher institution in incoming-generating activities, sponsoring staff for international conferences, seminar and workshops, making compulsory annual contribution of specific percentage of their profit before tax to higher institutions.
### Table 12.5: Mean responses and standard Deviation of respondents on ways public sector can participate in governance and management of higher education.

<table>
<thead>
<tr>
<th>S/N</th>
<th>Items</th>
<th>Grand</th>
<th>H.I</th>
<th>G.P</th>
<th>Manager</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>X</td>
<td>SD</td>
<td>X</td>
<td>SD</td>
</tr>
<tr>
<td>13</td>
<td>Private sector should be adequately represented in the governing councils of higher institutions</td>
<td>3.02</td>
<td>0.89</td>
<td>2.97</td>
<td>0.88</td>
</tr>
<tr>
<td>14</td>
<td>Private sector should have representatives in the various governing council committees</td>
<td>2.94</td>
<td>0.93</td>
<td>2.84</td>
<td>1.06</td>
</tr>
<tr>
<td>15</td>
<td>Private sectors should be co-opted as part of accreditation teams to higher Institutions</td>
<td>2.72</td>
<td>0.94</td>
<td>2.56</td>
<td>0.95</td>
</tr>
<tr>
<td>16</td>
<td>Entrepreneurship management (business-like type) should be adopted in higher Institutions</td>
<td>2.96</td>
<td>0.92</td>
<td>2.86</td>
<td>0.99</td>
</tr>
<tr>
<td>17</td>
<td>Private sectors should be represented in the Government Boards of the supervisory bodies of higher Institutions</td>
<td>3.08</td>
<td>0.72</td>
<td>2.97</td>
<td>0.84</td>
</tr>
<tr>
<td>18</td>
<td>Students should pay fees commensurate with services offered in higher institutions.</td>
<td>2.88</td>
<td>0.91</td>
<td>2.88</td>
<td>0.94</td>
</tr>
</tbody>
</table>

From the Table 12.5, all the items are above the criterion mean of 2.50. Therefore, it is accepted that the private sector should
participate in governance and management of higher education through representation in the governing councils of higher institutions, being part of accreditation teams to higher institutions, entrepreneurship management, payment of fees commensurate with services offered in higher institutions.

Table 12.6: ANOVA analysis of mean rating of the respondents with regard to private sector participation in higher institutions

<table>
<thead>
<tr>
<th></th>
<th>Sum of squares</th>
<th>Df</th>
<th>Mean squares</th>
<th>F</th>
<th>sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Group</td>
<td>531</td>
<td>.2</td>
<td>.265</td>
<td>2.078</td>
<td>.126</td>
</tr>
<tr>
<td>Within</td>
<td>82.635</td>
<td>647</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>83.166</td>
<td>649</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The hypothesis was tested at a 0.05 level significance. From Table 12.6, it could be observed that the F-calculate (2.078) is less than the F-table (3.00). This shows that there is no significant difference in the mean ratings of university administrators, public sector managers and the general public with regard to private sector participation in higher education. The null hypothesis was therefore accepted.

Implications of the study
This study has a lot of implications for education in general and higher education in particular. The findings of the study imply that private sector participation in the area of access, funding and governance will go a long way in giving the Federal Government the much needed support that will help the nation achieve world class standard for her higher institutions. The study has also shown that higher institution administrators, private sector managers and the general public are in support that private sector participation is inevitable in the area of access, funding and governance of higher education in Nigeria.

Recommendations
The following recommendations are made:

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1. That private sector should make a compulsory annual contribution of a specific percentage of their profit before tax to assist in funding higher institutions;
2. Entrepreneurship management (business-like-type) of administration should be adopted in higher institutions;
3. That students should pay fees commensurate with services rendered in higher institutions; and
4. The federal government should enact laws and make policies that will enable the private sector participation in higher education;

References
Hall Inc.


Abstract
The paper made an etymological incursion into the term “curriculum”. It analyzed the factors that necessitated the Nigerian curriculum reforms. It as well synthesized the “how” and the objectives of the secondary education curriculum reform. The paper articulated the philosophy that guided the curriculum reform, and a critical evaluation of the reform was demonstrated, in view of its possibility of attaining the secondary education objectives. Some recommendations were proffered.

Introduction
The term “curriculum” derives from the Latin word, *cursus*, meaning a “running course”, running on a wager; or a career. In its original Latin, it means the direction pursued; a regular progress from point to point, or method of procedure. Today, it has the connotation of “a race track” or a course that ran to reach a goal. As it pertains to education, its clarity of outline defied consensus among educational philosophers. Their attempts for definite or general definition ended up in a mere clashing of ideas between great thinkers, apparently without any definite answer or even an end in view. For Babarinde (2001), the term had been in use in the 19th century, and did not amount to more than a collection of syllabuses or subjects. This is too narrow a view, for it
appears to have failed to appreciate the all-embracing connotation of its original Latin usage. Such Latin usage etymologically covered all life activities. From this angle of thought, curriculum can be conceived as “a vehicle on which we move from cradle to the grave” (Merril, 2002).

Interpretatively, curriculum can be viewed as a total environment in which education takes place. However, it is a truism that aims of education vary with time and place, because no two communities are exactly alike in all respects. If communities differ and education should help solve problems of the society, then the systems of education and curricula of different communities should reflect the problems peculiar to those places (Ogbonnaya, 2003). For instance, the ancient Greeks regarded education as a major service of a state and an essential instrument for the training of citizens, but each city-state has its aims and method of education. Relatedly, the onus probandi (the underlying concern) of this paper is to inquire into the necessity and philosophy that informed Nigeria curriculum reform, and to evaluate whether such curriculum reform is a mere cosmetic change that may become counter-productive, or capable of turning things around to produce the desired result in the light of Nigeria secondary education objectives.

The Necessity of Nigerian Education Curriculum Reforms
The act of reform could be regarded as a transformation of an equilibrium or disequilibrium to a more satisfactory status of equilibrium. The term reform implies some form of change or changes in a system. Things change in the natural order of reality. It is a natural part-of-life given in dynamic orientation. This explains the philosophical theory of Heraclitus (535-475 B.C) that: omnia mutantur, nos et mutamur in illis (all things change, and we change with them). Curriculum, therefore, should be reformed to take account of changes in the school order. To this end, Adeniyi (2004) synthesized that curriculum is interwoven with the social order that sustains it. This
implies that what the society values and believes in her ideas and purposes should be in the curriculum. What then is the purpose of the curriculum than to transmit values, aspirations and ideas? Admittedly, experience has proved that these societal values, goals, ideas and aspirations change with time. Corroboratively, Offorma (2002) pointed out that if any curriculum is to be effective, such changes are to be reflected in it. The reformed curriculum would take account of the new goals for which the former method was just inappropriate. When there is dissatisfaction with an existing system, or curriculum, there is always that necessity of changes or modifications.

In the past, the Nigerian educational system was largely a colonial heritage which did not take the cultural values of the people into consideration (Anwukah, 2000). Rather, the British colonizing agents hoisted on the educational landscape ideals and pattern, which were completely alien to Nigerians, thereby compelling them to unquestioningly accept and adopt a foreign educational system. Since 1841, the process of adapting to the colonial education system has been tortuous and rigorous. Such situation, in the analysis of Nwafor and Nwogu (2006), sometimes leads to policy somersaults, contradiction and inconsistencies. As a result, it does appear as if the entire system is groping in the dark and without focus and direction.

Arguably, such inherited colonial curriculum failed to address the problem of our Nigerian-ness. It was more like jinks of puzzles that have failed to fall into their proper perspective. It only produced educated-colonized men who acquired the white man’s way of life, his language, his religions and, to a great extent, his culture. Most of what he received as education did not address the problems facing the Nigerian in his everyday life. Based on the foregoing account, the disappointment of the inherited colonial curriculum necessitated Nigerian curriculum reforms. At this point, one may like to know how the inherited colonial curriculum was reformed or changed.
The “How” and the Objectives of the Secondary Education Curriculum Reforms

The movement for reforming the curricula inherited from the colonial government was not begun until several years after independence. As the awareness of the need for curricula reform solidified, a higher-gear momentum was set into motion by various governments who, one after the other, directed its educators to plan school curricula and instructional curriculum conference of 1969 (September, 8-12). In response to the growing concerns and criticisms, the curriculum reform mandate culminated in the development of the National Policy on Education (NPE). The policy document was first published in 1977 but consequently reviewed in 1981, 1998 and 2004. As was portrayed in the report of the Federal Ministry of Education (FME, 2006), in 2005 another review of the policy was started and a final draft ought to be ready by early 2007. The policy document formed the hub around which all the primary, secondary and tertiary school curriculum spin.

In section 5 of the National Policy on Education document the board goals of secondary education are meant to prepare the individuals for:

a) useful living within the society, and
b) higher education.

In specific terms, eight objectives for secondary education were articulated to (FRN, 2004:18 – 19):
1) provide all primary leavers with the opportunity for education of a higher level, irrespective of sex, social status, religious or ethnic background;
2) offer diversified curriculum to cater for the differences in talents, opportunities and future roles;
3) provide trained manpower in the applied science, technology and commerce at sub-personal grades;
4) develop and promote Nigerian languages, art and culture in the context of world’s cultural heritage;
Nigerian Education Curriculum Reforms and ...

5) inspire students with a desire for self improvement and achievement of excellence;
6) foster National unity with an emphasis on the common ties that unites us in our diversity;
7) raise a generation of people who can think for themselves, respect the views and feelings of others, respect the dignity of labour, appreciate those values specified under our broad national goals and live as good citizens;
8) provide technical knowledge and vocational skills necessary for agricultural, industrial, commercial and economic development.

A close examination of the supra stated objectives implies that a vocational and general education curriculum is designed to equip the youth, with basic cognitive and social skills needed for peaceful living in the society. Social skills are known to constitute the front wheels of work success, as Ntino and Usoro (2006) argued in their research study. The objectives further reveal that general and vocational education curriculum (through mathematics, applied science and introductory technology) is designed to lay the foundation for technical literacy in the Nigerian youth. Analytically, the objectives of secondary education sustain the ingredients that are to be used to meet the manpower needs of the Nigerian society. It has a high potentiality of increasing the options available to each student.

It serves as a motivating force in enhancing all types of learning. For instance, successful baking of cake involves some knowledge of materials and methods of baking (cognitive) as well as the production of a cake (psychomotor) that meets acceptable standards in the food industry (affective domain). There are really four types of skills in producing a cake: cognitive, psychomotor, perceptual and affective. This must have been the idea that informed Ntino and Usoro (2006) to adjudge that the end of secondary education curriculum reform is occupationally oriented.
It aims at producing an economic man within his environment. An economic man, as Esu (2005) maintained, is a man who possesses productivity skills, and needs education for work and for what work involves. Suffice it here to state that the ‘how’ and the end of secondary education curriculum reform in Nigeria is to meet the common needs of the youth, for competence as a person and a citizen. The curriculum is reformed to enable the students develop those values, skills, abilities, understanding, attitudes, work habits and appreciation needed by a learner, to enter and make progress in employment on a useful productive basis. In point of fact, the objectives of Nigerian secondary education curriculum reform are expected to meet its test of rationality, and to this end it is anchored on some philosophical base.

The Philosophy that Guided the Secondary Education Curriculum Reform

During the National Curriculum Conference, Nigerian educational theorists opted for the educational philosophy of pragmatism. It is a functional education with ideologies of child-centredness, soft pedagogy, problem-centred or community-centred curriculum integration, and methods which emphasize discovery and problem-solving skills. Supportingly, Enoh (2002) adulated in his research study that apart from the aims and values which underlay the philosophy of Nigerian educational practice, and which are open to multiple interpretations, curricula and methodological prescriptions are predominantly of pragmatic ideology. Pragmatic curriculum is structured in such a way that, the learner is democratically allowed to explore his universe of experience, as well as to learn by doing and discovery. With such aims it is not difficult to understand why the Nigerian educands will have to be exposed to using their hands in making, repairing and assembling things; or why they should be taught science, technical and vocational education as “a means of preparing for occupational fields and for effective participation in the world of work” (FRN, 2004:30).
Since the overall intention of technical education, as highlighted in the National Policy document, is to impart vocational skills at sub-professional grades, the application of such skills where necessary, will enable the recipients become self-reliant, and also understand the increasing complexity of other people’s technology. In other words the influence of pragmatic philosophy of education on Nigerian curriculum, will equip Nigerian youth to know how to manipulate the machines of others, and, by so doing, the Nigerian child will acquire new ways (skills) for solving his problems. What clearly stands out as the denominator of the influence of pragmatic philosophy of education on the Nigerian secondary education curriculum reform is skill acquisition with the stress on methods, which encourages learners-activity, particularly at the physical level of making, repairing and assembling things. This is inclusive among the “educational activities to be centered on the learner for maximum self-development and self-fulfillment” (FRN, 2004:9). Indeed, the logical outcome is true of the increasing flavour for a practical curriculum, which in any case makes possible the adoption of practical methods.

It was because of this desire for functional education based on pragmatic educational philosophy that the National Policy on Education in 1977 ushered in the 6-3-3-4 system of education into Nigeria. The new system split secondary education into a junior secondary school (JSS) of three-year course; and senior secondary school (SSS) course of three years. This is a major reform agenda or the reform epicentre with regard to secondary education curriculum and management in Nigeria. It created the possibility of vocational courses being taught both in JSS and SSS.

What is more, Agbaosa (2007) observed that Nigerian secondary education will no longer be of the British society, which is essentially after the grammar school pattern, an outcome of the liberal arts tradition, inherited from the Roman era. The grammar schools have from time maintained consciously or otherwise the idealist view and orientation to knowledge and learning. Such view and orientation has consistently posited that knowledge should be sought solely for its
intrinsic value of developing *mens sana in corpore sano* (a sound mind in a sound body) that liberates the man for higher human ideals. Plato (427-347 B.C.), the father of idealism, is the advocate of the philosophy of knowledge *qua* knowledge, that is knowledge for its own sake.

In the submission of Okafor (2006), the idealist curriculum places highest emphasis on those studies whose content consists basically of “ideas” or things of the mind. On the other hand, it does not eliminate physical training and science subjects; it rather de-emphasizes and underrates them. That the learning in liberal arts should be devoid of vocational goals, is something befitting only for slaves and bonded men. It is only the Gentry that should be pre-occupied with pursuit of knowledge, and creative pleasure. In the contention of Paul Hirst in his “knowledge and the curriculum”, as quoted in Aghaosa (2007), “forms” or “ideas” of knowledge perhaps best illustrates the liberal arts conception of knowledge, which evolved from the *Trivium* and *Quadrivium*. The *Trivium* consists of grammar, rhetoric and dialectics. The *Quadrivium* comprises music, law, astronomy and geometry. It is this inherited tradition of the grammar schools in Nigerian secondary education that the new National Policy on Education sought to correct in its curriculum reform. The policy amongst other things, recommended the infusion of science and Technology learning in the curricula of secondary education (JSSS and SSS) to make learning relevant to the socio-economic needs of Nigerians. The extent to which the vision of curriculum reform is being realized, within the context of the objectives of secondary education in Nigeria is highly speculative. Thus, the need for some critical evaluation.

**Critical Evaluation of the Attainment of Secondary Education Objectives within the Context of the Curriculum Reform**

There are strong indications, as attested by Obanya (2003), that the “ghost” of the liberal Arts Tradition (albeit in a distorted manner) still haunts the Nigerian education system and society as a whole. In the
first perspective, even though secondary schools’ curricula acknowledge the vital role of technological and vocational learning, only very scanty provisions are made for them. In another perspective, even most of the liberal Arts subjects in the schools’ curricula are not adequately taught the way they should be. Emphasis on teaching presently, is concentrated on theoretical aspects of these subjects. Science subjects that should imbue students with the scientific attitudes of observation and discoveries are still taught in many secondary schools only theoretically; little or no practical aspect is carried out. The resultant effect of this is that school-leavers have no relevant marketable skills in the Nigerian economy, which remains largely unexploited. As a follow up, the attainment of secondary education objectives within the context of such ineffective curriculum will ever be an illusive practice.

In the World Education News and Reviews (2002) cursory survey of most secondary schools reveals lack of the basic introductory technology workshops and tools. Where there are machineries, they are rusting away as they remain out of use. This scenario is common in many Nigerian secondary schools. Most of the wood-working machines imported in the early 1980’s are all in a state of disrepair. Farms for the teaching of practical agriculture are not there in most schools. So also are Home Economics’ Kitchens, Fine and Applied Arts’ studios. These subjects are at the core of some of the basic skills required by the Nigerian secondary school-leavers. In this type of development, the students have not been provided with what it takes for them to acquire the envisioned skills for employment. Such situation presents the reform agenda and its concomitant objectives as an ideological chiche and political jingles in the National Policy on Education document.

In the ethical theory of Aristotle (384-322 B.C.), man becomes a bricklayer only by laying bricks (Faber fabricando fit). The objectives of secondary education may not be realized within the context of such curriculum, where the educators and the educands are left at the middle of the oasis of incomplete ends and meaningless
experience. The situation of dishonesty has reached a critical level and Nwabuisi (2008:32) concluded that “where everybody seems to rob and cheat everybody else, no system of value can hold for long”. This dishonest tendency in some Nigerians may explain why the implementation of the 6-3-3-4 programme was sacrificed on foreign exchange, masterminded by some dishonest Nigerian contractors. Buttressing the above, Akinpelu in Abiogu (2006) alleged that most of the machines from Austria, Bulgaria and Czechoslovakia are not only outdated but cannot be used in rural areas, nor in the cities because of the epileptic nature of Nigerian electricity. On the other hand, some of the equipment sent are far beyond the technological skill of the Nigerian technicians, who ought to manipulate, maintain, and teach the students. To add salt to injury, in some of the schools, much of the equipment have been vandalized, with principals and teachers as partners in crime. With regard to the effective dishonesty and unpatriotism of some Nigerians, the vocational and technical dream of secondary education seems to have no prospect of being realized in the context of its curriculum reform.

That Nigeria submitted to 6-3-3-4 education programme in 1977, but now proposing the 9-3-4 programme is an admission of earlier failure of the former programme. Such shift announces the funeral of the 6-3-3-4 programme, because its full implementation ran counter-productive and hit the rock of disappointment, which is normal for any other Nigerian programmes. Other factors affecting the realization of Nigerian secondary education objectives according to UNESCO (2002) include: improper funding of the basic education sector, improper manpower to facilitate government policies on education, and improper supervision and monitoring. In Nigeria, Kenya, Congo, Zimbabwe and other third world and second world countries, like India, it is a clear picture to find students sitting on classroom floors, because of insufficient desks and chairs. There are inadequate classrooms to cater for the student enrolment in schools. The existing infrastructures, like buildings, are in dilapidating and decaying stage with leaking roofs. The manageable classrooms are
overcrowded with students without adequate ventilation, leading to suffocating environment. There are toilets without water. There are inadequate teachers and staff for the schools, and the few employed teachers evade classes due to poor motivation from the government. What is more, Nigerian education sector is ranked 4th by the Nigeria Corruption Index (NCI) and the Independent Advocacy Project (IAP), anti-corruption groups, in their April 2007 research report. It is, therefore, self-evident truth that corruption has become fait accompli (a usual thing or a known fact) in Nigerian education sector. Ideally, for the nation’s curriculum reform drive to achieve secondary education objectives in an unconducive environment, is antithetical or a romantic supposition.

During the curriculum conference, Nigerian educationists adopted the educational philosophy of pragmatism. Though it is a functional education with emphasis on discovery and problem-solving skills, it has many limitations and negative aspects. The most important among them are its metaphysical shortcomings. Its view that the overt phenomena are the embodiment of all reality with which man should concern himself, leaves much to be desired. This is because the experiential reality is only a fraction and not the whole reality. To absolutely deny or consciously ignore an ultimate end for man and to assign him the same fate with the phenomena of experiences, is contrary to man’s true dignity. In the domain of education, the pragmatist epistemology is too limited. John Dewey (1859-1952) has characterized instrumentalism as “a behaviourist theory of thinking”. This in essence is the limitation of pragmatist epistemology because thinking and knowing cannot be fully explained merely by behaviourism. The traditional role of reason and other ramifications must also come into play. The problem-solving method should not be regarded as the only good method applicable to all learning situations. When it is used, it must not be open-ended. There must be adequate guidance and direction provided by the teacher, to make it more meaningful. All said and done, the philosophy of pragmatism has made
immense contributions, which must not be ignored, nor swept under the rug.

**Recommendations**

On the basis of the foregoing philosophical evaluation of Nigerian curriculum reforms and attainment of secondary education objectives, the following recommendations are made:

1. In order to realize the vocational and technical objectives of the secondary schools’ curricula, the government is to train enough vocational technical teachers and instructors that can install and utilize this technology to teach the interested learner. The training of the teachers and instructors could be achieved through partnership and collaboration with the international community and donor agencies.

2. Government should foster an enabling environment through some legal enactments to safeguard the issue of looting and the tragedy of colossal waste of the school equipment, which negates students’ achievement.

3. The curriculum reform, which gave rise to the new education system, was packaged at a time when the nation was economically buoyant, while the implementation of the reform component fell into the period, when the economy had taken a downward trend. As a matter of fact, the government cannot carry the school burden alone. Thus, there is need for education stakeholders, philanthropists and other school agencies to come to the aid of the new school system, which is in a comatose state.

4. Sustained emphasis is to be made both by the government and employers, as regards education for skill acquisition, which concerns the whole man in his whole environment, rather than emphasis on education for “degrees” and certificates,” which begins and ends with the intellect. Such emphasis on education for skill acquisition will assuage the ‘ghost’ of the Liberal Arts
Tradition, which haunts the new Nigerian education system and society as a whole.

5. Nigeria should not know less that all acquired capacities are very easily lost, when the out-of-school environment does not complement that of the schools. This is why Japan pursues a policy that is very practical. She has industrial training schools where products of the school system are recruited to learn practical skills first hand. In other words, it is this out-of-formal school training that guarantees real growth or imagination. Japan knows that the school is a place of intellectual learning and little else. Thus, Nigeria can pursue such policy as well.

6. Enough fund is required in secondary education system for the provision of infrastructures and instructional materials. The availability of facilities, such as ideal library with internet and satellite television programmes, would occupy the students, and they would hardly have time for any mischief, since the library door opens to close the prison door.

Conclusion
In this paper, an attempt has been made to establish and evaluate the necessity of Nigerian education curriculum reforms, and the prospect of attaining the secondary education objectives in the context of such reforms. The paper maintained that the curriculum inherited from the colonial rule produced people who thought that the primary function of formal education is to move from subsistence life to white-collar occupation.

This *inter alia* constituted the thought for curriculum reforms that would restore in its beneficiaries the spirit of initiatives, better human relationship, effective citizenship, national unity and consciousness, and self and economic efficiency. The reform further intends making its recipients engage themselves in a technical job, and getting their hands dirty in the process of making a living and contributing to the welfare of the state. Such curriculum is designed to make a large proportion of school-leavers self-employed. Regrettably
the method of its implementation has been a calvary experience. The effort being made to realize the secondary education objectives within the context of the reform agenda is analogously a clumsy abortion, committed in the theatre of the absurd.

References


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Abstract
In Nigerian culture today, much is talked about adoption and many people are adopting children because of health and social problems of infertility and other reasons. This paper examines relevant literature on adoption trying to establish its origin and the why. The finding shows that adoption started in the ancient times with the prime reasons for the nobles to succeed and administer their wealth after death. In some places adoption was practised in order that those who did not have male issue would have somebody who would give them full funeral rites and offer libations to their ancestors after death. Moreover, it is contested whether adoption was practiced in the Biblical period even with the copious statements emanating from the Bible (Adoption of Moses by Pharoah’s daughter). In the Ancient Near East (ANE), adoption was practiced but the adoptee had no right of inheritance. Today, adoption is practiced for various reasons. It is suggested that “adoption awareness” should be created so that those want to adopt would know what are involved instead of indulging in secret adoption.

Introduction

Background

Shepherd: He was called the son of Laius, but ask the queen. For she can best inform thee.
Oedipus: Did she then give the child to thee?
Shepherd: She did.
Oedipus: For what?
Shepherd: To kill him
Oedipus: Kill her child? Inhuman and barbarous mother!
Oedipus wanting to know his origins has sent for the shepherd who found him and wants to know how he came to have the child he eventually gave to the King and Queen of Corinth. One would ask what Freud’s Oedipus complex means for those who read his Interpretation of Dreams? Does he set to deceive to prove his case? How does Freud want his readers to interpret Sophocles’ drama – the Oedipus Rex? Fraud (1900:264) wants his readers to understand this drama to satisfy his theory but deceptively. Hear him:

What I have in mind are the legend of King Oedipus and Sophocles’ drama which bears his name.

Oedipus, son of Laius, King of Thebes and of Jocasta, was exposed as an infant because an oracle had warned Laius that the still un-born child would be his father’s murderer.

Freud (1983:20-21) outlines the source of his ideas:

The story of Oedipus begins with the incredibly severe psychological and physical traumatization of a child by those who should be his prime protectors: his parents. The infant Oedipus – born of Laius and Jocasta the King and Queen of Thebes who have been warned by an oracle that their son is fated to murder his father – is maimed (a spike is thrust through his feet) and sent away to be killed.

Still following the long essentially uninterrupted tradition, Bettelheim (1987:13) reduces the drama to its essence:

The Oedipus legend tells of a father’s fear that his son will replace him; to avert this, the father tries to destroy his son.

It was not Oedipus’ father, Laius, who put him out to die as an infant. It was his mother. It could be seen that Freud has it backward
and it is just this psychological blindness that has pervaded our view of 
the real and clinical worlds of children for 100-plus-years since the 
first publication of Interpretation of Dreams, a fact that ought to 
astound and profoundly disturb. How much such a monstrosity could 
have gone essentially unnoticed for over a century is amazing, despite 
tremendous number of people in countless professions who have read 
Freud and Sophocles in the interim? This prompts Kaufmann to aver 
that: The fact that so much of what is widely believed is wrong is great 
incentive for research.

This justifies this author to go in search for more understanding 
about adoption. This work is divided into three eras:
(a) Antiquity - comprising of Western civilization, Ancient Near 
East (ANE) Judaism, Biblical times;
(b) Middle ages; and
(c) Modern times.

Meaning of adoption
According to Britannica Concise Encyclopedia (2006), adoption is the 
“act of transferring parental rights and duties to someone other than the 
adopted person’s biological parents”. The practice is ancient and 
occurs in all cultures. Traditionally, its goal was to continue the male 
line for the purposes of inheritance and succession; most adoptees were 
male (and sometimes adults).

(a) Antiquity: Western civilization has a long history of the practice of 
adoption. The Code of Hammurabi (1792-1750 B.C.), for example, 
details the rights of adopters and the responsibilities of those adopted 
at length, while the practice of adoption in ancient Rome is well 
documented in the Codex Justinianus.

Ancient adoption processes were markedly different from those 
in the modern period. Foremost, they were legal tools that strengthened 
political ties between wealthy families and provided male heirs to 
manage the estates of other notables (Kirk, 1985; Benet, 1976).
Adoption was inherently an act that fostered the interest of adults, placing less emphasis on the interests of the adoptees (Brodzinsky and Schecter, 1990).

The use of adoption along these lines by the wealthy is evident. Many of the Roman emperors were adoptees (Benet, 1976). Additionally, evidence suggests that although legal infant adoption for the purpose of building a family was rare (Boswell, 1998; Brodzinsky and Schecter, 1990). The abandoned were often picked up for slavery rather than for adoption (Boswell, 1998). In fact, the abandoned children are thought to have composed a significant percentage of the Empire’s slave supply (Scheidel, 2007). Evidence of trafficking abandoned children also comes from the Church Fathers. Both Clement of Alexandria and Justin Martyr attest that foundlings of both genders made up a substantial portion of those in brothels (Boswell, 1998).

Nevertheless, Roman legal records show that some foundlings were taken in by families and raised as one of their own. Such children, however, were not normally adopted. Called alumni, they were more similar to modern foster children and still considered the property of the father who abandoned them (Boswell, 1998).

Other ancient civilizations – notably India, China, utilized some form of adoption as well. Evidence suggests their practices aimed to ensure the continuity of cultural and religious practices rather than creation of new families. In ancient India, for example, ‘secondary son-ship’ was clearly denounced by the Rigveda (Tiwari, 2005), yet the practice continued in a limited and highly ritualistic form so that an adopter might have necessary funerary rites performed by a son (Bhargava, 2005). China had a similar conception of adoption. Males were adopted in order to carry on the duty of ancestor worship (Menski, 2000).

Adoption in Judaism: Although Jewish law regards natural parenthood as the primary basis for personal status, and does not consider adoptive parenthood to constitute such a basis, provision is made for adoptive
relationships. An individual, according to Jewish law, is permitted to take on responsibility for the physical, emotional and social well-being of a child. In such circumstances, the death of adoptive parent does not terminate the relationship or obligation and the parents’ heirs must continue to care for the child. Additionally, a rabbinical court is authorized to remove a child from the custody of his/her natural parents if the child’s interests are endangered, in accordance with the Halakhic principle that the child's welfare and interests are the central factors to be considered in any question related to childcare.

In Jewish law, the adoptive relationship does not totally eliminate the relationship between the adopted child and his/her natural parents who must continue to provide for the child’s needs if the adoptive parent is unable to do so. The adopted child does not automatically inherit from the adoptive parent who must make a special provision in his or her will. Although adoption does not have legal status as constituting a new family relationship, this provision is effective even if the adopted child is referred to in his will as “son” or “daughter”. Because adoption does not alter personal status, no prohibitions regarding marriage or divorce exists between, on the one hand, the adopter and his or her family, and, on the other hand, the adoptee.

In Israeli law, a district or rabbinical court order of adoption severs all rights and obligations between the adoptee and his or her natural parents, while establishing a new and binding legal relationship with adoptive one(s). Thus, the adoptee is usually considered to be a legal heir and there is no need for a special provision in the adoptive parents’ will (Encyclopedia of Judaism).

**Biblical times:** The small number of Biblical (Old Testament) references, implicit or explicit, to the institution of adoption include Sarah’s wish to have a son by having her handmaiden cohabit with her husband (Genesis chapter 16 verse 2); Moses adoption by Pharaoh’s daughter (Ex. 2:20); and Esther’s adoption by her uncle Mordecai (Esther chapter 2 verse 7); although the last relationship could be
interpreted as foster parenthood. One may ask here about Leviticus “No one born out of wedlock or any descendant of such a person even in the tenth generation may be included among the Lord’s people (Deuteronomy chapter 23 verse 2)?

Moreover, it remains uncertain whether or not adoption was practiced in ancient Israel. Certain biblical passages relating to Patriarchal period are interpreted by scholars as alluding to adoption (Genesis chapter 15 verse 3; chapter 16 verse 2; chapter 30 verse 3) Jacob “adopted” his grandsons Ephraim and Simeon (Genesis chapter 48 verse 5). When the child Moses was brought to Pharaoh’s daughter, it is related that “he became her son”; the verse (Exodus chapter 2 verse 10) is understood as the adoption of Moses. Ruth chapter 4 verses 16 and 17 are likewise interpreted as referring to adoption.

The assumption that adoption was practiced is probably influenced by the fact that adoption was widely diffused in ancient Mesopotamian culture. It would be strange if an institution so widely practiced in ancient Mesopotamia were not to find some echo in the narratives of the patriarchal period which is strongly influenced in its legal practices by those of ancient Mesopotamia. In opposition to this view other scholars maintain that 1. the verses cited may stand on their own without any allusion to legal adoption; 2. Biblical legislation on the family, generally elaborate, makes no mention of adoption; and 3. if legal adoption did exist in biblical times, it would certainly be part of the living legal tradition carried over into the rabbinic period, yet no trace of it is to be found in the

Talmud: Even the two biblical verses (Esth. 2:7 and Ps. 2 :7) that appear to refer explicitly to adoption can be understood as implying guardianship rather than adoption. As for the verses in Genesis (16: 2; 30: 3-8) presumed to imply adoption, one must reckon with the fact that children by a maid or concubine were regarded as the legitimate offspring of their male progenitor (Judg:8: 31). The Institution of adoption did not occupy a central place however in biblical theology.
In the Bible, the unique tie between God and the King is often expressed by means of father-son imagery. (11 Sam. 7:14; Ps 2:7-8) are passages which can be traced to the nomenclature of adoption known from Mesopotamian juridical documents. Similarly on the national level, adoption terminology is employed to express the bond which exists between God and Israel. The nation “adopted” by God, is called “Israel my first born” in Exodus 4:22; and in Jeremiah 31:9, God declares “I am a father to Israel and Ephraim is my first born”. Furthermore, as a father bequeaths his inheritance to his son (eternal dynasty and gift of nations to the Davidic King), so God allots and validates his gifts to his “sons”, the children of Israel (Jer. 3:19).

The Sect of the Essenes was known to have adopted children according to Josephus (War 2. 120). The word “adoption” in the New Testament is translated from the Greek (huiothesia) which means “the placing of an adult son” and refers to the formal act of recognizing the maturity of an adult son. The word is found five times in the New Testament passages (Rom. 8:15, 23; 9:4; Gal. 4:5; Eph. 1:5) by Paul. It is in the theological sense of adoption as sons of God. Paul regarded adoption as a promise for the future yet to be realized: “And I will be his God and he shall be my son” (Rev. 21:7).

(b) Middle age: According to Finley-Croswhite (1997), the nobility of the Germanic, cultic and Slavic cultures which dominated Europe after the fall of Roman Empire denounced the practice of adoption. Bloodlines in medieval society were paramount; a ruling dynasty that lacked a natural born heir apparent was replaced by a new family, which is a stark contrast to Roman traditions. The evolution of European law reflects this aversion to adoption. For example, English Common Law did not permit adoption since it contradicted the accepted rules of inheritance. In the same vein, France’s Napoleonic Code made adoption difficult, requiring adopters to be over the age of 50, sterile, older than the adoptee by at least 15 years, and have fostered the adoptee for at least six years (Brodzinsky, 1990).
Despite the cultural shift in Europe, the middle ages marked a period of significant innovation. Without the support from the nobility, the practice of adoption was gradually redirected toward abandoned children. With the fall of the Empire, only the Catholic Church had enough influence to wield authority over the daily activities of the population. In the face of the rising levels of abandonment, the Church created rules to govern the treatment and rearing of abandoned children. Moreover, with so many children left on her doorsteps, the Church began to find new homes for the abandoned (Boswell, 1998).

The Church’s innovation, however, was the practice of oblation, whereby children were dedicated to lay life within monastic institutions and reared within the monastery. This created the first system in European history in which abandoned children were without legal, social, or moral disadvantage. As a result, many of the Europe’s abandoned and orphaned became alumni of the church which in turn took the role of adopter. Oblation also marked the beginning of a shift toward institutionalization that eventually saw the creation of the foundling hospital or orphanage systems (Boswell, 1998).

(c) Modern period: The next stage in the evolution of adoption fell to the emerging nation of the United States of America. Rapid immigration and the aftermath of the American Civil War gave birth to unprecedented over-crowding of orphanages and foundlings homes in the nineteenth century. Charles Loring Brace, a protestant minister was appalled by the legions of homeless waifs roaming the streets of New York City. Brace considered the abandoned youth, particularly Catholics to be the most dangerous element challenging the city’s order (Herman, 1872; Brace, 1872). He started the orphan Train Movement in 1859. The Orphan Trains shipped over 200,000 children from the urban centers of the east to the nation’s rural regions (Herman, 1872). The children were not generally adopted but rather indentured to families that took them in. Some of these children were raised as members of the family while others were used as farm laborers and household servants.
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The sheer size of the displacement - the largest of migration of children in history and the degree of exploitation that occurred, gave rise to new agencies and a series of laws that promoted adoption arrangement rather than indenture. The hallmark of the period is Minnesota’s adoption law of 1917 which mandated investigation of all placements and limited record access to those involved in the adoption (Herman).

During the same period, Progressive movement swept the United States. The culmination of efforts to promote child welfare came with the first White House Conference on the Care of Dependent Children called by President Theodore Roosevelt in 1909 (Gottlieb, 2001). The conference marked the start of the end of prevailing orphanage system, declaring that children should be placed in family homes, “the highest and finest product of civilization (Carp, Herman). Anti institutional forces gathered momentum. As late as 1923, only two percent of children without parental care were in adoptive homes, with the balance in foster arrangements and orphanages. Less than 40 years later, nearly one third were in an adoptive home (Barr, 1992).

Nevertheless, the strong eugenic tendencies in Western society at the time set up obstacles to the growth of adoption (Lawrence & Starkey, 2001). There were grave concerns about the genetic quality of illegitimate and indigent children perhaps best exemplified by the influential writings of Henry Goddard who protested adopting children of unknown origin. It would take a war and the disgrace of Nazi eugenic policies to alter attitudes. Between 1945 and 1974, the Baby scoop era, saw rapid growth and acceptance of adoption as a means to build a family. The number of illegitimate births rose three fold as sexual mores changed. Simultaneously, the scientific community began to stress the dominance of nurture over genetics, chipping away at eugenic stigmas (Mosher and Bachrach, 1985). In this environment adoption became the obvious solution for both unwed mothers and infertile couples (Melosh).

Taken together, these trends resulted in a new American model for adoption. Following the Roman predecessor, Americans severed
the rights of the original parents while making adopters the new parents in the eyes of the law. Two innovations were added, however. First, adoption was formulated as a legal act meant to ensure the “best interests of the child”, the seeds of this idea can be traced to the first American adoption law in Massachusetts, 1851 which mandated that placements consider the welfare of the child (Brodzinsky, 1990). Second, adoption became infused with secrecy, eventually resulting in the sealing of an adopted people’s adoption and original birth records by 1945. The origin of the move toward secrecy began with Charles Loring Brace who introduced it to prevent children from the Orphan Trains from returning to or being reclaimed by their parents. Brace feared the impact of the parents’ poverty and their Catholic religion, in particular, on the youth. The tradition of secrecy was carried on by the later Progressive reformers when drafting American laws (Carp, 2000).

The number of adoptions in the United States peaked in 1970 (National Council for Adoption, 2000). It is uncertain what caused the subsequent decline. The evolution of Adoption in the United States metamorphosed into various types obtainable today. These include:

1. Domestic adoption,
2. Relative adoption,
3. International adoption.
4. Independent placement
5. Surrogate motherhood.

Observations and conclusion
For much of the twentieth century, adoption was a practice shrouded in secrecy more especially in Africa. Under what are now called “closed “or “confidential” adoptions, the identities of birth parents and adoptive parents were kept from each other by the adoption agencies that made the arrangements. Pregnant women especially the young unmarried who had decided to give up their children were often given as little contact as possible with their babies at birth, and in some cases were not even told of their babies’ gender. Adoptees were issued new birth certificates listing only their adoptive parents and were
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sometimes never told by their parents that they were adopted. Such practices reflected the prevailing wisdom of the time that adoptive families stood their best chance of thriving if they locked out all reminders of how they were formed” (Pertman, A. 2998). In addition, these secretive methods were thought the best way to protect both birth parents and child from the stigma of illegitimacy.

Shrouding adoption in secrecy and shame led to long-term emotional problems for children and parents. Baran, Pannor, and Sorosku (1978) asserted that the practice of closed adoption “can be the cause of many potential problems” because of the trauma associated with separating mother and infant – an event labeled as “psychological amputation”. They further maintained that adopted children can suffer emotional problems due to “genealogical bewilderment” and a loss of their “true identity”.

As a solution, Baran, Pannor, and Sorosky (1978) proffer solution by prescribing an “open adoption”. Proponents of open adoption argue that it benefits all members of the “adoption triad”. Proponents of open adoption argue that it benefits all members of the “adoption triad”. Pertman (1978) contends that “all three members of the triad become more secure when their relationships cease to be based on fear and fantasy”.

Open adoption has been criticized widely as some argue that the purported benefits of openness have not been proven by clinical research. Fagan (2004) argues that blending birth families with adoptive families may result in a “confusion roles” that “interferes with parent and child bonding in the adoptive family and inhibits the birth parents’ grieving process”. Robinson (2003) on the other hand asserts that even in cases where the mother suffers from a mental health problem that puts her children at, “there is no justification for changing the child’s identity and pretending that the child has a different mother”. As a result, Robinson (2003) calls for total abolition of adoption in favour of a system of temporary guardianship in which the children’s legal ties to their natural parents are not severed.
Conclusively, in Nigerian culture, adoption generally is not a way of helping children to grow in a family but as substitute way of having a child for the childless, a supplement of having a male issue where there are girl children only or sold even for mere ritual purposes to ritualists. Government should step in to approve and supervise adoption homes to prevent the ugly trend of selling human beings to conscienceless human beings.

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THE EFFECTS OF ADOPTION

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Abstract
The rate of adoption in Nigeria today is almost nearing a pitch high. This paper examines the effects of adoption through literature review. Lots of social and behavioral problems were cited by theorists and researchers, though mixed and inconclusive, but clinicians are in agreement on the problems created by adoption. This work is carried out to keep adopters aware of the implications and consequences which they and the adoptees face in the future.

Introduction
According to (Verrier, 1991),

I believe that the connection established during the nine months in utero is a profound connection, and it is my hypothesis that the severing of that connection in the original separation of the adopted child from the birth mother cause a primal or narcissistic wound, which affects the adoptee’s sense of self and often manifests in a sense of loss, basic mistrust, anxiety and depression, motional or behavioral problems, and difficulties in relationships with significant others.

So averse to taking pains are most men in the search for truth,
And so prone are they to turn to what lies readily at hand – Thucydides.

Sticks and stones can break my bones, but words can kill – A ten-year-old.
One important fact about adoption is that struggles surround it. Regardless of how well the process of adoption is managed, a basic struggle and real rejection occur (Nydam, 1992). One wonders what “psychological nerves” get cut in the hearts of little children in order for them to cope with traumas of pain and abandonment that they may experience in the opening chapters of their lives. And one wonders what the lifelong effects of such injuries may be upon the formation of personality. It is most unlikely that most people today in this society know even a little about the consequences or side effects of adoption. Many infertile couples and those looking for male issues rush into adoption without self-examination on how much strength one has to shove off the effects.

Paradise may be quickly lost for children who are adopted because difficulties with the acceptance of self and attachment to others may be set in motion as life begins and proceeds in a child’s early years. The impact of the rejection involved in parent loss may be thought about at least two ways. First, it is an open question what kind of loss may occur before birth, at birth and at the very early days of infancy. The question of parental bonding is an issue of inquiry that is only beginning to be addressed. Substitution of parent figures in the first days, weeks or months of life may affect the infant more or less depending upon the theory of awareness to which one subscribes. Second, it is clear that as cognitive development proceeds, the idea of parent loss becomes a reality somewhere between the ages of six and eight years, when the capacity for conceptualization occurs. Regardless of how early a child is told the story of her or his adoption, the idea of the loss is experienced at this age when some depression may be seen in the adopted children (Brodzinsky, Singer and Braff, 1984).

Besides the above mentioned psychological development concerns, there also arise questions for the adoptee regarding the growing and changing conceptions of God. Furthermore, other problems surrounding adoption may be understood in terms of possible characterological problems which are ingrained traits of personality.
that are for the most part ego syntonic and are therefore fixed and
unamenable to change.

Adoptees bring into counselling among the presenting
problems – depression, eating disorders, stealing from parents and
siblings, identity problems and difficulties with relationships.

The purpose of this study was to review the literature on the
effects of adoption on both adoptee and adoptive family. This is
necessary because the rate of adoption in this society is greatly on the
daily increase, for, according to (Freud, 1909), “… a thing which has
not been understood inevitably reappears; like an un laid ghost, it
cannot rest until the mystery has been resolved and the spell broken.”

**Literature review**

Research on adoption has been plagued by a dearth of comparative
studies and statistical analyses, largely relying instead upon clinical
case studies, interviews and intuitive essays. Most of the empirical
studies have been inconclusive with regard to their findings. Most rely
on standardized instruments to evaluate between group differences,
rather than instruments, interviews, and questionnaires, designed to
elicit materials salient for adoptees. In Nigeria there is almost a dearth
of literature on adoption because everything about adoption is
shrouded in secrecy. Nobody else knows who is adopted or not
because of stigma to go with adoption.

Most of the literatures reviewed were based on theory (about
60%) – clinical observations from psychotherapists, theoreticians and
phenomenological approaches. Empirical works were equally
examined but yielded only about 40% on the whole.

**Adoption defined**

Nydam (1992:28) says:

> Adoption is the first of all an experience of rejection of not
> fitting into this world where one begins, of being dismissed,
> separated from origins, denied the basic rights of birth, and
> offered up to unmasked-for adoptive parents.
It is also the experience of being received, accepted, taken in by others. Adoption means being given a new name, a new status, a new place in the world.

Literature based on theory

Representational world: (1) Loss

How an infant-child experiences and comprehends the world around is a question that will always be open for discussion. The interest here has to do with the creations of the infant-child mind as he or she seeks to survive psychologically and spiritually in unusual circumstances. What sense does the infant-child make of a change in parents? What is likely to smell a different smell in the cloth of a different mother? What happens when a new father with a different rate of eye contact elicits attachment from an adopted child? What happens then in terms of the representation that the child makes of these people – events, and eventually God?

It is part of human awareness to wonder about both one’s origins and one’s future destiny. This could be reason Nickman (1985: 371) points out:

We all wonder where we came from and how we will meet our end; these are the primary questions from which religion and philosophy spring. How do we contemplate a past in which we played no part and a future which will proceed without us? Blood ties attenuate the pain of these questions for most people; adoptees, however, are brought closer to a sense of basic anxiety about their place in the world.

Nickman (1985), still reflecting on so many years of experience in counselling adoptees, distinguishes three types of losses which visit on the adoptee:

(1) Overt loss: This is the literal object loss experienced by the infant-child even within the first few weeks of life;

(2) Status loss: Which has to do with having an appearance and genetic history different from one’s adoptive parents; and
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(3) **Covert loss**: Which includes several psychological phenomena, such as “the knowledge about one’s original parents, and various kinds of stigmatizing experience which cause adoptees to feel that their status in our society is ambiguous and their rights compromised”.

(2) **Personal injury**
Adoption is a break in attachment of a particular form. At birth adoptions may not include initial bonding to a birth mother or birth father. The parental object may have not been physically represented to lose in the first place. It is only later as the child becomes aware of another set of parents that a personal injury may be unconsciously experienced. Brodzinsky, Singer and Braff (1984) point out that understanding of adoption have much to do with the cognitive capacities of the child. They note that simple understanding remains until ages six to eight, when the capacities for abstraction emerge. This may be the time for the awareness of loss will emerge along with the resulting mental creations of ghost-parent images. The process of adoption may include real object losses, which may further complicate the creation of loving parental images.

This disruption in the development of parental images in the mind of the adoptee may evidence itself in a variety of ways. Clothier (1943) suggests that “a fundamental sense of insecurity” is present in the mental life of the adoptee which must be managed and worked through in order for healthy development to proceed.

In early adolescence identity, formation may be interrupted by ambivalence concerning parental images. A “search” in later adolescent or young adulthood for one’s birth parents may be necessary to resolve some of these difficulties (Nydam, 1991).

(3) **The double representational world**
This has to do with double-parents which the adoptee deals with: his biological and adoptive parents. Brinich (1980:108) writes about both sets of parents:
The adopted child must include two separate sets of parents within his representational world. He must also integrate into his representation of himself the fact that he was born to one set of parents but has been raised by another set of parents.

The adoptee draws upon these two or at times three sets of parents for his own self-definition as unloved, and worthless, ultimately disposable. But there is still more. The dilemma of the double representational world of the adoptee may lead to several difficulties in the formation of both self and parental images. Nydam (1991) notes three outstanding difficulties:
(a) genealogical bewilderment,
(b) the interruption of fantasy, and
(c) splitting of self-object and object.

(a) Genealogical bewilderment
Heredity has meaning to everyone in terms of our awareness of personal identity. When for example, basic information about birth parents and their history is kept from the adoptee, lacunae remain his or her representational world. Regarding this, Sants (1964: 133) states that:
A genealogically bewildered child is one who either has no knowledge of his natural parents or only uncertain knowledge of them. The resulting state of confusion and uncertainty ... fundamentally undermines his security and this affects his mental health.

(b) Interruption fantasy
The second difficulty in the development of the adoptees double-representational world has to do with fantasy and its role in psychological and spiritual development. Weider (1977) describes the psychoanalytic construct of “family romance fantasies” in
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which the non-adoptee dreams about having another different set of parents. The alleged purpose of such fantasy life is the resolution of ambivalence toward one’s parents, allowing the individuation from them, reducing anxiety and guilt about hostile wishes toward them, and achieving independence from their authority. Imagined good and loving parents play the role of psychic saviours. The adoptee is left with fewer resources in fantasy to construct parental representatives that may be useful in the development of a healthy ego via the psychological process of internalization and repression.

(c) Self-object and object splitting

In the face of the difficulties, integrating at least two sets of parental images into the representational world of the adopted child may settle for less and split these images into good and bad in a simplistic manner. As one adolescent adoptee put it “I have one set of parents outside of me, and another set of parents inside me.” From this one can say that as psychological and spiritual development proceeds, the adoptee is in an unusual process of mourning. This, he has to muster the courage to do. Nickman (1991:16) concludes:

... the facts and feelings connected with adoption remain largely painful and unspeakable, the fantasies it engenders may be acted out unconsciously, and the adopted person may repeatedly endanger his position in his family or outside world, by performing actions which represent his unconscious identification with progenitors conceived of as bad or unworthy.

Freud’s (1909) proposal that one give up God representations as vestiges of infantile wishes does not hold water, since God representations instead are to be
formed and reformed as life proceeds on into adulthood. Rizzuto (1979:7) notes that “It is out of matrix of facts and fantasies, wishes, hopes, and fears, in the exchanges with these incredible beings called parents that the image of God is concocted.”

Adoptive families as dysfunctional
Some writers like Lauren and Bufferd (1986), Small (1987), and Deering and Scahill (1989) refer to adoptive families as dysfunctional because they are based on denial, triangulation and keeping family secrets. Denial exists in adoptive families when the differences implicit in adoption are disavowed. For example, adoptees may deny their desire to know their biological roots for fear of hurting their adoptive parents. Both adopters and adoptive parents may minimize or deny the fact that adoptee have two sets of parents and share a common ancestry with the birth parents, not adoptive parents. Moreover, adoptive parents may not have grieved their own infertility and may deny the loss implied by adoption - the adoptee is not a biological child to whom they have a genetic link.

Adoption is characterized by a triangle of three parties: the child, the adoptive parents and the biological parents. The adoption triangle excludes the parents, who remain just outside daily life as fantasy figures. The adoptee may ascribe heroic proportions to these elusive figures. Birth parents may provide a subtle threat to adoptive parents because birth parents did what the adoptive parents could not do – produce the child. Family systems theorists like Satir and Bowen stress that any triangle can sidetrack conflict between two parties by spotlighting a third, thus contributing to masking an interpersonal problem. Adoption is based on keeping secrets. When an adult adoptee adopted as an infant seeks facts, only non-identifiable informations are presented. Denial triangulation and keeping family secrets creates a complex system which Jewett (1982: 42) calls “a conspiracy of silence, that deprives the child of her right to confront and resolve her grief”.

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Furthermore, some writers go further than noting the dysfunctionality of the adoptive triangle by suggesting a trauma theme. Bowlby (1980) refers to an ongoing intrusive urge of a child to renew the attachment bond with a non-available parent, calling this need chronic stress which may be acute at times. Bowlby (1973:10) writes about the importance of attachment:

*During the course of healthy development attachment behavior leads to the development of affectional bonds or attachments, initially between child and parent and later between adult and adult.*

Furthermore, Bowlby (1973:8) sensitizes his readers to the power of separation and loss. He observes that:

*... there is a tendency to underestimate how intensely distressing and disabling loss usually is and for how long the distress, and often the disablement commonly lasts. Conversely, there is tendency to suppose that a normal healthy person can and should get over a bereavement not only fairly rapidly, but also completely... emphasis will be laid on the long duration of grief, on the difficulties of recovering from its effects, and on the adverse consequences for personality functioning that loss so often brings.*

It is this grieving, this profound depth of mourning in infancy and early childhood (that is loss) which may lead to very rigid, constricted views of reality that disallows closeness to both self and others – character disorder.

**Empirical studies**

Most research in this empirical section were done under the following, long term effects of adoption, psychological adjustment, psychosocial adjustment, interpersonal relationships, behaviour and academic problem, conduct disorder and the impact of adoption on the adoptee.
Long term effects
Smyer, Gatz, Simi and Pedersen (1998) studied the long term impact of adoption on a sample of sixty (60) pairs of twins taken from the Swedish Adoption/Twin Study of Aging. The twins were separated at an early age and reared apart. One member was raised by biological parents and the other by adoptive parents. Univariate and multivariate analysis were employed to assess factors associated with being raised in adoptive and non-adoptive homes. The results of the study show that there are few significant effects of adoption on adults. Childhood socio-economic status appeared to mediate the stress of adoption. However, adoptees reported higher psychological stress.

Lieberman and Morris (2004) studied long term effects of adoption to identify psychological differences between extra familial adult adoptees and a non-adopted comparison group through projective tests and life history interviews. Two demographically matched groups (18 adoptees and 16 non-adoptees) were administered the Thematic Apperception Test (TAT) and Loevinger’s Sentence Completion Test which measures ego state. The TAT was scored thematically for “alienation” and McClelland’s “need for affiliation”. Interview data were examined for corroboration or refutation of themes present in the projective tests. They found that the results indicated no between group differences in ego state, however, adoptees were significantly higher on some “alienation” scores and non-adoptees were significantly higher on some affiliation” scores (p < .05). Moreover, adoption status was predictable (p <.05) from a discriminant analysis using variables that had significantly zero-order correlation with it.

Distress and depression (psychological adjustment)
Cubito (1999) compared adoptees to normative data utilizing the Brief Symptom Inventory as a measure of overall distress, Zung self-Rating Depression Scale, and anger content scale of MMPI-2. Adoptees were compared to two normative scales; one for every day people in the society, and one for a sample of outpatient mental health clinic patients. The adoptees scored about halfway between the outpatient
and normative data on all of the test instruments. The same author (Cubito, 1996) found another sample of adoptees to score significantly higher (p < .01) on the same measures of overall distress and depression but not on the anger scale when compared with normative data for these tests.

Moreover, Cubito and Brandon (2000) studied psychological adjustment in adult adoptees to assess distress, depression and anger. They reported higher levels of psychological maladjustment among adult adoptees. When compared to normative data, however, their scores did not approach those levels of a typical outpatient population. Their study also found that females scored higher on a scale measuring anger.

In 1990, Haan-Alvarez and Johanna studied the psychosocial adjustment of a group of young adults who had been adopted as children. They compared this group with that of a group of young adults who had been raised with their biological families (aged 20-35 years). Personality factors, interpersonal behavioural styles and social support networks were used to measure psychosocial adjustment. The sixteen Personality Factors Questionnaires, the Firo-B, and the Interpersonal Network Questionnaires were the instruments used. The findings suggest that non-adoptees were more intelligent than the adoptees; however, the validity of this finding is questionable. The study concluded that young adult adoptees showed no difference in psychological adjustment when compared with non adopted young adults. Adoptees seeking information about their backgrounds were viewed as normal rather than neurotic.

Furthermore, Sharma, McGue and Benson (1996) studied the emotional and behavioural adjustment of United States adopted adolescents (Part 1). The sample consisted of over four thousand (4000) adopted adolescents and were compared to the same number of non-adopted adolescents on nine factors of emotional and behavioural adjustment and three factors of family functioning. The study found that adoptees showed lower levels of adjustment on nine of the twelve scales. Earlier studies of Maughan, Collishaw and pickles (1998) found
that adopted women showed very positive adult adjustment in all areas whereas adopted men have difficulty in the employment and social support domains.

**Psychosocial adjustment**

Wasserman (1998) compared the psychological by a group of young adult adoptees adopted as children with that of a group of young unadopted adults. He was able to discriminate searching from nonsearching adoptees using Life Events Questionnaires but otherwise was unable to show significant differences between the two groups using the Miller Behavioural Style Scale, or the repression-Sensitization Scale of the MMPI.

Moreover, Feigleman (1997) compared adult behaviour patterns of adoptees with those of others raised by both biological parents. The study found that adoptees showed a greater incidence of problem behaviors than children raised by biological parents during adolescence. However, in areas such as recent use of drugs educational attainments, job holding, and marital stability, they appeared similar to those raised in intact biological families.

Collishaw, Maughan, Pickles (1998) studied infant adoption psychosocial outcomes in adulthood. Data from the National child development Study (NCDS) were used to examine the psychosocial functioning of an unselected sample of adopted and non-adopted children from similar birth circumstances. The study found that adopted adult women showed positive adjustment in all examined domains. However, findings suggest some difficulty for adopted adult men in the employment and social support domains. A number of adoption studies have found an increased risk for behaviour problems among adoptees.

Sobczak (1988) compared adult adoptees and non-adoptees on levels of depression and quality of relationships with parents. The Beck Depression Inventory, the Parent Bonding Instrument, the Social Readjustment Rating Scale, and a Personal Data Form was competed by one hundred fifty one (151) adoptees and non-adoptees. The
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findings suggest that adoptees can enjoy mental health and normal interpersonal relationships. However, they are somewhat vulnerable to depression and are highly sensitive.

Brodzinsky (1993) carried a study on the long-term outcomes in adoption. His work supports the notion that adoptees are more vulnerable to emotional behavioural and academic problems than the non-adopted living with their biological parents. Additionally, Brand and Brinich (1990) used data from the National Health Interview Survey to determine if adopted children are more likely to have emotional or behavioural problems than non-adopted children. They found that adopted and foster children are more likely to have mental health contacts than non-adopted children. When comparing adopted and foster children with non-adopted children to see which group had more behavioural problems, the findings are mixed; however, there were no significant differences between these two groups when a small group of influential cases were eliminated. The study also found that the differences between the groups were not representative of adoptees and foster children as a whole. Patterns of behaviour problems among the majority of adopted and non-adopted children were found to be comparable.

Finally, Moore and Fombonne (1999) explored the relationship between adoptees and conduct disorders. A sample of children who attended outpatient psychiatric services over a fourteen year period were used to study the relationship between adoptive status and presenting psychopathology to demographic and psychosocial variables. They found that adoptees were at increased risk of conduct disorders and Attention Deficit Hyperactivity Disorder (A.D.H.D). Certain life stressors affect personalities. Adoption is an early life stressor which affects the personality and subsequently life experiences of an individual.

Summary and conclusion
The above findings could be described as a ‘mixed grill’ or a ‘basket of nuts’ The theoretical literature reviewed seemed to be in harmony and
needed more empirical studies to oil and corroborate it. Most of the findings on the effects of adoption on the adoptees, however, were carried outside Nigerian shores. In this clime, we seem to be unconcerned about the negative effects of adoption on the adoptee and even on the adoptive family. This writer is yet to come across any empirical studies on the effects of adoption on the adoptive families.

Many of the findings above may be applicable to us (Nigerians) and greatly may not. The reason, being the huge secrecy shrouding the process of adoption and adoption act. Childless couples conceal “their sickness” and announce that their spouses have taken in when adoption process has been finalized. These women would go into hiding with the understanding that they are “expecting”. As soon as the child is secured, it is now celebrated that the woman has “given birth”. Those with girl children will work tirelessly and secretly to have a male child adopted who is going to take care of his inheritance after his demise as if the girl child has no rights of inheritance.

In clinical settings, this author has come in contact with many of Nigerian adopted children. They are usually characterized with the following behavioural problems: stealing from parents and siblings, that is, taking money, usually available for the asking, from wallets, purses or dressers, sneaking, hiding and hoarding food; lying about very minor issues; confabulating, making up fantastic stories – not infrequently about self and family; embarrassing family, especially mother- in public; school underachievement or failure - academic cheating ; destroying parental family property; going out of the way to get into trouble; sleep disturbances; aggression toward peers; insolence toward authority figure; failure to learn from experience etc.

Furthermore, it is very difficult to study adoption in this our society since the adopted school aged child does not know he is adopted. This essential knowledge is hidden by the adoptive family. The problem is that the child might be traumatized when he learns the truth in a hard way - when his/her peers call him a “bastard”.

In Nigeria, adoption is a practice shrouded in secrecy. In the United States this type of practice is called “closed” or “confidential”
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adoptions. The identities of the birth parents and adoptive parents were kept from each other by the adoptive agencies that made the arrangements. Pregnant girls/women who had decided to give up their children were often given as little contact as possible with their babies at birth and in many cases were not even told their babies gender. All these are done probably to protect both birth parents and child from the social stigma of illegitimacy. The Americans are abandoning “closed” or “confidential” adoption today because of some of the findings in research. They believe that the process involved could be the result of trauma associated with the separation of mother and infant – an event labeled “psychological amputation” which results into emotional problems due to “genealogical bewilderment” and a loss of their “true identity”.

This author recommends that if adoption must be embarked upon, it should adopt open adoption not to avoid totally the problems associated with adoption but at least to lessen them. The “open adoption” will equally open the flood gates for social scientists to study the problems surrounding adoption and proffering solutions for them.

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RE-TOOLING EDUCATION FOR THE INFORMATION AGE: IMPLICATIONS FOR NIGERIAN TEACHER EDUCATION

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Abstract
In the new world order, the use of information and communication technology (ICT) for good and purposeful teaching and instruction, can no longer be left to chance. Nigeria as a nation was late in the use of ICT, in all its sectors of development, especially in its teacher education practice. Consequent upon this, many Nigerian teachers have not been well trained and encouraged in the use of ICT in their classrooms. To this end, the paper submitted that unless Nigeria teacher education programme is re-tooled or re-generated with ICT, it may not effectively achieve its envisioned ideology. Thus, the paper made a philological analysis of the term “tool” as a means to achieving an end. The central issues in the ideology of Nigeria teacher education were articulated. The necessity of re-tooling Nigeria teacher education practice with ICT was discussed. The educational implications of the study were highlighted. And some recommendations were proffered.

Introduction
The term “tool” is derived from the Greek world tekhnē, meaning an instrument used by workmen. It could also mean that which acts as the instrument of another. In this aspect, a tool or an instrument becomes a means to achieving an end. Random House Webster’s College
Dictionary (1991: 1405), considers the world “tool” as “that, which stands for any instrument used in doing work, especially one held in the hand as a hammer, saw or file for performing a facilitating mechanical operation”. On the other hand, a “tool” is a means of accomplishing a task or a purpose. For instance: Education is a tool for success. To re-tool Nigerian teacher education for the information age, implies using the information and communication to recondition or even to recharge the Nigerian teacher education practice, especially now the world has become a global village.

On the part of Mailer (2005) the whole range of technologies which are involved in information processing, and electronic communication are referred to as information and communication technology (ICT). It includes the radio, television, videos, computers, sensors, interface boxes, e-mail, satellite connection, internet and the soft wares and materials which are employed by teachers in their teaching and learning practice.

Lamentably, Ayeni (2006) submits that, Nigeria, a country that is approaching fifty years of existence as an independent nation, is still in the process of clamouring for transfer of technology, socio-political stability, economic survival and capacity building and sustainable development in education. The central and strategic position and role which ICT occupies and plays in development strategies of various economies, as Enemuo and Onwuka (2006) concur in their research report, has made it the cardinal tool of governments and organizations. It is now almost imperative for policy-makers to focus on e-health, e-commerce, e-finance, e-government, and e-education as catalysts for all development agenda. It is the contention of this paper that ICT ought to leave its imprint more or teacher education, since teacher education is the bedrock of any nation’s education and national development.

Undoubtedly, ICT is a revolution that involves the use of computers, internet and other telecommunication technologies in every aspect of human endeavour. It is also self evident truth that the computer and internet have a more direct relationship to fundamental
changes in human communication and cognition, and the overall organization of the learning and teaching practice of the society. Based on the above, the interest point of this paper lies on the inevitability of re-tooling Nigeria teacher education with information and communication technology in order to achieve the ideology of Nigeria teacher education.

**The Ideology of Nigerian Education**

Teacher education is the process of training that deals with the art of acquiring professional competences and growth. Osunde & Omoruyi (2004) were of the view that in Nigeria, the need for well qualified teachers has gained pre-eminence because it is considered that, teacher education programme is a means of providing teachers with the necessary skill and knowledge needed to adequately carry out their teaching jobs, as well as for professional growth. Teacher education is designed to produce highly motivated, conscientious and successful classroom teachers, who will handle students effectively and professionally for better educational achievement. This must have been the kerosene which supplied energy to Anya’s (2001) lamp of argument that, teacher education is the intellectual laboratory of any nation and the engine that propels its economy.

Inadequate teacher preparation programmes as Amedeker (2005) affirms in his study, result in majority of teachers’ inability to demonstrate adequate knowledge and understanding of the structure, function and the development of their disciplines. On cogent premises however an effective teacher education programme is a condition *sine qua non* (necessary condition or prerequisite) for a reliant education, which leads to a good level of confidence in both teachers and their students. Going by the implication of the above assertion, Lawal (2003) affirms that it is only when learning is co-ordinates effective and professionally that the inherent problems in the teacher education could be rectified and solved.

The entire system of education in Nigeria as Iwuchukwu (2006) alleges, depends on the teacher for effectiveness. Such a claim stands
on the ground that the teacher as a human person is the most important factor among the agents of production in the educational system. As a human person, the teacher organizes all other facilities for effectiveness and functionality of the educational system. The teacher is the manager and the co-ordinator of both the facilities and the learners. Any inadequacies in the personality and education of the teachers will certainly be reflected in both the competency and productivity of the prospective learners, as the teacher’s products.

In the same wake of though, Umar (2002), notes that one of the issues dominating the debate on the current educational crisis is teacher quality. He further observes that, teachers’ level of preparation is inadequate. Their training has not prepared them for the realities of their classroom, and the new challenges posed by the new information age. In the words of Abiogu (2007), the Nigerian teacher of today is like a farmer who cultivates his farm sometimes with an antiquated hoe, or with available instrument that is crude in design and traditional in construction. He occasionally succeeds, but often fails, not because he enjoys the odium of failure, but because he can only teach what he knows and with the material available to him. A fortiori (for greater reasons), the ideology of Nigeria teacher education may not sustain its philosophic onions if the teacher fails in his practice of satisfy the students’ new learning needs in this information age. This then implies that there is necessity of launch Nigeria teacher education programme into the changing and challenging roles of ICT in education practice.

The Necessity of Re-tooling Nigerian Teacher Education with ICT:
In education practice, the teacher needs to be conscious at all times in order to guide his students intelligently, so as to enable them learn new ideas, and put them into practice. The teacher’s main professional responsibility is not only to encounter his students as intelligent beings, but also it use the informative technological devise to further develop their learning process. Such development is expected to be for learning at the theoretical level, and to facilitate the application of theory to practical living. For the teacher to succeed on these two levels of
professional endeavour, the teacher needs not only an assumption of his students as actual or potential thinkers; he also needs to complement this assumption with practical educational tools or resources.

In view of the above, Ololube (2006) is insistent that many Nigerian teachers have been unable to find effective ways to use technology in their classrooms, or any other aspect of their teaching and learning life. The possible explanation for this lack of success by teachers is that the use of technology in the classroom has not been encouraged and teachers are not well trained in using ICT in teaching, as a means for educational sustainability. This is in spite of the specifications in the National Policy on Education by the Federal Government of Nigeria to “provide through education technology, full-time or part-time courses of instruction and training in engineering, other technologies, applied science, business and management, leading to the production of trained manpower” (FGN, 2004:41). Nigeria as a nation came later into the use of ICT in all sectors of the nation’s existence, more especially in teacher education. This is as a result of chronic limitations brought about by economic disadvantages and government policies.

Disappointingly in a research study conducted by the Global Information Technology (2004), the report used the Networked Readiness Index (NRI) to measure the degree of preparation of a nation or community to participate in, and benefit from ICT development. Nigeria was ranked 86th out of 104 countries. In 2005, the same research study was repeated by the same research corpus. This time it covered a total of 115 economies in 2005-2006. Nigeria was ranked 90th out of the 115 countries surveyed. United States of America topped the list, followed by Singapore, Denmark, Iceland, Finland, Canada, Taiwan, Sweden, Switzerland, United Kingdom, and what have you. The above indicates a decline in Nigeria’s preparedness to participate in and from ICT development globally. Interpretatively, Mac-Ikemenjims (2005) in his paper presentation observes that fundamentally, the slow access to basic ICT equipments,
low internet connectivity and computer, and the inadequacies in the use of audiovisual materials and equipments including films, slides, transparencies, projectors, globes, charts, maps, bulletin boards, plus programmed materials, information retrieval systems, and instructional television in teacher education programmes, are barrier to the effective and professional development of teachers in Nigeria.

This suggests the urgent need for Nigeria government, as well as the educational administrators and trainers to re-tool Nigeria teacher education practice with appropriate technological tools, for there is apparent information out burst in education system world over, as Ogbuanya (2007) rightly avers. This is spurred by advancement in technology causing knowledge, ideas and techniques to change so rapidly that they quickly become obsolete. In other words, Nigeria teacher education is to re-tool its sector with the media and its evolving technology, such as ICT, since its conventional teaching strategies and pedagogy no longer satisfy students’ needs.

Educational Implications of Re-Tooling Nigerian Teacher Education with ICT:
Nigerian teacher education has to be re-tooled with information and communication technology because teacher education, as Anya (2001) highlights, is the intellectual laboratory of any nation, and the engine that propels its economy. By implication, the teacher education and economic survival of Nigeria in the information age cannot be detached from ICT.

The use and effective application of ICT in Nigeria teacher education, will certainly transform the teachers’ obsolete and abstruse traditional methods. It will also supplant the teaching and learning practice with revolutionary new paradigms of the information age. This implies that teachers will no longer teach and learn with difficulty and tears, for their methods as well as resources and data will be modeled into programmable bits, to facilitate the transfer and acquisition of knowledge.
Now that the whole world has become a global village through the use of ICT, it implies that the teacher will achieve more effective performance, and an easy upturn of the reality of educational challenges, in order to propel the learner on the upward global human development index.

Since modern education is now more or less centered on ICT, which includes internet education, e-commerce, human management, technical writing and communications, programme and project management as backbone of all other traditional domains of education, it implies that Nigeria teacher education programme cannot isolate itself from the emerging global culture, as a result of the progress of science and technology whose impact is already evident in Nigeria’s mode of thinking and existence.

With the use of ICT, the world has moved closer to us, but such dream is yet to be realized in Nigeria school system, because the Nigeria teacher who is the key man in the drive to progress, and who ought to teach and direct the students, is lacking in ICT skills and knowledge. Contendingly, the aphorism is true that *nemo dat quod non habet* (no one offers what one has not). In other words, it is what the teacher has, that he offers. This implies that there is need for re-tooling or re-structuring Nigeria teacher education programme with the skill and knowledge of ICT, since the knowledge or ignorance of the teacher as the case may be invariably affects his products.

**Recommendations**

Based on the above thesis on re-tolling education for the information age, and its implications for Nigerian teacher education, the following recommendations are made:

1. Since Nigerian teacher education programme came late into the use of ICT, Nigeria government should declare ICT capacity building and infrastructure development an emergency which deserves the highest priority and budgetary allocation.

2. To meet the digital challenges of the 21st century, and to save Nigeria teacher from remaining culpably inferior and ignorant
in intimate mates of education technology, the teacher as well as the student teacher, should learn how to utilize computer technology, particularly in the areas of system engineering and development, database, multimedia interfaces and networking, visual working systems, apart from being connected with internet web.

3. There should be well articulated policies and designed curriculum to enforce conservative teachers in all levels of education system to apply ICT in their instruction.

4. The Federal, State and Local Government should embark on immediate capacity building of teachers in ICT and its instructional applications though in service training, workshops and seminar.

5. It is the onus (responsibility) of the principals of both primary, secondary and tertiary institutions to create awareness for their teachers, that the global evolution of super-scientific approaches and manipulations (ICT), have made it imperative that, the teachers’ quality outcomes measured through multiple indices, became the felt need of education today.

Conclusion
The paper endeavoured to establish that today’s world is characterized by constant technological changes. The changes are perceived in human communication and cognition, and in the overall organization of the learning and teaching practice of the society. For Nigeria to catch up with these rapid changes, it has to recognize essentially the indispensable role of teachers in maintained that since Nigeria conventional teaching strategies and pedagogy no longer satisfy the needs of the learners, Nigeria is to “re-tool” its teacher education programme, with the application of Information and Communication Technology.
Re-tooling Education for Information Age ...

References


Abstract
The challenges of Small and Medium scale Enterprises (SMEs) are universal all over the world. In Nigeria, we have this peculiar problem of how to start and manage SMEs. This paper, using secondary sources, tries to x-ray the different steps necessary in setting up SMEs. It also tried to assess the role played by the SMEs in Nigeria’s economic development and finally highlight some of the factors that militate against the effective contribution of the enterprises towards national development. The paper concludes by noting that the health and viability of the SMEs is the cornerstone upon which the future transformation of Nigerian economy can be anchored.

Introduction
Nigeria is a country of great, but largely frustrated, potential. It is Africa’s most populous nation and the sixth largest crude oil exporter in the world. It is highly endowed with an array of extractive mineral and agricultural resources as well as diverse and conducive climatic conditions found in very few parts of the globe. Yet the country suffers from chronic underutilization of both human and material resources (Boswell, 1992).
In fact, by the time civilians came to power in 1999, the economy had grounded to a halt. No country worth its salt in the international financial community was prepared to have anything to do with Nigeria. But, the series of reforms introduced at the outset of Olusegun Obasanjo’s civilian administration kicked off a reversal process that rekindled local and foreign interests, confidence and optimism in the economy (Emmanuel, 2003).

With great enthusiasm local investors went into investments in both small and medium scale enterprises. The economy began to look up. Nigerian government has not lacked initiatives to encourage the development of the SMEs, but the problem remains that of management. Some of the initiatives include the Small scale Industries Credit Scheme (SICS) of the 1970s, the Nigerian Bank for Commerce and Industry (NBCI) supervised loan scheme – the special fund for small scale enterprises loan scheme of 1980s, as well as the National Economic Reconstruction Fund (NERFUND) of the past government. The question that agitates the mind would be the reasons for the failures encountered in the past. Is it the general management inexperience and incompetence of most Nigerian entrepreneurs or how to take-off? (Essian, 2001). This is the focus of this paper.

Definition of terms
The concept of small and medium scale industries is relative and dynamic. Hence, there is no universal definition of small and medium scale enterprise. However, within the fixed co-ordinate of natural boundaries, it might be relatively easier as countries tend to derive their own definition based on the role SMEs are expected to play in economic development of the country and the programmes of assistance needed to achieve that goal. The first attempt to overcome this definitional problem was by Bolton Committee 1971, which formulated an economic and statistical definition of Small Scale Industries (SSI) under the economic definition. According to the Committee, a firm is regarded as small if it has a relatively small share of the market place, managed by the owner in a personalized ways, and
is dependent in the sense of not forming part of large enterprise. The committee adopted different definitions of small firm for different sections and suggested three ways of differentiating between small and large scale firm other than size, uncertainly associated with being a price taker, limited customer and product base. For instance, a firm that can be categorized as small scale in an advanced economy, like that of the United States of America, given the high level of capital intensity, may be classified as medium or large in the developing economy, like Nigeria. Definition changes over time owing to the changes in price level, advance technology, etc. Even in the same country, definitions also vary with institution, depending on the policy focus. For instance, in Nigeria, the definition of small-scale industries also varies from time to time, depending on what they are meant to serve (Chibuzo, 1992).

The Central Bank of Nigeria (CBN) defines small scale industries in its monetary circular No. 22 of 1998 as an enterprise in which its total investment (including land, working capital) did not exceed N500,000 and an annual turnover did not exceed five million Naira following the persistent depreciation of the naira exchange rate.

In 1992 budget, the federal government of Nigeria defined small scale enterprises for the purpose of commercial bank loans, as those enterprises with an annual turnover not exceeding N500,000 and for merchant bank loans, those enterprises with capital investment not exceeding N2 million (excluding cost of land) or a maximum of N5 million.

Section 375 (2) of the Company and Allied Matters Decree of 1990 defined a small-scale enterprise as one with annual turnover not more than N2 million and net asset values of not more than N10 million. The commission of the European Communities defined micro and small-scale enterprise as:

- A micro enterprise which employs fewer ten persons and whose annual turnover or balance sheet total does not exceed European 2 million
A small scale enterprise employ fewer than 50 persons and whose annual turnover or balance sheet total does not exceed European 10 million.

Hoel (1989) defined small-scale industries as a firm with less than or equal to 25 permanent members and with fixed asset excluding land with up to $50,000.

**Statement of problem**
The role of SMEs in Nigeria’s postwar economic development has attracted much attention in recent years. Some believe that they have played a more important role in Nigeria than elsewhere and that their relative importance meant that Nigeria postwar growth path has been close to that of free market capitalism. The fact that Nigeria has fared much better than her neighbours in the African financial crisis has made this view ever more popular. It is further argued that the abundance of SMEs made Nigeria’s economy more flexible and hence more resilient to crisis. Some revisionists of course have raised doubt about this claim.

This paper will assess this claim, by examining the role played by the SMEs in Nigeria, as well as the different steps necessary in setting up SMEs to undertake initial investment and production in heavy industries where private capital was reluctant to enter at the early period due to high risks.

**Characteristics of Small Scale Industries**
The varying definitions of small scale industries among countries notwithstanding, their characteristics are universally recognized, viz (Zaky, 1995):

- They are typically small owing largely to limited/access to financial revenues and thus, have special problem with respect to growth, since they are constituentely faced with financial vulnerability, which usually increase rather than decrease the risk.
They are characterized by single management structure, which generally combines with ownership management in one person, hence they revolve around a single owner/manager, rather than separating the ownerships from management.

The operation of small-scale industries has a high level of flexibility in decision-making and provenance of largely informal employer-employee relationship.

High labour intensive ratio and low employer turnover of the small-scale industries is more closely attached to the; product that launch them. They find it difficult to shift what they produce to something else.

They are reluctant about risk taking when compared to merchandising enterprises where lending risk are admittedly greater.

The unavailability of fund often results to the non-adoption of certain technology.

**Sources of Financing Small Scale Industries**

There are four (4) main sources of enterprise financing open to small-scale industries in Nigeria. These are as follows (Nnanna, 2001):

- Formal financial institution, such as Commercial Bank, merchant bank, saving and loans banks, insurance companies and development financial institution.
- Informal financial institution consisting of moneylenders, credit and saving association (like “ISUSU”) friends, and relations.
- Personal savings
- Other financial scheme, such as SME Arex Loan Scheme, NERFUND, NEXIM etc.
- Majority of small-scale industries in Nigeria, because of the inability to meet the condition of financial lending institutions, have resorted to alternative sources of financing in the informal financing institutions. Various studies have indicated that most small-scale industries source larger portion of their financing from the informal sector.
The Economic Potential of Small and Medium Scale Enterprises

The critical importance of adequate credit delivery to small scale industries is derived from the fact that the development of small scale industries is what is required to enable the country’s industrial sector meet the contemporary challenges of globalization. The economic significance of small-scale industries has been recognized worldwide. In 1952, the United State of America enacted the “small-scale business act”, which read in part: “… the essence of the America economic system of private enterprise is competition. It is the declared policy of the congress that government should aid, counsel, assist and protect, and as much as possible the interest of small-scale business concerns in order to prepare them from competitive enterprise.”

However, small scale industries are particularly more suited to the circumstances of developing countries. There is greater reflection on a country’s relative factor endowment to promote employment and enhance international economic competitiveness. This is crucial in an increasingly globalizing world economy.

Another major advantage of small scale industries in a capital scary economy like Nigeria is their relatively shorter gestation period, which enables them to field quicker returns on investment for further productive investment and foster growth. Small-scale industries also have greater potential facilities for the development of indigenous entrepreneurship and economic independence. They can be used to meet the output needs of large enterprises. This has been the major factor in the success of the industrialized countries.

Relatively the enhancement of international competitiveness by small scale industries stimulates the expansion of industrial disposal and balanced development. Small-scale industries alleviate rural-urban migration and it’s and economic social consequences.

Finally, small-scale industries are useful in mobilizing small saving for productive investment and enhancement of industrial capital formation in a country with low level of saving like Nigeria. Small-
scale industries are ideal for the mobilization of resources for economic development.

The importance of SMEs to longer-term economic stability derives from their size and structure. Under adequate condition, the market allows them the flexibility and ability to weather adverse economic conditions. SMEs are more labour intensive than larger firms and therefore have lower capital costs associated with the creation of jobs. Consequently, SMEs play an important role in fostering income stability, growth, and employment. Modern economics operate as complex network of firms in which a firm’s competitive position depends in part on the efficiency of its suppliers. Therefore, SMEs competitiveness affects the competitive position of the economy as a whole (Emmanuel, 2003).

**Before Setting up a Small and Medium Scale Enterprise**

Small and medium enterprise development is not for everyone, whether disabled or not, and needs a high level of discipline, dedication, persistence and creativity as well as a lot of work. The micro-entrepreneur must be capable of decision-making and have the ability to manage employees (if any) and accounts. Furthermore, small-scale enterprise development for persons with disabilities involves a multitude of additional challenges, which requires specific attention and strategies. Before setting up a small or medium scale enterprise, it is necessary to deal with some issues, including (Essian, 2001):

1. **Deal with specific challenges:** In any business venture, specific challenges need to be addressed. These include:
   - Seed money;
   - Physical location of the business venture;
   - Management skills;
   - Accounting skills;
   - Marketing skills;
   - Maintenance of equipment, machinery and premises.
In the case of persons with disabilities, their physical and mental capabilities have to be reviewed for suitability to the enterprise. You may wish to ask these questions. What are my strengths? What are my weaknesses? How can I compensate for my weakness? What are my current personal needs? Who will be working with me?

2. Choose the right business: The right business certainly varies from one person to another. Personal preferences, along with physical and mental capabilities are the main deciding factors. Nevertheless, the focus should be on market demand and its limitations to determine if the business can be successful. A planned small-scale enterprise should be able to produce sufficient income to justify the time and energy invested in the venture. Family support also plays a major role in the selection of the business since a person needs help in accomplishing certain tasks, especially during the start-up of the enterprise. Make a list of what you could like to do, and also make a list of what you are good at doing. Go through the following steps to guide the choice of business.

- Start with what you like and be realistic.
- Investigate the market and its needs and try to be objective.
- Review the competition i.e. the market.
- Avoid Saturated markets and look for opportunity.
- Make sure you can do it yourself, hiring means spending money.
- Consult with others, discretely, not to divulge ideas.
- Discuss with your family and check impact on family.
- Keep in mind that if there is competition, it means what is readily available and required in terms of raw materials and local demand.
3. **Review market demand and the competition:** Review of the competition is necessary. Competition means there is market, but how big is the market? It is important not to saturate the market and to supply the right type of product or service, something that is in demand. You may wish to ask these questions: Who are my competitors? Who are my customers? How much can the market absorb before saturation? Is there a shortage or surplus?

Location of the market is also important for micro entrepreneurs with physical disabilities. Agricultural produce, for example, has to be sold at the fresh market, which must be accessible to the disabled person micro-entrepreneur. If it is too far, proper transportation arrangements will be necessary or else the product will have to be sent by a hired delivery person or sold to a middle person. Hiring people increases production costs. Marketing is easier for a farm-based enterprise located within a small community where the production can be sold directly to the villagers.

Check seasonability. Agriculture and farming products are often seasonal. The following questions must be considered. Is the crop or product available only during certain seasons? Are raw materials available all year round? Can the product be kept in storage? Is the service or product only required during certain periods of the year? Can there be off-season production? Some products can be given off-season, generating substantial profits since there are few competitors during that period. Such products, although requiring more time and attention, can offer a niche market opportunity for micro entrepreneurs.

4. **Decide on Business Size:** Care must be taken in deciding the size of the business. If too small, the business may not be feasible. If too big, it becomes too difficult to manage properly and may require extra help, which adds to cost.
If too big, the market may not be capable of absorbing the produce. It is usually better to start small and expand the business slowly once the market has been tested and income starts coming in. Initially, self-sufficiency and the capability of handling the business by oneself is the best indicator of the right size of the enterprise.

Several questions need to be answered before determining the size of the enterprise. Who are the clients? Where are the clients? How many clients are there? How much produce or services can each client use? Are there seasons or days of the week when the produce or service is more in demand? Who else is offering the same service or produce? What percentage of the business share can I expect to take? How much money do I have to start the business? How much can I manage by myself? How can I ensure quality?

5. **Identify the Location:** Location plays a crucial role in starting a small scale enterprise, while a farming or farm related enterprise needs not be accessible to the business. The micro-entrepreneur will have to travel to the market to sell the produce. When the business involves fresh produce, timely sale is crucial. For example, fruits, vegetable and flowers are highly perishable and have to be sold quickly. Easy access to market is important. It is necessary for a micro-entrepreneur with a disability to be able to reach the market or to have easy contact with potential buyers. In some cases, it may be necessary to hire someone to help in the delivery of the produce.

In the case of services, micro enterprises location should encourage people from the village to come to the entrepreneurs’ explore. It must be easily accessible to clients, and be somewhat alternative. Low cost decoration can be used to attract clients, while good service will ensure their return.
6. **Land and Premises:** Land and premises are needed for the establishment of any enterprise. In case these have to be acquired, the start-up costs will increase. If the new micro entrepreneur already owns these, he or she may have to spend on renovation. The following question should serve as guidelines: How much space do I need? Do I have a piece of land or building I can use? What will be the cost of the land? Do I need to rent the premises? Does a new building need to be built? Can the existing building be renovated? Do I need decoration? Decoration is needed to attract customers.

7. **Check the Availability of Raw Materials:** Raw materials for making the produce should be readily available. Scarce materials should be avoided because this will make it difficult to ensure a steady supply. It is important to avoid reliance on a single supplier, as this will give the supplier a monopoly and is most likely to lead to any increase in prices over time. Because the profit margin in a micro-enterprise is generally small, it is necessary to keep production costs under close control. It is important to ensure constant quality. Alternative sources of raw material may also be considered, such as forest products that are readily available and free of charge. Recycling and re-use is another way of reducing costs. The steady availability of water is another important consideration, while selecting the enterprise and identifying the raw materials.

8. **Identify Funding:** Anybody/person wanting to start a micro-enterprise may obtain a loan for this from family or community members. However, the start up funds often has to be sought externally. It must be kept in mind that loans have to be repaid and therefore, one must know the minimum amount needed for start up and running expenses until the venture starts generating income.
Several countries also have disability funds offering loans at low or no interest rates to individuals with disabilities who are registered with the responsible government authority. The loan can be repaid over a period of several years. The loan sometimes requires endorsement by a family or community members in case of non-repayment.

9. **Review of Market:** Marketing is very important since competition can be fierce. The following factors must be taken into consideration.

i) **Packaging:** Packaging may or may not be required, depending on the product. For the sale of fresh fruits, vegetables or other agricultural produce, there is generally no need for packaging. A simple plastic or paper bag is sufficient.

ii) **Presentation:** Presentation can play a role even in the sale of fresh raw products. Neatness, cleanliness or organization makes the sales outlet attractive and appealing to customers.

iii) **Market Test:** It is sometimes interesting to test different types of presentation or packaging to find the one that appeals to customers.

iv) **Competition:** Competitors offering the same or similar product must never be ignored, as they clearly have clients and may be more experienced. Check their presentation, price and sales technique. As a new micro entrepreneur, you can learn from the experience of others and adapt it to your personality. A lot can learned by having the competition.

The following are some of the things that need to be checked against. Who are my customers? Is there growing demand for my product? Who are my competitors? How are other businesses doing? Are they growing? Steady? Decreasing? What are their strengths? Their weakness?
How does their product differ from mine? If it is the same, why do I think I can take a share of the market. What is the right sales price for the product or service?

Sales price, quality and service ensure that few customers become regular clients. If the sales price is too high, customers will go to the competitor, even if the entrepreneur is a person with disabilities. Clients may buy once to encourage the micro-entrepreneur, who is disabled person, but will buy the lower priced product if it is of equal quality. If the price is too low, customers will think that the product quality is also low and continue buying from the regular supplier. The right price should be similar to that of the competition while offering better service and same or better quality.

10. **Check Feasibility before Starting the Enterprise:** Too many people start a new small business blinded by the attractiveness of the product or by what seems to be an attractive market. However, many micro enterprise close down after a few months or years of operation, shattering the small scale entrepreneurs’ dreams of what appeared to be the perfect way of making a decent living. In order to avoid this, a pre-feasibility study should be conducted. Although this may be based on estimates, it helps to prepare for the future and in some cases shows that another activity may be better.

11. **Avoid Common Mistakes:** Numerous factors may jeopardize the success of an enterprise. The following are some common mistakes.

   o Insufficient know-how. The micro entrepreneur does not sufficiently understand the process and therefore cannot easily find alternatives or solutions to problems encountered, including pest control, disease, mechanical and other problems.
Lack of marketing strategies. Competition may be healthy, but too much competition may destroy the market unless creative marketing strategies are developed. Although a person with a disability may receive special consideration, it is necessary to compete with sometimes powerful and wealthy groups. The issue of disability is not a marketing strategy.

Insufficient cash-flow is often what destroys most companies. Careful forecasting of start-up and running expenses is necessary.

Too large start up: It is always better to start small with a minimum investment and to grow slowly with the market.

Poor record keeping: Income, profits, and losses need to be closely monitored. This helps decide whether the market is good, whether the new small-scale enterprise should be expanded, reduced or halted because of losses.

Giving samples and present: Generosity needs to be controlled. A certain amount of gratuities should be established, but it is always dangerous in personal business to give small amounts of the product or free service to members of the family and neighbours. This could equal or surpass the profit margin.

Management: Management of the business is, and will always be, the key to success. Not all people are good managers, and therefore management skill may need to be developed or acquired through training.

Maintenance: Maintaining the equipment and keeping the business premise clean and in good running condition certainly contributes to reducing operating expenses.
In summary, there are eleven basic and unavoidable steps in preparing to start a business. They are as follows:

- secure funding
- open Bank account
- identify premise location for the enterprise
- build or renovate the structure or building required
- arrange necessary infrastructure (water, electricity, communication and others)
- request permits (if necessary). Verification should be done at the very beginning so that permits can be processed during preparation for starting the enterprise
- purchase and adapt necessary tools, equipment and assistive devices (when required)
- identify suppliers of raw materials and consumables
- start production
- control quality
- device marketing and sales strategy.

12. **Managing the Business:** Running a small-scale business is not only buying, producing and selling. It also means:

- keeping clear records – make a list of all items bought and sold every week
- verifying profit and loss
- managing cash-flow
- maintaining tools, equipment and buildings
- reviewing the market regularly
- expanding the business wisely.

13. **Verify Profit and Loss:** Although setting up the micro enterprises may have its difficulties, making it a profitable venture is the biggest challenge. It is therefore necessary to closely monitor each investment and purchase cost to know the exact profit. Finding out whether the enterprise is making money or not is crucial for the venture. Sometimes it seems
that there is a lot of money coming in but when compared to the costs, there is little profit left. This is called feasibility. It is necessary to review the feasibility by asking the following question:
Am I making money?
Is it with continuing?
What can be changed to increase profit”

It is especially important to verify the profit margin. More production does not necessarily generate more income. It depends on the profit margin, which is calculated by subtracting the production cost from the income as follows:
Income – production costs = profit margin.

14. **Manage the Cash-flow:** Cash flow is the money moving in and out of the enterprises. It is the total amount of money coming in and going out of the business. If all the money received is put in the bank and all expenses are paid from the money in bank, the cash flow is the total amount of money moving in the bankbook. However, care must be taken not to spend what appears to be profit before reviewing future investment needs. These needs can include:
   - Purchase of raw materials
   - Payment for utilities (electricity, water, etc.)
   - Repair of broken equipment
   - Payment for extra labour
   - Repayment of the loan
   - Replacement of tools and materials.

   Note: An emergency fund should be set up for the replacement of broken equipment and tools and for purchasing other necessary input.
15. **Maintain Tools, Equipment and Building**: The life of tools and equipment can be extended by proper maintenance. Metal tools should be protected from knot while wooden tools have to be protected from termites and decay. Mechanical tools must be lubricated regularly.

16. **Review the Market Regularly**: A micro entrepreneur must always review development in the market if he or she is to remain successful. These and other questions need to be addressed regularly since a market is continuously changing with new people, new products, new technology and new competition
   - Am I selling more or less than before?
   - Do I have regular customers?
   - Did I lose customers lately?
   - Is there new competition, what is the quality of the product in the market? What is the cost? Etc.

17. **Expand the Business Wisely**: Expansion is always a sign that the business is doing well. However, this should be based not only on current sales but also on future sales. When expansion is considered, decisions need to be made on the type of expansion (1) produce more of the same product in the same location? (2) Produce more of the same product in another location? Join with others to open outlets for branches? Etc.
   It is recommended that expansion should only be done when the micro-entrepreneur has accumulated enough money to pay for the expansion. Borrowing money to expand a business is always dangerous and often results in failure.

**Conclusion**
In the course of the paper, we have highlighted the positive contribution of SMEs in development. We have also highlighted some of the factors that militate against the effective contribution of the
SMEs in Nigeria as well the required steps for sailing for successful SMEs development. It is our view that if the suggestions advanced above will be taken, SMEs will fare better and will make greater impact in national development.

**Bibliography**


A PROFILE OF ADOLESCENTS’ PSYCHOACTIVE SUBSTANCE USERS’ SOCIO-DEMOGRAPHICS AS A BASIS FOR COUNSELLING PRACTICE IN NIGERIAN POST-PRIMARY INSTITUTIONS

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Abstract
This social survey is aimed at profiling adolescents’ psychoactive substance users’ socio-demographics as basis for counseling practice in Nigerian post-primary institutions. This is against the backdrop of numerous surveys globally, without the consequent impact on the education of a volatile sample of the population – adolescents. Respondents were 1,530 students in school sampled from a Niger-Delta region town, Warri, with high prevalence rate of psychoactive substance abuse. A structured questionnaire was used to collect data. Findings show that the most used psychoactive substance among students is alcohol, and the significant source of push to use and stay on drugs is the peer group or friends, family type like divorce does determine drug use. These findings and others were discussed comparatively with earlier researchers’ findings. It was suggested that policy makers, educators and parents observe their wards on the basis of these findings.

Introduction
Adolescence is a period of storm and stress, reflecting speedy physiological and socio-psychological reactions that prepare one for
adulthood. During this period contact with people is tested by getting to do what the next phase of life (adulthood) portrays. Psychoactive substance use is one attraction to ‘belong’ and show of strength as young adult. But its negative consequences are enormous and may be lifelong (Oshodin, 1981; Nevadomsky, 1981).

Generally, the term “drug” (Oloyede, 2002), is defined as “any chemical substance, whether of natural or synthetic in origin, which can be used to alter perception, mood or other psychological states”. This definition of drug depicts a useful broad description of what are called psychoactive drugs, such as alcoholic beverages, cocaine, marijuana, heroin, amphetamines and Chinese capsule amongst others.

These drugs have effects other than those which are sought; and all drug effects vary with amount and frequency of use, the characteristics of the user, and the set and setting in which they are used. Consequently, different cultures have applied different values to the presumed consequences of drug use, whether beneficial or deleterious. Each society has decided which needs are legitimate, which effects are valuable and which risks are tolerable. These judgments are based on prevailing concerns about specific drugs, their effects, the reason for which they are used, and the people who use them.

The World Health Organisation (WHO) stated that illicit drug use in Africa is related with underage use of alcohol and cannabis and other natural psychoactive plants. The literature (Tobler, Lessard, Marshall, Ochshorn and Roona, 1999; White and Pitts, 1998; Flay, 2000 and Hansen and Graham, 1991) confirms drug use effect on adolescents or in-school youths.

The history of illicit drug use in Nigeria is relatively brief (Ewhrudjakpor, 2001). The misuse of drugs is escalating rapidly from cannabis abuse to more dangerous and from limited group of drug users to a wide range of users particularly adolescents (Oniyama and Oniyama, 1997). Several psychoactive drugs including alcohol beverages are commonly misused. Hence, when discussing drugs in this context we are referring to mind altering drugs. They have various
effects and these include medical, social, psychological, physical and educational.

Definitionally, there are several meanings attached to drug misuse in the literature (Ewurudjakpor, 1995, 2006a; Acuda and Eide, 1994; Babor, Caeteno, Casswell, Edwards, Giesbreche and Graham, 2003). These definitions posit that, it is “the excessive or persistent taking of any drug without regards for acceptable medical practice”. Hypothetically-socio-demographic variables do not determine adolescent psychoactive use.

**Statement of Problem**

There is concensus among educators, medical practitioners and researchers that drug abuse is a serious socio-medico problem (Omoluabi, 1984; Okorodudu, 1996, Oniyama and Oniyama, 1997; Ewurudjakpor, 1995; Ewurudjakpor, and Ojie, 2002; and Odejide, 2006). Today, we find students of tender age involved in the use of various alcoholic beverages (Ewurudjakpor, 2001, Obot, 2005). This has resulted to students in secondary schools being involved in anti-social behaviour such as destruction of school properties, nonchalant attitudes, academic laxity, prostitution, cultism, disregard for constituted authority and negative attitudes towards learning and effective reading (Ewurudjakpor, 2004b).

The problem of psychoactive drug use has been with us, but now an emerging trend and serious problem is ‘brewing’ in Nigeria. The involvement of youths, students of secondary schools, in drug purchase and consumption (Odejide, Ohaeri, Adelakan, Ikuesan, 1987; Odejide, Ohaeri, and Ikuesan, 1989; Obot, Ibanga, Ojiji and Wai, 2001; Obot, Karuri and Ibanga, 2003) has reached the stage of urgent intervention.

It is a known fact that “drug problem” exists (Oloyede, 2002) and there is this shared belief that an apparent rise in adolescent anti-social behaviour may be related to drug misuse. The abuse of drugs has become a cankerworm that seems to have eaten deep into the fabrics of the Nigerian adolescents and teenagers in the secondary schools and
institutions of higher learning (Ewhrudjakpor, 2006a). The incidence of increased procurement, use and misuse of psychoactive substance led the Federal Government of Nigeria to establish the National Drug Law Enforcement Agency (NDLEA) in 1990. It’s responsibilities include control of sale of drugs, identification and prosecution of drug offenses, organizing enlightenment programmes on drug use and misuse.

In contemporary Nigerian society, the most commonly abused drugs in secondary schools are cannabis otherwise known as Indian Hemp, Chinese capsule, and the locally brewed gin called “Ogogoro”. These drugs have untold academic, medical, psychological and social negative impacts on these adolescents (Flay, 2000). It results to poor grades as a result of school absenteeism or lack of concentration in class, medical conditions like schizophrenia, psychological states like personality disorder in extravertedness in form of talkativeness or numbness, pathological sexual urges and anti-social acts like brigandage, cultism, and riots (Ewhrudjakpor and Ojie, 2001).

The use and abuse of these drugs among adolescents is of serious concern to school authorities parents and the governments at all levels. This study is aimed at profiling the socio-demographic characteristics of adolescent drug users, for the purpose of profiling effective psychotherapeutic measures in counseling. It is believed that this study will equip teachers, school owners, parents and the government, the scientific information on the magnitude and nature of the drug abuse problem so as to help adolescent students develop a more positive attitude towards academics and life. This shall serve as basis for educators counseling practice, government policy formulation and family or parental renewed care.

**Theoretical Framework**

This study is premised on the theory of social structure. It states that variations in the social structure, culture and locations do impact differently on individuals and groups in society through the socialization process. Thus, Aker (1998) posited that structural
variables that result to varied forms of malbehaviour are consequences of the learning process which individuals or groups experience. Hence, an individual’s location in the social structure of society as indicated by social characteristics such as sex, age, occupation, income and family, determines ones misbehaviour. This is because social structural locations exposes individuals to models, associations that are reinforcers and facilitators for deviant acts. In view of Aker’s (1998) postulation, this theory gives credence to social characteristics as solid foundation for adolescent drug use.

Methods
Study Design
This study is based on the cross-sectional research design using the survey technique of the structured questionnaire. It’s basically a social survey which is non clinical.

Study Area
Warri, the location of the study is the commercial nerve centre of Delta State. It is a metropolitan town with a population of 1,055,407 (Onosode, 2006). It is referred to as ‘oil city’, because it accommodates virtually all oil producing and servicing multinational corporations in Nigeria. Also, its environs are oil rich lands and oceans, such as Forcados, Ogula and Escravos. The town is divided into 3 zones. The central and south Warri are inhabited by the Itsekiri and Izon people, respectively, while the Urhobo tribe occupies the north of the city. Before the emergence of oil exploration and exploitation in 1968 the natives were predominantly farmers and fishermen. Dry gin or ‘Ogogoro’ an alcoholic beverage in Nigeria is a product of Warri people. The choice of the study area is influenced by the level of prevalence and the damage local psychoactive drugs like ‘Ogogoro’ and ‘Ugbo’ dry gin and marijuana respectively have done to adolescents.
Population/Sample Size of Study
This study targets adolescent Nigerians (between ages 12 and 20 years old), particularly those in the Niger Delta region, using Warri area as a case study. They include only students in secondary schools. Approximately 1,530 (representing 10% respondents) of the 15,291 students’ enrolment in 2007 were drawn from 16 public secondary schools in the city of Warri (Muoboghare, 2007). They are identified social drinkers, not clinically diagnosed alcoholics.

Sampling Technique
The probability sampling method was used to select the participants in this study. This means that every member of the adolescent population has equal chance of being included in the study sample. The reason for its application here, therefore, is because the researcher has a targeted population of drug users in post primary schools.

Therefore, the random sampling technique was used to select the adolescents; this is because the researcher drew the sample respondents from the study population based on his knowledge of the adolescents’ drug consumption and the aim of the study. “Usually, this method takes into account the most common characteristics which the researcher desires to include in the sample” (Yomere and Agbonifoh, 1999).

Research Instrument
The World Health Organisation (W.H.O) guideline for the study of drug problems (2001) and the Nigerian National Drug Law Enforcement Agency questionnaire (1992) were reviewed and adapted to construct a 15-item questionnaire for this study. The questions were in two sections. ‘A’ and ‘B’, containing socio-demographic characteristics and nature of drug use respectively. This was pilot tested with 20 adolescents of known-drug users and non-drug users for reliability and validity scores of \( r = 0.78, \text{ df}, 18, p < .05; t = 6.71, \text{ d.f}, 18, p < .05 \) respectively before the study commenced.
Procedure for Data Collection
Ten research assistants were recruited and briefed to collect data for analysis in this study and were given 15 questionnaires and a tape recorder each to assist them in effecting this assignment. It lasted for three months (February to April) of 2008. Questionnaires were administered on sampled respondents in school.

Participants that cannot read or write were interviewed (using the questionnaire) face to face. At the end of each week, the researcher collated the data from the research assistants.

Results
Results obtained after treating the questionnaires from respondents are provided in this section. The significant findings are:

- The most used psychoactive substance among students is alcohol;
- Boys use drugs much more than girls;
- Family type like divorce does determine drug use;
- Type of school determines drug use;
- The most significant source of push to use and stay on drugs is the peer group (friends).

These and more are calculated in percentages contained in Tables 18.1 and 18.2.

Table 18.1: Distribution of Adolescents preferred psychoactive substances use

<table>
<thead>
<tr>
<th>Types of psychoactive drug</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol</td>
<td>751</td>
</tr>
<tr>
<td>Cannabis (Indian Herm)</td>
<td>06</td>
</tr>
<tr>
<td>Cigarette</td>
<td>110</td>
</tr>
<tr>
<td>Non Users</td>
<td>66.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1530</strong></td>
</tr>
</tbody>
</table>

*NB: Survey shows that students multiple use of drugs*

Source: Fieldwork 2008
## Table 18.2: Socio-demographic Characteristics of Adolescents Psychoactive substance users ($N=1530$)

<table>
<thead>
<tr>
<th>Socio-Demo. Variables</th>
<th>Male = 863</th>
<th>Female = 667</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Non users (%)</td>
<td>Social user (%)</td>
</tr>
<tr>
<td></td>
<td>(27.11) n = 234</td>
<td>(72.54) n = 626</td>
</tr>
<tr>
<td>Age (X = 16.83)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12 – 14</td>
<td>96 (41.02%)</td>
<td>13 (2.08%)</td>
</tr>
<tr>
<td>15 – 17</td>
<td>75 (32.05%)</td>
<td>175 (27.95%)</td>
</tr>
<tr>
<td>&gt; 17</td>
<td>63 (26.92%)</td>
<td>438 (69.97%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family type</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monogamous</td>
<td>187 (79.91%)</td>
<td>223 (35.62%)</td>
</tr>
<tr>
<td>Polygamous</td>
<td>47 (20.08%)</td>
<td>403 (64.38%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marital Status of Parents</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>05 (2.14%)</td>
<td>23 (3.67%)</td>
</tr>
<tr>
<td>Married</td>
<td>150 (64.10%)</td>
<td>104 (16.61%)</td>
</tr>
<tr>
<td>Divorced</td>
<td>79 (33.76%)</td>
<td>499 (79.71%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Socio-Econ Status of Parents</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lower Class</td>
<td>108 (46.15%)</td>
<td>126 (20.13%)</td>
</tr>
<tr>
<td>Middle Class</td>
<td>113 (48.30%)</td>
<td>254 (40.57%)</td>
</tr>
<tr>
<td>Upper Class</td>
<td>13 (5.55%)</td>
<td>246 (39.30%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Religion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Christianity</td>
<td>192 (82.05%)</td>
<td>336 (53.67%)</td>
</tr>
<tr>
<td>Islam</td>
<td>06 (2.56%)</td>
<td>00 (00%)</td>
</tr>
<tr>
<td>African</td>
<td>36 (15.38%)</td>
<td>290 (46.33%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>School Type</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public</td>
<td>186 (79.49%)</td>
<td>424 (67.73%)</td>
</tr>
<tr>
<td>Private</td>
<td>48 (20.51%)</td>
<td>202 (32.27%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reasons to use Drug</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peer group influence</td>
<td>00 (00%)</td>
<td>601 (96.00%)</td>
</tr>
<tr>
<td>Medicinal</td>
<td>00 (00%)</td>
<td>00 (00%)</td>
</tr>
<tr>
<td>Cultism</td>
<td>00 (00%)</td>
<td>20 (3.19%)</td>
</tr>
<tr>
<td>Others</td>
<td>00 (00%)</td>
<td>00 (00%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Source of Influence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peer group</td>
<td>00 (00%)</td>
<td>401 (64.06%)</td>
</tr>
<tr>
<td>Neighbours</td>
<td>00 (00%)</td>
<td>00 (00%)</td>
</tr>
<tr>
<td>Social club</td>
<td>00 (00%)</td>
<td>94 (15.01%)</td>
</tr>
<tr>
<td>Media advert</td>
<td>00 (00%)</td>
<td>131 (20.93%)</td>
</tr>
<tr>
<td>Family member(s)</td>
<td>00 (00%)</td>
<td>00 (00%)</td>
</tr>
<tr>
<td>Parent(s)</td>
<td>234 (100%)</td>
<td>00 (00%)</td>
</tr>
</tbody>
</table>

A Profile of Adolescents’ Psychoactive Substance Users

Discussion
This study is aimed at surveying the socio-demographics of adolescent drug users in post-primary institutions, as they progress steadily into habitual drug use. These profiles will enhance counselling to stop the drift to clinical cases of drug addiction.

Results from this present survey show that of a sample size of 1530, 56.41% of the samples were males and 43.59% represented females. Among this sample size, 663 or 43.33% were non-users of drugs, social users were 864 representing 56.47%, and habitual drug users were 03 representing 0.10%. Meanwhile, the mean age of this sample is 16.83. This finding confirms earlier studies (Obot et al, 2001 and 2003; Obot, 2005; Oshodin, 1981; White and Pitts, 1998).

Results of this study show that the number of young people in secondary schools engaged in drug use is on the increase (compared with surveys reviewed: Odejide et al, 1987 and 1989; Obot et al, 2001; Obot et al, 2003; Obot, 2005), socio-demographically characterized differently from non-drug users (Table 18.2). This confirmed earlier studies (Onioluabi, 1984; Okorodudu, 1996).

Concerns on drug use particularly alcohol over the world has concentrated on the problem of heavy episodic drinking by young people. Rapid increases in social problems often associated with drinking to intoxication by youths and young adults (from cultism, prostitution, disorderly conduct to violence and injuries), have been a source of heightened concern among parents, educators and employers in recent years.

In Nigeria there has been a longstanding interest by researchers in studying the drug use behaviour of adolescents in different cultures and social strata of society, though most of these studies (Ewurudjakpor, 2004b and 2000ba; Obot et al, 2001; Obot et al, 2003 and Obot, 2005.) have focused on frequency, specific drug use and the behaviours of urban youth and students in schools. One of the earliest studies conducted in Nigeria showed that 65% of the sampled secondary school students surveyed said that they had consumed alcohol in the past year (Oshodin, 1981). In the present study, 60.13%
social drinkers support another survey conducted in seven schools and 62% of the students reported lifetime consumption of alcohol. Nevadomsky (1985) found a lifetime rate of 60% among the students he surveyed and current drinking status was reported by 24-49% of the teenage students in different cities. This present survey shows similar results among adolescents in school (Table 18.2). The strongest push factor to use drug are friends: 401 (64.06%) and 162 (68.07%) for boys and girls respectively. This result is not novel. Studies (Obot, 2005; and Ewhrudjakpor, 2004b and 2006a) have reported. But it shows that the problem remains which is not good for our collective future if we must reasonably shape our future leaders (youths of today).

Another similar study conducted five years ago showed that among secondary students who reported drinking, 25% drank everyday (Obot, Karuri and Ibanga, 2003). These studies were all conducted in the southern part of the country, and little attention was paid to level of consumption or the harmful consequences of drinking on the behaviour of these adolescents. It is against this lapse that this present study aimed at basing its findings on stopping the harmful consequences of drug use on adolescents.

Significant findings in this survey indicate that family type is a determinant of students drug use. Here students from polygamous families who were engaged in drug use either socially or habitually were 403 (64.38%) and 03 (100%) respectively. For boys and for girls they were 202 (84.87%) as social drinkers. This is significant when compared with students from monogamous family backgrounds as in Table 18.2. This corroborates earlier studies (Acuda et al, 2005). This finding situates in the theory of social structure. That is the family structure of polygamy with multiple authority figures disorganizes adolescents focus in growing up, hence they find themselves hooked-up with drugs (Aker, 1998). This is also reflected in the marital status of parents. Table 18.2 shows clearly that adolescents from divorced parental background are significantly engaged in drug use such that 79.71% and 60.08% boys and girls respectively reflect this finding. In fact, the only habitual drug users 03 (100%) are from divorced homes.
This strongly supports earlier findings (Hansen and Graham, 1991; Flay, 2000; Ewhrudjakpor, 2001). According to these studies, adolescents’ emotional instability during this growth spurt period is hampered by the psychological and socio-economic consequences of divorce. This invariably pushes adolescents to engage in substance use. And habituation sustains them in the art.

Another significant finding in this study is that students in public schools are engaged in drug use more than students in private schools 424 (67.73%) and 202 (32.27%) respectively. The 03 habitual drug users are in public schools. This also confirmed earlier studies (Oniyama and Oniyama, 1997; Tobler et al, 1999; Flay, 2000). Here, school curriculum, particularly moral instructions should be introduced and systematically impacted on students.

In terms of differences between boys and girls the picture in this study, male drug users were 626 or 72.54% while females were 238 or 35.68%. Significantly, the 03 (0.35%) habitual drug users were males. This agrees with what has traditionally been reported from other parts of the world (Tobler et al, 1999; Acuda, 1994; Flay, 2000). More girls than boys are abstainers, defined in this case as people who have not used any form of psychoactive drugs (male non-users were 234 (27.11%), while female non-users 429 (64.32%) in the present survey. As shown in Table 18.2, higher proportions of boys also use drugs occasionally in one sitting socially or habitually.

Apart from the present study in Delta State, Nigeria, two recent studies in Africa provide a much clearer picture of alcohol use and problems associated with drinking by gender and other socio-demographic characteristics. These are studies conducted as part of a multi country project on gender and alcohol. GENACIS (Gender, alcohol and culture an international study) was initiated by the International Research Group on Gender and Alcohol (IRGGA) with the aim of collecting comparable data on gender differences in different aspects of the alcohol experience, including patterns and contexts of drinking and prevalence of alcohol problems. But this did not take into cognizance the socio-demographic basis for counselling
action on the clinically diagnosed alcoholics. In this study the aim is to identify the common socio-demographic features of respondents and use same as basis to help counsel students in order to foster future social behaviour abnormalities.

However, some of the immediate consequences of not tackling this psychoactive substance menace are:

Health consequences
Medically, alcohol consumption is a known risk factor for morbidity and mortality. According to the World Health Organization, 4% of global Health burden (measured as disability adjusted life years, DALYs) and 3.2% (or 1.8million) of all deaths in 2000 were attributable to alcohol alone (WHO, 2002), commonest of drug used in the list of psychoactive drugs.

About 60 disease categories have been identified in which psychoactive substance such as alcohol is a contributing factor. Alcohol is said to contribute to chronic and acute health problems because of its direct toxic effects on organs (as in alcohol liver cirrhosis), its intoxicating properties (as in accidents and injuries) and because it is a dependence producing substance (Odejide, Ohaeri and Ikuesan, 1989; Acuda, 1994; Babor et al, 2003).

Social Consequences
Studies (Ewhrudjakpor and Ojie, 2002; Ewhrudjakpor, 2001) have also shown that, socially, Indian hemp and alcohol beverage consumption are the favourite drugs of cultists, prostitutes and armed robbers. These are all social malaise recently associated with students. Police reports and dailies (Nevadomsky, 1981; Omoluabi, 1984; Onosode, 2006) have identified the use of Indian hemp and alcohol before or during these adolescents acts of cultism, robbery or sexual escapades. It is against this background that this present study was conceived and carried out to halt the spread and prevalence of these social consequences by identifying the social variables likely to expose drug acts and use this as basis for counselling in schools.
Educational Consequences
Drug consumption and educational pursuits are two sides of a coin. Studies (Oshodin, 1981; Omoluabi, 1984; Okorodudu, 1996; Oniyama and Oniyama, 1997; Obot, 2005) show that the academic performance of students (particularly in public schools) in examinations such as the Junior Secondary School (JSS) and Senior Secondary School (SSS) West African Examinations results are appalling. Teachers are also said to have confessed to have problems with students who consume Indian hemp or an alcohol either socially or habitually especially in enforcing discipline during social or sports gathering. Students who use drugs usually behave inappropriately, such as; arrogance, late coming to school, absenteeism, cult activities, fighting and sexual intercourse by dating female/counterparts as the case may be. These groups of students are deficient in learning activities because of the intoxicating effects of drugs, in this case alcohol or marijuana. Instructional materials like audio, visual and audio-visual materials require the use of eyes and ears (sight and hearing) which the drinker in his/her state may not be able to comprehend.

Conclusion
While there is no need to assume an ideal psychoactive substance socio-demographic characteristics, there is no doubt that, like certain kind of personality traits and of ‘risky’ drug use, these characteristics have become more prevalent in some post primary schools in Delta State in recent years. This survey shows that the identified significant socio-demographics are; chronological age, family type of students, marital status of parents, type of school and source of influence. Religion and socio-economic status of parents of students did not reach significance level (Table 18.2). The challenge for educators, parents, policy makers and public health professionals is to address these real problems, rather than assume that the globalizing contemporary world inevitably bring a wholesale ‘drug use crisis’.
These problems and the chronic health conditions that afflict the individual adolescent drug user will become more prevalent with increasing levels and freedom of consumption. Hence, there is urgent need to put in place effective policies to reduce the health, social and educational burden they impose on schools and families. Fortunately, such policies and strategies do exist (Babor, 2003) and, though evidence of their effectiveness are from a few developed countries (Sweden, Netherlands and Norway), they can be adapted to fit the needs of nations and communities in the African continent. Examples include the ban on sale and consumption of alcoholic beverages on the campus of Delta State University. This should be extended to other institutions particularly post primary institutions in Delta State and Nigeria in general.

References
A Profile of Adolescents’ Psychoactive Substance Users


EDUCATION, CREATIVITY AND NATIONAL DEVELOPMENT: THE NIGERIAN PERSPECTIVE

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Abstract
This paper is a philosophical exercise on the concept of relevant education for national development. It maintained that any nation that seeks relevance in the global economy, cannot afford to neglect education for creativity. It also identified and discussed lack of creativity as well as misconception and misplacement of values as the factors of major weakness in Nigeria educational effort towards national development. The paper postulated that for Nigeria education practice to produce people who can create employment for themselves and for others, like in Britain, America, Japan and China, Nigeria is to adopt pragmatic or functional education. Based on the discussion of the paper some recommendations were drawn.

Introduction
In the economy of learning, the pursuit of knowledge is determined by its usefulness in practical circumstances, and the working out of the acquired ideas as instruments for achieving specific objectives. Hence, knowledge is vindicated by its applicability to specific situations, and its relevance to the solution of some particular problems in human cosmic experience. In the view of Ejionueme (2007) education in Nigeria needs improvement at all levels, but essentially in all its aspects of teaching and learning. The country tends to be bold in thought but timid in action with regard to its educational policies.
Nigeria spent time building grand theories, while the schools remain in their comfortable ruts. Standing still in a time of headlong change is to fall behind. Regrettably, the assessment of its educative enterprise in the submission of Babarinde (2001) portrayed a mariner’s odyssey in the sea of life. Its education system as it is now appears to have fallen short of creativity. The relevance of such education is left in doubt. In an attempt to proffer some explanation, Maina (2006) alleged that unlike Britain and America, the Nigerian government with its educational planners and administrators relied more on lofty educational policies, political inanities, spurious data and unrealistic budget proposals. For this reason the country began to experience constant degradation in the direction of sub-human and under-development. Global exploitation, misrule, ignorance, poverty and diseases seemed to have become a recurring decimal in the order of the day. Thus, the *argumentative pontum ponti*. The interest point of this paper lies in the fact that Nigerian education practice appears to have failed to provide its recipients with the required creativity, to take their place in society as self-supporting individuals.

**The Apparent Failure of Creativity in Nigerian Education Practice**

The Federal Government of Nigeria in its educational policy (FGN, 2004:8), among other things, acknowledged the acquisition of appropriate skills and the development of mental, physical and social abilities and competences, as equipment for the individual to live and contribute to the development of his society. The Nigerian educational goals are only good on paper and theory but not in practice. Buttressing the above, Nwafor and Nwogu (2006) maintained in their research report that no genuine effort has been made, or is being made to create the required creativity in Nigerian education practice, as it is being done in Japan, China and other industrialized countries. The creative aspect of its educational system has gone to the dogs, and the survival of its educands and the larger society is on the brink of
disaster. The practical value of any education can only be enjoyed by the services it renders.

Within the rank and file of educational philosophers of different postulations, as Okafor (2006) articulated, series of ideas have arisen from what education is expected to be and to accomplish. For instance Plato (427 – 347 B.C) in his idealism treated education as the training which is given to suitable habits to the first instincts of virtue in children, when pleasure and pain are rightly implanted in non-rational souls. It is that particular training in respect of pleasure and pain, which leads one to hate what one ought to hate and love what one ought to love. For Aristotle (384-322 B. C) the realist education primarily is the transmission of inherited culture from one generation to another, which has accumulated over the ages and contains the best of the wisdom of past generations. The naturalist, Jean Jacques Rousseau (1712 – 1778) was of the view that the purpose of education is to encourage the learner to develop his own capacities in a natural fashion. John Dewey (1859 – 1952) from his pragmatic point of departure submitted that education is meant to help its beneficiaries become intelligent problem-solvers.

Analytically, education seeks to refine man by developing his potentials and equipping him to live meaningful, or productive and responsible life in society. Education, therefore, is a leading adage for reforming outmoded economic and political institutions. According to Ruwa (2006) and Maduabum (2006) education as it is today in Nigeria, is running short of the meaning, and consequently is a disappointment to social expectations and the esteem in which it is held. Education is meant to help its recipient develop his abilities, skills, initiatives and other forms of behaviour that are of positive value for the individual and his society. It was at this wake of thought that Maina (2006) argued that any nation that seeks relevance in the global economy, cannot afford to neglect education for creativity. It is human resources – not income or material resource that constitute the ultimate basis for the wealth of nations. Capital and natural resources are passive factors of production. Human beings are the active agents who co-ordinate and
mobilize capital, exploit natural resources, build social economy and political organizations, to carry forward the national development. It therefore follows that any country which is unable to develop the skills or the creative knowledge of its people and to utilize them effectively in its national economy like Japan and China, may not develop anything else. In other words, the apparent failure of Nigerian education can be traced to its misconception and misplacement of general knowledge and vocational literacy (Duruamaku-Dim, 2006).

Value Misconception and Misplacement in Nigerian Education Practice

Nigerian education system has suffered quantum crisis since its inception. *Ab initio* (initially) the problem is rooted to the fact that Nigeria was under the yoke of colonial masters. After its independence on 1st October 1990 the story is tinged with the claim that Nigerians are still suffering from the after-effect of their liberation from their colonial masters (Ocho, 1995). With political instability, corrupt government and cricking economy, the problem grew in an increasing differentiation and hierarchic integration. The attempt to review the educational system from 6-5-4 system to 6-3-3-4 and now to 9-3-4 for a more functional education does not seem to be working. The crisis persisted as to affect the system and consequently its products. Education cannot be realistically evaluated without reference to a society for which that education is being developed. Japan, America and China are case in point. The system, which persisted in most areas in Nigeria, is that which tends to produce people for employment but not those who are to create the opportunity for employment. Much thought is not given to the problem of equipping the learner for life outside the classroom.

This type of education is certainly not what is needed in a developing country like Nigeria. It is now clear that mere literacy or academic knowledge is no longer a guarantee for a good job. Present day Nigeria is in demand for people who can do things. Unfortunately
the earlier years of a warped concept of education have left a bad impression about what is to be educated. The situation developed a class of people who regard education as a preparation for a clean job. The educated man according to this view as Adaralegbe (1985) observed does not work with his hands. The educated man cannot be a farmer, a mechanic, a driver, a painter or even a bricklayer. This is value misplacement and misconception in Nigerian education practice which has created a missing link between its products and the needs of Nigerian society. One may suggest that it is high time now Nigeria appreciated the role of vocational education which is based on pragmatic philosophy of “real world situations”. The philosophy of pragmatism among other things deals with the practical issues of vocational education. Even Plato (427–347 B.C.), in his philosophy of idealism, particularly in one of his five great Dialogues named *The Republic* (374 B.C.), cherished the idea of training some people for practical or technical skills and ability. His idea is informed by the fact that some people are born as slaves to work, while others are born to rule as philosopher kings. Those born as “kings” develop leadership with inherent leadership abilities while slaves assume the role of workers and servants.

Such Platonic idea in the study of Durumaku-Dim (2006) represented the traditional or conservative school of thought. He pointed out that there is new progressive school of thought which differed slightly from Plato. These progressivists propounded that vocational education programme is to be made broad-based. This implied training the worker to acquire useful skills in addition to acquisition of broad-based general knowledge. By extension of thought this means that Nigerian government and its education stakeholders should learn to train, to equip and to prepare the Nigerian learner for the contemporary world of work. Such contemporary vocational education will bridge the missing link which exists as a result of misplacement and misconception of values in Nigerian education practice. This will ensure the relationship between vocational literacy and broad-based knowledge. With the contents, inquires and methods
of the current vocational education, the Nigerian learner will be better enabled for creativity and national development. The combination of general knowledge and vocational literacy will certainly produce well-trained, skilled, efficient and effective careerists, entrepreneurs, managers or leaders in different sectors of life.

As a matter of fact, vocational education is based on pragmatic philosophy. What the River Nile is to Egypt, is what pragmatic philosophy is to vocational education. Arguably, for Durumaku–Dim (2006), to refer to Plato’s idealism with regard to vocational education as being conservative, is not in the sense that Plato’s idea is outmoded but in the sense that it is one sided, or favouring vocational education more than broad-based education practice. Thus, the new contribution of Durumaku-Dim is his suggestion of the adoption of functional education that comprises two components of vocational literacy and general knowledge. However, the fact remains that there cannot be functional or creative education practice without pragmatic theory.

**Pragmatism as Possible means for Educational Creativity**

The philosophy of pragmatism holds that a theory or proposition is meaningful only if it can be shown to lead to some practical consequences for human life, otherwise it is meaningless. An idea or theory becomes a reality when it works in practice with some beneficial effects. Thus, the meaning and the reality of an idea or theory depends on its “cash value”, that is on its function and practical effects when acted upon. The “cash value” of any idea or theory is the difference it makes, or the practical effects it has on one’s life. Knowledge is not acquired for its own sake but for practical use in overcoming the problems, posed by the natural conditions of human existence. Education then is not an end but an instrument, intended to bring about the growth of the individual in society. From the pragmatists’ perspective, man’s education is to imbue him with the creativity similar to that of an artist who is not only familiar with the scene, but has the mastery of bringing into life the abstractions of his inspiration.
The education system of Nigeria has only succeeded in producing “certificated” individuals who are only consumers of the economy, rather than producing educated people who ought to be more productive. For Ruwa (2006) education as a process involves development and this development is to have an overwhelming effect on those initiated into the process. The development demands a deep sense of commitment to what is worthwhile; cultivation of keen perception, and precision, which are only available to the initiate.

In the same trend of thought, Obanya (1992) in his valedictory lecture analyzed education in Africa with emphasis on Nigeria. He alleged that education in Africa is not yielding the desired dividend. The individual beneficiary of Nigerian education has not acquired the right knowledge, skills, values and attributes and so he is yet to make the desirable impact on society.

The above view must have informed Ukeje (1991) and Ndiokwere (2006) to concur that Nigeria has roads that wash away after the first rains; telephones that are perpetually out of order, taps without water and electricity supply that is most epileptic. Nigeria has no functional education system that can constitute the bedrock of technological development; instead it has a “certification system” in which graduates are turned out from institutions of higher learning, having learnt about technology but not technology qua technology.

Using the expression of Dore ((1976:7), “they have certainly been schooled but they are the victims of a system of schooling without education.” This attests to the need for Nigerian education practice to build up skills in its graduates that will enable them survive in the world of work, either as paid employees or as self-employed persons. Arguably, most of the Nigerian graduates, who roam the streets as unemployed, could have benefited from making a living by being self-employed individuals, if they had developed entry level skills in their respective areas of studies while in school.

Recommendations
Based on the ongoing discussion of this paper, the following recommendations are drawn:

1. In order to ensure equilibrium for national development in Nigerian education practice, broad-based knowledge and vocational knowledge should complement each other rather than being used as supplementary. This is to be emphasized both in the curriculum and in the school timetable of study.

2. All education stakeholders in Nigeria should be actively involved in the task of translating Nigerian educational objectives into reality. This could be achieved by emphasizing education for creativity rather than education for certificate and employment.

3. The government should honestly invest more on human resources since it is human beings that organize and mobilize other agents or factors of production with all their contingencies for effective production.

4. Experts in educational planning and administration are to adjust the curriculum to include the emerging realities in the new world order of creativity and national development.

5. Faculties and departments of Nigerian universities and tertiary institutions should organize conferences, seminars and other means of capacity building to correct in the psyche of Nigerians, their misplacement and misconception of values, which has left them culpably ignorant that the educated does not work with his hands (e.g., manual work or manipulative skills).

6. There is need for new philosophy of education for all Nigerians in the form of ethical revolution and value re-orientation. This is to correct the wrong mentality of Nigerians, since no education can be realistically evaluated without reference to the particular society for which that education is being developed for their build up.

**Conclusion**
This paper endeavoured to establish the relevant relationship between education, creativity and national development. It maintained that any education which lacks creativity cannot be a veritable tool for national development. The paper concluded to adjudge that Nigeria is experiencing constant degradation in the direction of sub-human and under-development, because its government and educational planners, as well as the administrators relied more on lofty educational policies, political inanities, spurious data and unrealistic budget proposals. This has led to the failure of its education practice to instill creativity into its recipients for their self-survival and as supporting members of the society.

References


BOOK REVIEW

Title: Strategic Salesforce Management
Authors: Uduji, J.I. and Nnabuko, J.O.
Publishers: New Generation Books
Year of Publication: 2008
Page: 335
ISBN: 9782900753
Reviewer: Amagwu, Ibeawuchi Francis (M.Sc.)
Regional Director (Southeast), FCMB Plc.

“Thou shall not cough”, is not 11th Commandment of God. It is an inscription on the shirts of a company’s salesforce, makers of an anti-cough mint called “Karigo Minty”. Selling is one of the oldest professions in the world. The people who do the selling go by many names: salespeople, sales agents, sales representatives, sales consultants, account executives, sales engineers, and account development representatives, district managers, sales engineers. Uduji J.I. and Nnabuko J.O. have now amplified this in their latest work, Strategic Salesforce Management.

Personal selling is an aspect of the marketing mix, the importance of marketing as a management function is underscored by the contemporary world of market-driven global competitiveness for customer satisfaction, image and reputation, niche, and profit maximization. The salesforce, which constitutes the human elements in the personal selling paradigm of the marketing mix, has to be strategically managed for optimal results. This is the thematic thrust of the book under review.

The book, which is evidence-based, field experience and empirical study, with particular focus on the beverage industry in Nigeria, is made up of nine chapters. Chapter One is a treatise on the place of personal selling, which is basic to any enterprise and involves a seller’s person-to-person, interpersonal and promotional presentation to a buyer.

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Chapter Two explores the importance of salesforce management to the achievement of a beverage company marketing objectives, and to the efficiency of the exchange process.

The background of Beverage Marketing in Nigeria is discussed in Chapter Three of the book. It opens with a rider that the importance of the salesforce is recognized by the status which the beverage firms accord them in Nigeria which makes them one of the fastest growing sectors of Nigerian manufacturing, contributing about 20 percent of Manufacturing Value Added (MVA) and providing direct employment for over 30,000 persons.

The role of salesforce in marketing organisations forms the theme of Chapter Four. The salesforce serves as a critical link between a company and its customers. Interestingly, the salesperson is seen as a representative of the whole company – responsible for explaining its total efforts to target customers rather than just pushing products.

Indeed, strategic salesforce management ought to and should start with salesforce recruitment and selection. Training and Development (T & D) of a salesforce is very strategic in ensuring that organizational members have the knowledge and skills needed to perform job effectively; take on new responsibilities, and adapt to changing conditions. T & D has to be recurrent as knowledge is diffused and development is a dynamic process. Salesforce recruitment, selection, training and development are subsumed under Human Resource Planning. This is the gist of Chapter Five of the book.

In Chapter Six, the theme of supervision and motivation is addressed succinctly. This entails a responsible leadership with a goal-setting agenda and which infuses the organizational goals in the salesforce driven by a robust financial and non-financial rewards for excellence.

Chapter Seven is about salesforce evaluation and performance. Managing a salesforce requires performance appraisal, performance evaluation and performance feedback to determine progress, challenges, contributions and proposals for improvement.
Book Review

Chapter Eight dwells on data presentation and analysis of the study and their implications for sales management and marketing, which need to be harnessed and implemented for optimal results, effects and impact, both for the salesforce and the brewing industry.

Chapter Nine, which is the concluding chapter, also situates the summary, conclusion and recommendations of the study.

Interestingly, the authors have done an assiduously good job. The strengths of the book lie in it being an empirical study, with a high level of acceptability, validity and reliability. Its findings are relevant to students as a guide for research methodology, and work environment, for the salesforce to hone their skills and knowledge, to the beverage industry for salesforce management, and the findings could be transplanted to other organizations and persons, since everybody is unarguably a salesperson or marketer and marketing has come to occupy a strategic position in the competitive world. The study is further enriched with discussion questions, glossary, good illustrations, appendices and index. Indeed, the authors’ work which can be described as a study-book fills a yawning gap in sales management bookshelf based purely on the experience of managers in the Nigerian environment.

However, there are some gaps in the study-book. First, is in the final production. The finishing or binding work was poorly done as reading and reviewing the study-book coincided with some pages of the work unhinging on their own accord, as if protesting their inclusion. Second, the authors failed to capture and include the authorized health warning on drinking alcohol as stipulated by National Agency for Food and drug Administration and Control (NAFDAC). The study should have reflected this since the work focused on the beverage or brewery industry with alcoholic products. Third, there is also a gap in not including explicitly the “don’t drink and drive” paradigm or warning both for the salesforce who are motorized, and for the general readers, as a form of advocacy campaign to reduce accidents and carnage on our roads with its implications for human and national development. These gaps should
be adequately addressed in subsequent editions, otherwise the book remains an academic delight and dessert, nourishing the mind and body. It is expected and advocated that scholars should see the revelations in the book as a tonic for more scholarly expositions, with focus on the Nigerian experience and other Less Developed Countries (LDCs).

The choice of the brewing industry and focus on Nigeria in particular is relevant. This is because Nigeria has the population and the beverage industry targets at the average Nigerian household. Though, salesforce management is basically limited by the employer-employee contractual relationship in organisation’s human resource management, the attempt by the authors to provide strategic inputs into sales management is not just thought-provoking but has laid a useful foundation for more studies and academic revelations in salesforce management.

Today, the incursion of e-commerce and e-payment has become a threat to salesforce management since it has also made the physical interaction between the buyer and the seller increasingly non-existent, except through electronic gadgets (internet). Though the beverage industry could be said to be immune from this development, its existence in advanced countries makes its practicability in Nigeria a matter of time. It is expected that future studies in this direction should recognize this phenomenon of faceless selling as it affects strategic salesforce management.
AUTHOR'S GUIDE

Manuscripts are considered on the understanding that they are not submitted to any other publishers. They may be theoretical or empirical, but must be original and scholarly. Paper with 1-inch all-round margin must not exceed 8 pages 12-font-size Times New Roman single-line spacing in Microsoft Word (Windows '97-2003). It is to be sent electronically as attachment to the Managing Editor, Sustainable Human Development Review through E-mail: info@wiprointernational.org (copy esccha@yahoo.com). Reference should be cited in the text by author’s last name, year of publication and page where necessary, e.g. Moma (2008: 13) for in-sentence citation or (Moma, 2008:13); (Okolo and Adams, 2007); (Musa et al. 2003); (Mica, 1975 a and b), as appropriate, for end-sentence citation. Several citations by the same author should be arranged by date of publication. Full references should be listed alphabetically by author’s last name followed by initials. Examples, for textbook and journal article, are respectively:


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Each submitted article should be accompanied by a review fee of $50 (international scholar), $20 (African scholar) or N1,500 (Nigerian scholar) paid into WIPRO International domiciliary US$ A/c. No. 1193010191464301 or Naira A/c. No. 1191140191464301 of ECOBANK Nigeria Plc., Enugu (Okpara Avenue Branch II). Scanned copy of payment teller should be sent electronically as attachment.

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