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A COMPARATIVE ANALYSIS OF IMPACTS OF SETTLEMENTS ON TEMPERATURE BETWEEN URBAN AND RURAL AREAS OF EKITI STATE

ADEBAYO, W.O[1]. AND OLOFIN, E.O.[1]

[1]Department of Geography and Planning Science, Ekiti State University, Ado-Ekiti, Ekiti State.

Abstract

The growth of human settlements into vast urban metropolitan areas is often accompanied by relatively higher temperatures in comparison with surrounding rural areas, a phenomenon known as the "Urban Heat Island effect." The city of Ado-Ekiti has been selected as an examination of this trend because of its unprecedented growth in the last ten years, which was as a result of the creation of Ekiti State in 1996 and Ado-Ekiti happened to be the capital city of the State. Studying the rise in temperature in Ado-Ekiti can provide valuable insight into the impacts of settlements on temperature in general. In this paper, series of temperature records of Ado-Ekiti and its neighboring rural area Irepodun-Ifelodun Local Government Area of Ekiti State were collected between the years 1996 to 2010 from Ekiti State Ministry of Agriculture and Natural Resources, Planning and Research Department, Agro-climatological unit, Ado-Ekiti. The temperature records of these two settlements were used to construct tables in order to directly and effectively compare the temperatures of urban and rural areas of Ekiti State. Analysis shows that the temperatures in Ado-Ekiti have been increasing at significantly higher rates than its surrounding rural temperatures. This trend has been especially pronounced since year 2000 when there was an increase in the numbers of urban features in Ado-Ekiti. A comparative analysis of Ekiti State urban and rural temperature data produces statistically significant evidence of the impacts of settlements on temperature.

Keywords: Settlement, Temperature, Urban, Rural, Urban Heat Island (UHI).

Introduction

Human settlements are the places where human being live, work and recreate, including cities, town and villages (Ridd and Hipple, 2006). The size, pattern and spatial distribution of human settlements are fundamental data source for evaluating impact of settlements on environments (Milesi et al, 2003; Pauleit, 2005). Human settlements are closely related to population distribution and economic growth, thus they are an important direct source for demographic- economic related studies (Meyer and Turmer, 1992). With increasing pressure of population and economic growth, the conversation rate of vegetation or forest lands to human settlements has been increasing sharply during the past decades. (Liu, 2005). The growth of settlement causing many environmental problems, such as vegetation loss, air pollution, water shortage and contaminations and rise in temperature. In this work however, attention is focused on rise in temperature.

In urban areas, natural surface (grass and soil) are replaced by man-made surfaces (concrete and pavement) with thermal properties different from non-urban areas. It has

[1] Authors: oluwadebayowolli@yahoo.com, emmadelordeksu@gmail.com

long been known that under clear skies and light wind conditions, urban areas are warmer than surrounding rural environments. These areas are called Urban Heat Island (Bornstein, 1987).

Literature review

It has long been known that urbanized areas tend to have higher temperatures than surrounding less developed (rural) areas due to the concentration of high thermal mass impermeable surface (Oke, 1982). One of the most obvious and important anthropogenic climate change manifestations is the phenomenon known as the 'Urban Heat Island effect'. An urban heat island is defined as the metropolitan area where air and surface temperature are measurably warmer than their rural surroundings (Gartlands, 2008). The growth of settlements in the capital city of Ekiti State results to rise in temperature because most common construction materials absorb and retain more of the sun's heat than natural surfaces in less- developed rural areas. Urban Heat Island in turn, modifies local metrological conditions, such as wind patterns, cloud cover, humidity and rates of precipitation. However, this work focused on the most obvious and distinct characteristic which is higher local temperature. Air temperatures in urban areas have been measured to be up to ten degree Celsius (18 degree Fahrenheit) warmer than the air temperature of their surrounding rural areas (Carlowiez, 2009). The Urban Heat Island (UHI) that resulted from the growth of settlements has a number of serious socio-economic impacts such as poor air quality as well as the increased frequencies and higher intensities of heat waves that contribute to detrimental human health conditions and increased mortality rates (IPCC, 2007). Those who are most vulnerable to urban heat related deaths include elderly people, the very young, people in ill health and the more impoverished. Warmer temperature creates a larger demand for electricity because of the increased use of air conditioning and refrigerator, which further increase anthropogenic heat emission, greenhouse gas emission and overall increase in temperature in the urban areas (Scott and Sujaja, 2010). Warmer temperature also results in a larger demand on water utilization within an urban area.

Research methodology

The temperature data of Ado-Ekiti (urban) and Irepodun –Ifelodun Local Government Area (rural) between the year 1996 and 2010 were collected from Ekiti State Ministry of Agriculture and Natural Resources, Planning and Research Department, Agro-climatological unit, Ado-Ekiti and recorded. In each of these 15years, the months of January, April, July and December were chosen to represent each of the two seasons of the year that is, dry and wet seasons.

Average monthly maximum and minimum temperatures from urban and rural areas have been evaluated and tabulated in order to understand the temperature of each sites and to compare the urban temperature to rural temperature (see Tables 1 and 2 in appendix).

Results and discussion

Maximum and minimum temperatures have been recorded for the month of January, April, July and December between the year 1996 and 2010 from the Ekiti State Ministry of Agriculture and Natural Resources, Planning and Research Department, Agro-climatological unit in Ado-Ekiti. It should be noted that temperatures measured before the growth of settlement and emergence of urban features in Ado-Ekiti that is, around 1996 and 1999 show a natural disparity between the two sites. Specifically, the rural January maximum temperature averages in 1997 which was 32°c is warmer than urban January maximum temperature average of 29°c, regardless of any human influences on weather and climate (See Tables 1 and 2). Therefore, these differences in temperature from each areas are irrelevant because they merely show a straight disparity in natural weather between urban and rural areas of Ekiti-State, not a proof or disproof of impacts of settlements on temperature and will therefore be ignored in this section.

TABLE 1: Average maximum and minimum monthly temperatures for Urban Area

YEAR	JAN. MAX.T. (°C)	JAN. MINI.T (°C)	APRIL MAX.T (°C)	APRIL MINI.T. (°C)	JULY MAX.T. (°C)	JULY MINI.T. (°C)	DEC. MAX.T. (°C)	DEC. MINI.T. (°C)
1996	27	14	29	14	26	14	30	14
1997	29	18	31	16	30	15	36	14
1998	26	19	33	17	28	14	35	16
1999	28	18	32	19	30	23	33	26
2000	34	16	34	22	31	19	33	20
2001	32	19	38	20	38	21	35	23
2002	36	20	37	21	34	20	38	24
2003	38	18	41	23	36	18	36	22
2004	37	21	39	18	32	21	39	25
2005	34	22	40	22	38	23	34	21
2006	38	21	43	24	37	20	36	23
2007	39	20	42	26	34	21	37	24
2008	36	22	40	25	39	22	38	27
2009	35	19	45	24	41	26	39	28
2010	39	23	46	23	40	24	40	27

After investigating the average maximum monthly temperature of urban and rural areas of Ekiti State since 1996, it has been determined that there is little or no statistically significant comparative change over this time frame for both the urban and rural areas. Tables 1 and 2 show that the maximum temperatures for every month as they occur randomly from year to year. The lack of an increasing temperature trend in maximum temperatures of Ado-Ekiti is surprising and seems to disprove the presence of settlement growth or urbanization in the city of Ado-Ekiti. The simple explanation for this is that, the sun's radiation, which ultimately is converted into heat at the earth's surface is most intense during the middle of the day when the angle between the earth and sun is at is greatest and by the time a high temperature is recorded for each day, natural materials in rural areas, such as rock surface, soil and wood as well as constructed materials such as concrete and tarred road have been heated up to their full capacity and have a roughly equal heating effect on air temperatures (Garlands, 2008). Therefore, it should not be surprising that maximum temperature in Ado-Ekiti and its rural surroundings have remained almost the same over the time being measured.

Table2: Average Maximum and Minimum Monthly Temperatures for Rural Area

YEAR	JAN. MAX.T. (°C)	JAN MIN.T. (°C)	APRIL MAX.T. (°C)	APRIL MIN.T. (°C)	JULY MAX.T. (°C)	JULY MINI.T. (°C)	DEC. MAX.T. (°C)	DEC. MIN. T. (°C)
1996	22	10	2	12	20	11	19	10
1997	32	11	28	11	27	11	28	11
1998	30	11	28	11	26	10	29	12
1999	29	12	28	10	28	12	22	10
2000	29	10	23	11	26	11	21	11
2001	27	13	29	10	22	12	23	10
2002	22	12	24	13	23	11	20	10
2003	21	10	28	11	27	12	28	11
2004	29	11	25	13	24	11	23	10
2005	24	12	26	12	23	10	21	10
2006	22	11	24	10	26	11	28	12
2007	21	12	20	10	22	13	19	10
2008	19	11	23	13	21	11	20	11
2009	20	12	20	10	21	11	23	10
2010	18	10	25	13	26	12	20	11

In sharp contrast to the relatively stable maximum temperatures at the urban and rural areas of Ekiti-State, the average minimum temperatures in urban and rural areas of Ekiti State since 1996 and most especially since year 2000 show that minimum temperature in urban areas of Ekiti-State have been increasing at a remarkable rate. During this same period, minimum temperatures in rural areas of Ekiti-State have shown no statistically significant upward trend. The increasing rate of minimum temperatures in Ado-Ekiti, especially since year 2000 shows the impacts of settlement on temperature. The fact that minimum temperatures began to rapidly increase at around the same time that the city of Ado-Ekiti is experiencing settlement growth as a result of state creation in 1996 provides significant evidence that settlement has significant impacts on temperature. That is, the growth of settlement or urbanization can lead to rise in temperature or create what is called Urban Heat Island (UHI). During the same period, there have been no indications of any statistically significant upward trend in minimum temperature in the rural areas of Ekiti-State. This is in concord with the findings of Adeboyo and Owolabi (2004) in their work on Micro Climate Relationships of Open Space and Vegetative Canopy in an Urban Environment.

This phenomenon occurs because of common urban features, such as concrete or artificial surface and tarred roads tend to have a higher specific heat than common rural features such as vegetation, soil or natural surface. Consequently once the sun goes down, rural materials and natural surface quickly lose their stored heat and result to night-time cooling which is when minimum temperatures are measured. In contrast, urban materials retain the heat they stored from the sun during the day and slowly release it throughout the night, thereby diminishing overall night time cooling and increasing minimum temperature in Ado-Ekiti. It has been determined from the tables that the urban minimum temperatures have been increasing most especially since year 2000 while the rural minimum temperature was reducing. These findings agree with that of Remar (2010) in his work on Urban Heat Island expansion in Las Vegas metropolitan area.

Conclusion and recommendations

After evaluating the temperature data of rural and urban areas of Ekiti State, this paper has found statistically significant evidence of the impacts of settlements on temperature. This is mainly due to urban minimum temperatures increasing at a significantly greater rate than that of rural surroundings due to the growth of settlement in the urban area.

Based on the current findings, it was presumed that rise in temperature in Ado-Ekiti was as a result of changing the natural surface into an artificial concrete surface. This study therefore, recommends that, to reduce the effects of urban heat island and incessant increase in urban temperature, natural vegetation such carpet grasses, flowers and trees should be encouraged and planted around residential buildings and streets instead of using artificial concreate materials. Also, roofing materials should be made of materials that are poor conductors of heat, instead of using iron sheets which are good conductors of heat in order to reduce the effect of settlement on temperature.

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AN ASSESSMENT OF GOVERNMENT AND HERITAGE CUSTODIAN ROLES IN THE DEVELOPMENT OF CULTURAL TOURISM IN EKITI STATE, NIGERIA

OMOTOBA [1] N. I., OMOTOSO [2] O. and IGBALAJOBI [2] O. J.

[1]*Department of Geography and Planning Science, Tourism and Hospitality Management Option, Ekiti State University, Ado-Ekiti*
[2]*Department of Geography and Planning Science, Ekiti State University, Ado-Ekiti*

Abstract
The study aims to examine the role played by both the government and selected rural communities who are custodians of cultural heritages, festivals and artefacts. The objectives of the study are to examine the developmental projects embarked on by government, look into the level of community participation in selected festivals and to determine the type of approach used by government when embarking on projects relating to tourism in this community. A total of 180 questionnaires were administered in target population of systematically selected rural communities while 20 questionnaires were administered on senior staffs of the Bureau of Tourism in Ekiti State. The theory of Demand and Supply was used as the basis of its theoretical underpinning. Data were collected from both primary (fieldwork) and secondary (Bureau of Tourism, Ekiti State) sources. The chi-square statistical method was used to test formulated hypothesis. The study finds out that the conditions of infrastructure at the host communities were not at their best and this tends to reduce the level of patronage of cultural sites and festivals. Furthermore, it was deduced from the study that host communities were not involved in decision making process on developmental issues relating to their heritages. The study recommends on the use of bottom-top approach by government before embarking on developmental projects. It also recommends the creation of awareness of these festivals, artifacts and other cultural heritages especially by government.

***Keywords*:** Development, Cultural Tourism, Nigeria, Heritage Custodian Roles.

Introductıon

Tourism is defined as a form of nomadism that encompasses homosapiens which at the right time and under the right condition is always pleasurable. It involves travelling outside one's immediate environment to visit places of attraction. It is important to note that the endpoint of all tourism activities is enjoyment. Tourism takes two forms viz: Ecotourism and Cultural Tourism. While Ecotourism involves visit to pristine environment, Cultural tourism embodies such activities as organised visits to historical sites, visiting other culture and people (Lawan, 2001).

There are abundant natural and cultural resources for tourism industry to flourish in Nigeria, unfortunately, the organizational framework is still very weak and this aspect is

[1] Authors: omotsonnat@yahoo.com, oluomotoso06@yahoo.com, oluchoice87@gmail.com, *07034256468, 08035749120, 07030051134*

too crucial to be wished away, if we really want to promote stable tourist business in this part of the world. This worked against the background of collectivity orientation which brings together the government, the expert and the grass root people. It is wrong to assume that government policies on tourism industry coupled with the expertise of archaeologists, anthropologists, ethnologists, hoteliers and others will produce a positive result without sincerely recognizing and appreciating the centrality of the grass root people. Indeed, much of the tourism development efforts in Nigeria has failed to bring about result basically because there remains a communication gap between the experts, on the one hand and the people (the of most, if not all, these resources) on the other.

The study area is Ekiti State which is a landmass located between latitude $7^0 15^1$N and $8^0 14^1$N of Greenwich Meridian and longitude $4^0 35^1$E and $5^0 55^1$E of the Equator. It covers approximately 6,353km^2 bounded by Kwara State to the North, Kogi State to the East, Osun State to the West and Ondo State to the South. The State is mainly an upland zone, rising over 250m above sea level and with rock outcrops. Ekiti State, like all Yoruba States, has a lot to offer in culture. Many cultural or traditional festivals are usually held at different times of the year in all towns and villages in Ekiti State.

The aim of the study is to look into the roles played by custodians of cultural heritage and government in the development of cultural tourism in Ekiti State. The objectives of the study are to examine the developmental projects embarked on by government, look into the level of community participation in selected festivals and to determine the type of approach used by government when embarking on projects relating to tourism in this community.

Hypothesis
There is no significant difference between community development and government involvement in cultural tourism in selected areas of Ekiti State.

Methodology
The descriptive research design was used in this research work thus, the research work was carried out in two (2) communities selected systematically due to their richness in culture. The two (2) communities; Ado Ekiti and Ire Ekiti were located at Ekiti Central Senatorial District and Ekiti North Senatorial District respectively. 180 Questionnaires were administered on the inhabitants of Ado Ekiti and Ire Ekiti. One hundred and twenty five (125) questionnaires were administered in Ado Ekiti while fifty five (55) questionnaires were administered in Ire Ekiti. The administration of questionnaires in these two communities was based on the projected population of their Local Government Areas i.e. Ado Local Government Area and Oye Local Government Area which stand at >300,000 and >160,000 respectively. Also, 20 questionnaires were administered on the workers of Ekiti State Tourism Board to get information on Governmental roles on the sustainability of cultural tourism in the study area. The questionnaires were retrieved and subjected to both descriptive and inferential statistical analysis. The percentage table formed the basis for descriptive statistics while the Chi Square statistical analytical method was used to test if there is no significant difference between community development and government involvement in cultural tourism in the selected area.

Findings

Table 1.1 Ratings of Government Involvement in Cultural Tourism

S/N	Variables/Options	E	%	AA	%	A	%	BA	%	VP	%	TF	T%
1	Identification of sites/ festivals	5	25	7	35	8	40	0	0	0	0	20	100
2	Infrastructural development	5	25	5	25	7	35	3	15	0	0	20	100
3	Facial upliftment of sites/ festival	5	25	2	10	7	35	6	30	0	0	20	100
4	Financial support	6	30	0	0	8	40	6	30	0	0	20	100
5	Accessibility of sites	1	5	4	20	10	50	5	25	0	0	20	100
6	Publicity/Creation of awareness	2	10	2	10	8	40	7	35	1	5	20	100
7	Use of bottom-top approach	0	0	2	10	6	30	6	30	6	30	20	100

Source: *Field work, 2015*

Key: E= EXCELLENT, AA= ABOVE AVERAGE, A= AVERAGE, BA= BELOW AVERAGE, VP= VERY POOR, %= PERCENTAGE, TF= TOTAL FREQUENCY AND T%= TOTAL PERCENTAGE.

Table 1.2 COMMUNITY PERSPECTIVES OF VARIOUS VARIABLES

S/N	VARIABLES	COMMUNITY PERSPECTIVES			
		AGREE		DISAGREE	
1	Is decision making by community on developmental projects allowed	72	40%	108	60%
2	Government intervention on cultural tourism	76	42.4%	104	57.6%
3	Infrastructural development of selected community as a result of cultural tourism	45	25%	135	75%

Fieldwork, 2015

The host communities are the embodiment of different cultural heritages. The major disturbance faced with the cultural tourism is the intervention of government in the development of this site. There has been little effort by the government to promote cultural tourism as 75% of respondents noted that there has been no project by the government in a bid to sustaining these sites. Also the infrastructural facilities in the host community are nothing to write home about. It was also noted from open-ended questions given to the workers of Ekiti State tourism Board that most of them do not even know about some cultural tourism sites. This implies that government has extensively neglected the area of cultural tourism.

Result of chi square analysis of the hypothesis which states that there exists no relationship between community participation and government involvement in developing cultural sites in the study area show that there is still a wide gap between government and host communities. This was approved by the result which rejects the hypothesis because the computed value of 13.75 is greater than the table value of 5.99 at 0.05 level of significance. It was also revealed that the state of facilities needed to be improved as there is significant difference between the state of facilities and overall tourists' satisfaction. Also, it was revealed in the study that the level of awareness of these cultural tourists' sites is still very low. This is the reason for low patronage of the tourist sites from outside the study area that is, Ekiti State.

Conclusions

The study concludes that, the concept of sustainable cultural tourism development can be adopted as a strategy of developing especially at the host communities for cultural tourism. The concept noted that;

1. Tourism must be demanded by people, and it must be supplied either by government, individual or society.
2. The tourists needs must be taken into cognizance, cultural values should also not be negatively affected.
3. Tourist behaviour must be taken note of, to know the level of satisfaction of tourists with the cultural values.
4. Making sure that all development that will take place must take into cognizance the future generation.

Recommendations are:

Policy makers will need to support the development of cultural tourism in the study area. Infrastructures should be made available for both the host communities and tourists, apart from power supply, potable water, good roads and other social amenities that can make cultural communities to be functional.

The sites themselves must be made accessible. Up till now, most cultural sites in the study area are not accessible; this amount to neglect on the part of government.

Government should stop imposing on host communities instead; they should give the host communities chance to decide on what best can be done to develop the cultural sites/festivals they have in custody. ''Information is power'' ''a person not informed is already deformed''. Awareness should be created on TV stations (international and national), radio stations, billboards, and most importantly, social networks and the internet. Thus, it is of no doubt that if cultural tourism can be invested in, it will surely serve as a better substitute for generation of the country's foreign earnings especially at this stage of retarding economy and dwindling oil resources.

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CASHLESS ECONOMY AND INFORMAL FINANCIAL INSTITUTIONS' OPERATIONS IN NIGERIA

Adeusi, S. O. and Dada, O.
[1]Department of Banking and Finance, Ekiti State University, Ado - Ekiti.

Abstract
This study investigated cashless economy and informal financial institutions operations in Nigeria, using workers cooperative society in Ekiti State University, Ado-Ekiti and College of Education Ikere Ekiti as case study. The study applied a qualitative research design covering a proportionate sample of two hundred and twelve (212) respondents drawn from a target population of four hundred and fifty (450). Data was collected using a structured questionnaire. Frequency count and Ordinary Least Square (OLS) regression analysis were used. The study established a strong and positive relationship of 0.767514, 0.216888 and 0.200934 between informal financial institution's performance (PIFI) and impact of Central Bank of Nigeria's cashless economy on informal financial institutions' operations (ICBNP), acceptability of cashless economy among informal financial institutions (AICE) and challenges faced in the implementation of cashless economy (ICCE) respectively. The study recommends that for effective migration of payment system towards cashless economy, more reforms and sensitization efforts should be intensified among the informal financial institutions' operators who are currently and deeply rooted in the use of cash, and see it as a convenient and easy way of receiving and making payment among their members.

Keywords: Cash less Economy, Informal Operation Performance.

1.0 Introduction

One of the prerequisites for the development of national economy according to Ajayi and Ojo (2006) is to encourage a payment system that is secured, convenient, and affordable. In this regard, developed countries of the world like Germany, United Kingdom, U.S.A and Japan to a large extent, are moving away from paper payment instruments towards electronic ones, especially payment cards (Humphrey, 2004). In these developed countries for instances, it is possible to pay for a vending machine snack by simply dialing a number on one's phone bill.

In Nigeria, as it is in many developing countries like Ghana, Gambia and Kenya, cash is the main mode of payment and a large percentage of the population is unbanked (Ajayi and Ojo, 2006). This makes the country to be heavily cash-based economy. The Nigerian cashless system of payment has been evolving in line with the global payments evolution. The cashless policy which took effect from April 1, 2012 in Lagos as a pilot project, contrary to what is suggestive of the term, cash less economy does not refer to an outright absence of cash transactions in the economic setting but one in which the amount of cash-based transactions are kept to the barest minimum. In a cashless economy, how much cash you have in your wallet is practically irrelevant, you can pay

[1] Authors: ogamisir2005@yahoo.com, ogamisir2013@gmail.com, oluwabunmijdada@yahoo.com; bunmex854@gmail.com

for your purchases by any one of a plethora of credit cards or bank transfer (Roth, 2010). Some aspects of the functioning of a cashless economy are enhanced by e-finance, e-money, e-brokering and e-exchange. These all refer to how transactions and payments are made in cash less economy (Moses, 2011).

Moreover, for effective success, realization and implementation of the cashless economy calls for the need of the regulatory authorities to harmonize informal financial institutions within the country. Since it is believed that financial systems in any economy play significant roles in stimulating economic growth and development. It channels funds to various economy agents that need them for productive uses. Its functions are very imperative for any economy that intends to be viable with respect to economic growth and development because it creates and makes links between the surplus and the deficit units of the economy (Osabuohien and Duriji, 2005). Since the activities of the informal financial institutions (IFIs) also involve the flow of money among their members, it becomes necessary to ensure that the cashless policy introduced by the CBN also affect their ways of handling cash transactions and cash flow for their members. The successful harmonization of this sector will help in achieving macro-economic objective, stability, efficiency, soundness of the financial system and possibly reduced the rate of inflation to the barest minimum within the country (Nigeria).

The Nigerian economy is heavily cash-oriented in the transactions of goods and services. The huge volumes of cash transactions imposed enormous cost on the banking system and consequently, the customer, in terms of cash management, frequent printing of currency notes, currency sorting and cash movements (CBN, 2012). This cash-fueled transaction in the economy informed the preference by the banks to lend to the capital market and oil and gas industry rather than the real sector and small and medium scale enterprise (SMEs). The “cash and carry syndrome” attitude of Nigerianss, especially among the informal operators according to Yaqub, Bello, Adenuga and Ogundeji (2013), is estimated to reach a staggering sum of one hundred and ninety two billion Naira in 2012, this figure if not properly check will continue to increase in the nearest future.

For effective implementation of a cashless economy, the regulatory authority must not focus on banks and financial institutions alone. This is because; they are not the only institutions where the flow of money within the circulation can exist. Policies can also be introduced into the activities of the informal financial institutions to reduce their cash based transactions. Therefore, the introduction of cashless economy can have strong positive effects on informal financial institutions vis- a-vis economic growth within the country. This has not been extensively proved by previous researchers and it is against this background that the study will be investigated to provide a light on cashless economy and informal financial institutions’ operations in Nigeria, hence cash based transactions become functionally deficits as they will be reduced potentially and drastically to the minimum level.

2.0 Literature review and empirical framework

Central Bank of Nigeria Cashless Economy and Informal Financial Institutions Operations

Many regulatory functions of the Central Bank are directed at the main objective of promoting and maintaining monetary and price stability in the economy. To perform this role, the CBN formulates policies aimed at controlling the amount of money in circulation and controls banks as well as other major financial players in the system (Ernest and Fadiya, 2012). However, some of the policies aim at controlling the amount of money and bringing the flow of money in circulation into the banking system. One factor that can help in achieving this macroeconomic objective is the introduction of the cashless policy. This policy cannot but affect one major sector of the economy that also channels funds from the surplus economic unit to the deficit economic unit (informal economy). Cashless banking aims at reducing, not eliminating the amount of physical cash (study notes and coins) circulating in the economy, while encouraging more electronic based transactions (payment for goods, services, transfers etc.). In other words, it is a combination of two e-banking and cash-based systems (Ernest and Fadiya, 2012). Also, the informal economy according to Chandavarkar (1985), refers to the non-institutional financial market that covers all financial activities outside the armpit of the institutional finance. He described the financial sector as being a heterogeneous residual sector comprising of different entities such as money lenders, traders among others. In this vein, the informal rural financial institution consists of "unregistered money lenders" and "informal lenders", "non-institutional sources and unorganized sources", which operated largely outside the banking system and which are majorly unregulated, and are more loosely monitored than formal.

The cashless systems of payment can help the informal financial institutions particularly the unbanked join the banking system with significant benefits to them and to the societies in which they live (Commonwealth Business Council & Visa, 2004). Hernando de Soto mentions in his book, *The Mystery of Capital* found in Delali (2010), that a large percentage of business assets held in the informal economy of many developing countries reduce the size and productive capacity of their total official economies. In a similar way, a cash based economy is a diminished economy. The informal economy runs on cash outside of the banking and official economic systems. "When cash remains outside the banking system, the possibilities for supplying productive capital to the economy are muted." (Commonwealth Business Council & Visa, 2004). Data from Global insight indicates a direct correlation between a specified shift of currency into lendable reserves and increases in GDP. Bringing cash into the banking system generates an equal increase in bank reserves, enabling banks to facilitate more consumer and commercial loans, thereby stimulating business growth and consumption. When cardholders use their cards at the point of sale they are helping to keep money in the banking system. Electronic Point of Sales (EPS) can help displace shadow economies, bring hidden transactions into the banking system and increase transparency, confidence and participation in the financial system (Cobb, 2004; Al Shaikh, 2005).

Cashless Economy and Informal Financial Institutions Operations' Performance

As many as 80 percent of Nigeria's population neither has nor operate a bank account, although the majority of the "un-banked" are economically active in either the formal and informal sectors of the economy (Ackorlie, 2009). This is the case for most African and developing nations especially Nigeria. The term unbanked means the person does not have a checking or savings account (Anderson-Porisch, 2006).

The emergence of credit, debit and prepaid card systems and other forms of electronic payment gives the informal financial institutions an important option for bringing cash into the formal economy. "Prepaid cards are particularly interesting, because the funds are actually on deposit at a regulated financial institution, but the process of establishing and managing accounts is much more cost effective and less risky than traditional debit accounts for smaller levels of deposit" (Commonwealth Business Council and Visa, 2004). Anderson-Porisch (2006), argued that technology provides the opportunities for the unbanked informal financial institutions to transit their operations into the banking circle. According to her paper, "the Debt Collection Improvement Act of 1996 required that recurring federal benefit payments be made electronically through electronic funds transfer (EFT) as a low-cost account for those who cannot qualify for or afford a checking account. As a result, there has been an increase in people using this option for receiving federal benefits". The Commonwealth business council also argued that payroll, pension and benefit cards can be effective entry-level instruments for banking and subsequent mainstream financial services and they allow a greater proportion of funds to remain within the banking system until they are spent. This has been used in the US, Brazil, Mexico, Puerto Rico, Indonesia and Jordan.

In banking the informal financial institutions, which are part of an international payment system, can issue prepaid cards to customers and their members, including those who currently do not have a banking relationship, enabling them to receive funds safely and conveniently. Depending on the type of card, recipients can withdraw cash at an ATM or buy goods and services at merchants. The use of any electronic transaction as a common platform for the financial sector would reduce physical circulation of cash among these sectors.

Review of related empirical studies

Empirical review on cashless economy

In recent years, many authors have in one way or the other investigated the introduction of cashless system and its implication on every sector particularly on economic development in both developed and developing countries. Olajide (2012) used theories to investigate cashless banking in Nigeria and its implications on the economy. He found out that cashless banking will boost the economy on the long run. Nwankwo (2013) used descriptive research design to investigate electronic payment in cashless economy of Nigeria: problems and prospects. The study indicates that the electronic payment system has a great implication in the cashless economy of Nigeria but it will lead to significant decrease in deposit mobilization and credit extension by Nigerian deposit money banks.

Atanda and Alimi (2012), also used descriptive analysis of structured questionnaire to investigate Anatomy of cashless banking in Nigeria: what matters? The study concluded that, there is a need for increasing availability and reliability of alternative payment channels; and ensure proper awareness amongst consumers. Akhalumeh and Ohiokha (2012) used simple percentage procedure with the aid of structured questionnaire to analyzed Nigeria's cashless economy: the imperatives. The result indicated that: majority of Nigerians are already aware of the policy and majority agree that the policy will help fight against corruption/money laundering and reduce the risk of carrying cash.

Empirical review on informal financial institutions

One of the estimates of the informal financial institutions is a study conducted by Adeusi, Azeez and Olanrewaju (2012). They used ordinary least square method of multiple regression analysis for a period of ten years (2001-2010) to investigate the effects of financial liberalization on the performance of informal capital market. The study found that financial liberalization has significant effect on deposit mobilized and loan granted by the market but did not have significant effect on their net surplus. Lawal and Abdullahi (2011) used ordinary least square method of regression analysis on agriculture production in the rural economy of Kwara State, Nigeria. The findings indicated that the institutions had positive impact on agricultural production through only rotating savings being statistically significant at 10% level of significance and t-value of 1.41. Oloyede (2008) used a filed survey and questionnaires, administered on about one thousand and one hundred respondents in Ekiti State to investigate the informal financial sector, saving mobilization and rural development in Nigeria. He found that myriads of problems still beset their effective performance of informal financial institutions and suggested that appropriate policy reforms be put in place.

3.0 Research methods

Area of the study

The study was carried out in Ekiti State. Ekiti is a State in Southwest Nigeria, declared a State on October 1, 1996 alongside five others by the military government of the time under the leadership of General Sani Abacha. Ekiti State was carved out of the territory of old Ondo State, covers the former twelve local government areas that made up the Ekiti Zone of old the Ondo State. Ekiti State is located between latitudes 7Â°25' and 80Â°5'N and between longitudes 4Â°45' and 5Â°46 East.

For effective coverage of this study, it specifically focuses on two local governments in Ekiti State. They are Ado and Ikere Local Governments. Within these Local Governments, a purposively selected sampling of two major institutions is considered; they are Ekiti State University, Ado-Ekiti and College of Education, Ikere-Ekiti. These institutions were chosen purposively because it will enable different means of payment system relating to cashless economy be investigated among the workers' cooperative societies and also because of the dynamic nature of these groups to technological changes as a result of their educational background. These factors made it essential to sample within the institutions. Also the choice of these institutions was based on their proximity, socio-cultural and economic variations.

Research Instruments

This research made use of structured questionnaire. The questionnaire follows a close ended that have answer options (following Likert type scale method) like (Strongly agree, Agree, Disagree, Strongly Disagree, and Undecided). The scale ranges from 5 -1 respectively. It is divided into five sections which are meant to provide answer to Personal data and various Research questions. The method used for analysis of data through questionnaire administered to the respondents involved the use of frequency count and multiple regression analysis.

Mathematically the model for this research work is expressed as:

PIFI = f (ICBNP, AICE, ICCE,)….. (1)

Where;

PIFI = Informal Financial Institution Performance

ICBNP = Impact of Central Bank of Nigeria Policy

AICE = Acceptability of Cashless Economy

ICCE = Challenges of Cashless Economy

f = functional relationship

The econometric form of equation (1) is represented as:

$PIFI = B_0 + B_1ICBNP + B_2AICE + B_3ICCE + e$ ……. (2)

where:

B_0 = Intercept of relationship in the model/constant

B_1-B_3 = Coefficients of each independent or explanatory variable

e= Stochastic or Error term

4.0 Data presentations analysis and interpretation of results

Demographic analysis

Table 1 Demographic Data

S/N	Demographic Variables	Grouping	Frequency	Percentage
1	Gender of the respondent	Male Female	97 88	52.4% 47.6%
2	Marital Status	Married Single Divorced	158 26 1	85.4% 14.1% 0.5%
3	Age	20-30 years 31-40 years 41-50 years 51and above	40 49 76 20	21.6% 26.5% 41.1 10.8
4	Educational Background	School Certificate OND/NCE HND/B.SC Postgraduate/Professional Qualification	9 53 118 5	4.9% 28.6% 63.8% 2.7%
5	Working Experience with Ekiti State University/College of Education, IkereEkiti	Less than 5 Years 5-8 years 9- 12 Years 13- 16 Years 17 Years and above	40 12 57 32 44	21.6% 6.5% 30.8% 17.3% 23.8%

Source: Field Survey 2014

The result depicted in the above table shows the data collected from the demographic characteristics of the respondents, indicated that 97 respondents with a percentage of 52.4% are male while 88 representing 47.6% of the respondents are female. Therefore, it could be inferred that majority of the respondents consulted on the field survey are male, nevertheless the sampling is said to be gender sensitive. It was also revealed from the marital status of the respondents that 158 are married representing 85.4%, 26 of the respondents are single representing 14.1% and only one respondent is divorced. The implication of the above is that the result of the field survey shows that a greater proportion of the respondents are married.

Considering the age distribution of the respondents consulted, it is clearly indicated that 40 respondents representing 21.6% are within the age of 21-30 years, 49 respondents with a proportion of 26.5% are within the age of 31-40 years, 76 respondents with a value of 41.1% are within the age of 41-50 years and 20 respondents with a percentage of 10.8% are within the age of 51and above. It is however revealed from the result of the field survey that a large proportion are within the age of 41-50 indicating that a reasonable number of informal financial institution operators of cashless economy are found within this age group, this age group represents the most attractive group of cashless economy operators among informal financial institutions in Nigeria.

The educational qualifications of the respondents show that 9 respondents indicating 4.9% have Secondary School Certificate, 53 respondents indicating 28.6% are OND/NCE holders, 118 respondents indicating 63.8% are HND/B.Sc holders and 5 respondents with a proportion of 2.7% have postgraduate/professional qualifications. With this result, it could be inferred that a large proportion of the respondents are HND/B.SC, which indicates a higher percentage. Moreover, the experience gathered from the respondents, working with the two institutions consulted, indicated that 40 respondents with a value of 21.6% are have less than 5 years experience, 12 have 5-8 years working experience with a proportion of 6.5%, 57 indicating 30.8% have 13-16 years working experience and 44 have been working for the past 17 years and above with a value of 23.8%. This shows that a greater proportion of the respondents have had reasonable experience with the institutions and have been operating informal financial institution, that is, workers' cooperative society and indicated that they are aware of the introduction of cashless economy.

Presentation of ordinary least square (OLS) results

The table below presents the ordinary least square results conducted on the specified model used for this study. The OLS results reveal the relationship that exists between the dependent variable and each of the independent variables.

Table 2: - Ordinary least square (OLS) result

DEPENDENT VARIABLE	COEFFICIENT OF ESTIMATES	T- STATISTICS	PROBABILITY VALUE
C	-0.690786	-2.524167	0.0125
ICBNP	0.767514	11.76576	0.0000
AICE	0.216888	3.941813	0.0001
ICCE	0.200934	3.425111	0.0008

R^2 = 0.633023 **Adjusted R^2** = 0.626940 **F-statistic** = 104.0728 **DW-STAT=** 2.021982
Source: *Authors' Computation*

From the table above, the model can now be mathematically expressed as:
PIFI$=-0.690786+ 0.767514_{ICBNP} + 0.216888_{AICE}\ 0.200934_{ICCE} + e$

Interpretation of Results

From the above results, it could be inferred that the constant parameter is negatively related to Informal Financial Institution Performance (PIFI). The coefficient of the constant parameter is 0.690786. This implies that if all the explanatory variables were fixed at zero, PIFI which is the explained variable will decrease by 0.690786 units.0.767514 is the partial regression coefficient of Impact of Central Bank of Nigeria's Cashless Economy on Informal Financial Institutions Operations (ICBNP), and indicates that with the influence of other (acceptability of cash less economy among the informal financial institutions and challenges of cashless economy among the informal financial institution) held constant, as the impact of Central Bank of Nigeria's cashless economy changes, say by one percent, on the average, informal financial institutions' performance changes by 0.767514 percent in the same direction. 0.216888 is the partial regression coefficient of acceptability of cashless economy among informal financial institutions and indicates that with the influence of other held constant, as acceptability of cashless economy changes, say by one percent, on average, informal financial institution performance changes by 0.216888 percent in the same direction. 0.200934 is the partial regression coefficient of challenges faced in the implementation of cashless economy by informal financial institutions operation and indicates that with the influence of other held constant, as challenges faced by informal financial institutions in the implementation of cashless economy is controlled, say by one percent, on average, informal financial institution performance changes by 0.200934 percent in the same direction.

The coefficient of multiple determination denoted as R^2 with a value of 0.633023 with an adjusted R^2 of 0.626940, shows that 62.7% of the total variation in informal financial institution performance can be explained by all the explanatory variables put together i.e. (impact of Central Bank of Nigeria's cashless economy on informal financial institutions operations, acceptability of cashless economy among informal financial institutions and challenges faced in the implementation of cashless economy.

Discussion and Economic Implication of Findings

The study examines cashless economy and the performance of informal financial institutions' operations in Nigeria. The result of the analytical test revealed that Impact of Central Bank of Nigeria Cashless Economy on Informal Financial Institutions (ICBNP), Acceptability of Cashless Economy among Informal Financial Institutions (AICE) and Challenges Faced in the Implementation of Cashless Economy among Informal Financial Institutions (ICCE) exhibit strong statistical significance and a direct relationship with Informal Financial Institutions' Performance (PIFI). Their statistical relationships were considered based on their probability value. Also, the implication of the positive relationship of the impact of Central Bank of Nigeria's cashless economy on informal financial institutions' operations is that various efforts have been made by the Central Bank in improving payment systems most especially electronic payment system and in harmonizing the informal and unbanked attitude of this sector into banking activities which in turn reduces the cash and carry syndrome attitude of the informal financial institution operations that is in vogue. The result conforms to the work of Yaqub, *et al* (2013), Olatokun and Igbindion (2009), Olajide (2012), earlier reviewed in this study.

Also, considering the implication of the positive relationship of the acceptability of cashless economy, with respect to the informal financial institutions' performance, it implies from the above result that much has already been done in making the people aware of the cashless economy and that a sizeable proportion of the people are actually awaiting the introduction of a cashless economy, it also appears that many people actually agree with the monetary authority on the usefulness of cashless economy. Evidence from this result is given in the frequency of the respondents where majority of the respondents agree to the questions raised on the issue. The positive relationship collaborates with the work of Akhalumeh and Ohiokha (2012). The statistical standard of challenges faced in the implementation of cashless economy with respect to informal financial institutions' performance, looks skeptical, but the implication of the above result is that though the policy was plugged on us but the awake of the Central Bank of Nigeria to mitigate the problem of illiteracy, indiscriminate deduction from member's account, shortage of deployed point of sales terminal and difficulties in changing from cash to cashless economy and encourage electronic payment system stem from this result. However, in order to determine the precision of this research work, it is necessary to ensure that the objectives of the study have been achieved. In this regards, the goodness of fit of the model, the coefficient of multiple determination (R^2) was considered. The R^2 in the regression analysis is 0.633023 $\approx$0.63 with an adjusted R^2 of 0.626940. This implies that 63% of the variation in the present state of informal financial institutions' performance is being explained by the impact of Central Bank of Nigeria's cashless economy on informal financial institutions' operations, acceptability of cashless economy and challenges faced in the implementation of cashless economy among informal financial institutions.

5.0 Conclusion and Policy Recommendations

Nigeria occupies an unenviable position among countries in Africa, with the largest number of people dominated by high level of cash transactions. In the overview, the study shows strong and statistical significant relationship between the identified variables. It then implies that all variables fused together in this research work are significant in the explanation of the behavior of the topic under consideration.

In light of the findings of this study, the following recommendations were made:

Effective migration of payments system towards cashless economy would require some reform and sensitization among the informal financial institutions' operators who are currently and deeply rooted in the use of cash, and see it as a convenient and easy way of receiving and making payment among their members. The Central Bank of Nigeria should embark on intensive awareness campaign and sensitization to entice the unbanked populace especially the informal financial institutions' operations into the banking system. This will go a long way in ensuring effective operation and ensuring the CBN's objective of expanding, deepening and modernizing the payment system in Nigeria. Since a large proportion of the populace make use of informal financial institutions in raising their funds, this sectors therefore serves as the strategic segments of the economy in meeting the needs of their members. Various electronic payments to aid their activities such as deployment of Point of Sales Terminal (POS) encouragement of Automated Teller machine (ATM) and others should be made available. Finally, since the attitude of most people under informal financial institutions are very redundant to technological changes, there is need for the regulatory authority to ensure that the policy is properly enforced, through the use of moral suasion explaining the benefits derived from this system, since the use of coercive measure will render such policy ineffective.

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EFFECT OF FATHERLY CARE AND RELIGIOSITY ON PERSONALITY DEVELOPMENT OF ADOLESCENTS IN STATE OF OSUN, NIGERIA

TEMITOPE BANKOLE and IFEOLUWA SOLOMON

[1]*Department of Psychology, Ekiti State University, Ado Ekiti*

Abstract

This study investigated the extent to which fatherly care and religiosity influence personality development. One hundred and fifty two participants were randomly selected from various Secondary Schools whose ages range between 13-19 years. The questionnaire used consisted of four sections, Section A was used to gather demographic data and Section B was used to determine the level of fatherly care, Section C was used to determine the strength of religious faith and Section D was used to determine the subject's personality type. Two hypotheses were tested using Regression for hypothesis 1 and independent t-test for hypothesis 2. Findings revealed that, there is a significant main influence of fatherly overprotection on extraversion but does not influence any other types of personality. The result also showed that, fatherly care has a significant main influence on agreeableness but has no significant influence on any other type of personality. Also religiosity has significant influence on conscientiousness and neuroticism. This confirmed that there is a joint influence of fatherly care, overprotection and religiosity on all the personality dimensions except openness. This study therefore recommends that fathers should participate in the development process of their adolescents for mothers to be relieved of the heavy burden of fulfilling all the needs of the adolescents and to reduce the incidence of "mother blaming" common in schools and clinical setting.

Keywords: Fatherly care, Religiosity, Personality development, State of Osun

Introduction

The term adolescence comes from the Latin word which means "to grow" or "to grow to maturity". Based on this, therefore, adolescence could be explained ordinarily to mean a period of growth between childhood and adulthood, an intermediate state between being a child and being an adult (Arogundade, 2007). All the same, different disciplines have tried to examine and explain the term from their different study viewpoints. For example, a strictly biological view of adolescence defines it as a period of physical and sexual maturation, during which important physical, behavioral and psychological changes take place in the child (*Encyclopedia Americana*, 2004).

Adolescence is also a time for rapid cognitive development. Piagnet describes adolescence as the stage of life in which the individual's thoughts start taking more of an abstract form and the egocentric thoughts decrease. This allows thinking and reasoning in a wider perspective (Calson, Heth, Niel R, and C. Donald, 2007). The thoughts, ideas

[1] Author: temitope.bankole@eksu.edu.ng 08035245160, 07066620375

and concepts developed at this period of life greatly influence one's future life, playing a major role in character and personality formation.

As it were, there is a view that adolescence is not solely a biological event but also a social-cultural happening. Sociologists explain that adolescence is a period when an individual is "ripe" enough to leave the phase of protective childhood, becoming independent and capable of going out to feed himself. Psychologists in agreement with biologists that adolescence is characterized by rapid physical body changes (growth spurts), explain that the phenomena should be defined by the behavioral and attitudinal transformations that may be attendant on the changes.

An individual's personality is a conglomeration of decisions we have made throughout our lives (Santrock 2002). There are inherent natural, genetic and environmental factors that contribute to the development of personality. It is imperative to note that as an individual is developing, he/she is also building personality alongside. Personality is a particular pattern of behavior and thinking that prevails across time and situations and that differentiates one person from another. Personality can be reinterpreted as a person's understanding of the world based on the reaction of others from an early point in life (Duke, 2010).

As individuals grow, they pass through transitional phase of development. It is along this transitional phase of development that personality is formed. In other words, the origin of individual personality can be traced back to childhood. Since changes in behavior, that is learning occur rapidly in the early years of life (Santrock, 2002). It is important to focus on the various factors that influence the cause of personality development in individuals.

According to Allport (1961), personality refers to a distinctive pattern of behavior, mannerism, thoughts motive and emotions that characterizes an individual over time and across different situations. This pattern consists of many distinctive traits, habitual ways of behaving, thinking and feeling: shy, reliable, friendly, hostile, gloomy, confident, and ambitious.

Personality though ought to be consistent over a period of time can also change. About half of human variation in personality traits is due to genetics, and what is responsible for the other half according to psychological theories of personality are family, one's personal experience, culture, norms and the unconscious mind (Turkheimer, 2000). A surge of research interest has come to discover that there is a bond between father and child and this reflects changes in our present day society. A family is an important part of a child's life. It is necessary for proper cognitive and physical development. A family consists of a father, mother and children and is where the primary shaping of a human character takes place.

Imbalance within the family can only be realized and equalized through the acceptance of roles, new relationships for men and women, boys and girls. Both men and women have productive not just reproductive roles. Women's roles apart from motherhood, as

educators, providers and decision makers need to be supported while fatherhood needs to be more broadly defined and fathers highly valued.
Strengthening the father and their adolescent's link will provide the adolescents with the financial and emotional support they deserve. When fathers participate in the development process of the adolescents, the mother will be relieved of the heavy burden of fulfilling all the needs of the adolescents, and fathers gain confidence and emotional satisfaction, when the fathers get involved, they will be able to foster a cordial relationship with their adolescents and thereby be able to enforce societal norms and values.

A father's love contributes as much and sometimes more to a child's development as mother's love. That is one of many findings in a new large-scale analysis of research about the power of parental rejection and acceptance in shaping our personalities as children and into adulthood. In our half-century of international research, we've not found any other class of experience that has a strong and consistent effect on personality and personality development as does the experience of rejection, especially by parents in childhood, (Ronald Rohler of the University of Connecticut, 2002).

A 13-nation team of psychologists working on the international father acceptance rejection project has developed at least one explanation for this difference: that children and young adults are likely to pay more attention to which ever parent they perceive to have higher interpersonal power or prestige. So if a child perceives her father as having higher prestige, he may be more influential in her life than the child's mother.

Fatherly love is critical to a person's development. The importance of a father's love should help motivate many men to become more involved in nurturing child care. Widespread recognition of influence of fathers on their children personality development should help reduce the incidence of "mother blaming" common in schools and clinical settings. (A. Khaleque, R. P. Rohner, 2004)

Religiosity, in its broadest sense, is a term used to refer to the numerous aspects of religious activities, dedication and belief. Another term that would work equally well, though less often used is religiousness. In its narrowest sense, religiosity deals more with how religious a person is (in practicing certain rituals, revering certain symbols or accepting certain doctrines about deities and after life (Hill and Hood, 1999). Several researchers (e.g. Hill and Hood, 1999, Cornwall et al, 1986) have argued that, religiosity has different components.

According to these researchers, there are at least three components to religious behavior, knowing (cognition), feeling (affect to the spirit), and doing (behavior of the body). Other researchers (e.g. Hines, 2003), have found different dimensions ranging generally from four to twelve components. What most measures of religiosity found is that there is at least some distinction between religious doctrine, religious practice and spirituality. For example, one can accept the truthfulness of the Bible (Belief dimension) but never attend a church or even belong to an organized religion (practice dimension). Another example is an individual who does not hold Orthodox Christian doctrines (Belief dimension) but does attend a charismatic worship service (practice dimension) in order to develop his/her sense of oneness.

Statement of the problem

The perceived problem that instigated the conduct of this research is cited from the adolescents engaging in suicide mission (bombing) both in this Federation and outside the country.

This perceived problem has caused controversies in terms of the personality of these insurgents and the influence of any other correlated variable on their personality development. Some researchers sight this problem as a result of negative childhood fatherly upbringing in the personality of these adolescents, while some researchers sight suicide bombing as a reflection of religious belief. These diverse views have caused a controversy on the probable influence of fatherly care or upbringing and the effect of practiced religion on the personality development of adolescents.

Personality development is a human makeup that cannot underestimate the influence of the environment in its formation. Lots of researches and controversies have made us to understand the development of personality from the behavioral genetics.

An adolescent's personality can be influenced by father-child interaction (Erik Erikson, 1984), and as well by the social institutions they are exposed to in their early age. The first environment of every child is the parents; it is popularly believed that a child is able to pick up characters and gestures from his or her immediate parent through the use of reinforcement and punishment (Burkheim Frederick Skinner). Learning is a significant factor that can modify the personality of every adolescent, likewise the religion the parents practice is what every child inherits automatically, every religion has its scriptural instruments e.g. Christian (Bible), Muslim (Quran) and Traditionalist (Oracle).

All these instruments of religion have their dos and don'ts. Anyone who chooses to follow a religion must comply and abide by the rules and regulations of the religion, and these rules and regulations come to reconstruct our behavioral dispositions (personality). These perceived problems led to this research to seek for the intensity by which the father-children interaction/care and religiosity affect the personality development of adolescents.

Objectives of the study

1. To know the extent by which fatherly care and religiosity influence personality development.
2. To assess the variations in the personality development of both male and females adolescents.
3. To suggest possible orientation for a proper interaction between fatherly care, religiosity and personality development of adolescents.

Research hypotheses

1. There will be a significant influence of fatherly care and religiosity on personality development of adolescents.
2. There will be a significant difference between males and females on fatherly care and personality development of adolescents.

Operational definition of terms

Adolescents: This is a transitional stage of physical and psychological human development that generally occurs during the period from puberty to legal adulthood (age of maturity). The period of adolescence is most closely associated with the teenage years, though its physical, psychological and cultural expressions may begin earlier and end later.

Development: In psychology, this is the study of physical, cognitive and social change throughout the life span of an individual.

Personality: The individual's behavior, attitudes, emotions and thoughts that differentiate them from others.

Parent: A parent is a caretaker of the offspring in their own species.

Religion: It is a way of getting in tune with the divine; it is an access to having a relationship with the Supreme Being (God). Worship is probably the most basic element in religion. Religion varies we have Christianity, Islam, Hinduism, Judaism and lots more.

Religiosity: Means the quality or state of being religious. It is something pertaining to or concerned with religion or sacred rites and scrupulously faithful.

Father: A man in relation to his child or children. Also is the male parent of a (human) child.

Methodology

Research design

The study is on the influence of fatherly care and religiosity on the personality development adolescents. There are two (2) independent variables, which are fatherly care and religiosity. One dependent variable was also involved, which is personality development, on which the two independent variables were tested.

Participants

The participants for this study were randomly selected from various secondary schools whose ages ranged between 13 and 19 years. The participants consisted of a total of 152 individuals (88 females and 64 males). Concerning religion, 117 were Christians and 35 were Muslims.

Sampling Techniques

Random sampling techniques were used to select One Hundred and Sixty students from three Secondary Schools in Boripe Local Government Area, State of Osun.

Instruments
The instrument used in this research to gather necessary data is questionnaire and it consists of four (4) sections: A, B, C, and D.

Fatherly care
Fatherly care was measured using Parental Bonding Instrument (PBI). This scale is of two forms which are father form and mother form, father form is used for this research. It was developed by Gordon Parker, Hilary Tupling and L.B. Brown (1997). The scale is a 25 - items instrument which are of two subscales termed as "Care" and "Overprotection" or "Control" designed to measure parental care/styles as perceived by the child. The care scale measures warmth, empathy, and emotional support. The protection scale measures overprotection, control, and intrusiveness. The subject rates father on a Likert–type scale, each item scoring 0-3 (Very like-Moderately like -Moderately unlike -Very unlike). The reliability PBI was assessed by Crobach's Alpha, test – retest and split – half reliability statistics. It has a direct and reverse scoring of itemized statement of which the research participants are to response to.

Religiosity
Religiosity was measured using The Santa Clara Strength of Religious Faith Questionnaire (SCSORF; Plante & Boccaccini; 1997). It is a 10- item self-report measure and it was designed to measure the strength and level of religious faith, regardless of religious denomination or affiliation. The scale uses a 4-point Likert response format, ranging from (1) strongly disagree to (4) strongly agree.
The scale was found to be internally consistent with an alpha coefficient of .93, Test-retest: None

Personality Development
Personality development was measured using The Big Five Inventory-10 (BFI) personality scale developed by Rammstedt and John (2007). The measure is a 10- item scale scored on a five (5) point Likert format. The scale is a shorter version of the lengthy BFI (John, Donahue, & Kentle, 1991) which consists of 44 items. The author reported a correlation between the BFI-10 and the BFI–44. The coefficients are as follow: the three most homogeneous BFI–44 scales, Extraversion, Neuroticism, and Conscientiousness, were best represented by their 2- item versions average correlations of .89, .86, and .82, respectively. The two least homogeneous BFI-44 scales were least well represented, Agreeableness (.74) and Openness (.79).

To further establish the reliability of this time friendly personality inventory, the authors obtained test-retest reliability among two samples of different cultures, the coefficient are as follows: retest stability coefficients were .72 I US, .78 in a German sample, and .75 overall, suggesting that the BFI-10 scales achieved respectable levels of stability over 6-8 weeks in both cultures. Some items on BFI-10 are direct scored while some are reverse scores. Items 1,3,4,5 and 7 are reverse scores while the remaining items on the scale are direct scores.

Result

Hypothesis 1: There will be a significant influence of fatherly care and religiosity on personality development of adolescents.

Table 4.1: Regression summary table showing the influence of fatherly care and religiosity on personality

	Variable	Beta	t	R	R^2	F
Extraversion	Fatherly care	.066	-.79			
	Fatherly overprotection	.249	3.14**	.26	.07	3.54*
	Religiosity	.016	.19			
Agreeableness	Fatherly care	.274	3.34**			
	Fatherly overprotection	.018	.23	.27	.07	3.94*
	Religiosity	-.012	.15			
Conscientiousness	Fatherly care	.076	.96			
	Fatherly overprotection	.041	.54	.37	.14	7.82**
	Religiosity	.341	4.30*			
Neuroticism	Fatherly care	.113	1.36			
	Fatherly overprotection	-.054	.68	.23	.06	2.88*
	Religiosity	-.233	-2.81**			
Openness	Fatherly care	.031	.37			
	Fatherly overprotection	-.003	-.03	.04	.002	.098
	Religiosity	-.041	-.48			

*significant at.05 **significant at .01

The result for this table revealed that there is a significant main influence of fatherly overprotection on the development of extraversion but there is no significant influence on agreeableness, neuroticism, conscientiousness and openness; but it was shown that fatherly care has a significant main influence on the development of agreeableness but has no significant influence on neuroticism, conscientiousness, openness and extraversion. Religiosity has a significant main influence on the development of conscientiousness and neuroticism but there is no significant influence on agreeableness, openness and extraversion.

Finally, there is a joint influence of fatherly care, overprotection and religiosity on all personality dimensions except openness. Hence, hypothesis one which states that, there will be a significant influence of fatherly care and religiosity on personality development is partially supported.

Hypothesis 2: There will be a significant difference between males and females on fatherly care and personality development of adolescents.

Table 4.2: Independent t-test table showing the effect of sex on personality development and fatherly care

	Variable	N	Mean	SD	SE	Df	T
Fatherly care	Male	64	26.13	4.54	.57	150	2.14*
	Female	88	24.41	5.13	.55		
Father overprotection	Male	64	20.14	5.01	.63	150	-2.49*
	Female	88	21.99	4.14	.44		
Religiosity	Male	64	34.02	5.09	.64	150	.39
	Female	88	33.69	4.96	.53		
Extraversion	Male	64	5.16	2.06	.26	150	.87
	Female	88	4.89	1.77	.19		
Agreeableness	Male	64	7.45	1.81	.23	150	.61
	Female	88	7.26	1.97	.21		
Conscientiousness	Male	64	8.20	1.88	.23	150	2.38
	Female	88	7.45	1.94	.21		
Neuroticism	Male	64	5.78	2.07	.26	150	-.12
	Female	88	5.82	1.80	.19		
Openness	Male	64	6.72	1.59	.19	150	1.97*
	Female	88	6.23	1.45	.15		

*significant at .05

Fatherly care: $t(152)=2.14$, $p<.05$

Overprotection: $t(152)=-2.49$, $p<.05$

Conscientiousness: $t(152)=2.38$, $p<.05$

Openness: $t(152)=1.97$, $p<.05$

The result in table 4.2 indicates that, there is a significant difference between males and females on fatherly care, overprotection, conscientiousness and openness, while there is no significant difference between males and females on agreeableness, extraversion and religiosity.

Thus, hypothesis two which states that, there will be a significant difference between male and female on personality and fatherly care is partially supported.

Discussion of findings

Hypothesis one states that there will be a significant influence of fatherly care and religiosity on personality development. The result revealed that, there is a significant main influence of fatherly care on development of agreeableness only. The result further shows that, fatherly overprotection has significant influence on extraversion only while religiosity has significant influence on only conscientiousness and neuroticism but no significant main influence of any on openness. Though there is a joint influence of fatherly care, overprotection and religiosity on all the personality dimensions except openness. Therefore, the first hypothesis is partially supported/ accepted. This is in line with the research Gecas (1981) in which his research on father care shows that intimate, intensive, relatively nature of father care often enhance socialization that takes place in adolescence personality development which usually reflects in adolescence behaviour. The research of Pasada and Kalaoustain, (2000) also stressed that, the way a child relates with other people is a function of his/her personality which must have been developed from the way he/she relates with his/her caregivers. Dunlap, (2004) also noted that lack of father's care in an adolescent life may have a severe negative psychological impact upon the adolescence's personality. It could therefore be pinpointed that father care has a significant role in child's personality development.

There is a significant influence of religiosity on conscientiousness and neuroticism. This is because all the acts of self discipline, dependable, and tendency of the child to be organized are influenced by their belief as well as their religious instrument (Bible/Quran). Religiosity also influenced neuroticism as a trait of personality because the child who exhibits emotional instability, such may have bearing on the child impulse control.

This is in line with the research of Pargament (1998), who found that neuroticism negative management of emotions also connect it to negative religious coping mechanism which may facilitate disengagement with religion in the face of loss. Also McCoulough, Tsang and Brion (2007) found that conscientiousness in adolescence is uniquely related to higher religiousness in early adulthood, which showed that the religion can promote self control and can facilitate self monitoring.

Kopong (2000) noted that the role of religion in socializing a child cannot be overemphasized. The religious tenets and concepts that is being embedded in a child modifies his/her behaviour or personality. Unterrainer (2010) stated in their studies that conscientiousness is positively correlated with religious and spiritual well being.

In summary, the findings of this research revealed that there is a joint influence and interaction of fatherly care, overprotection and religiosity on all personality dimensions except openness which means that there might not be a tangible/significant interaction between these factors and openness.

The second hypothesis, which states that there will be a significant difference between male and female on fatherly care and personality development of adolescents, is partially accepted because the result shows that there is a significant difference between male and female on father care, overprotection, conscientiousness and openness but there is no significant difference between male and female on extraversion, agreeableness and neuroticism.

This result corroborates the findings of Hergovich, Sirsch and Felinger (2004) who reported the influence of father care on male and female adolescents' personality development at early adolescence, that father care usually has an influence on female personality development than on male personality.

The result from table 4.2 rejected the hypothesis that there is a significant difference between male and female on neuroticism, agreeableness and extraversion because sex (male/female) though may have effect but does not play the key role in this personality development of adolescents.

It is expedient to note that a variable like religiosity may influence the neuroticism and conscientiousness personality development of adolescent rather than differences in sex (male/ female).

Conclusion

In conclusion, early adolescence is a time in which major psychological, biological, and social changes occur. Whereas some young adolescents flourish during this transition period, other adolescents find the transitions difficult.

Father care/overprotection and religiosity in no doubt play a big role in the determination of personality, but it does not really explain the reason why people react to environmental situations in different ways.

Based on the results of this research work, the extent at which fatherly care/love and religiosity can help in development of adolescence personality cannot be denied; therefore fathers should ensure the effective discharge of their paternal duties/roles in order to have a positive influence on their children (male and female) personality development.

Finally, based on this research work of fatherly care, religiosity and personality development, I therefore bring to conclusion that there is a joint influence and main interaction of fatherly care, overprotection and religiosity on all personality dimensions except openness.

Recommendations

Fathers should be enlightened about how care/love and their involvement with their adolescents influence the coping mechanism and personality development.

Fathers should not overprotect their children so as to allow them to occasionally reason on their own and have sense of independence because if they are overprotected this may communicate messages to the child that they cannot be trusted and may always make mistakes. This may therefore reduce their preventing effort or attempts at managing situations. Also fathers should understand the best way to care for their children to avoid negative influence on their personality development.

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EFFECT OF MENTORING ON THE ATTITUDE OF JUNIOR SECONDARY SCHOOL STUDENTS TOWARDS SCIENCE LEARNING IN ONDO STATE

Olu-Ajayi[11], F. E. and Adebisi[2], T. A.

[1]*Department of Science Education, Faculty of Education, Ekiti State University Ado-Ekiti.*
[2]*Department of Science and Technology Education, Faculty of Education Obafemi Awolowo University Ile-Ife Nigeria*

Abstract
The need to produce more scientists cannot be overemphasized in any given society. This study investigated the effect of mentoring, using Computer Assisted Instruction (CAI) on Junior secondary school students' attitude towards science learning. The main purpose of this study was to encourage the learning of science subjects, by gradually improving the attitude of basic science students through the use of CAI in a mentoring approach. This is believed could alleviate the fear of studying science in students. The study employed the quasi-experimental design which utilizes non-randomized pre-test, post-test, experimental-control group system. The population of the study was made up of junior secondary school students in Ondo State Nigeria. The sample size was 180. The sampling technique used was random sampling. The instrument used in the study was a Questionnaire on Attitude towards Science Learning (QASL). The instrument was validated and reliability was ascertained for QASL using test-retest method. Reliability coefficient of 0.72 was obtained. The QASL was administered as both pre-test and post-test, mentoring intervention with 'Science Mentoring Learning Model' (SMLM) was used for treatment. Data collected were analyzed using Analysis of Covariance (ANCOVA) and Multiple Classification Analysis (MCA). Findings revealed that the mentored students had higher scores on the post test compared to those exposed to conventional (lecture) method of teaching alone. The authors concluded from the study that if basic Science teachers could incorporate mentoring strategy into their teaching methods, there would be an improvement in junior secondary school students' attitude towards science learning in secondary schools. This will result to more students choosing to study towards becoming scientists. The researcher recommended, based on the findings of the study that basic science teachers should incorporate mentoring strategy in their teaching.

Keywords: Effect, mentoring, students, attitude, science.

Introduction
The recent cause for concern in science education is the enduring 'swing away from Science' by students. The decline in the number of Science-based students as a proportion of all students eligible for higher education in the country as noted by Akubuilo (2004) has raised concerns about the nation's economic and technological future. Since only those students who choose to take Science, or Science and Mathematics, are able to pursue further in scientific education and scientific careers, the

[1] Authors *Foluajayi2008@yahoo.com (08038015872),* *adetom247@yahoo.co.uk (08032446221)*

number of prospective future scientists calls for a study of this nature. It was observed by the researchers that many students in Nigerian secondary schools avoid studying science subjects, perceiving it as cumbersome and uninteresting. This has created a poor attitude towards science learning in some students. Mentoring is an interaction with another that facilitates the process of cognition, achieving more than each could achieve alone. The uncertain ability of the regular classroom lessons to create positive attitude towards science learning is becoming an issue. It is now thought necessary to discover new teaching strategies which could help in making science learning interesting and alleviate the fear of studying science in students.. For this reason, the study investigated the effect of mentoring on the attitude of Junior Secondary School Students towards science learning in Ondo State. It purposed to encourage the learning of science subjects, by gradually creating an improved attitude towards science learning in basic science students through the use of CAI in a mentoring approach. Mentoring according to Merrick (2007) occurs when a teacher willingly invests time in the development of a student, when trusting relationship forms and the needs and interest of the student are met. As rightly explained by Mohan (2010) the future of our society will be determined by citizens who are able to understand and help shape the complex influences of Science and technology on our world. Qualitative science education with focus on the development of scientists, capable of inventive science has been seen as a pedestal for the achievement of technological feats.

Methodology

The study employed quasi-experimental design which utilizes non randomized pre-test, post-test experimental and control group system. Intact classes were involved. Mentoring was used as a complimentary strategy to lecture method of teaching. The QATSL was used as both pretest and posttest for both the experimental and control groups and SMLM was used for treatment. The population consists of all Junior Secondary School students in Ondo state, Nigeria. The state has three senatorial districts. Random sampling was used to select two schools from each senatorial district making six schools in all. The sample was made up of 180 basic science students, 90 students for experimental group and 90 students for the control group respectively.

As required of quasi-experimental design, the researchers assigned the mentoring model.

This is symbolically represented thus:

O1 X O2

O1 - O2

O1 represents pre-test observation for the mentored and non-mentored basic science students in Ondo State secondary schools

O2 represents post-test observation for the mentored and non-mentored basic science students in Ondo State secondary schools

X represents experimental treatment (mentoring)

- represents control treatment

The instruments used in this study include;

Questionnaire on Attitude towards Science Learning (QASL), this is a four–point Likert scale constructed having reviewed literature on students' attitude. Various areas of

attitude towards science learning were assessed. These include Enjoyment of science (ES), Leisure attractions in science (LAS), Career curiosity in science (CCS), Knowledge about the goals of science (KGS) and Avoidance of science subject (AS). Each was made up of five items.
A mentoring package involving counseling, discussion and use of Computer Assisted Instruction (CAI) was used. This is a specially produced learning kit. It was made up of video cassette disc into which the basic science topic used for this study, “The Human Body” had been taught in a comprehensive way by an experienced and skilled teacher using charts and models to enhance learning in students. This was installed into computers of the schools used for the study.

The instrument was validated by science teachers as well as experts in science education and reliability was ascertained for QASL using test - retest method conducted on a group of students outside the population for this study. A reliability coefficient of 0.72 was obtained through Pearson Product Moment correlation statistics which proved its reliability.

Findings
What are the differential effects of mentoring on Basic Science students’ attitude towards science learning?
To answer this question, mean scores on Junior Secondary students’ attitude in experimental and control groups before and after exposure to treatment involving mentoring with ICT were obtained. Pre-test and post-test mean scores Basic Science students’ attitudes were obtained. The result is represented in Figure 1.

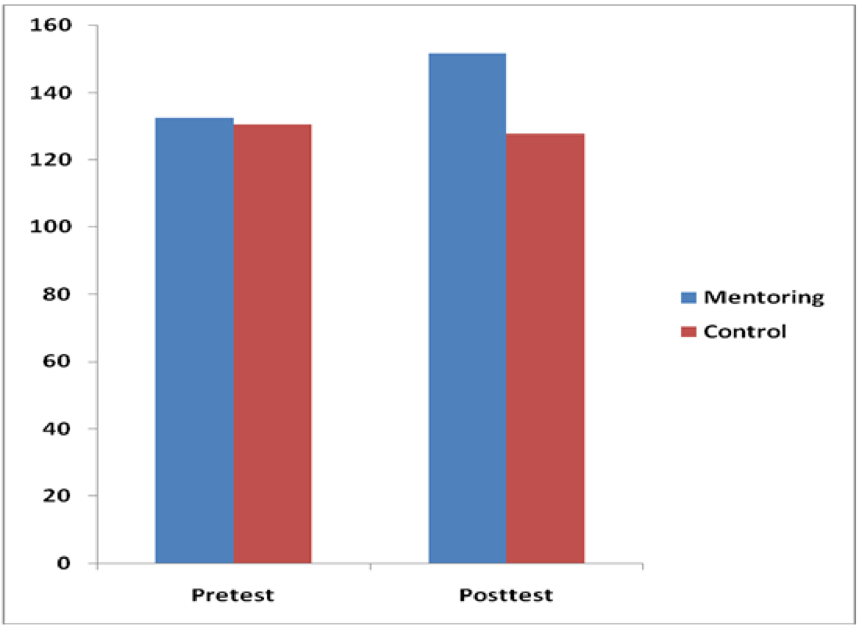

FIGURE 1: Chart showing the effects of mentoring on basic science students’ attitude towards science learning.

Figure 1 presents basic science students’ attitude towards the learning of science. The result shows that the pre-test mean scores of basic science students mentored and the control groups were 132.50 and 130.58 respectively. After treatment, students in the mentoring group recorded a post-test mean score of 151.73 while those of the control group were 127.61. This implies that mentoring has the potency of enhancing students' attitude towards science learning.

The null hypothesis tested in this study is: There is no significant difference in the attitude towards science learning in students exposed to mentoring and those not mentored.
In testing the hypothesis, mean scores on attitude of students in mentoring and control groups were compared and subjected to statistical analysis using Analysis of Covariance (ANCOVA) at 0.05 level of significance. The result is thus presented in table 1

Table 1: ANCOVA of Basic Science Students' Attitude in Mentoring and Control Groups

Source	SS	Df	MS	Fcal	Ftab
Corrected model	27444.305	2	13722.153	66.822	2.99
Covariate (pretest)	1259.633	1	1259.633	6.134	3.84
Group	25234.060	1	25234.060	122.882	3.84
Error	36347.356	177	205.352		
Corrected Total	63791.661	179			
Total	3575291.000	180			

$P<0.05$

Table 1 presents the attitude mean scores of students involved in mentoring with ICT and control groups. The result shows that F cal (122.882) is greater than F table (3.84). The null hypothesis is rejected. Therefore, there is significant difference in the attitude of students exposed to mentoring and those not mentored.

In order to determine the effect of treatment on adjusted post-test mean scores of students mentored and those in control groups, Multiple Classification Analysis (MCA) was applied. The result is presented in table 3

Table 2: Multiple Classification Analysis of Students' Attitude Mean Scores in Mentoring and Control Groups.

Grand Mean=139.67						
Variable+ Category	N	Unadjusted Devn'	Eta	Adjusted for Independent+ Covariate	Beta	
Mentoring	90	12.06	.26	11.81	.19	
Control	90	-12.06		-11.81		
Multiple .035						R^2
Multiple .186						R

Table 2 presents the attitude mean scores of subjects in ICT mentoring and the control groups. The result reveals that students exposed to ICT mentoring activities have higher adjusted post-test mean score of 151.48(139.67+11.81) compared to those in the control group with an adjusted post-test mean score of 127.86(139.67+ (-11.81). It implies that ICT mentoring has the potency of influencing students' attitude towards science learning.

The result shows that mentoring can enhance students' attitude towards science learning. This agrees with Ayodele (2002) who explained that rigid attitude can affect achievement negatively. He said further that negative attitude is a main factor causing failure in science subjects. The study also supports Prasad, (2005) who submitted that conceptualizing is clearer and concrete as the use of audiovisual aids appeals, activates and utilizes the five senses of individual student that is the sense of touch, taste, hearing, sight and smelling. The study is also in agreement with the report of Lankau & Scandura (2002) who discovered that development of mentoring relationships reinforces the protégé's confidence in their ability to learn and may support risk-taking and innovation. It was opined by Olu-Ajayi (2013) that mentoring relationship between teacher and students could remove the teacher's fear in students and enhance his participation in lessons, it is obligatory that teachers should introduce teaching strategies that will bring about positive attitude towards science learning.

Conclusions

It was discovered from the study that

1. Teachers are likely to motivate students better with mentoring strategy in the teaching/learning process.
2. The use of mentoring brought positive and constructive change in the learning attitudes of Basic Science students.
3. Mentoring could be a good complementing strategy to normal classroom teaching in encouraging a positive attitude to science learning in basic secondary school.
4. Mentoring is potent in enhancing the attitude of basic science students towards the learning of science.

The authors concluded that if Basic Science teachers could incorporate mentoring strategy into their teaching methods, there would be an improvement in Junior Secondary School students' attitude towards science learning in secondary schools. This will result to more students choosing to study towards becoming scientists.

The researcher recommended, based on the findings of the study that;

1. Teachers be encouraged to willingly invest in mentoring relationships with students to develop in them positive attitudes towards science learning.
2. There should be enough provision of adequate facility in secondary schools to effect proper mentoring and easy learning in students.
3. Curriculum planners and policy makers may realize the importance and effectiveness of mentoring, and make it a compulsory part of the teachers' training programs
4. Basic Science teachers should employ mentoring strategy to compliment normal lecture method.

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EVALUATING RESIDENTS' QUALITY OF LIFE IN CORE AREA OF ADO-EKITI, EKITI STATE

Amos Ibitoye, Adewale Popoola[1] and Olusola Igbalajobi.

[1]*Department of Geography and Planning Science, Faculty of the Social Sciences, Ekiti State University, Ado Ekiti, Nigeria*

Abstract

The study assessed residential quality of life in core area of Ado, Ekiti State. The study ascertains residents' perception of neighborhood attributes, resident's quality of life and the most important variable to enhance residential quality of life. Primary data was collected, using questionnaire, from a sample of 162 respondents. The ANOVA method of Analysis was adopted. The study found that, residential quality of life was low with garbage on the streets. There was no traffic congestion, because; the area was not accessible and periodic flooding occurrence in the neighborhoods. The study revealed that 18% of the residents were unhappy with their residential quality of life and majority of (45%) the resident's perceived neighborhoods to be of medium quality. The study concluded that the improvement of conditions as perceived by the residents was important in raising residential quality of life and recommended that in the provision of public services; the perceptions of the beneficiaries must be taken into considerations.

Keywords: Residential, Quality, Core area, Neighborhood condition

Introduction

The hearts of many cities in Nigeria are like islands of poverty in seas of relative affluence. It does not require a professional skill in environmental perception to note the differences between the residential, environmental and the overall quality of life of the residents especially in the core areas (Andrew, 2008). The concept, ''Quality of Life'', encompass the basic conditions of life, including adequate shelter, food and safety which are based on the individual's values, beliefs, needs and interests (WHO-IACCID, 2000). Measuring quality of life means value quality within people's lives and to maintain or enhance the things that are already or could add quality to their lives (WHO-IACCID, 2000). The search for quality of life, particular in the city, has occupied post-industrial and predominantly urbanized societies (such as the United States of America and Great Britain) for more than 40 years. Senecal, (2002) argued that, the concept of quality of life, as applied to the urban environment is usually understood in two ways. The first concerns the living environment, involves the patterns of advantages, disadvantage and opportunities that affect each citizen through accessibilities to services, facilities and amenities. The second approach relates to the natural environment in urban spaces. This approach holds that such factors as air, water, soil quality; and the amount of available green space affect the ways residents' live (Senecal, 2004). In addition to the rising urban poverty, there are worsening urban environmental challenges. Such challenges as poor solid waste management, uncontrolled housing and neighborhood development, flooding, traffic congestion, poor state of urban physical environment and rising crime rates have been documented (Ugwuorah 2002; Mich, 2007). At the other polar end are

[1] Corresponding Author: popoolasheyi@gmail.com, 08066485520

the majority of urbanites citizens massing themselves in the unkempt and often squalid hearts of the cities living under conditions that are at times sub-human and sharing sub-standard houses in areas which by any standard, are slums (Popoola, 2013). The deplorable condition triggered the desire to measure residents' quality of life in the core areas of Ado-Ekiti, both Objective and Subjective data on residents' quality of life in core area especially in developing countries like Nigeria are scarce and very important.The aim of this study is to assess the residents' quality of life in core area of ado-Ekiti with a view to proffering measures through public participation. To achieve the aim , objectives are to identify the socio economic characteristic of residents and determine the variables that are most important to residents' in improving residential quality of life in the core area of Ado-Ekiti.

Methodology

Primary data were derived from fieldwork involving observation, investigation and administration of questionnaires. As a way of investigation; the researchers were involved in monthly environmental sanitation and synergizing for the period of (May-July) 2016 in core areas of Ado Ekiti. The target population is composed of residents residing in the core areas of Okeyinmi, Okeayo, Okesha, Okeureje, and Poly road. Questionnaires were administered on the residents within150 (m) radius from the core area of Ado-Ekiti after the monthly environmental sanitation incidence. Systematic random sampling technique was adopted for this study. Identified houses within 150 meter from the core were selected for survey. The choice of this was anchored on the fact that physical planning activities were not experienced in these areas. However, it has been observed that most houses are built without approved survey plans, approved building plans and the areas are inaccessible thereby affecting their quality of life. In this respective stratum there were a total of 323 residential buildings. The first stratum consists of buildings below fifty meter to the core area; the second stratum consists of buildings within fifty to hundred meters; while the third stratum is between hundred and one-fifty meter to the core areas. For the administrations of questionnaire, fifty percent (50%) of the building was selected for survey. Sample was drawn using systematic sampling technique. In this case, one out of every two buildingswas selected from each stratum. The first building to be sampled was chosen randomly while subsequent unit of investigation was the second residential buildings. Where the sample buildings were not residential, the next residential building was chosen for questionnaire administration. Details of questionnaires administered in each stratum are presented in Table 1.1 below.

Table 1: Residential strata and number of buildings in each stratum

Areas	**<50(m)**	**51-100(m)**	**101-150(m)**	**Total**	Sample (50%)	Recovered
Okeyinmi	32	24	18	74	37	37
Okeayo	18	29	21	68	34	34
Okesha	27	23	11	61	31	31
Oke-ureje	17	19	22	58	29	29
Poly-road	19	27	16	62	31	31
Total	**113**	**122**	**88**	**323**	**162**	**162**

Source: *Authors field survey, 2016*

Findings

Presented in these tables is the discussion of research findings under the various subsections. Unless otherwise stated, all the tables originated from the survey carried out by the authors.

Table 2: Perceived Residents Quality of Life

Attributes	<50(m)	51-100(m)	101-150(m)	Total
Terrible	14(7)	16(8)	25(13)	55(28)
Unhappy	11(6)	9(5)	16(8)	36(18)
Dissatisfied	9(5)	12(6)	16(8)	37(19)
Most satisfied	2(1)	4(2)	7(4)	13(7)
Pleased	2(1)	3(2)	3(2)	8(4)
Delighted	2(1)	7(4)	4(2)	13(7)
Total	**40(20)**	**51(26)**	**71(36)**	**162(82)**

Source*: Authors field Survey, 2016*

Perceived Residents' Quality of Life

The table above revealed how the residents in the core area of Ado-Ekiti perceived their quality of life. It was observed from the table that7%, 6% of the respondents in the first stratum perceived their quality of life to be terrible and unhappy, 6%, and 2% of the respondents were dissatisfied and most satisfied respectively as regards their quality of life while 2% each of the respondents were pleased and delighted in their quality of life. Hence, 28% of the respondents out 162 sampled for the purpose of this work perceived their quality of life to be terrible, 7%, 4% of the residents in core area rated their quality of life most satisfied and pleased . While 18%, 19% of the residents in core area of Ado-Ekiti were not happy and dissatisfied respectively toward their quality of life as at the time of gathering.

Table 3: The area with Neighborhood are well maintained

Attributes	<50(m)	51-100(m)	101-150(m)	Total
Strongly Disagre.	17(9)	15(8)	12(6)	44(22)
Agree somehow	13(7)	11(6)	11(6)	35(18)
Disagree somehow	10(5)	9(5)	9(5)	28(14)
Agree strongly	9(5)	13(6)	11(6)	33(17)
Neither agree/Disagree.	7(4)	8(4)	7(4)	22(11)
Total	**56(28)**	**56(28)**	**50(25)**	**162(81)**

Source: *Authors field Survey, 2016*

The area with Neighborhood are well maintained

This information was drawn from Table xi above. It revealed how neighborhoods are maintained in the areas. Out of 56 residents in the first stratum 9% of the sampled respondents strongly disagreed with the well maintained neighborhood, 5%, 7% of these residents agreed somehow and disagreed respectively. Only 6% of the respondents in the third stratum agreed strongly with the well maintained neighborhoods, and 16% of respondents disagree with the well maintained neighborhoods. Hence, 33% of these respondents in the study area neither agree nor disagree with the neighborhoods maintenance at the time of this research. Deductively, majority of the respondents in the core areas of Ado-Ekiti expressed their minds that their neighborhoods are not well maintained especially during the rainy season. The implication of this as related to the residents' quality of life is highly ironical.

(i) Socio-economic Standard-; The study reveals that most residents in the core area of Ado-Ekiti exhibit the characteristics of urban poor with low level of education, low income with larger percentage of people earning below N18,000 as minimum wage in Nigeria (44%), of the residents have constant struggle for survival and a spatial housing location with all the characteristics of slums and shanty squatters.

(ii) Access to Basic Facilities-; Reconnaissance survey of the neighborhood revealed that most of the houses in the area do not have proper access to their houses as most of the roads were in very horrible conditions with so many pot holes and untarred roads. Their water supply also was relatively fair with most of the residents making use of public boreholes which is not totally safe for drinking and could lead to several diseases such as diarrhea, typhoid and cholera. The drainage facilities were in poor conditions with waste disposal taking a larger percentage. This, however, in turn has led to blockage of drainages. Also, most of the area which were close to the river empty their wastes and dispose then into the rivers.

Conclusion

Decent housing is one of the basic needs of every individual, the family and the community at large. Generally, the state of infrastructures in Nigeria especially in housing schemes is deplorable. The woe of such scheme has been that planning and provision of infrastructure is relegated to the background. Policy that is not so favorable and a financial system was housing finance usually not the priority, infrastructure among other issues is bound to suffer. Infrastructural facilities thrive where there is judicious budgeting. It becomes obvious that the problems of infrastructural facility short fall in housing multifaceted and it would require machinery that has its track record of comprehensiveness. To put any participation on one hand and user participation on the other hand, it is obvious that the former only has the capacity to boost the capital investment that would be needed to provide and sustain thriving infrastructural scheme in housing provision on a large scale.

This study has established that good health is crucial for a better standard of living. Communities should therefore be encouraged to adopt methods of simple but healthy and environmentally friendly buildings with a view to assist in the achievement of the millennium development goal and contribute to the attainment of the vision 2020 of making Nigeria one of the first twenty most developed economies of the world.

Quality of housing in the core area of Ado-Ekiti is under the micro-scope, is a typical example of a unique Government initiative called site and service scheme. It was observed that a good number of residents are not satisfied with the state of infrastructure in the estate. The state of infrastructure is unacceptable due to the obvious incorporation of both public and private participants. While the former provide the enabling environment, the latter is directly responsible for infrastructural provision. In conclusion it is worth reiterating that progressive and sustainable development in housing needs is the corporation of both the public and private sectors while; a private sector oriented approach should be sought in the aspect of infrastructural provision in housing in the Nigeria housing sector.

Recommendations

Based on the analyses of results and major findings of this research, it is imperative at this stage to make some recommendations that will address the issue of developing the aspect of infrastructural provision in housing. In views of the foregoing, the following recommendations are hereby put forward as policy guidelines toward public participation management of the study area:

i The policies that account for proper development in housing infrastructure should be enacted.

ii The different tiers of Government should stimulate private sector provision of housing infrastructures by incentives such as loans, tax relief among others.

iii More institutions should be empowered to regulate the activities of the private sector in the provision of housing infrastructures.

iv The Government should sponsor informed research into the particular issue of infrastructures in housing so that policy formulation can be better informed.

v The system of approval processes for private sector participation should be reviewed to minimize cost and time.

vi Professionals in all facets of infrastructures should be part of the planning process of housing development right from its earliest stage.

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FINANCIAL DUALISM AND ITS EFFECT ON NIGERIAN ECONOMY

Adeusi, Stephen Oluwafemi and Dada, Oluwabunmi

[1]*Department of Banking and Finance, Ekiti State University, Ado - Ekiti.*

Abstract
This study investigated financial dualism and its effect on Nigerian economy. The study made use of secondary data sourced from the Central Bank of Nigeria statistical bulletin and the National Bureau of Statistics spanning from 1981 to 2015. The model for the study has its dependent variable as Gross Domestic Product (GDP) and its explanatory variables are INFIS, M2/GDP, SAVINGS/GDP and INTR. From the OLS test; the study reveals that there is a positive and significant relationship between all the variables except SAVINGS/GDP that indicates a significant but negative relationship. Also from the causality test reveals that there exists a unidirectional relationship in the model. Based on this, the study recommends that, The Nigerian financial system is highly dichotomized between the formal and informal sectors. Both sectors should complement each other in which case the policies and regulations made in the formal should filter favourably to the informal. In as much as the informal finance is very essential to small-scale investment, policies need to be designed in order to integrate this silent but salient growth element.

Keywords: Financial Dualism, Financial deepening, Economic Growth.

1.0 Introduction

Finance involves not only the provision of credit, but also the accumulation of savings. The two, however, are useless unless interconnected via a system known as financial system, which converts savings into credit through their intermediation roles by bringing together those economic units that want to postpone the consumption of their current incomes to the future and those that want to spend their future earnings now (Shem &Atieno, 2001). When the various forms of savings and credit flow between the economic units that are organized, regulated, controlled and backed by the laws of a given country or region, it is called formal and the system via which it operates is known as formal financial system. These institutions are fashioned after a well developed formal financial tradition of the Western Nations. On the contrary, when savings and credit flow via unrecognised and uncontrolled systems without legal backing, they are referred to as informal, and the system via which they flow is called the informal financial system. These institutions evolve through cultural practices tailored to the local need of its citizens. When the two coexist in a given country or region operating side-by side, the situation is usually referred to as financial dualism (Shem &Atieno, 2001; Oloyede, 2008; Adeusi, Azeez&Olanrewaju, 2012).

[1] Authors: ogamisir2005@yahoo.com, ogamisir2013@gmail.com oluwabunmijdada@yahoo.com; bunmex854@gmail.com

The statutory dominance of formal financial sector since independence is hinged on the thinking that the sector would stimulate the growth of the economy, promote savings and investment, improve opportunities for credit, and above all alleviate poverty through the upliftment of the socio-economic lives of the people. In view of these, the formal financial institutions have seriously come short of these expectations as they have made things harder for Nigerians through stringent conditionality for credit, poor customer services and high interest rates. Sambe, Korna and Abanyam, (2013) observed that the introduction of the informal financial institutions by individuals and groups is to cushion the effects of the formal financial system by mobilizing domestic savings among members, increasing their welfare through easy access to credit thereby contributing positively to economic welfare of their members as well as the society at large. These institutions are the creation of indigenous people with the aim of making credit/loan facilities more accessible to the people so as to help solve their socio-economic problems (Gulong, 2012). These increasing roles necessitate the wide spread activities of the informal sector to complement the formal financial institutions within the country Nigeria.

Empirical work in literature mostly centers on the contribution formal financial system to the neglect of informal financial system. The inclusion of this silent but important sector can contribute to our understanding on the extent of their contribution to economic growth in Nigeria as these institutions serve as an important financing channel for local, small and private organizations. The inclusion of data of informal sector as part of the indicator of financial development could provide better insight on the nature (positive or negative) and direction (unidirectional or bidirectional) of the relationship between financial development and economic growth in Nigeria. This research attempts to fill this gap by investigating financial dualism and its effect on the Nigerian economy using time series analysis that utilizes both financial deepening proxy and informal financial institution indicators. The remainder of the paper is as follows: section two reviews literature, section three deals with the method, section four provides the empirical findings, and section five gives conclusion and recommendations.

2.0 Literature review

Financial dualism

Financial dualism is credited to Julius Herman Boeke, who in 1954 described the co-existence, in the colonial Indonesian economy society and the traditional and modern economic sectors. The bulk of dual economies are found in developing and less developed countries. In these economies, a sector focuses on domestic needs and the other on the world export market. It is not out of place for dual economies to also exist within the same sector. For instance, a commercial agricultural entity or modern plantation agriculture could be operating alongside traditional cropping systems (Afangideh, 2012). Most developing economies are often characterized by dual economy and some of the problems they face include a high-wage and capital-intensive industrial sector, existing side-by-side with a traditional sector that is characterized by low-wage. As a result of dualism, developments often proceed unevenly in both sectors. Quite often, the modern sector is synonymous with higher productivity, higher wages, higher capital intensity and persistent unemployment, particularly in the urban areas.

There are basically two strands of arguments that explain financial dualism. The first presents the existence of the informal financial sector (IFS) as a response to the formal financial sector's (FFS) shortcomings and excessive regulation. This strand of literature postulates that financial dualism results from the deficiencies and inefficiencies of the FFS and its close regulations which have made it too urban, too bureaucratic, too regulated and too rigid to supply financial services that the majority in LICs demands (Germidis, Kessler &Meghir, 1991). Its proponents, the defenders of financial market liberalization, McKinnon (1973); Shaw (1973); Fry (1988); Adams, Graham and Von Pischke(1984) amongst others contend that on a macro-scale, the monetary and financial policies pursued by many LICs are not suitable and might have fuelled financial dualism. The second argues that the IFS results from the dualism of the economies of LICs. The diversity of informal finance and its institutions' poor record keeping make ascertaining the extent of financial dualism in LICs a daunting task. However, indicators reveal that IFS is more important in intermediating funds than the FFS (Wai, 1957).

Germidis, Kessler and Meghir (1991) reported that in Bangladesh, the mean size of the informal credit market, measured as a percentage of credit from informal sources, approximated 60%. In the 1980s in Indonesia, 83% of agricultural households received no formal credit and 93% of households with businesses financed them from own funds. Around the same time in Thailand, 52% of loans to the agricultural sector were from informal markets. In 1986 in Malaysia, 62% of total loans to farmers came from informal sources. In the Korean Republic, it was estimated that half of the average outstanding loans of households of farmers were from informal sources and so was it in Mexico, where informal credit to farmers represented 50% to 55% of the total. This scenario is not any different from what obtained in the African context. Ghanaian data, between 1988 and 1989, showed that 80% of household savings were held with the IFS, either at home or with its several institutions and nearly 90% of loans taken were from individuals, e.g., relatives, friends, landlords, acquaintances, etc., (Aryeetey, 1995). In Ethiopia, according to her 1968-1973 development plan, total savings mobilized by "*equbs*," a local ROSCA name, was estimated at 8% to 10% of GDP. In Nigeria, it has also shown that the activities of informal financial sector cannot be overemphasized (Mauri 1988; Germidis, Kessler and Meghir 1991; Bouman 1995).

Nigeria’s dualistic financial system

The Nigerian financial system, though divergent over the years, has remained particularly dualistic with a side by side existence of formal and informal sectors. Despite series of reforms by the monetary authority to reduce the size of informality, available projection shows the existence of a large chunk of informal sector, which has both merits and demerits depending on the focus of analysis. The formal sector is dominated by the deposit money banks while a number of small but varied local units take charge of the informal sector (Afangideh, 2012). A key observation is that these two sectors have continued to exist independently, primarily as a result of the absence of an operationally inherent productive linkages, price and quantity setting. This is because the formal sector has failed to create a healthy and competitive environment to stem the increasing proliferation of additional informal units. Just as economic duality failed to absorb the excess labor supply from the traditional sector as espoused by the Lewis model, but consequently brought about movement to the urban areas with the formation of formal and informal sectors, the formal financial sector could not absorb the informal financial sector because their mode of operation is parallel to each other. Within the formal sector, the procedures for cost of funds and lending are not competitive, whereas seamless, quick and easy to access procedures exist in the informal units. This has been one of the hindrances made possible by the formal sector, which provides the motivation to ensure the emergence of new informal units, and the sustenance of dualism in the financial sector in Nigeria. As in other less developed and developing countries, Nigeria is one of those countries where deep and persistent economic dualism subsists, with the coexistence of two seemingly parallel financial systems, the formal and informal units existing side by side with little or weak linkage, and sharing the market in a manner similar to that of oligopolistic competition. As observed by Ofonyelu (2014), the two units are such that they are characterized by different levels of development, technology, patterns of patronages, and more importantly, by interest rate (price) setting.

Empirical review

Ifionu and Ibe (2015) examined Financial Dualism, the Informal Sector and Economic Growth: An Econometric Investigation of the Nigerian Evidence using the trace statistics test and the maximum eigenvalue test of the Johansen multivariate co-integration test to determine the long-run equilibrium relationship between the variables in the model. From the analysis, the informal financial sector impacts negatively on gross domestic product per-capita in Nigeria. Other variables that impact negatively on GDP are real interest rate, degree of financial depth while total savings has a positive but insignificant relationship. A major policy recommendation drawn from the above findings is that the linkage between the formal and informal sectors in Nigeria should be strengthened towards full elimination of dualistic market. Deposit money banks and the monetary authorities should evolve policies aimed at reaching the unbanked informal sector agents, especially the rural households and the urban informal production units. This will deepen the financial sector and assist in mobilizing the much needed savings that will engender investment and growth in the economy.

Kathuria, Rajesh-Raj and Sen (2013) investigated the effects of economic reforms on manufacturing dualism: Evidence from India using stochastic frontier analysis (SFA) to estimate firm efficiency. From the result, dualism is seen as a pervasive feature of the manufacturing sectors of less-developed countries, with large differences in productivity between the informal and the formal sectors. Policy distortions are viewed as an important factor behind the prevalence of manufacturing dualism. The study also found strong evidence that economic reforms have exacerbated dualism by increasing the productivity differentials between the more efficient formal firms and the less efficient informal firms.

Shem and Atieno (2001) investigated financial dualism and financial sector development in low income countries using explanatory research design drawn from different strands of literature, the study revealed that financial dualism pervades the financial systems of these countries. Despite attempts to dislocate the informal financial sector (IFS), it still thrives on reflecting preferences of users' reluctance to abandon it in the face of introduced subsidized credit and institutions that clothe some of their attributes like social capital, peer pressure, etc. It has served the financial needs of the majority in LICs flexibly over time and is not any less important than the formal. The paper recommends strengthening it to satisfy the financial needs of those sectors of the economy which it has served. New developments should not abate its neglect, but rather strive to improve its working environment by incorporating it in their plans.

3.0 Method and materials

The study employed secondary data obtained from publications of the Central Bank of Nigeria, (CBN), Security and Exchange Commission of Nigeria and International Financial Statistics – publication of the International Monetary Fund. Information used cover a period of 35 years with emphasis on the indicators of financial development proxy, using the Ordinary Least Squares (OLS) technique. The choice for this approach is premised on two reasons. First, the Gaus-Markov theorem portends that the least squares technique is the best linear unbiased estimator, with which straight line trend equations could be estimated. Second, this version of the straight line trend model has been used by Kathuria, Rajesh-Raj, and Sen, (2013) and Shem and Atieno, (2001) with good results to conduct a financial appraisal of developing countries with specific references to Nigerian financial system. Again, the Pair wise Granger Causality Test (GCT) is also employed to discern the direction of the causal link between the indentified variables.

Model specification

In light of the above discussion, our econometric model is explored. The model for this work has its root from the work of Ifionu and Ibe (2015) Kathuria, Rajesh-Raj and Sen, (2013) and Shem and Atieno (2001). The model specifies the endogenous variable Gross Domestic Product (GDP) as a function of Informal Financial Institutions Size (INFIS), the ratio of Money Supply to Gross Domestic Product (M2/GDP), Ratio of Savings to GDP (SAVINGS/GDP), and Interest Rate (INTR). These financial deepening proxies measure the level of financial development in the country. This is because the process of becoming a financial centre can be more propelled by financial deepening and it is operationally defined as the availability of more financial services and products from both the banking and non-banking financial institutions which results in higher circulation of money in the financial system.

The model is specified as follows:

$$GDP = f(INFIS, M2/GDP, SAVINGS/GDP, INTR)$$

The model is therefore represented in a linear firm:

$$GDP = \beta_0 + \beta_1 INFIS + \beta_2 M2/GDP + \beta_3 SAVINGS/GDP + \beta_4 INTR + \mu$$

Where

GDP	=	Real Gross Domestic Product
INFIS	=	Informal Financial Institutions Size
M2/GDP	=	Money Supply to Gross Domestic Product
SAVINGS/GDP	=	Savings to Gross Domestic Product (CPS/GDP)
INTR	=	Interest Rate

$\beta_0, \beta_1, \beta_2, \beta_3, \beta_4$ = Regression parameters

μ = Stochastic error term

The apriori expectations are:

$\beta_0 \succ\prec \beta_1 \succ \beta_2 \succ \beta_3 \succ \beta_4 \prec o$

4.0 Presentation, analysis and interpretation of results

Stationarity test results

Augmented Dickey-Fuller and Phillips-Perron unit root tests were carried out to determine some stochastic properties of the data employed in this study.

Unit Root Models

The Unit Root models are presented below;

$$\Delta Y_t = \beta_1 + \delta Y_{t-1} + \sum_{\tau=1}^{m} \alpha_i \Delta Y_{t-1} + \varepsilon_t \qquad \text{(with intercept)}$$

$$\Delta Y_t = \beta_1 + \beta_2 t + \delta Y_{t-1} + \sum_{\tau=1}^{m} \alpha_i \Delta Y_{t-1} + \varepsilon_t \qquad \text{(with trend and intercept)}$$

Table 1: Augmented Dickey-Fuller (ADF) and Phillips Perron (PP) Unit Root Test Results

Variable	ADF test Statistics Value	Mackinnon critical value at 5%	Status	PP test Statistics Value	Mackinnon critical value at 5%	Status
GDP	-5.301884	-2.954021	1(1)	-5.280255	-2.954021	1(1)
INFIS	-10.17003	-2.957110	1(1)	4.120641	-2.951125	1(0)
M2/GDP	-5.471094	-2.954021	1(1)	-6.006235	-2.954021	1(1)
SAVINGS/GDP	-6.255641	-2.954021	1(1)	-7.073388	-2.954021	1(1)
INTR	-3.388821	-2.951125	1(0)	-3.347021	-2.951125	1(0)

Source: Authors' Computation

From the table revealing the results of the test for stationary of data at level and at first difference, it could be deduced that INFIS and INTR become stationary at level using PP unit root test while INITR exhibits the same status with PP using ADF. The other explanatory variables exhibit a stationary status after first difference. This is because their respective ADF and PP test statistics value is greater than Mackinnon critical value at 5% and at absolute term. This is also indicated in their status of integration.

Presentation of Ordinary Least Square Result

Table 2: Ordinary Least Square (OLS) Result

Variable	Coefficient	STD. Error	T-Statistic	Prob.
C	3.569111	0.870631	4.099455	0.0003
INFIS	0.000378	3.74E-05	10.10928	0.0000
M2_GDP	0.394987	0.075332	5.243244	0.0000
SAVINGS_GDP	-0.643637	0.126097	-5.104311	0.0000
INTR	0.111508	0.035007	3.185272	0.0034

R^2 = 0.845552 **Adjusted R^2** = 0.824959 **F-STAT** = 41.06000 **DW-STAT**= 0.820786

GDP $=3.569111+0.000378_{INFIS}+0.394987_{M2/GDP}-0.643637_{SAVINGS/GDP}+0.111508_{INTR}$

The result above shows that the constant parameter is positively related with GDP. It has a coefficient of 3.569111 which implies that if all explanatory variables are held constant in the short-run, GDP will increase by 3.569111 units. Meanwhile, Size of Informal Financial (INFIS) showed a positive coefficient of 0.000378 which implies that a unit increase in the level INFIS will result into 0.000378 units increase in the value of GDP. Also, the coefficient of M2/GDP showed a figure of 0.394987 which implies a positive relationship between the ratio of money supply to GDP. A unit increase in M2/GDP therefore will lead to 0.394987 units increase in the value of GDP. The coefficient of the Savings/GDP showed a figure of -0.643637 which implies a negative relationship with the dependent variable. It therefore implies that a unit increase in the level of Savings/GDP will result into -0.643637 units decrease in the value of GDP. Also, the coefficient of Interest rate (INTR) showed a figure of 0.111508 which implies a positive relationship between Interest rate and GDP. An increase in Interest rate therefore will lead to 0.111508 units increase in the value of GDP.

Discussion and Policy Implication of Findings

This study investigated financial dualism in the Nigerian economy, the analysis shows that the size of informal financial institutions, and all the financial deepening proxy used in the quest to investigate this study are positively related except the ratio of savings to GDP. All these results are consistent with a prior expectation stated early in this study except the ratio of savings to GDP. The implication of the negative relationship is that the gross savings within the economy is grossly low to meet the expected level of development. This relationship negates the work of Ifionu and Ibe (2015). The establishment of the existence of a relationship between variables does not necessarily imply causality. To test the existence of causality the study employs the Granger Causality procedure to test the direction of causality among the nominated variables. The results of the pair wise Granger Causality test show that there are unidirectional causality flows from all the variables used in the quest of this study.

5.0 Conclusion and recommendations

The study adopts ordinary regression analysis of short run relationship between financial dualism and its effect on Nigerian economy. The study concludes that the increasing activities of the informal financial system cannot be overemphasized in view of its positive contribution to economic development of Nigeria. Also from the result, there

exists unidirectional flow between the entire variable with gross domestic product; this is evidence from the Granger Causality test statistics. Also it is indicated that the model is of good fit as depicted in the result of adjusted R^2 that shows a robust result. Based on this result, the following recommendations were made in line with the above findings:
The Nigerian financial system is highly dichotomized between the formal and informal sectors. Both sectors should complement each other in which case the policies and regulations made in the formal should filter favorably to the informal. In as much as the informal finance is very essential to small-scale investment, policies need to be designed in order to integrate this silent but salient growth element. Moreover, the informal financial market serves a broad segment of the population and it is not the desire of any government to have a large segment of the economy fall outside regulatory ambience. The strengthening of the banking system via viable policy is capable of integrating the informal sector smoothly into the operation of the formal sector.

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HARNESSING THE POTENTIALS OF ADULT AND NON-FORMAL EDUCATION IN ADDRESSING GLOBAL CHALLENGES

Comfort W. Adeyemo and Mary O. Adedokun

Department of Adult Education and Community Development, Faculty of Education, Ekiti State University, Ado Ekiti, Nigeria

Abstracts

This study examines the major challenges confronting Nigeria, particularly the inadequacies in educational sector and socio-economic problems. The study discusses the poor educational foundation laid down by the colonialists which results in socio-economic challenges, such as illiteracy, unemployment, poverty, economic recessions, insecurity, insurgency and high crime rates in almost every part of the country. The study therefore harnesses the potentials of Adult and Non-Formal Education (ANFE) programmes to reposition Formal education system in order to eliminate or reduce to the barest minimum the socio-economic challenges facing the nation today. Recommendations are made that literacy education; citizenship education with moral orientation, remedial education, functional literacy, peace education as well as entrepreneurial education be adequately explored to provide a lasting solution to these and many problems facing the nation.

Keywords: Formal education, socio-economic challenges, adult and non-formal education programmes.

Introduction:

Nigeria is a vast diverse country in South of Sahara, located in West Africa. It is the most populous country in Africa and has a population of about 178.5 million, making her the seventh most populated nation in the world, (National Bureau of Statistics, 2014). The report also shows that Nigeria comprises of nearly 250 ethnic groups and languages, who are majorly Yorubas, Hausa-Fulanis and Igbos with an economy that is largely dependent on oil. The South-western Nigeria which represents the study population are predominantly Yoruba speaking people who are found in Ekiti, Oyo, Ondo, Osun, Ogun and Lagos States. The major source of occupation and income in these areas is agriculture, which provides major incomes and employments for about 75% of the population. On a general note, Nigeria is abundantly blessed with human and material resources that are capable of catapulting her into the assembly of developed nations if not for her share in the global challenges that is confronting her development. Notably among these challenges are: illiteracy, economic recession, unemployment, poverty, insecurity of lives, insurgency, conflicts and high crime rates among others.

[1] Author cwyemo@yahoo.com; funkadedokun@yahoo.com 08030793150, 08034806200

Studies have shown that these and many other challenges confronting the nation were attributed to the poor foundation of education which was laid down by colonialists, (Omolewa, 2001). According to him, Africans had her own system of education that was adjudged suitable and relevant to the socio-cultural and economic view of the nations before the colonial masters came on board with the Western education. Nigerian education was particularly rooted in the indigenous culture and technology. The education was holistic in nature as it provided intellectual training, moral knowledge, socio-economic and cultural training, physical, political and spiritual orientations. Others included the practice of judicial systems of government, welfare system, community and cooperative affair that are peculiar to her. The home was responsible for training the brain, the mind and the hands of her younger ones, (Omolewa, 2001). The learning received in the indigenous education emphasized on lifelong learning, from cradle to grave, and even continued to the beyond. It is the type of education where an individual enters and does not graduate, but moves from one phase of learning to another. Sarumi, (2002) considers the education as an ongoing process of life which provides unbroken continuity between the process of education and the daily lives of individuals. With indigenous education, Nigerians were advance at their rates with every resource within the environment. For instance, Nigerians were farmers, good sculptors, carvers, cloth weavers, miners, blacksmiths, etc. With all they got within their environments, they were able to produce goods to satisfy the need of the various Nigerian societies. The indigenous education sustained the nation for a long period before the colonial masters amalgamated the different geographical entity called Nigeria.

However, with the introduction of western education, the colonialists did not aim at industrializing the Nigerian territories or at stimulating technological development within Nigerian environment, but only busy themselves with the distortion and disarticulation of the indigenous pattern of education and technological skills. Not only that, western education also succeeded in training clerks, interpreters, produce inspectors and artisans who would help them more in the exploitation of Nigeria's rich resources. With this, the people were made to abandon their indigenous education and technological skills in preference to one which mainly emphasizes reading and writing (Omolewa, 2001). These in turn have great effects on Nigerian languages, history, cultures and values, which form the foundation for the present inadequacies in the educational system and socio-economic challenges experiencing in most of Nigerian States. Fasokun, (2000) lamented that most developing countries of the world inherited these negative attitudes from the colonial powers. Addressing these challenges therefore goes beyond the knowledge of formal education system as this alone cannot provide solution to the global challenges the nation is currently facing.

The terms adult and non-formal education are recognized in the National Policy for Education (FRN, 2004) as integral aspects of education that are capable of addressing socio-economic challenges. They are seen as weapons against ignorance, diseases, poverty and as means of raising an enlightened, industrious citizens and prosperous nation. Section 6 of the Policy clearly states the goals of adult and non-formal education to include; providing functional literacy and continuing education for adults and the youths, providing education for different categories of completers of the formal education system to improve their basic knowledge and skills, providing in-service, on-the-job, vocational and professional training for different categories of workers and giving adult citizens of the country necessary aesthetics, cultural and civic education for public enlightenment.

The Concepts of Adult and Non-Formal Education: Adult education has been viewed differently by different people. It has been identified as a tool par excellence for affecting national development (Federal Republic of Nigeria, 2004). Adult Educational is referred to as any educational programme organized for all ages, regardless of the content, place of study, form of the study and flexibility of the programmme to satisfy the needs and aspirations of the beneficiaries and their communities. The educational programmes consist of basic literacy, post literacy, continuing education and vocational education, (F.R.N. 2008). Stressing on the National Policy on Education, Nzeneri (2008) conceived Adult education to include functional literacy, remedial, continuing, vocational, aesthetic, cultural and civic education for youth and adults outside the formal school system. It also consists of all forms of functional education programmes for youths and adults outside the formal school system. It is seen as a process by which men and women seek to improve themselves or their society by increasing their skill, knowledge, or sensitiveness. Onyenemezu, (2012) sees adult education as an integral aspect of education that involves learning process whether formal, informal and non-formal which the adult persons engage in for better information, self and national development. This corroborates Fasokun (2006) who observed that; adult education is concerned not with preparing people for life, but rather, with helping and assigning people (adults) to live more successfully as useful and acceptable members of their societies and contribute meaningfully to the development of those societies.

In the same vein, non-formal education is seen as any educational programme designed to encourage all forms of functional education given to youths and adults outside the formal school systems such as functional literacy, remedial and vocational education (Federal Republic of Nigeria, 2004). Ihejirika, (2000) described non-formal education as any organised system of educational activity carried out outside the framework of the formal school system to provide a selected type of learning to a particular group in the population (adults, youth or children). The programmes in this category include adult education, the apprenticeship system, continuing education, in-serviceprogrammes, on-the-job training programmes, personnel and professional development, refresher courses, staff development programmes, and worker and student industrial training and extension education. They also include co-operative programmes, extramural classes, external and extension degree programmes, and outreach and off-campus programmes such as weekend sandwich courses, community development education, such as rural development training, manpower resource training, youth camps, holiday programmes, mass mobilization campaigns and community health education (Amirize, 2001; Egbezor & Okanezi, 2008). (Aderinoye, 2008) complemented these with programmes, such as basic literacy, functional literacy, post-literacy, literacy for the blind, literacy for the disabled, women's education, nomadic education, continuing education, Quran integrated education, workers' education, vocational education, prison education, as well as open apprenticeship scheme operating in the informal sector in form of income-generating vocational skills targeted at eradicating poverty.

Formal education on the other hand, is a consciously planned instructional process based on a prescribed syllabus and carried out in the school premises. This is the education set-up based on fixed or prescribed rules and determined by the prevailing nature and content of what is to be learned. Ololube & Egbezor (2012) described formal education as that which involves the training and developing of a population's knowledge, skills, and character in a structured and certified programme that takes places in a school setting and delivered by qualified teachers. Generally, it refers to as the structured system of education administered by the state for children and youth. In most cases, formal education system is fully state-financed and operated. The Federal Government also permits and certifies private school systems to provide a comparable education alongside public institutions. Formal education includes elementary schools, secondary schools, and post-secondary schools (colleges, trades or technical schools, and universities) (Ololube, 2011).

Importance of Adult and Non-formal Education: Globally, the importance of Adult and Non-Formal Education (ANFE) cannot be over-emphasized. Adult and non-formal education programmes are very vital to the development of an individual and nations in general. They aim at helping individuals in providing literacy and training schemes that will help them tackle their challenges. They also involve series of activities and enterprises which a nation needs to undertake to provide for itself on a continuous basis and in the supply of skilled manpower to meet its present and future needs (Ezugoh, 2010). Adult education programmes educate the recipients, increase their skill, knowledge, or sensitiveness. It can therefore be relied upon for sensitizing people to analytically assess the impact of government's economic, political, social environmental and general policies (Onyenemezu, 2013). Moreover, the continuing education aspect of adult education involves the development of the human mind, knowledge, attitude, skills, behavioural pattern, physical and necessary ideas capable of solving human, societal and global problems. It serves as avenue for re-education and updating of knowledge and skills for those who have completed formal education and want to improve themselves. In line with the global trend, Nigeria needs an educational approach that can accommodate young and old adults (male, female, the poor and rich) and serve as empowerment tool for solving various challenges confronting the nation today. Thus adult and non-formal education is designed as alternative educational opportunities which address all forms of inadequacies of education in the formal setting. Unlike formal education, Adult and non-formal education programmes take care of individuals, young or old, who never had the advantage of formal education through functional literacy, and remedial education and those who prematurely dropped out of formal school system. The education is also out to train different categories of workers and professionals through in-service, vocational training and on-the-job training. Adult and Non-Formal Education provide opportunities for individuals to continue their education at any level and in various forms according to their individual needs and the needs of their society. All these potentials are without doubt missing in the Formal education system. Adult and non-formal education with their rich resources therefore appears to be the only flexible education that could address the challenges that are currently facing the nation.

Using Adult and Non-Formal education in addressing the nation challenges: It is obvious that adult and non-formal education has been the bedrock of lifelong learning in the past, but has lost its standing in the present day Nigeria as a result of the undue emphasis placed on formal education while apparently neglecting adult and non-formal education. Lamenting on this, (Obasi, 2014) declared that the low status accorded adult and non-formal education is as a result of focusing attention on the formal system of education at the neglect of indigenous education. On the effects, the society today became more complex with its increasing challenges. The solution to this therefore require an informed, literate and active citizenry, which can only happen by making adult and non-formal education the focus of policy and action as a transversal agenda that cross-cuts policy domains and resource allocations (Ouane 2009). However, the goal of adult and non-formal education according to Afolabi (2012) is to help move people from whatever level of consciousness they are currently operating to a level of critical consciousness in which they can ask questions about things around them, as well achieve capacity to change their lives positively to the benefit of the society. Adult and non-formal education thus have inbuilt education learning strategies that can equip people with knowledge and skills that can enable them live and cope with challenges within their environment. This supports (Obasi, 2014) who opines that utilizing the context of adult and non-formal education which includes self-esteem, empowerment, citizenship-building, community organization, labor skills, income generations and even poverty alleviation will inevitably address the daunting challenges Nigeria and many other African countries are currently facing, and at the same time integrate Nigeria smoothly into the mainstream of the world economy (Seya 2005).

In a study on the imperatives of adult and non-formal education (ANFE) as a potential tool for human capacity development and attainment of sustainable livelihoods in Anambra State, Olaye & Onajite revealed that ANFE is very crucial for overall human capacity development in the areas ofskills acquisitions and improvement in its training programmes, knowledge acquisition and upgrading in various fields of endeavours; development of competences needed for work; inculcating one with innovations and creativity and improving people's job performances; improves ideas and understanding; bring about changes in perception, attitude and behavior as well as exposes one to understanding real lifeissues in order to tackle challenges. Therefore, in order to combat the education and economic challenges that is staring the nation in the face, the values of adult and non-formal education would be of great benefit to the present educational system and socio-economic development. There are therefore potentials in adult and non-formal education which Nigeria educational planners can tap from to benefits formal education in order to address the educational system and socio-economic challenges, which includes illiteracy, economic recession, unemployment, poverty, security challenges, kidnapping, insurgencies conflicts and high crime rates among others. This study therefore is charge to reposition formal education to its rightful position through the following adult and non-formal education programmes.

Citizenship/Community education: In the pre-colonial period, education was a joint task of the community; every member of the community participated in the learning process, including parents, community leaders, chiefs, elders, village councilors. They all engaged in educational administration and in the running of the society affairs. Community education included community development programmes and socialization. This aimed at making an individual become active member of his community. The implication of this is that, now that it seems as if the Federal and State governments can no longer fund education alone, and salaries of workers are not paid as at when due, the educational administrators should encourage participation of all stakeholders for proper organization that will generate interest. Policy makers should utilize the potentials of adult and non-formal education to encourage community participation in the administration of the schools as well as in providing amenities that will aid socio-economic development.

Moral Instruction: The moral instruction involved in adult education would in no small way benefit the formal education sector. Adult and Non-Formal Education encouraged moral education which contains honesty, calmness and sense of unity. It has the potentials to give formal education a true educational foundation that is relevant and best suits African culture, (Sarumi, 2001). The use of local language to carry out teaching and learning because of its empowering nature becomes paramount in the delivery of good moral teaching and learning. Formal education will benefit from this if all stakeholders in education are encouraged to utilize for proper moral education that will generate majority's interest and involvement.

Civic Education: Civic education ensures that citizens know how government functions and what are their responsibilities and rights**.** All these attributes are needed by formal education to make it more relevant and functioning. Thus, for Formal Education to become relevant, instructions of civic education that are embedded in adult and non-formal education must be harnessed in the school curriculum. The content of instruction must be based on the life experiences of the people in order to arrive at a comprehensive curriculum.

Lifelong Learning: Adult and non-formal education offer a lifelong learning throughout the life-cycle of an individual for the conscious and continuous enhancement of quality of life for personal life and for the development of the society as a whole. This refers to education which begins with the beginning of life and ends with death. The underlying assumption is that formal education is not enough and learning does not stop at leaving school. Thus the education of the young ones has to be reinforced and improved upon with components of adult education programmes, while the adults have to be offered opportunities for self-renewal and social advancement.

Remedial Education-: This is also an integral aspect of adult and non-formal education that could be used in primary and secondary schools syllabus. It involves the making up of the deficiencies for people who could not acquire certain levels education in the formal school system. In fact it is the last hope for individuals to further their education on part-time basis. Adult and non-formal education will therefore continue to meet the better learning needs of disadvantage and street children, youths and the adults as well. Therefore, educational planners should incorporate this into Nigeria educational system.

Functional Literacy: Moreover, the functionality of adult and non-formal education makes it very unique. This is tied directly to economic functions. Functional Literacy is the ability to read, write and calculate meaningfully in the occupational or in day to day activities. The functional aspect of adult and non-formal education helps to promote retention by incorporating skills acquisition programme which will enable learners to master certain vocabulary in specific prepared reading materials. Functional literacy will therefore be of great importance to formal education system in Nigeria.

Entrepreneurship Education Adult and non-formal education are of great relevance to formal education system as they tend to aid skills that are very crucial to self and national development. This is well documented in the National Policy on Education, (2004), that entrepreneurship courses be fully implemented in all the secondary and tertiary institutions in Nigeria. This has gone a long way in reducing the high rate of unemployment in both urban and rural areas of Nigeria and has succeeded in equipping the recipients with the knowledge and skills for setting up and running small businesses effectively.

Conclusion

This study has addressed the poor educational foundation and socio-economic problems brought about by western education and its myriads of global challenges that are prevalent in the country today. These include the issue of illiteracy, unemployment, insecurity, poverty, economic recession and high crime rates in the country. However, this will not be adequately taken care of without the potentials of adult and non-formal education system, which include: literacy education, remedial education, citizenship, community education, peace education, functional literacy and entrepreneurship education which are potentials that can help propel Nigerians along formal educational provisions. These systems of education should be upheld by formal education system in order to solve educational and socio-economic problems facing the nation.

Recommendations: It is therefore recommended that:

1. Nigerian educational policy makers should adjust the educational curriculum to accommodate adult and non-formal education programmes.
2. Nigerians should be encouraged to understand their fundamental rights to access to continuous learning irrespective of age or social dispensation.
3. Employment opportunities should be made available to Nigerians to curb social vices among the citizenries.
4. Citizenship education with moral orientation, remedial education, functional literacy, peace education and entrepreneurial education etc, be adequately explored to provide a lasting solution to the global challenges facing the nations.

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IMPACT OF TEACHERS' KNOWLEDGE OF ICT ON STUDENTS' PERFORMANCE IN MATHEMATICS IN EKITI STATE

[1]Olajumoke Olayemi Salami

Department of Science Education, Faculty of Education, Ekiti State University Ado Ekiti.

Abstract

The study examined impact of teachers' knowledge of (ICT) Information Communication Technology on Students performance in Mathematics in Ekiti State. Survey research design was adopted. The study population comprised of all the five hundred and four (504) schools. Out of this population, two hundred and sixty four (264) were used as sample size for the study. Questionnaire was the instrument used for data collection. The data collected were presented and analyzed using descriptive statistics. Two hypotheses were formulated and tested. Analysis of variance (ANOVA) and independent t-test were used to test the hypotheses. Analysis of variance revealed that significance difference existed between teacher's knowledge of ICT and students' performance in Mathematics and independent t-test revealed no significant difference between male and female students' learning outcomes in Mathematics. Based on the findings of this study some recommendations were made and these included among others, that Mathematics teachers in Ekiti State Secondary Schools should have high knowledge, ideas, and skills on the use of information technology for teaching and learning. Also, school authorities should make available the necessary information technology for Mathematics teachers to execute their primary assignment for teaching and learning.

Keywords: Teachers' Knowledge, Students' Performance, Information and Communication Technology, Mathematics.

Introduction

Education is the totality of life experiences that people acquire and which enable them to cope with and derive satisfaction from living in the world. Information and Communication Technology (ICT) is a collective term used for the various technologies involved in processing and transmitting information. These include computing, telecommunications and microelectronics. Most developing countries lack ICT infrastructure and the mathematics teachers have not obtained appropriate skills, knowledge or ideas to enable them to use ICT in pedagogy unlike their counterparts or interactive teaching learning suited to digital environment.

Mathematics teachers are expected to be well trained and confident in the use of computer-related technology in the classroom and in other professional activities. Mathematics teachers go through many trainings that focus on computer literacy but

[1] *Author olajumokesalami1@gmail.com, 07066153866.*

which do not enable them to integrate ICT in their day to day activities and use it as a tool to improve teaching and learning.

The purpose of the study was to investigate teachers' knowledge of ICT on students' performance in Mathematics and also, to examine students' gender (male and female) learning outcome in Mathematics.

The hypotheses: there is no significance difference between teachers' knowledge of ICT and students' performance in Mathematics, there is no significance difference between male and female students' performance in Mathematics.

Methodology

The survey research design was adopted for the study. The population for the study comprised the twelve (12) educational divisional headquarters with 504 schools in the three senatorial zones of Ekiti State. A sample of 264 senior secondary school students was taken. A total number of 221 Mathematics teachers were selected. Purposive sampling technique was adopted for the study. The instrument used for data collection for the study was a structured questionnaire. Face and content validity of the instrument was ensured and the reliability of the instrument was found to be 0.89.

Hypotheses 1: There is no significance difference between teachers' knowledge of ICT and students' performance in Mathematics.

Table 1: Analysis of Variance between teachers' knowledge towards Information Technology and students' performance in Mathematics

Variables	Mean	Standard deviation	Standard Error	d.f	t-cal	t-tab
Teachers' Knowledge	4.92	1.761	0.118			
Students' Performance	3.50	0.515	0.035	262	0.133	0.030

Table 1 shows the Anova statistics of Mathematics teachers' knowledge towards information technology and students' performance in Mathematics. It was revealed that t-calculated (0.133) is greater than t-tabulated (0.033) at 0.05 level of significance. Therefore, the revealed hypothesis is rejected. Hence there is no significance difference between Mathematics teachers' knowledge towards information technology and students' performance in Mathematics.

Hypotheses 2: There is no significance difference between male and female students' performance in Mathematics

Table 2: t-test analysis of male and female students' performance in Mathematics.

Variable	N	Mean	Standard Deviation	Standard Error	d.f	t-cal	t-tab
Male	140	24.44	3.90	3.90			
Female	124	24.00	3.64	3.71	262	7.73	1.99

Table 2 showed the t-test statistics of male and female students' performance in Mathematics. It was revealed that t-cal (7.73) is greater than t-tab (1.99) at 0.05 level of significance. Therefore, the hypothesis is rejected; hence there is no significance difference in the mean score of male and female senior secondary school II students' performance in Mathematics.

Findings

One observation of this inadequacy of the information technology in senior secondary schools is the confinement of the available ones in administrative offices which Cox and Preston (1999) pointed out is part of the initial development in the use of information technology in teaching and learning. The findings here agree with Aduw-Ogiegbaen and Iyamu (2005) where it was posited that most information technology devices were not part of the classroom technology in over 90% of public schools in Nigeria. In the report, it was pointed out that the chalkboard and textbooks continue to dominate classroom activities in most secondary schools.

Conclusions

Based on the findings of the study, it could be concluded that Mathematics teachers in Ekiti State senior secondary schools II have positive attitude, knowledge, skills, ideas, facts towards use of information technology for the teaching and learning in secondary schools. Despite the fact that there were information technology resources in the selected secondary schools, they were not adequately available. The knowledge of Mathematics teachers is inadequate and low with the usage of available information technology resources in the schools which affects the performance and achievements of the students.

Recommendations

Based on the findings, it was recommended that Mathematics teachers in Ekiti State secondary schools should have high skills, knowledge and facts towards the use of information technology for teaching and learning. Also, school authorities should make available the necessary information for Mathematics teachers to execute their primary assignment for effective teaching and learning.

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IMPLICATIONS OF POPULATION DYNAMICS ON POVERTY IN NIGERIA (1980-2014)

Kemi Funlayo AKEJU [1] and Dayo Benedict, OLANIPEKUN [2]
Department of Economics, Ekiti State University, Ado-Ekiti, Ekiti State. Nigeria

Abstract:
In the past decades, economic development indicators had shown that Africa lagged behind and existed amidst the world's poorest countries despite having evidence of persistence high fertility and population growth rates. Relatively, Nigeria's population growth rate had shown elevated momentum as a result of high fertility rate and the high percentage of youth population in the demographic composition. These had caused severe challenges and setbacks in the attainment of development and poverty alleviation. Failure of Nigeria in meeting the Millennium Development Goals (MDG's 2015) was found to be attributed to the nation's poverty rate which was induced by the country's high population. This paper examined the effect of rising population growth on poverty level in Nigeria using data from 1980 to 2014. The variables of interest were analyzed using cointegration test and vector error correction model. The result reveals a positive relationship between the growth of population and poverty rates in Nigeria. Based on the findings, it was recommended that interventions on both population growth and poverty alleviation should be attempted simultaneously. Hence, there is need for universal access to contraception and education through counseling in sexuality, health and reproductive rights with focus on poor people who have no access to basic needs of life.

Keywords: Population growth, poverty rate, fertility rate, population age structure.

Introduction

Evidences are mounting across the globe that human populations have begun to exceed the earth's carrying capacity. In 2011, the total world population surpassed the 7 billion projections and it is expected to grow to over 9 billion by the next three decades (UN and UNFPA, 2012). Much of this growth is envisaged to concentrate in sub-Sahara African region, with annual population growth rates expected to be between 1.6% and a little higher than 2.4% between 2010 and 2050 (UN, 2011).

The occurrence of population growth in developing countries tends to have negative influence on poverty alleviation and the already fragile economic growth through putting undue pressure on investments in health, education, natural resources and other basic services. With high birth rates and high number of people in their reproductive age group, the least developed countries population is projected to increase rapidly in 2010 from 830 million to 1.7 billion by 2050, also to rise rapidly to 2.5 billion by 2085 (UNDP, 2011).

[1] Author: akejuk@yahoo.com Phone Number: +2348033976774
[2] dayo626@yahoo.com Phone Number: +2348030643701

The World Bank (2016) indicated that "Our Dream is a World Free of Poverty". This mission is bolstered with the goal of ending extreme poverty and ensuring prosperity with a sustainable progress across the globe. In 2012, the World Bank reported that 896 million people lived on less than $1.90 a day with indications that progress had been slower at higher poverty lines and uneven across regions. East Asia reduced from 80 percent in 1981 to 7.2 % in 2012 while poverty in sub Sahara Africa stood at 42.6% in 2012.

Nigeria is the 8th most populous nation in the world and Africa's most populous nation with population estimates of about 174 million people and an annual population growth rate of 2.8 percent (World Bank, 2013). Population distribution within the ages 0-14 and 15-29 constituted 39.6% and 25.4%, respectively, of the total population in 2010 (NBS, 2012). This is an indication of high youth dependency ratio which is expected to add to the bulk of the population within the working age in the nearest future and expected to increase the population size of the country even if replacement fertility reduces to the barest minimum as a result of the huge entrance into child bearing age.

Nigerian government had over time embarked upon numerous developmental programmes, policies, projects and plans such as; the Structural Adjustment Programmes (SAP 1986), the national development plans, the Vision 2010 introduced in 1998, the Economic Empowerments Development Strategy 2004, the 7-point agenda for national development of 2007, Vision 2020. Despite efforts put in place by the various governments into these plausible and laudable programmes, the economy has not actually performed to its fullest potential in the face of its rising population.

With the competition over the few available resources, it is inevitable that a substantial number of people are going to wind up on the short end and living in poverty or with the fear of reduction in the standard of living soon. More worrisome is the upsurge of income inequality in the country which has also contributed to the alarming rise of poverty among households in the country. This phenomenon tends to be more pronounced in the rural areas than the urban centre where households are predominantly farmers characterized with large family size.

The National Bureau of Statistics (2010) recorded that poverty in rural areas affected about 63.3 % of the population while 43.2% of the population in urban centres is considered poor in 2004. Using the dollar per day measurement of poverty, it was revealed in 2004 that people who spend below $1 daily accounted for 51.6% and rose to 61.2% in 2010. This measure though is under the adjusted $1.25 standard measure, depicts that poor households in Nigeria are largely characterized by a general feature of having less income sufficient for the family as a result of large family size. With this scenario, this paper raised the question; what effect does the unchecked population growth have on poverty level in the country? This study therefore examined the effect of rising population growth on poverty in Nigeria with focus on the effect of dependency ratio and population growth on poverty rate in Nigeria over the years.

Assessment of Poverty Rates in Nigeria

Despite the introduction of various poverty control measures and schemes in Nigeria, poverty remains endemic. Over the past three decades, the percentages of people classified as 'poor' are: 1980 (28.1%); 1985(46.3%); 1992(42.7%); 1996(65.6%); 2004(54.0%) and was (69%) in 2010 by Nigerian Poverty profile (see table 2.1). In 2012, the National Bureau of Statistics (NBS) reported that variation abounds in Nigerian poverty crisis and this is linked to region, sector and gender. Poverty levels also vary widely across the country's geo-political zones; the northern region recorded the highest population of about 75 million people against 65 million people in the south as at 2006. As much as 76 % northerners are living in poverty with income inequalities in the region ranging between 0.40-0.45 (NBS, 2010).

Trend of Population Growth in Nigeria

Figure 1 depicts the trend of population growth in Nigeria. Estimates and projections of international bodies revealed that Nigerian population has been on the increase over the years. The World Bank reported that in Nigeria, population growth rate which was below 2% in 1960s rose to 2.9% in 1980 and reduced slightly to 2.6 in 1990 and since then, it has continued to fluctuate between 2.6 and 2.7%. This growth rate has increased the population size from 73 million people in 1980 to 95 million in 1990, 123 million in 2000, 2010 estimates was 159 million and 2014 was estimated at 177 million people with 49% being female. The Nigerian high population growth rate has placed her as the most populous country in Africa, and accounts for one in five of people of sub-Saharan region, a critical issue is the structure of age composition which centres on the youthful category; age 0-14 years captures 44% of the population, ages 15+ to 64 years making 53% while the aged above 65 years are only 3%.

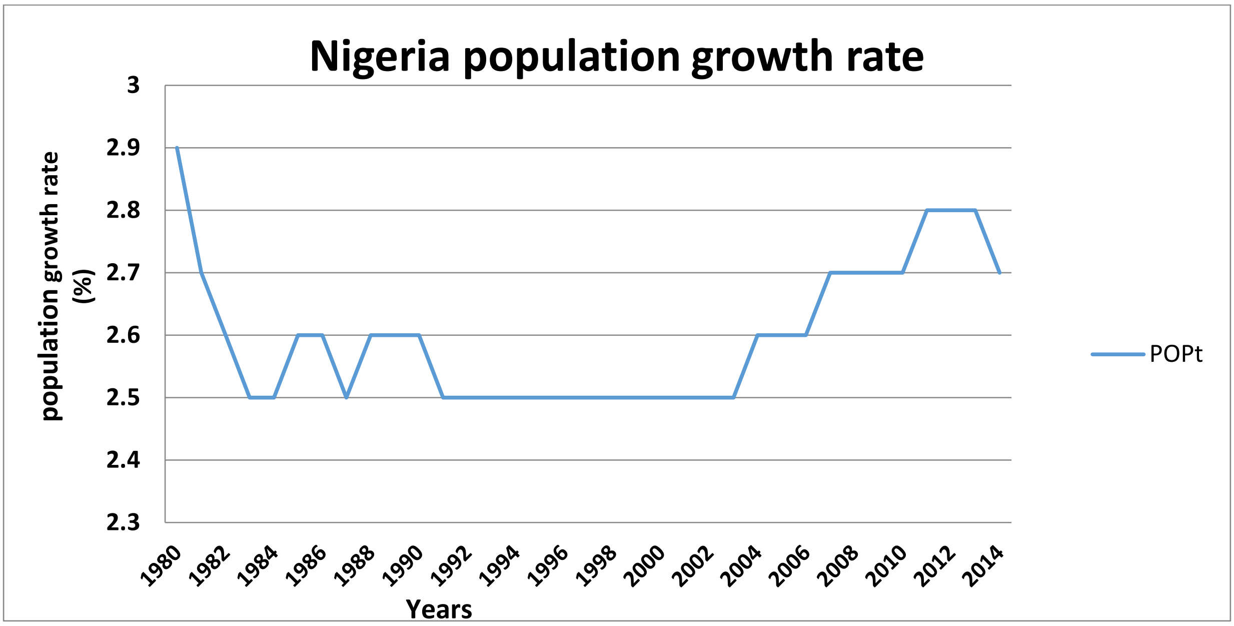

Figure 1: Nigeria population growth rate (1980-2014)

Literature Review

The Concept of Population Dynamics

Population dynamics is a key demographic term that can contribute to better policies and programmes that advance the welfare of communities, families and individuals. Population dynamics mechanisms work through the overall population in line with investments in health, education and with policies conducive to job creation which can increase total savings and investment, thus promoting poverty reduction and the encouragement of economic growth (Bloom, Canning and Sevilla, 2003).

Empirical Literature

The relationship between population structure, size and poverty in households has been a controversial issue with several contributions from various researchers on the theme. Kraay (2000) identified the one-child policy in China which is a way of population control as a vital factor in raising the level of household and aggregate saving in the country. This study posited that the introduction of China's one child policy has contributed dramatically to the decline of people within the under 14 ages. Due to the reforms, the pattern of the dependency ratio changed, giving households more capabilities to increase their savings.

Similarly, Rosenzweig and Zhang (2009) used the micro study approach to estimate the net effect of an extra child at parities one and two in China, and found that the extra child (an indication of growth in population size) significantly decreases the schooling progress, expected students enrolment in colleges and access to health by all children in the family. The research work affirmed the robust effectiveness of the one-child policy in regulating the age structure of the country and its significant importance.
Bloom, Finlay, Mason, Olaniyan and Soyibo (2010) studied the prospects for economic growth in Nigeria using a cross-country growth model. The group found out that to realize demographic dividend, up to 24 million new jobs must be created in the next decade in Nigeria. These they concluded could only be achieved through strong investment in health, education, gender parity and institutions. Their findings also indicated that by increasing investment in human capital as fertility rate declines, Nigeria's GDP could be increased by up to 50% and have the potential of sustaining it.

Methodology

Estimation Technique

The vector error correction model (VECM) is adopted for this study. This econometric technique is appropriate in analyzing variables that are stationary in the same order. Essentially, VECM enables us to determine both the short run and long run relationship among the variables of interest. It also provides information on the speed of adjustment of the model.

Model Specification:

Population dynamics (growth of population), fertility and young age dependency ratio are crucial and severe issues in almost all developing countries. The model is built as such that poverty incidence is seen as having a functional relationship with the annual gdp growth rate, growth of the population, the fertility rate, rate and the literacy rate. From this, the equation for the model is specified as:

$$POV_t \quad = f(PCI_t, POPT_t, FER_t, YADR_t, \quad LIT_t)$$

Where:

POV_t= poverty rate, PCI_t= GDP per capita, POP_t= population growth rate, FER_t= fertility rate, $YADR_t$= young age dependency ratio, LIT_t= literacy rate proxy by gross enrolment in secondary school. Explicitly, this becomes:

$$POV_t = \propto_0 + \propto_1 \; PCI_t + \propto_2 \; POPT_t + \propto_3 \; FER_t + \propto_4 \; YADR_t + \propto_5 \; LIT_t + e_t$$

Findings

Unit Root Test Result

Unit Root test: Phillip Perron (PP test) was used to test for stationarity of the variables. The test revealed that all the variables were not stationary at levels but attained stationarity at first difference. This stationarity revealed that the cointegration test for the series can be estimated with the use of Johansen cointegration as all variables in the series indicate I (1) of order of integration

Cointegration Test Result:

Cointegration results of the variables employed in the study are presented in Table 1. The result revealed the presence of long run cointegration among the series. The implication of this is that in the long run, there are indications of four cointegrating equations among the variables. Thus, this established that the vector error correction estimates can be employed. In theory, the VECM is a representation of cointegrated VAR, this implies that variables that are cointegrated of each other can be estimated using VECM with the advantage of presenting it interpretations with both long and short term equations.

Table 1: Johansen cointegration test result: (Trace Statistics Test)

Hypothesized no of CE(s)	Eigen value	Trace Statistics	0.05 critical value	Prob.**
None *	0.882312	167.3291	95.75366	0
At most 1 *	0.696867	98.85814	69.81889	0.0001
At most 2 *	0.586215	60.66348	47.85613	0.002
At most 3 *	0.4843	32.42644	29.79707	0.0243
At most 4	0.278569	11.23508	15.49471	0.1974
At most 5	0.024278	0.786497	3.841466	0.3752

Source: Authors' computation

Trace test indicates 4 cointegrating eqn(s) at the 0.05 level

* denotes rejection of the hypothesis at the 0.05 level

Vector Error Correction Model:

From the result in Table 2, the long run estimation is presented as:

$$POVt = +425.37 + 40.37POPT + 25.23FER - 6.20YAGE + 0.02PCI - 4.38LIT$$

The long run equilibrium revealed that poverty exhibited a positive significant relationship with population growth, the fertility rate and per capita income while it exhibited negatively significant relationship with the youth age dependency rate and the literacy rate. The implication of this result is that poverty rates co move in the same direction with population growth and fertility rate at faster rate while the literacy rate and the youth age dependency structure does not co move in the same direction with poverty rate. Explicitly, one percent increase in population growth and fertility rate is associated with 40% and 25% increase in poverty rate while a one percent increase of per capita income has only 0.02% increase in poverty rate. The young age dependency rate also exhibits the potential of reducing poverty rates while a one percent rise in literacy rate (proxied by secondary school enrolment) reduces poverty rate by 4.38% during the years reviewed.

Table 2: Long run equilibrium of Vector Error Correction Model

Variables	Coefficient	Standard error	t-value	
POV(-1)	1.00			
POPT(-1)	-40.37	-31.3333	[-1.28856]	
FER(-1)	-25.2339	-18.8579	[-1.33811]	
YAGE(-1)	6.198467	-1.99878	[3.10112]	**
PCI(-1)	-0.0161	-0.00483	[-3.33577]	**
LIT(-1)	4.381625	-0.63214	[6.93144]	**
C	-425.373			

Source: Authors' computation

** denotes significance at 5% test

Short run dynamics (Error Correction Model): The result indicates that the estimated coefficient of the ECM has the correct negative sign. It confirms that the variables in the system are cointegrated. ECM (-1) is -0.23 and is statistically significant thus simplifying that 23 percent of the deviation from the long term equilibrium is corrected in every period.

Conclusions

This paper considered the role of population dynamics on poverty level in Nigeria and found that over the years, high population growth and fertility rates have contributed to the persistence poverty rates in Nigeria. A negative and statistically significant effect of high population growth rate on poverty was revealed. Based on the findings above, this study recommends that to raise human development in Nigeria, demography structure must be considered. Based on the findings, it was recommended that interventions on both population growth and poverty alleviation should be attempted simultaneously. It therefore called for universal access to contraception and education through counseling in sexuality, health and reproductive rights with focus on poor people who have no access to basic needs of life. Furthermore there is need for the adoption of population control policy in Nigeria and the development of human capability through improved education and adequate sensitization on the usage of family planning schemes.

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INFLUENCE OF JOB SATISFACTION ON JOB PERFORMANCE AMONG ACADEMIC STAFF IN TERTIARY INSTITUTIONS IN EKITI STATE

Adebayo Florence Aduke and Fakunle Adewunmi Francis
Department of Educational Management, Faculty of Education, Ekiti State University, Ado-Ekiti

Abstract
The study examined the influence of job satisfaction on job performance among academic staff of Tertiary institutions in Ekiti State. The study adopted a descriptive research of the survey design. The population of this study consisted of all the 1,231 academic staff of three selected tertiary institutions. The sample for the study consisted of 440 academic staff in tertiary institutions in Ekiti state. Proportionate sampling techniques were used to select the sample. Two self-designed instruments titled Job Satisfaction Questionnaire (JSQ) and Job Performance Questionnaire (JPQ) were used as instruments to collect data for the study. The data collected were analyzed using Pearson Product Moment Correlation. The hypotheses formulated were tested at 0.05 level of significance. Findings of the study showed that there was significant relationship between job satisfaction and job performance among academic staff in tertiary institutions in Ekiti State. . Based on the findings, it was recommended that the school management should ensure prompt payment of staff remuneration, there should be adequate provision of educational facilities to improve job performance among academic staff and management of tertiary institutions should involve the academic staff in the decision making concerning the institutions.

Keywords: Job satisfaction; Job performance; Academic staff; Remuneration; Educational facilities; decision making.

Introduction

The Academic staffs of the tertiary institutions in Nigeria play a significant role in the upliftment of the education sector of the country. This role has enhanced the development of the nation in no small measure. In order to perform such a heavy task, these categories of people must be physically, mentally, economically and socially balanced, so that they will be able to provide effective teaching. It must be noted that teaching can only take place when the environment is conducive for learning. The key to efficient and effective education system depends on the ability of the academic staff to perform excellently. The Federal Republic of Nigeria (2004) in the National Policy on Education states that no education system can rise above the quality of teachers. . In Ekiti State, tertiary institutions seems to be facing a lot of challenges that appear not to allow the system to make the expected contribution to social, political and economic development of the state.

It appears that one of the numerous problems which seem to be confronting tertiary institution in the country and in Ekiti State in particular is the perceived poor job performance of some academic staff. Job satisfaction has always been a subject of interest in all spheres of work, either private or public; this is a way to understand how people react to their work. According to Akpofure, R. R, Iklufa, O.G, Imide, O.I & Okokoyo, H.H (2006), job satisfaction is an overall feeling about ones' career in terms of specific facets of the job or career. Job satisfaction can be described as the extent to which academic staffs are contented with the rewards they get out of their job particularly in terms of motivation. On the other hand, job performance has been defined by Onukwube (2010), as behaviour that can be evaluated in terms of the extent to which an employee is able to accomplish the task assigned to him or her and how the accomplished task contributes to the realization of the organizational goal.

Prompt payment of allowances and remuneration are one of the significant ways in ensuring that workers enjoy high satisfaction in their job. This will invariably enhance the job performance of employees. It is perceived by the researcher that majority of the disagreements between staff and school authority bothers on late payment of remuneration and non-payment of outstanding allowances. This is one of the key aspects that led to the 2013 Academic Staff Union of Universities National Strike. This was revealed on the list of ASUU request that the Earned Allowances and amendment of the Pension/Retirement Age of academics on the professorial cadre from 65 – 70 years.

According to the UK Statistics Authority (2004) the term remuneration refers to earnings and pay (wages and salaries) provided directly by employers to employees in return for their supplied labour while Security Staffing (2008) defines remuneration as the aggregate gross annual emoluments payable to the worker pursuant to the engagement, including salary, payments, bonuses, housing allowance and profit related pay. These definitions both agree that remuneration is any payment for labour from the employer to the employee though they ignore non monetary forms of remuneration given to employees yet they are also important. Several scholars theorized about the relationship between remuneration and job retention. According to the Reinforcement Theory (Aswathappa, 2005) the implications of remuneration is that high employee performance followed by a monetary reward will make future employee performance and their consequent job retention more likely.

The crucial role being played by availability of educational facilities in ensuring high job performance cannot be overemphasized. When the needed facilities were put in place within these various tertiary institutions for academic staff to judiciously utilize for the achievement of the pre-determined goals and objectives of their institutions, it will increase their job performance. Facilities such as offices, teaching materials, lecture theatres, laboratory, and library are needed by staff to effectively execute their day to day activities. It has also been observed that Nigerian tertiary institutions lack essential educational facilities such as listed above. The insufficient educational facilities seem to determine how efficient and effective the academic staff will be in terms of their job performance. The National Universities Commission (2006), reported that the Presidential Visitation Panel that looked into the operations of all the Federal Universities between 1999 and 2003 showed that educational facilities at the universities were in deplorable state with insufficient lecture theatres, laboratories, libraries and resource centres. These and many more seem to contribute to poor job performance of academic staff in tertiary institutions in Ekiti state.

Educational facilities in schools can be defined as the entire school plant which school administrators, teachers and students harness, allocate and utilize for the smooth and efficient management of any educational institution, for the main objective of bringing about effective and purposeful teaching and learning experiences (Asiyai 2012). According to Emetarom (2004) facilities in schools are the physical and spatial enablers of teaching and learning which will increase the staff performance and production of results. School facilities serve as pillars of support for effective teaching and learning. Infrastructure refers to basic physical and organizational structures needed for the successful running of the institution (Bakare, 2009).Other relevant facilities in the school environment include text books, laboratory equipment, computer machines, seating facilities, supply of electricity and other technical and vocational facilities which are all paramount to the provision of qualitative education (Omotayo, Ihebereme & Maduewesi, 2008).

It appeared that there were cases of non-challant attitude of some Heads of Departments at the College of Education, Ikere-Ekiti. Some seemed to be autocratic, which depicted bad leadership quality; ruling the departments single-handedly without involving other members of the department could have catastrophic implication on the progress of the school at large. All these attitudes seem to be discouraging and do not allow the lecturers to put in their best. These seem to contribute greatly to job dissatisfaction among academic staff in a situation where lecturers could not cope, they had to leave the system in search of greener pastures.

Participation in decision making offers various benefits at all levels of the organization. Rice (1987) explains that putting decision making power as close as possible to the point of delivery makes the implementation of those decisions not only possible, but also successful. Participation in decision making leads to harmony in the organization (Ward and Pascarelli, 1994) and improves staff morale and support (Parshiadis, 1987). By creating a sense of ownership in the company, participation in decision making instills a sense of pride and motivates employees to increase productivity in order to achieve their goals. Employees who participate in the decisions of the company feel like they are a part of a team with a common goal, and find their sense of self-esteem and creative fulfilment heightened (Helms, 2006).

Statement of the Problem

In tertiary institutions of Ekiti State, there seems to have been dissatisfactions among the academic staff. There seems to be industrial actions in some institutions due to the disagreement on the conditions of service between the academic staff and the government. Hence, the workers appear not satisfied with their conditions of service to enhance their job performance.

It appears that the perceived low level of performance of academic staff on their job in the area of research publications, intentional absenteeism from lectures, late computation of results of students, non-challant attitude of lecturers towards supervision during examination may be as a result of poor participation in decision making, poor educational facilities and poor remuneration. This study intends to find out the influence of job satisfaction on job performance among academic staff in tertiary institutions in Ekiti State.

Research Hypotheses

1. There is no significant relationship between job satisfaction and job performance among academic staff in tertiary institutions of Ekiti State.
2. There is no significant relationship between remuneration and job performance of academic staff.
3. There is no significant relationship between educational facilities and job performance of academic staff.
4. There is no significant relationship between participation in decision making and job performance of academic staff.

Methodology

The study adopted a descriptive survey research design. The population for this study comprised of all academic staff in tertiary institutions in Ekiti State. Three institutions were selected using purposive sampling techniques.The sample for the study consisted of 440 academic staff in tertiary institutions in Ekiti State. Proportionate sampling techniques were used to select the sample. .Two self-designed instruments titled Job Satisfaction Questionnaire (JSQ) and Job Performance Questionnaire (JPQ) were used as instruments to collect data for the study. The instruments were validated by experts in Educational Planning and Tests and Measurement in Ekiti State University. Test-retest method of reliability was adopted with reliability coefficient of 0.73 and 0.75 for JSQ and JPQ. The data collected were analyzed using Pearson Product Moment Correlation. The four hypotheses formulated were tested at 0.05 level of significance.

Results

Hypothesis 1

Table 3: Pearson Product Moment Correlation of job satisfaction and job performance among academic staff

Variables	**N**	**Mean**	**SD**	r_{cal}	r_{table}
Job satisfaction	440	51.02	2.05	0.622^*	0.195
Job performance	440	66.41	3.16		

$^*P<0.05$

Table 3 reveals that r_{cal}(0.622) is greater than r_{table} (0.195) at 0.05 level of significance. The null hypothesis is rejected. This implies that there is significant relationship between job satisfaction and job performance among academic staff. The relationship is moderately high, positive and significant at 0.05 level.

Hypothesis 2

There is no significant relationship between remuneration and job performance of academic staff.

Table 4: Pearson Product Moment Correlation summary of remuneration and job performance of academic staff.

Variables	N	Mean	SD	r_{cal}	r_{table}
Remuneration	440	7.11	1.44	0.561^*	0.195
Job performance	440	66.41	3.16		

$^*P<0.05$

Table 4 shows that r_{cal}(0.561) is greater than r_{table} (0.195) at 0.05 level of significance. The null hypothesis is rejected. This implies that there is significant relationship between remuneration and job performance among academic staff. The relationship between remuneration and job performance is moderate, positive and significant at 0.05 level.

Hypothesis 3

There is no significant relationship between educational facilities and job performance of academic staff.

Table 5: Pearson Product Moment Correlation of educational facilities and job performance of academic staff.

Variables	N	Mean	SD	r_{cal}	r_{table}
Educational facilities	440	8.97	0.25	0.493^*	0.195
Job performance	440	66.41	3.16		

$^*P<0.05$

Table 4 revealed that r_{cal}(0.493) is greater than r_{table} (0.195) at 0.05 level of significance. The null hypothesis is rejected. This implies that there is significant relationship between educational facilities and job performance of academic staff. The relationship between educational facilities and job performance is moderate, positive and significant at 0.05 level.

Hypothesis 5

There is no significant relationship between participation in decision making and job performance of academic staff.

Table 7: Pearson Correlation summary showing participation in decision making and Job Performance of Academic Staff.

Variables	N	Mean	SD	r_{cal}	r_{table}
Participation in decision making	440	7.45	1.35	0.349*	0.195
Job performance	440	66.41	3.16		

***P<0.05**

Table 7 revealed that r_{cal}(0.349) is greater than r_{table} (0.195) at 0.05 level of significance. The null hypothesis is rejected. This implies that there is significant relationship between participation in decision making and job performance of academic staff. The relationship between participation in decision making and job performance is low, positive but significant at 0.05 level.

Discussion

The study showed that there was significant relationship between job satisfaction and job performance among academic staff. The findings agree with Laffaldano & Muchinsky (2005) who reported that there is a significant positive correlation between job satisfaction and job performance, also among job satisfaction and organizational commitment, meaning that the more the employees are satisfied with their job, the greater will be their job performance and more likely to be committed to achieving organizational goals.

The study showed that there was significant relationship between remuneration and job performance among academic staff. This finding is favourably supported by Aswathappa (2005) that the implications of remuneration is that high employee performance followed by a monetary reward will make future employee performance and their consequent job retention more likely.

The finding showed that there was significant relationship between educational facilities and job performance of academic staff. The finding agrees with Emetarom (2004) that facilities in schools are the physical and spatial enablers of teaching and learning which will increase the staff performance and production of results. Also Owuamanam & Owuamanam (2008) stated that facilities form one of the potent factors that contribute to academic achievement in the school system.

The study showed that there was significant relationship between participation in decision making and job performance of academic staff. The findings agree with Helms, (2006) that by creating a sense of ownership in the company, participation in decision making instills a sense of pride and motivates employees to increase productivity in order to achieve their goals.

Conclusion and Recommendations

Based on the findings of the study, it was concluded that job satisfaction in terms of remuneration, availability and adequacy of educational facilities and participation in decision making were determinants of job satisfaction of academic staff in tertiary institutions in Ekiti State. It was therefore recommended that There should be regular payment of academic staff remuneration in the various tertiary institutions in order to improve job performance. Management of tertiary institutions should increase educational facilities in order to improve job performance of academic staff and Management of tertiary institutions should involve the academic staff in the decision making process concerning the institutions.

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INFLUENCE OF MATHEMATICS TEACHERS' CAPACITY DEVELOPMENT AND ITS UTILIZATION ON THE ACADEMIC ACHIEVEMENT OF STUDENTS

Oginni O. I. and Ojo O. F.[1]
Department of Science Education, Faculty of Education
Ekiti State University, Ado-Ekiti

Abstract
This study examined the Influence of Mathematics Teachers' Capacity Development and its Utilization on the academic development of students. The study employed descriptive research of the survey type. The sample for the study is made of 120 Mathematics Teachers randomly selected within public secondary schools in Ekiti State. The instrument used to collect data was questionnaire on Mathematics Teachers Capacity Development and its Utilization (QMTCDU). The data obtained were subject to both descriptive and inferential analysis, all at 0.05 level of significance. The results of the study showed that there was significant influence of teachers' capacity development on students' academic achievement; there was also a significant influence of teachers' capacity development and its utilization of students' academic achievement. Based on the findings, it was recommended that teachers should be given in-service training from time to time and they should be well monitored for proper utilization of the knowledge gained from the training.

Keywords: Capacity Development, Utilization, Academic Achievement, Students

Introduction

Mathematics is not only a tool but also a vehicle for all-round development of any nation; it occupies a very important place in almost all the spheres of life. The important position occupied by Mathematics in the school curricular is due to the role of Mathematics in scientific and Technological development. Despite the unique and innumerable importance of Mathematics, mass failure characterized the achievement of students in both internal and external examinations in the country (Popoola, 2008).

The attitude of some Mathematics teachers in terms of improving their knowledge through capacity development and also to utilize it may have great consequences on the achievement of students in Mathematics. In-service education is the education that occurs while a person is on duty or holding a job. It is the deliberately designed education that takes place while an employee is in the service of an employer. Childress (2000) remarked that in-service training is a change agent seminar designed to aid teachers in different school systems to identify the needs of their school so as to be able to plan and implement program of change, he further supported the assertion that in-service training leads to self-renewal of the teachers. Wikipedia (2002) defined in-service

[1]Author droginnieksu190@gmail.com; ojooluwatoyin80@gmail.com

training as a professional training or staff development effort, where professionals are trained and discuss their work with others in their peer group. It is also designed to develop the skills of people who are already working in a particular profession. It is an institutional activity provided for improving the quality and productivity of the institution, the way an in-service program is carried out may foster the growth and development of the employee and give the individual employee a sense of self-direction, achievement and even self-actualization. In-service training program is frequently organized every year to orientate new comers or to orientate old comers. They are scheduled in such a way that after a national or regional program for a definite area or objective has being held, seminars are conducted in different divisions and later on within the school. The organizers of the program vary from year to year and are tailored to the needs of the teachers as well as school system. The term in-service education as it is now used refers to the entire process of curriculum review and consequent modification of practice. In-service education is a term used by Adam to mean the development of the individual which arises from the whole range of events and activities by which serving teachers can extend their personal academic or practical education and professional competence and understanding of educational principles and methods. Good teachers form the foundation of good schools, and improving teachers' skills and knowledge is one of the most important investments of time and money that local, state, and national leaders can make in education. Although research in teacher professional development is dominated by Mathematics studies, good examples of such research also exist in other subjects including science, literacy and basic reading skills. Teachers who got the extra training spent more time explicitly teaching the building blocks of words and language, and their students did better on tests of word reading, spelling, and comprehension. Student achievement was consistently higher and growth in students' basic and advanced reasoning and problem-solving skills was greatest when their teachers' professional development focused on how students learn and how to gauge that learning effectively. This suggests that professional development that is rooted in subject matter and focused on student learning can have a significant impact on student achievement.

In an effort to understand the factors associated with Mathematics achievement, researchers have focused on many factors (Beaton & Dwyer, 2002; Kellaghan & Madaus, 2002; Kifer, 2002). The impact of various demographic, social, economical and educational factors on students' Mathematics achievement continues to be of great interest to the educators and researchers. For instance, many studies report that what teachers know and believe about Mathematics is directly connected to their instructional choices and procedures (Brophy, 2001; Brown, 2000; National Council of Teachers of Mathematics, 2000; Thompson, 2004; Wilson, 2004). Geliert (2000) also reported that "in Mathematics education research, it seems to be undisputed that the teacher's philosophy of mathematics has a significant influence on the structure of Mathematics classes" (p. 24). Teachers need to have skills and knowledge to apply their philosophy of teaching and instructional decisions.

If teachers are to prepare an ever more diverse group of students for much more challenging work--for framing problems; finding, integrating and synthesizing information; creating new solutions; learning on their own; and working cooperatively--

they will need substantially more knowledge and radically different skills than most now have and most schools of education now develop (Darling-Hammond, 2001).

Teachers not only need knowledge of a particular subject matter but also need to have pedagogical knowledge and knowledge of their students (Bransford 2000). Teacher competency in these areas is closely linked to student thinking, understanding and learning in Mathematics education. There is no doubt that student achievement in Mathematics education requires teachers to have a firm understanding of the subject domain and the epistemology that guides Mathematics education (Ball, 2002 Grossman et al., 2004; Rosebery et al., 2000) as well as an equally meticulous understanding of different kinds of instructional activities that promote student achievement. Competent Mathematics teachers provide a roadmap to guide students to an organized understanding of Mathematical concepts, to reflective learning, to critical thinking, and ultimately to Mathematical achievement.

However, for teaching to be effective, professional development must provide teachers with a way to directly apply what they learn to their teaching. Research shows that professional development leads to better instruction and improved student learning when it connects to the curriculum materials that teachers use, the district and state academic standards that guide their work, and the assessment and accountability measures that evaluate their success. Studies suggest that the more time teachers spend on professional development, the more significantly they change their practices and that participating in professional learning communities optimizes the time spent on professional development. Most states and school districts do not know how much money they are spending on professional development for teachers or what benefit they are actually getting from their outlays because they do not systematically evaluate how well the additional training works. An effective evaluation includes an examination of actual classroom practices, the training's impact on teacher behavior, and its effect on student learning. Evaluation should be an ongoing process that starts in the earliest stages of program planning and continues beyond the end of the program. It is important for educators to adopt instructional design techniques to attain higher achievement rates in Mathematics (Rasmussen & Marrongelle, 2006). Therefore, this study intends to find out whether Mathematics teachers' capacity development and its utilization can influence academic achievement of students.

Research Questions

The following research questions provided the specific focus for the study.

1. Does teachers' capacity development affect their teaching of Mathematics?
2. Does teachers' year of experience affect their teaching of Mathematics?

Research Hypotheses

1. There is no significant influence of teachers' capacity development on their teaching in Mathematics.
2. There is no significant influence on teacher's years of experience on their teaching in Mathematics

Research Design

The study employed the descriptive research design of the survey type. This was on the basis that no treatment and manipulation was given on the subject.

Population

The population of this study consisted of all public Secondary Schools Mathematics teachers in Ekiti State.

Sample and Sampling Technique

The sample for this study comprised of 120 Mathematics teachers randomly selected from all the public Secondary Schools in Ekiti State.

Research Instrument

The instrument used to collect data was questionnaire on Mathematics Teachers' Capacity Development and its Utilization (QMTCDU). The QMTCDU consisted of twenty items which were based on the context of this study.

Validity of the Instrument

The face and content validity of the QMTCDU were determined by experts in test, measurement and evaluation. The experts ascertained the suitability of the items with respect to the adequacy of content, logical, sequence and suitability of the technical term used. Their comments and suggestions were used to refine the final instrument.

Reliability of the Instrument

Test retest method was used to determine the consistency of the instrument. A reliability coefficient of 0.76 was obtained.

Data Analysis

Data collected was analysed using inferential statistics of Pearson Product Moment Correlation Coefficient.

Question 1

Does teachers' capacity development affect the teaching of Mathematics?

Table 1:

Item		SA	A	D	SD	TOTAL
I have idea of in-service training in mathematics	*f*	17	24	9	-	50
	%	34	48	18	-	100
I have attended in service training in mathematics	*f*	18	24	7	1	50
	%	36	48	14	2	100
The in service training is interesting	*f*	21	23	5	1	50
	%	42	46	10	2	100
The in service training helps in teaching mathematics	*f*	17	26	5	2	50
	%	34	52	10	4	100
In-service training has led to improvement in my professional competence	*f*	23	19	7	1	50
	%	46	38	14	2	100

Table 1 above shows that 34% of the respondents strongly agreed that they had idea of capacity development in Mathematics, 48% agreed and 18% disagreed. 38% strongly agreed that they attended capacity development in Mathematics, 48% agreed, 14% disagreed and 2% strongly disagreed. 42% strongly agreed that capacity development is interesting, 46% also agreed while 10% disagreed and 2% strongly disagreed. 34% strongly agreed that capacity development help in teaching mathematics, 52% agreed, 10% disagreed and 4% strongly disagreed. 46% of the respondents strongly agreed that capacity development has led to improvement in their professional competence, 38% agreed, 14% disagreed and 2% strongly disagreed. This shows that most of the respondents supported that capacity development affect their teaching mathematics.

Question 2

Does teachers' year of service significantly affect their teaching of Mathematics?

Table 2:

Item		SA	A	D	SD	TOTAL
I experience difficulty in teaching Mathematics	*f*	14	18	10	8	50
	%	28	36	20	16	100
In-service education would help Mathematics teacher update his knowledge	*f*	24	19	4	3	50
	%	48	38	8	6	100
I encountered problem during the in-service trainings in mathematics	*f*	16	16	13	5	50
	%	32	32	26	10	100
The organization of learning experience affects the teaching of Mathematics	*f*	16	24	5	5	50
	%	32	48	10	10	100
Teacher's ability to express learning experience to concrete terms affect teaching at mathematics	*f*	18	19	10	3	50
	%	36	38	20	6	100

Table 2 above shows that 28% of the respondents strongly agreed that they had experienced difficulty in teaching Mathematics, 36% agreed, 20% disagreed and 16% strongly disagreed. 48% of the respondents strongly agreed that in-service education would help the Mathematics teacher update his knowledge, 38% agreed, 8% and 6% disagreed and strongly disagreed respectively. 32% strongly agreed and also agreed that they encountered problem during the in-service trainings in Mathematics, 26% disagreed and 10% strongly disagreed. 32% strongly agreed that organization of learning experience affects the teaching of Mathematics, 48% agreed, 10% disagreed and also strongly disagreed. 36% of the respondents strongly agreed that teachers' ability to express learning experience to concrete terms affects teaching of Mathematics, 38% agreed while 20% disagreed and 6% strongly disagreed. The findings indicated that there was quite a strong influence of teachers' years of experience on students' performance. The respondents agreed that experienced teachers could bring about better performance in Mathematics teaching.

Research Hypothesis 1

There is no significant relationship between teachers' capacity development and mathematics teachers in Ekiti State

Table 3: Correlation between teachers' capacity development and Mathematics teachers in Ekiti State

Variable	N	Mean	SD	r-cal	r-tab	Result
In-Service Education	50	1.41	0.499	0.676	0.312	Significant
Mathematics Teacher	50	1.61	0.862			

P> 0.05

Table 3 above shows the result of the test between teachers' capacity development and Mathematics teachers in Ekiti State. It indicated that the calculated r-value of 0.676 is greater than the critical value of 0.312 at 0.05 level of significance and 49 degree of freedom. The null hypothesis which stated that there is no significant relationship between teachers' capacity development and Mathematics teachers is rejected. This implies that there is significant relationship between teachers' capacity development and Mathematics teachers in Ekiti State.

Research Hypothesis 2

There is no significant relationship between teacher's years of experience on their teaching in Mathematics in Ekiti State

Table 4: Correlation between teacher's years of experience on their teaching in mathematics in Ekiti State

Variable	N	Mean	SD	r-cal	r-tab	Result
Years of Experience	50	1.12	0.510			Significant
Mathematics Teacher	50	1.56	0.550	0.663	0.312	

P> 0.05

Table 4 above shows the result of the test between teachers' years of experience on their teaching in Mathematics in Ekiti State. It indicated that the calculated r-value of 0.663 is greater than the critical value of 0.312 at 0.05 level of significant and 49 degree of freedom. The null hypothesis which stated that there is no significant relationship between teachers' years of experience on their teaching in Mathematics is rejected. This implies that there is significant relationship between teachers' years of experience on their teaching in Mathematics in Ekiti State.

Discussion

The findings of the result shows the view of the respondents as regards teachers' capacity development on their teaching in Mathematics, the null hypothesis is rejected. Therefore, there was significant effect of teachers' capacity development on teachers' teaching mathematics. This implies that teachers' capacity development affects their teaching in

Mathematics. Capacity development has led to improvement in professional competence and also enables Mathematics teachers to formulate objectives that would be achieved by the end of the lesson. This is in corroboration with Lassa (2002) who says the objectives of the in-service training should be to produce Mathematics teachers who are scientifically competent in attitudes and skills, capable of discovering and creating inventions. It is however suggested that Government should intermittently carry out formative as well as summative evaluation procedures to identify specific ways of enhancing Mathematics teacher education programs for better educational outcomes necessary' for our national development.

The findings also indicated that there is significant effect of teachers' year of experience on their teaching in Mathematics. This indicated that teachers' year of experience significantly affect teacher teaching mathematics. This finding is in line with those of Martin et al. (2000) who showed that in a situation where experienced teachers were not promoted out of the classroom into management positions, level of experience had a significant influence on the teaching effectiveness of the teachers and Aiken (2000) who found that teaching experience of teachers is significantly related to their teaching effectiveness.

Conclusion

Conclusively, the result revealed that there was significant effect of teachers' capacity development on teachers teaching Mathematics. Capacity development has led to improvement in professional competence; it also enables Mathematics teachers to formulate objectives that would be achieved at the end of the lesson. It was also revealed that teachers' experience could bring about better performance in Mathematics teaching.

Recommendations

Based on the findings of this study, the following recommendations were made: teachers should be given in-service training from time to time and they should be well monitored for proper utilization of the knowledge gained from the training. Also, experienced teachers should be allowed in Mathematics teaching.

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INFLUENCE OF TEACHERS' LESSON PREPARATION AND PRESENTATION ON STUDENTS' PERFORMANCE IN CHEMISTRY AND NATIONAL SCIENTIFIC DEVELOPMENT

Ajayi L. F.[1]
Department of Science Education,
Faculty of Education, Ekiti State University, Ado Ekiti

Abstract
This study assessed the influence of teachers' lesson preparation and presentation on students' learning outcomes in Chemistry and national development. It investigated whether teachers' lesson preparation and presentation could have an influence on students' performance, attitude to the subject and application of the concept taught. The study employed a descriptive research design. Three research questions were raised and answered. The sample used for the study comprised 20 Senior Secondary School III Chemistry teachers and 200 students offering the subject. The samples were selected using simple random sampling techniques. Research instruments used for the study were a questionnaire titled Chemistry Teacher's Lesson Preparation (CTLP,) and an Inventory focusing on teachers' Prepared Lesson Materials and students' note books. Data collected were analyzed using Descriptive statistics of frequency count, mean and percentages. The results of the findings showed that majority of the Chemistry teachers do not adequately prepare for their lessons and there were no emphasis on the application of what they teach. Based on the findings, it was recommended that Chemistry teachers should always ensure that there is enough lesson preparation and live application of the concept taught should be well emphasized.

Keywords: Teachers, Lesson preparation, Lesson presentation,Performance, Chemistry

Introduction
Education is expected to be a tool for capacity building and national developmental enhancement. The essence of producing a curriculum to be taught in schools is to make a learner self-reliant through adequate understanding of the concept taught and accurate application of such to real life situation. Though curriculum produced for schools may be appropriate, if the teacher fails to adequately prepare the lesson and present same accurately, the objectives of the curriculum and national policy on education might not be realizable.

Teachers' competence according to Ajayi and Ajayi (2015) is a strong factor that determines the level of curriculum implementation and learning outcomes. Ojukwu (2012) had earlier observed that the significant role that teachers play in the education process determines the level of educational development and national advancement. In

[1] Author ajayiloisf@gmail.com

the same vain, Ajayi and Ajayi (2015) further stress that if the teacher is not competent in his duty, he will fail in producing citizens that would bring the expected advancement in a nation.

For a teacher to be effective in his duty, he must be competent in lesson preparation and presentation. According to Ali in Ajayi and Ajayi (2015), effective teacher must have a basic command of his subject, he must be able to communicate his knowledge effectively to others. For students to adequately understand the concept taught by Chemistry teachers and accurately apply the knowledge to life situations there is the need for the teacher to have thorough knowledge of lesson preparation and presentation and as well be capable of the real life application of whatever he teaches. He must be able to identify the application of every Chemistry concept taught and ensure that his students are good in the application aspect of the knowledge impacted. This will enhance the national development and growth in science and technology. This fact was buttressed by Ojukwu (2012) when he stressed that a teacher's competence is the ability and knowledge he has to discharge and impact to students while carrying out his responsibilities. It is expected that all teacher should have this attribute.

In spite of the employment of well trained teachers in schools and provision of learning materials, the effects of teachers' competence in preparation and presentation of lessons seems not so much felt in the society as an aftermath of classroom education . Most students seem not to properly understand and discern the application of the concepts taught. Though students pass out of schools and passed through the curriculum developed for them, it seems the curriculum did not pass through them. Most of them are not self-reliant; they contribute little or nothing to the growth of the nation. The question then is: how prepared are the Chemistry teachers to inculcate the curriculum contents on the students, and how accurate and adequate is their lesson presentation in order to produce self-reliant citizens that could apply what they learn to their day-to-day activities? This study was therefore out to investigate the Chemistry teachers' lesson preparation and presentation on learners' performance and national development

Methodology

Research Questions

For the purpose of this study, the following research questions were raised and answered

1. What is the percentage of Chemistry teachers with adequate lesson preparation in Nigerian Schools?
2. What influence does teachers' lesson preparation and presentation have on students' performance in Chemistry?
3. What percentage of students acquires real life application skills from the Chemistry concepts taught?

Research Design

The study employed descriptive research design of the survey type.

Sample

A Chemistry teacher and ten of his students were chosen from 20 Senior Secondary Schools in south-west Nigeria. These make a total of 20 Chemistry teachers and 200 students offering Chemistry in Senior Secondary School III (SSSIII) used for the study. Four schools each were randomly selected from Ekiti, Ondo, Osun, Oyo and Ogun states. SSSIII teachers were purposively chosen while the 200 students were randomly selected at 10 per school and used for this study.

Instruments

Two research instruments used for the study were a questionnaire titled Chemistry Teachers' Lesson Preparation (CTLP) and an Inventory focusing on Prepared Lesson Materials. The CTLP was divided into three sections.

Face, content and construct validity of the two instruments were ensured by subjecting them to Chemistry and Tests experts. The instruments were given to a Chemistry teacher and five students outside the sample per state to ascertain their reliability. The reliability of the instruments was thereafter obtained using split half method. The data obtained were subjected to Pearson Product Moment Correlation and the coefficients obtained were 0.78 and 0.72 for CTLP and Inventory respectively.

The administration of the instruments was carried out by the researcher and research assistants who were Chemistry teachers in secondary schools. The researcher alongside the assistants personally visited the schools used for the study. The instruments were distributed to the teachers and students sampled. At the same time, teachers' lesson notes and students' notes were examined to ascertain the teaching and learning materials used during lessons.

Findings

Questions raised were answered using the data collected from the respondents.
Q1. What is the percentage of Chemistry teachers with adequate lesson preparation and Presentation in Nigerian Schools?

Table 1.0: *Percentage analysis of Chemistry teachers with adequate lesson preparation*

Teachers' Preparation	Adequate	%	Inadequate	%
Lesson note	16	80	4	20
Knowledge of subject matter	16	80	4	20
Provision of appropriate instructional materials	7	35	13	65
Application of concept taught	3	15	17	85

Table 1.0 shows that a high percentage (80%) of the Chemistry teachers sampled had prepared lesson note and also had adequate knowledge of the subject matter. The table revealed further that low percentages (35% and 15%) incorporated appropriate instructional materials and fished out salient applications of the concepts taught.

Q2: What influence does teachers' lesson preparation have on students' performance in Chemistry?

Table 2.0: *Frequency and Mean table analysis on the influence of teachers' lesson preparation on students' performance in Chemistry*

Teacher	**Teacher's lesson preparation and presentation status**	**Student's performance**										
		I	**II**	**III**	**IV**	**V**	**VI**	**VII**	**VIII**	**IX**	**X**	**MEAN**
1	I	35	52	23	45	26	42	34	53	26	42	37.8
2	A	54	46	67	43	66	42	56	44	67	42	52.7*
3	I	34	26	34	33	34	33	34	26	34	33	32.1
4	I	40	25	33	41	34	40	42	23	31	40	34.9
5	A	48	52	56	64	56	64	48	52	56	64	56*
6	A	72	66	54	68	54	68	72	66	54	68	64.2*
7	I	44	30	41	47	41	47	44	30	41	47	41.2
8	I	28	37	40	39	40	39	28	37	40	39	36.7
9	A	78	72	54	60	54	60	78	72	54	60	64.2*
10	A	58	49	65	57	65	57	58	49	65	57	58*
11	I	42	40	51	47	51	47	42	40	51	47	46.8
12	I	58	43	25	50	25	50	58	43	25	50	42.7
13	I	33	41	38	27	38	27	33	41	38	27	34.3
14	A	81	56	66	48	66	48	81	56	66	48	61.6*
15	A	56	68	52	78	52	78	56	68	52	78	63.8*
16	A	65	69	58	74	58	74	65	69	58	74	65.4*
17	I	44	34	26	56	26	56	44	34	26	56	40.2
18	A	56	72	65	44	65	44	56	72	65	44	58.3*
19	I	28	32	41	37	41	37	28	32	41	37	35.4
20	I	34	42	37	35	37	35	34	42	37	35	36.8

* Performances from grade C and above
A – Adequate
I - Inadequate

From table 2.0, it was deduced that most teachers with inadequate lesson preparation and presentation produced students with low performance (below Credit Level) in Chemistry while teachers with adequate lesson preparation and presentation produced students with performance scores from Credit level upward.

Q3. What percentage of students acquires real life application skills from the Chemistry concepts taught?

Table 3.0; *Percentage Analysis of students with real life application skills of the Chemistry concepts taught.*

Application of concepts	**Respondents**	
	N	**%**
Knowledge of the subject matter	113	56.5
Recognition and application of the subject matter to real life situation	24	12.0
Relevance of the concept taught to career development	82	41.0

Table 3.0 showed that greater percentage (56.5%) of the students sampled had good knowledge of the concepts taught them while only 12.0% could recognize and apply the concepts taught to real life situation. Only 41.0% agreed that what was taught in the class is relevant to their future career.

The findings revealed that most of the Chemistry teachers (80%) had adequate lesson note prepared for the purpose of imparting knowledge on their students. This finding was in contrary to Ajayi and Ajayi (2015) who observed that teachers of Basic Science had no knowledge of lesson note preparation. Further still, the findings revealed that the teachers had good knowledge of the subject matter. This was in agreement with Ajayi (2010) who also observed the same in science teachers in secondary schools.

The findings further revealed that only few of the Chemistry teachers (35%) taught with necessary instructional materials while (15%) of them were able to fish out the applications of the concepts taught. The findings also revealed that teachers with inadequate lesson preparation and presentation produced students with low performance (below Credit pass) in the subject while teachers with adequate lesson preparation and presentation produced students with better performance (credit pass and above). This was in agreement with the observation of Ojukwu (2012) who affirmed that teachers are great determinants in the performance of learners and also in the level of educational development and national advancement.

The findings of the study also revealed that though students had a good knowledge of the concept taught but very little percentage of them (12.0%) could recognize and determine the application of the concepts taught to real life situations. Only 41.0% of the students could recognize the relevance of the concepts to their future career. This confirms the finding of Ojukwu (2012) who stressed that if the teacher is not competent in his duty, he will fail in producing citizens that would bring the expected advancement.

Conclusion

It was deduced from the findings that most teachers, though, had the prepared lesson notes but they do not practice the profession appropriately. They do not put innovations in their practices. Preparation and presentation of lessons among Chemistry teachers fall short of the ingredients that can develop the expected citizens that will enhance the nation's growth and scientific advancement.

Based on the findings of this study, the following recommendations were made;

1. Chemistry teachers should prepare and present their lessons to incorporate all necessary instructional materials that will enhance the teaching.
2. Chemistry Teachers should teach with emphasis on the applications of the concepts taught in order to equip the learners with innovations that could make them self-reliant and contribute to national development
3. Chemistry teachers should endeavor to enhance the career thoughts of their learners by emphasizing the relevant usefulness of what they teach.

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INFLUENCE OF THE AVAILABILITY AND UTILIZATION OF LABORATORY EQUIPMENTS ON THE ATTITUDE OF STUDENTS TOWARDS SCIENCE IN OGUN STATE

Gbenga Patrick Aina[1]
Department of Science Education, Faculty of Education, Ekiti State University, Ado-Ekiti, Nigeria

Abstract
The study examined the influence of the availability and utilization of laboratory equipment's on the attitude of students towards science in Ogun State' Nigeria. The study adopted a descriptive research of the survey type. A randomly selected sample of 480 Junior Secondary School II students from six schools responded to the Students' Attitude Towards Science Laboratory Equipment Questionnaire (SATSLEQ) developed by the researcher to collect data for the study. Three research questions were raised to guide the study. The data collected was analysed using descriptive and inferential statistics such as simple percentages and Pearson's Product Moment Correlation Analysis at 0.5 level of significance. The result of the study revealed that schools in Ogun State are not adequately equipped with laboratory equipment. It also revealed that the availability and utilization of laboratory equipment have influence on the attitude of students towards science. It is therefore recommended that both public and private educational sectors should procure laboratory equipment's for students' use. Students should also be allowed to handle and use the laboratory equipment so as to stimulate their interest and right attitudes to the learning of science subjects.

Keywords: students, attitudes, availability, utilization, laboratory.

Introduction
Science and Technology is a vehicle for all-round development of any nation. Therefore, to a very great extent, the level of technological development of any nation may determine the standard of living of the citizens of that nation. Due to this, any nation that wishes to be recognized globally must ensure that she encourages the teaching and learning of Science and Technology.

Science is the study of nature and environment through which people can develop both enquiry and disciplined logical power of thought. It has been the key to technological take off and has played a vital role in improving the lots of mankind through agriculture, transportation, communication, medicine and others. A scientifically literate society is one in which the citizens possess curiosity, manipulative ability to plan, design and conduct investigations. Ogunleye (2000) observed that Science is a dynamic human activity concerned with understanding the working of our world. The understanding helps man to know more about the universe. Without the application of science, it would

[1] Author *gbengaaina@rocketmail.com, 08035857082*

have been impossible for man to explore the other planets of the universe. By and large, the present trend of development is geared towards technological advancement and this cannot be achieved without due consideration of the status of Science teaching in both Junior and Senior Secondary School levels.

In Nigeria, performance in science subjects has often been dismal. This poor performance is partly blamed on increasing school enrollment, without a corresponding increase in teaching resources. The cost of effective science teaching resources is very high; Government has stated the reasons why some of the equipment cannot go round all Schools, thereby classifying some schools as pilot or mega schools, where adequate provisions are made for those pilot schools alone. The National Science Center (NSC) endeavours to ensure that as much as possible, teaching/learning materials of a low-cost nature are produced. This thinking is as a result of the difficulties faced in sourcing imported and expensive teaching aids that the schools cannot afford to buy.
There are growing evidences that teachers do not exhibit behaviours which are complementary to making students develop the right attitude to the learning of science. They include methods of teaching practical work; inadequacy or absence of well-equipped laboratories; high enrollment of students; inadequacy of resources for teaching and learning practical work; quantity and quality of teachers. In view of this, one tends to ask, are schools adequately supplied with laboratory materials?

Researchers (Adeyemi, 1998 and Ige, 2000) have found Science laboratories to be central to the teaching of science in secondary schools. Laboratories have been found to be the scientists` workshops where practical activities are conducted to enhance meaningful learning of Science concepts and theories (Seweje, 2000; Olubor & Unyimadu, 2001). They have also been found to be a primary vehicle for promoting formal reasoning skills and students` understanding, thereby enhancing desired learning outcomes in students (Ogunleye, 2002).

Alebiosu, (2000) and Onipede, (2003) at different times found shortages in the number of laboratories in Nigerian schools. They argued that many schools do not have required laboratory facilities. They went further to say that students often fail to acquire Science laboratory skills because their teachers were unable to conduct practicals as they would like to and this always had inevitable consequences for students` learning. These shortages of laboratory facilities could also have serious implications on the quality of schools` output.

Many students see science as abstract and irrelevant to their lives due to the fact that most of the teachers are not engaging the students' classroom in laboratory equipment. Laboratory and field work aid the understanding of difficult concepts in the curriculum; create opportunity for the testing of facts and theories in science. It is believed that learners can achieve more if given the opportunity to carry out laboratory practicals on what they have been taught in the classroom. Experimentation thus gives room for better attainment of lesson objectives, since it depends on the availability of science equipment for proper learning, it is impossible to procure adequate equipment for teaching and learning. In that case, teachers teaching sciences need to wake up to their responsibility.

To maintain and arouse the interests of students in subjects involving laboratory work, the teacher should be effectively involved in order to transfer knowledge and facts to learners for a good performance in any examination. In line with this, one then pauses to ask, to what extent has laboratory been able to achieve its objectives? Odulaja and Ogunwemimo (2000) highlighted that the teacher assumes a position of dispenser of knowledge with the laboratory serving the function of drill or verification. Hence, there is need for an investigation into availability and utilization of laboratory equipment as determinant of students' attitude toward science in Ogun State. This study further investigated the adequacy of laboratory materials in schools and the influence of the availability and utilization of laboratory equipment on the attitude of students towards science.

Research Questions

The following research questions were raised for this study:

1. Are schools adequately equipped with laboratory materials?
2. Will there be any relationship between the availability of laboratory equipment and the attitude of students towards science?
3. Will there be any relationship between the use of laboratory equipment and the attitude of students towards science?

Methodology

The research design for this study is a descriptive research of the survey type. The research is descriptive as the study describes the existing situations regarding the availability and utilization of laboratory equipment as determinants of students' attitude towards Science in Ogun state. The research is also a survey because it studied a large area from which some schools considered to be representative of the entire group were used. The population of this study consists of all Junior Secondary Schools students in Ogun State, Nigeria, numbering 143,034 students (Ogun State Ministry of Education, 2014). The sample for this study was 480 Junior Secondary Class II (JSS II) students selected randomly from six schools. An instrument was developed by the researchers for this study, namely: Students' Attitude Toward Science Laboratory Equipment Questionnaire (SATSLEQ). It consisted of two sections A and B. Section A sought for personal information on student's sex, age, school and Local Government Area. Section B contained 30-item statement on students' attitude towards science laboratory equipment and structured on a 4-point Likert Scale type of strongly Agree (4), Agree (3), Disagree (2), and strongly Disagree (1). Each student ticked the appropriate option on each item. The data collected was analysed using descriptive and inferential statistics such as simple percentages and Pearson's Product Moment Correlation Analysis at 0.5 level of significance.

Results

Question 1.Are schools adequately equipped with laboratory materials?

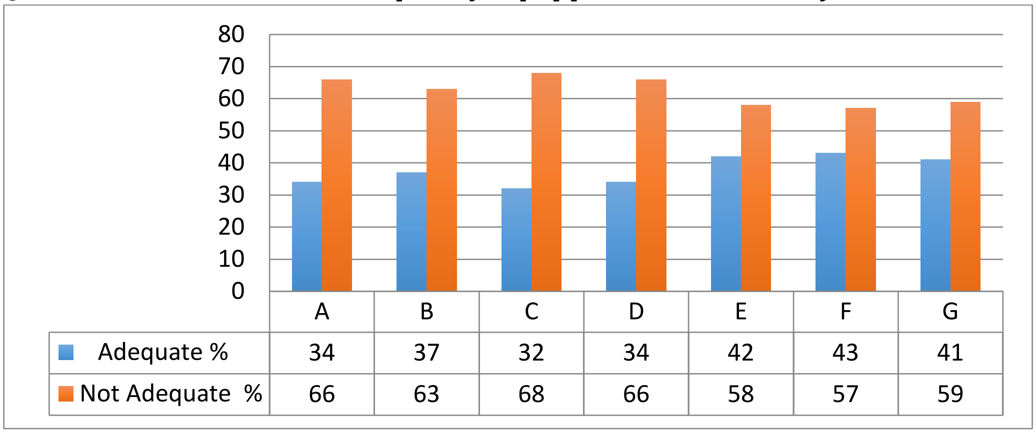

Figure 1: The adequacy of Science Laboratory Materials

Figure 1 shows the adequacy of science laboratory equipment. It was found that 66% of the respondents were of the opinion that their schools do not have adequate laboratory equipment while, 34% of them claimed that their schools have adequate laboratory equipment. 63% of the respondents claimed that the laboratories in their schools do not have enough equipment while, 37% of them opined that their school laboratories have enough equipment. Only 68% of the respondents opined that they do not know if there is laboratory in their schools while 32% of them were aware of laboratory in their schools. 66% of the respondents claimed that they have never entered a science laboratory in their schools while, only 34% of them claimed to have entered a science laboratory. Only 58% of the respondents were of the opinion that their teachers have never taken them to the laboratory for experiment in the time past while, 42% of them claimed to have been taken to the laboratory for experiment. 57% of the respondents claimed to have never seen a science Laboratory while, 43% of them claimed to have seen a science laboratory. 59% of the respondents were promised by their teachers to be taken to the laboratory while, 41% were not promised by their teachers. This implies that majority of the respondents have no adequate equipment in their schools' laboratory for the teaching and learning of science.

Question 2 Will there be any relationship between the availability of laboratory equipment and the attitudes of students towards science?

Table 1: Correlation of Availability of Laboratory Equipment and Students' Attitude towards Science.

Variables	**N**	**Mean**	**SD**	**df**	r_{cal}	r_{table}
Availability of laboratory equipment	480	13.90	3.32	479	0.881	0.195
Students attitude towards Science	480	82.12	15.80			

P<0.05

Table 2 shows that r_{cal}(0.881) is greater than r_{table} (0.195) at 0.05 level of significance. This implies that there is significant relationship between the availability of laboratory equipment and the attitude of students towards science. It could be deduced that availability of laboratory equipment influenced students' attitude towards science.

Question 3: Will there be any relationship between the use of laboratory equipment and the attitude of students towards science?

Table 2: Correlation of Use of Laboratory Equipment and Students' Attitude Towards Science.

Variables	N	Mean	SD	df	r_{cal}	r_{table}
use of laboratory equipment	480	13.74	2.99	479	0.813	0.195
Students' attitude towards Science	480	83.12	15.80			

P<0.05

Table 3 shows that r_{cal} (0.813) is greater than r_{table} (0.195) at 0.05 level of significance. Therefore the null hypothesis is rejected. This implies that there is significant relationship between the use of laboratory equipment and students' attitude towards science. It could be deduced that the use of laboratory equipment influenced students' attitude towards science.

Findings

The result revealed that the availability of laboratory equipment influence the attitude of students towards science. This finding corroborated the findings of Johnstone and Al-Shuaili (2001). According to them, students' exposure to laboratory equipment during practical work can increase their sense of ownership of their learning and hence increase their level of motivation.

The use of laboratory equipment has influence on the attitude of students towards science. This corroborated the findings of Hifstein and Lumetta (2004). According to them, laboratory activity has the potential to enhance students' conceptual understanding and develop their attitude with response to science learning. Larowitz and Tamir (1994) also opined that students that are exposed to laboratory equipment have the right attitude to construct social relationship in a laboratory environment because they work co-operatively in small groups. This implies that students who are exposed to laboratory equipment will develop the right attitude to learn science.

Conclusions

It was revealed that schools in Ogun state are not adequately equipped with laboratory materials. It was also revealed that the availability and the utilization of laboratory equipment influence the attitude of students towards science. This shows that students' exposure to laboratory equipment during practical work can increase their confidence in learning and so increase their level of motivation. Therefore, in a laboratory environment, students are not only expected to be able to design experiments and make observations, but also develop positive attitude and reduce anxiety.

Based on the findings of this study, it is recommended that Government should procure laboratory equipment for students' use and students should also be allowed to handle and use the laboratory equipment so as to stimulate their interest and right attitudes to the learning of science subjects.

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INTERNET AND THE LAW: ONLINE DISPUTE RESOLUTION MECHANISM AS AN ALTERNATIVE SYSTEM TO DISPUTE RESOLUTION IN NIGERIA

Taiye Joshua OMIDOYIN[1]
Faculty of Law, Ekiti State University, Ado-Ekiti

Dispute is an integral part of human existence. Daily human interactions result in conflicts which must be resolved to avoid anarchy. Thus court-based dispute resolution mechanism became the conventional method of resolving disputes. This mechanism however appears to have outlived its effectiveness, it is seen to be unnecessarily cumbersome, full of technicalities, complex and time wasting, hence the need to explore Online Dispute Resolution mechanism as an alternative. The objective of this research is to identify the loopholes of the conventional court-based dispute resolution mechanism in Nigeria and recommend enactment of appropriate legislations in Nigeria towards effectiveness and legality of Online Dispute Resolution practice. The research which is doctrinal based arrives at the conclusion that the adoption of the practice of Online Dispute Resolution in Nigeria will help reduce the problems associated with court-based dispute resolution system, hence litigants will have their disputes resolved speedily and arrive at an amicable settlement.

Keywords: Dispute, Resolution, Internet, Litigation

Introduction

There is the emerging trend of internet usage in the current 21st century and this trend pervades almost all aspects of human endeavor, law inclusive. The modern practice of law is also trying to maximize the potential benefits of the internet to enhance productivity and satisfaction. Hence, the call for Online Dispute Resolution mechanism in resolving disputes among litigants becomes imperative. There is therefore the need to utilize the availability of the internet to ease the mechanism of dispute resolution in Nigeria. Court-based litigation as the means of dispute resolution in Nigeria has outlived its importance to litigants and the entire justice system in Nigeria. Several criticisms have been made against the practice of court-based litigation and it has been viewed as time consuming, expensive, technical and unduly cumbersome.[2] These often lead to frustrating experience of litigants, thereby making some litigants resort to self-help or other illegal means to get justice.[3] Delayed justice is believed to be denied justice and people no longer have confidence in the justice system of the country. It is on this premise that this paper recommends a shift from cour- based dispute resolution to online dispute resolution in Nigeria.

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[1] Author *omidoyinjoshua@gmail.com 08102325554*

[2] The Law Teacher, 'The Disadvantages of Litigation' available at www.thelawteacher.net accessed 19th October, 2016

[3] The Law Teacher, 'The Disadvantages of Litigation' available at www.thelawteacher.net accessed 19th October, 2016

The recent commercial, social, industrial and economic advancement in the world today have given rise to higher disputes in the human race. These disputes are likely to arise from different human transactions including economic activities, family relationships, community and neighboring activities and other social relationships, international activities, religions activities and other civil activities.[1] Hence the need for an effective means of dispute resolution is very necessary and essential. Online Dispute Resolution is recommended as an effective means of dispute resolution and has gained popularity in resolving e-commerce disputes among businesses and consumers especially in developed countries of the world. It is believed that it has far-reaching advantages over the traditional litigation system. It is a genre of dispute resolution which uses technology to facilitate the resolution of disputes between parties. It primarily involves negotiation, mediation or arbitration, or a combination of all three. In this respect, it is often seen as being the online equivalent of alternative dispute resolution (ADR).[2] The European Commission described Online Dispute Resolution as a web-based platform developed with the objective of helping consumers and traders resolve their contractual disputes about online purchases of goods and services out-of-court at a low cost in a simple and fast way.[3] It allows consumers to submit their disputes online for consideration and resolution.[4] On a wider sense, Online Dispute Resolution (ODR) uses alternative dispute resolution processes to resolve a claim or dispute. Online Dispute Resolution can be used for disputes arising from an online, e-commerce transaction, or disputes arising from an issue not involving the internet, called an "offline" dispute. Online Dispute Resolution is an alternative to the traditional legal process, which usually involves a court or judge to decide the dispute.[5]

Parties to Online Dispute Resolution may use the internet and web-based technology in a variety of ways.[6] Some of the methods involved in Online Dispute Resolution are email, videoconferencing and so on. The parties can also meet in person or "off-line" and sometimes both "online" and "off-line" methods can be combined. Several terms and acronyms have been used to describe the field of Online Dispute Resolution especially because of the confusion often felt by those unfamiliar with the new field of adjudication. These terms include: Internet Dispute Resolution (iDR), Electronic Dispute Resolution (eDR), Electronic ADR (eADR), Online ADR (oADR) and so on, however Online Dispute Resolution (ODR) has emerged as the most used term in recent years.

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[1] Orojo J. O. &Ajomo M. A. (1999) *Law and Practice of Arbitration and Conciliation in Nigeria*, Lagos, Mbeyi& Associates (Nig.) Limited, p1

[2] Adetola-Kazeem A, 'Expanding ADR through Online Dispute Resolution' available at http://thenationonlineng.net/expanding-adr-online-dispute-resolution/ accessed 5th October, 2016

[3] European Commission, 'Alternative and Online Dispute Resolution (ADR/ODR)' available http://ec.europa.eu/consumers/solving_consumer_disputes/non-judicial_redress/adr-odr/index_en.htmaccessed 5th October, 2016

[4] ibid

[5] ABA Task Force on Electronic Commerce and Alternative Dispute Resolution Task Force Draft March, 2002

[6] ibid

Methodology
The research is basically a doctrinal study which adopts a desk-based approach on the analysis of the use of internet in resolving legal disputes among litigants in Nigeria. Sources relied upon in this research will be drawn from legislations, cases, government reports, books, journals, newspapers, magazines, relevant unpublished works that may exist on the subject matter and relevant electronic sources, such as websites, social media reports and so on. The research seeks to answer questions like how effective has litigation as a means of dispute resolution in Nigeria been? What are the pitfalls and criticisms against litigation? What is Online Dispute Resolution system? What are the benefits of this new trend of dispute resolutions? How can Online Dispute Resolution system cure the pitfalls of court-based litigation system of dispute resolution? The research is therefore of immense relevance in the field of law and dispute resolution in Nigeria.

Findings
The findings of the research revealed among others, that Online Dispute Resolution is a veritable tool that will bring stability, simplicity and prompt dispute resolution in Nigeria. The research identified some advantages of Online Dispute Resolution which include:

Cost saving benefit – this is so because Online Dispute Resolution is often less expensive than the traditional court-based process. An online platform on which disputes will be resolved would have been created, litigants are just expected to discuss their claims and defences on the platform and find an amicable way of settlement. One benefit of mediation over the Internet is that it can provide substantial savings when compared with traditional litigation which can be extremely costly.[1] In fact, cyber-mediation may be the only feasible option for individuals who are unable to afford traveling long distances, or for those involved in e-commerce disputes for low dollar amounts.[2]The attorney's fees being perhaps the greatest expense in traditional litigation, or even sometimes traditional mediation, parties may be able to save a lot of money in cyber-mediation, where hiring an attorney is often unnecessary.[3]

A key advantage of resolving disputes through the use of cyber-mediation is that it avoids the issue of whether a particular court has jurisdiction over the dispute.[4] Since disputants can bind themselves to resolution through an agreement, jurisdictional issues can be avoided altogether.[5]

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[1]George H. Friedman, (1997) 'Alternative Dispute Resolution and Emerging Online Technologies: Challenges and Opportunities' 19 *Hastings Comm. &Ent. L.J.* 695, 712. 54
[2]Robin M. Kennedy, and Jon Michael Gibbs (2002) 'Frontiers of Law: The Internet and Cyberspace: Cyber-mediation communications Medium Massaging the Message' 32 N.M.L. REV. 27, 42
[3]Lan Q. Hang (2001) 'Online Dispute Resolution Systems: The Future of Cyberspace Law' 41 *SANTA CLARA L. REV.* 837, 855
[4]WebMediate, Welcome to the Dispute Resolution Revolution, at http://www.webmediate.com/intro.html accessed 15th May, 2015
[5]Ryan Baker, WebMediate, Inc. submission to the Department of Commerce and Federal Trade Commission Joint Workshop on Alternative Dispute Resolution for Online Consumer Transactions, available at http://www.ftc.gov/bcp/altdisresolution/comments accessed 15th May, 2015

Efficiency is also an attributed advantage of Online Dispute Resolution because the entire process entails a paperless internet system devoid of common human errors as obtainable in the court-based resolution process. Parties using Online Dispute Resolution also have the advantage of active participation and control over the resolution process because the resolution will be heavily reliant on the discussions and interactions of the parties to arrive at an amicable resolution.

The research further finds out that Online Dispute Resolution mechanism will help parties maintain privacy of their dispute resolution process unlike the court-based system that is conducted in open court and generally accessible to the entire public. It is also a system that is more flexible than the traditional legal process. Another major advantage of Online Dispute Resolution is its geographic flexibility. Online Dispute Resolution will allow parties in different locations or countries resolve their disputes with less cost and without the inconveniences of travel.

Conclusion

This research reveals that litigation which has been the age-long method of dispute resolution in Nigeria requires an urgent alternative, and the recommended alternative is Online Dispute Resolution. The research further analysed that it is important for potential litigants and their solicitors to explore the potentials of the internet and maximize it to achieve amicable and timeous resolution of their disputes. The research further recommends that the option of Online Dispute Resolution mechanism should be explored rather than over dependence on the court system as the sole means to resolving disputes. This will bring about decongestion in the court system, increase the number of disputes settled and improve litigants' satisfaction with the manner and outcome in which their disputes are resolved. The research therefore recommends that there is need to have a functional legal regime for the practice of Online Dispute Resolution in Nigeria.

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SCIENCE STUDENTS' COMPETENCY AND GENDER AS DETERMINANTS OF SOCIO-ECONOMIC DEVELOPMENT

Oniya T. and Ojo O. F.[1]
Department of Science Education, Faculty of Education, Ekiti State University, Ado- Ekiti

Abstract
The study was carried out to determine whether science students' competency and gender have influence on socio-economic development. 2 null hypotheses were generated and tested at 0.05 level of significance. The study employed the descriptive research design of the survey type. The population consisted of 10,680 Senior Secondary School students in Ekiti State and the sample of 130 Senior Secondary School students in Ekiti State were selected from 4 Senior Secondary Schools using stratified and purposeful random sampling technique. The Instrument used to collect data was questionnaire on Science Students' Socio- economic Development (SSSED). The data generated were subjected to inferential analysis using Pearson Product Moment Correlation. Results of the study showed that there was a significant influence of science students' competency on socio-economic development, There was also no significant influence of gender on socio-economic development. Based on the findings of this study, the following recommendations were made: Science Students should be allowed to make use of knowledge derived for socio-economic development, science students should be encouraged and there should be no gender bias in socio-economic development of the Nation.

Keywords: Science students, Competency, Socio-economic, Development

Introduction

Learning becomes more realistic and permanent when practical activities are involved. This is a general thought and perception about science learning at all levels of education. Science is concerned with finding out about things in our environment. It is the intellectual and practical activity, a systematic study of the structure and behavior of the physical and national world. The process skills of science deal with observation, measurement, influence, classification, production and communication. The teaching of science thus places greater emphases on the process skills acquisition than learning of scientific facts (National Teacher Institutes, 2011).

The role Science can play in national development cannot be over emphasized. The significance of science and technology for sustainable national development is obvious and not in doubt. One of the fundamental issues in Nigeria today is the determination of how effective science is, at all the levels of education.

[1] Author Oniyatoluwa, ojooluwatoyin80@gmail.com

Science, being an activity-based subject, needs practical activities regularly for the ultimate achievement and attainment of the goals of science and science education as outlined clearly in the National Policy on Education (FGN, 2014). Technology employs knowledge, skills and tools to improve human potentials, to solve practical problems and to modify our environment. Technology is therefore concerned with the application of science to obtain practical solution to the myriad of human problems (National Teacher Institutes, 2011).

Science has developed into one of the greatest and most influential fields of human endeavor. Today, different branches of science investigate almost everything that can be observed or detected and science as a whole, shape the way we understand the universe, planet, ourselves and other living things (Ogunleye&Adepeju, 2011). Science has become an integral part of human culture. Countries that ignore this significant truism are risking the potential aspiration of their future generation. It is therefore worthy to note that the development of any nation depends, to a large extent, on the level of scientific education of her citizens.

Throughout the world, national education policies are geared towards creating generally scientific literate citizens. Specifically, the National Policy on Education of Nigeria clearly stated in its aims and objectives that the learner would be given opportunity to acquire basic practical skills for self-reliance and employment (Federal Government of Nigeria, 2004). In realization of this laudable objective, practical activities in science should be an integral part of the teaching and learning of science in secondary schools because it proffers first-hand knowledge of science concepts (Okeke, 2008). The study on clarification and analysis of gender concepts described the male's attributes as bold, aggressive, tactful, economical use of words while females are fearful, timid .gentle, dull, submissive and thankful. May be that is the reason Dmoh (2003) in the study on a theoretical analysis of the effect of gender and human resources development affirms that more difficult works are usually reserved for male while the female are considered feminine in a natural settings. Thus in schools, male are more likely to take difficult subject areas such that entails practical activities like Physics while female take to career that will not conflict with marriage chances. Responsibilities and motherhood (Okeke, 2008)

Gender role differentiations are also encouraged in pictorial illustrations in textbooks which usually portray male as doctors, lawyers, engineers, professors while females are seen as nurses, cooks, mothers, e.t.c This creates mental pictures in the mind of the readers of the role expectation from the society (Umo, 2003 and Babajide, 2010).

Purpose of the study

The purpose of the study was to determine the influence that science students' competency and gender have influence on socio-economic development.

Research Questions

In the cause of this research work, the following questions were raised:

1. Is there any significant influence of science students' competency on socio-economic development?
2. Is there any significant influence of gender on socio-economic development?

Research Hypotheses

1. There is no significant influence of science students' competency on socio-economic development
2. There is no significant influence of gender on socio-economic development

Research Design

The study employed the descriptive research design of the survey type. This was on the basis that no treatment was given and no manipulation was carried out on the data collected. The data used were not newly created nor manipulated but described..

Population

The population consisted of 10,680 Junior Secondary School Students in Ekiti State.

Simple and Sampling Technique

The sample for the study comprised of 130 Junior Secondary School Students in Ekiti State. Four Local Government Areas were chosen with simple random sampling technique and four schools were purposively selected on the ground of gender balance.

Research Instrument

The instrument used in this study was a questionnaire tagged "Science Students' Socio-economic Development (SSSED)". It comprises of two sections: Section 'A' contains Bio-data information and section 'B' contains 25 items.

Validity of the **Instrument**

Face and content validity of the instrument were ensured. The instrument was validated by experts in Science Education and Test, Measurement and Evaluation. All their corrections were properly incorporated into the instrument before use.

Reliability of the Instrument

Test retest method was used to ensure the reliability of the instrument. The instrument was administered on 20 JSS I students outside the sample chosen for the study. Data collated was analyzed and a reliability coefficient of 0.81 was obtained. This proves the consistency of the instrument.

Data Analysis

The postulated hypotheses were subjected to inferential statistics using Pearson Product Moment Correlation at 0.05 level of significance.

Results and Discussion

HO: There is no significant influence of science students'' competency on socio-economic development

Table 1: Pearson Product Moment Correlation of science students'' competency influence on socio- economic development.

Variables	N	Mean	SD	df	r-eal	r-tab
Science Students'	130	53.46	13.78	128	0.64	0.195
Socio-economic	130	32.13	4.69			

P<0.05

Table 1 reveals that r-calculated (0.64) is greater than r- table (0.195) at 0.05 level of significance. This means the result is significant. Hence, the null hypothesis is rejected. Then, there is significant influence of science students' competency on socio-economic development

$H0_2$: There is no significant influence of gender on socio-economic development

Table 2: Shows the Pearson Product Moment Correlation of male and female in socio-economic development.

Variables	N	Mean	SD	df	r-eal	r-tab
Male	65	31.215	4.98	128	0.014	0.195
Female	65	15.66	3.84			

P>0.05

Table 2 shows that r-calculated (0.014) is less than r-table (0.195) at 0.05 level of significance i.e. the result is not significant. Hence, the null hypothesis was not rejected .Therefore; gender has no influence on socio-economic development.

Discussion

Science students need to be trained in order to boost their competency so as to be able to manipulate their environments towards the development of their society. This is in conformity with the claim that science is the act of developing an individual to raise the economic, technology and social standards of life of the community (Ajayi, 2014). According to Neikon (2008), Science is concerned with the behavior of matter which is applicable to all areas of human life. This is also in conformity with Usman (2000) who stressed that practical work in science helps students to develop their psychomotor and other skills which will stabilise their competency in order to contribute greatly to the development of their society.

Okeke (2008) in the study on clarification and analysis of gender concepts described the male's attributes as bold, aggressive, tactful, economical use of words while females are fearful, timid, gentle, dull, submissive and thankful. May be that is the reason Umoh (2003) in the study on a theoretical analysis of the effects of gender and human resources development affirms that more difficult works are usually reserved for male while the female are considered feminine in a natural settings. Thus in schools, males are more likely to take difficult subject areas such that entail practical activities like Physics while females take to career that will not conflict with marriage chances (Okeke, 2008).

Conclusion

Results of the study showed that the students' competency has influence on socio-economic development. It was also revealed that gender has influence on socio-economic development.

Recommendations

Based on the findings of this study, the following recommendations are made: Science Students should be allowed to make use of knowledge derived for socio-economic development, science students should be encouraged and there should be no gender bias in socio-economic development of the Nation.

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SELF-RATED HEALTH STATUS AND HEALTH-SEEKING BEHAVIOUR OF PUBLIC SCHOOL ADMINISTRATORS IN EKITI STATE, NIGERIA

Ajoke Olukemi Awosusi and Johnson Adetunji Olanipekun[1]

Department of Human Kinetics and Health Education, Faculty of Education, Ekiti State University, Ado-Ekiti

Abstract

The study assessed the self-rated health status and health seeking behaviour of public school administrators in Ekiti State, Nigeria and as well found the relationship between health seeking behaviour and self-rated health status. Descriptive research design of the survey type was used to conduct the study. A sample of 426 school administrators was selected through multistage sampling technique involving simple random and stratified sampling techniques. A self-designed structured questionnaire was used to elicit information from the respondents. The validity of the instrument was ensured while Cronbach's Alpha was used to determine the reliability with a coefficient of 0.71. Copies of the questionnaire were administered to the participants with the aid of three research assistants. Descriptive statistics was used to answer the research questions while inferential statistics of Pearson Product Moment Correlation co-efficient and t-test were used to test the formulated hypotheses. Majority of the participants rated excellent health status despite the fact that 32.9% claimed that they couldn't perform physical activities because of their health status and 35.2% claimed that their health status interferes with normal social activities. A significant relationship was not found between self-rated health status and health seeking behaviour while there was no significant difference in the health seeking behaviour and self-rated health status between those living in rural and urban locations. It was recommended that health educators should organize educative programme on the importance of seeking physical exercises and modern health services. The government should upgrade and equip the school health services.

Keywords: Health, health status, self-rated, health seeking behaviour, location.

Introduction

Self-rated health (SRH) status (otherwise known as perceived) or self-assessed health status is self-judgement of the level or standard of the general condition of one's body or mind in terms of the presence or absence of illness or injury (Alawode and Lawal, 2014). It is also described as a situation of determining one's health status in a widely used measure based on a person's self-assessment of his/her status in response to the question **(**Bora and Saikia 2015) identified as a good predictor of adverse health mortality (Idler and Benyamini, 1997Ushie, et al, (2009)) noted that there is a dearth of studies on self-rated health in Africa.

The population's health status depends on a plurality of factors which interact with each other and influence each individual (Vescovi, Mengarelli and Franchini, 2011). Some health related

[1] Author ajokeawosusi@yahoo.com +2348030707463

factors such as health history, life habit, and stress or work strain have been found to be closely associated with objective health rating (Wu, Wang, Zhao and Ma, 2013). Poor self-rated health has been found to have close association with unemployment, marital status, low income, low social support, use of social health services, needing help in activities of daily living, and being bothered by emotional problems (Amstadter et. al., 2010).

The self-rated health question has been found to be a reliable measurement of general health since respondents rated the same general health assessment within a period where their health was unlikely to change (Olle and Manderbacka, 1996). SRH is widely used as a convenient and generally reliable indicator of individual health and has been used to assess the health status of populations as well as predict health outcome, survival, impending morbidity and death (Idler and Benyamini, 1997). Various studies have revealed diverse ratings of one's health ranging from excellent to poor health status. Olusile, Adeniyi and Orebanjo (2014) discovered that 21.2% of the participants in a study rated their oral health status as very good and 37.1% as good while Morris (2011) found 74% rating their health status as excellent. A person's understanding of his or her health may negate the appraisal of medical experts. For instance, Nabofa and Oniomovigho (2014) discovered that 93.2% of teachers in a study self-rated excellent and good health status yet most of them reported being limited health-wise in daily physical performance of their daily tasks. In another study, 63% reported excellent health yet 26% were on treatment while 62% were buying over the counter drugs to manage different ailments (Waweru, et al., 2003). A similar study where one-third of the respondents evaluated their health as unsatisfactory and noted significant limitations as well as reported problems (Manuti, Rizza, Pilegi, Bianco, and Pavia, 2013) may not negate the appraisal of medical experts. The observed differences in self-rating of one's health could be linked to culture or religion. For instance, some religious teachings tilt towards claiming to be healthy despite ailment while fear that the health condition could worsen if the sick confesses the truth may make people claim continually to be in excellent health even when they know that they are sick.

Gender difference in self-rated health status has attracted attention of researchers given the knowledge that it is a predictor of adverse health (Ejechi, 2015). The difference in health status of male and female could be determined by biological make up, behavioural and social lifestyles. In countries where men and women live more similar lives and behave more similarly, one would expect them to have more similar health outcomes (Cimmins, Kims and Sole-Auro, 2016). Many studies have reported that women report worse self-rated health statusthough they tend to live longer than men. Women from different age groups have been found to report systematically poorer self-rated health status than men (Bora and Saikia, 2015). However, some studies did not find any significant gender difference in self-rated health status between male and female (Cramm & Nieboer, 2011)

The array of ailments in the community makes good health-seeking behaviour vital for the survival of mankind. Health-seeking behaviour is the activity undertaken by someone who perceives a health problem for the purpose of finding appropriate solution (Afolabi, Daropale, Irinloye and Adegoke, 2013). The perceived health status is a significant predictor of health-seeking behaviour. Abdulraheem (2007) opined that the nature of self-rated heatlh and illness were the most pervasive determinants of health-seeking behaviour. The consciousness on how to remain healthy as well as who to consult when health problem is perceived is known as health-seeking behaviour. Individuals differ in their choices of treatment options to their health problems because the choice of treatment could be determined by the perception of their health status, community and ideas. Attitudes toward health and illness also provide ideological basis for the utilization of health care services (Iyalomhe and Iyalomhe, 2012).

Many factors may be associated with health-seeking behaviour. For instance, people tend to seek for health if however they meet themselves in an unhealthy situation of disorder, disability and non-functioning of the body (Omotoso, 2010). Once a person perceives a sickness, it is expected that such individual seeks medical advice and cooperate with the experts on the appropriate choice of management. For instance, Women have a worse perception of their own health. Based on this, women are more likely than men to adopt preventative health behaviours, such as routine annual visits to a physician for a check-up (Bora and Saikia, 2015). Findings have shown that people delay in seeking medical treatment ((Tanimola, Akande and Owoyemi, 2009). Aside gender, location could also determine health-seeking behaviour. Bourne (2010) did not a statistical difference between health-seeking behaviour and area of residence. This finding may negate the finding of Zhang (2011) that found poor health-seeking behaviour among inter provincial migrants and a good heath seeking behaviour among intra provincial migrants.

The practice of good health-seeking behaviour is important among school administrators because they are saddled with the enormous administrative activities in the school. The task requires such individual to be healthy. School Administrators are responsible for the effective functioning of the learning process. Their duties include supervision of both staff and students in the school environment. The duties also include administrative work that is becoming more complex daily as well as accountability to parents of students and government. Thus the onus rests on health personnel to find out the practice of the lifestyles or habit that may impede their health such as not patronizing qualified medical doctors, self-medication, using of local herbs in place of prescribed drugs among others. Nabofa and Oniomovigho (2014) reported that when the job condition of a worker is not conducive, such worker could develop serious stress which could lead to debilitating illness.

Many studies have examined self-rated health status among rural dwellers, elderly, patients and students but on reviewing literature, no study was found relating self-rated health status with health-seeking behaviour. This study assessed the self-rated health status, determined the perception of school administrators about their health and determined the health seeking behaviour of school administrators. It also finds the difference between rural and urban dwellers in the health-seeking behaviour and self-rated health status as well as relates self-rated health status and health-seeking behaviour.

Research Methods

Descriptive research survey design was adopted for the study. The target population for the survey comprised of all the head teachers in public primary and secondary schools in Ekiti State. The sample consisted of 426 school administrators selected through multi-stage sampling techniques. Stratified sampling was used in classifying the towns to urban and rural as well as the schools to primary and secondary schools. Simple random sampling was used in selecting towns and schools from the strata. Head teachers and the assistants were purposefully selected in the sampled schools. Astructured questionnaire adapted from SF-36 health survey was used to collect information from the respondents. The questionnaire was divided into three sections namely sections A, B and C. The validity of the instrument was ensured while Cronbach's Alpha was used to determine to reliability with a coefficient of 0.71.

Findings

Recording and analysis of data were done using SPSS statistical software version 18.0.

Table 1: Frequency and Percentage of male and female self-rated health status

Self-Rated Health Status Sex		**Very Good**	**Good**	**Fair**	**Poor**	**Very Poor**	**Total**
Male		51	100	34	9	5	205
		11.9	23.5	8.0	2.1	1.2	48.1
Female	*f*	74	73	49	20	11	221
	%	17.4	17.1	11.5	4.7	2.6	51.9
Total	*f*	125	173	83	29	16	426
	%	29.3	40.6	19.5	6.8	3.8	100

The most noticeable finding in Table 1 is the presence of similarities between male and female in assessing their health status. It reveals that 29.3% of the respondents evaluated their health to be very good 40.6% reported a good health status. Only 6.8% and 3.8% declared poor and very poor health status respectively.

Table 2: Frequency and percentage of self-rated limitations attributable to health status

Self-rated limitation:		SA	A	D	SD
I do avoid hard physical exercise or games because	*f*	23	117	141	145
of my health	%	5.4	27.5	33.1	34.0
My health affects my finance	*f*	36	114	139	137
	%	8.5	26.8	32.6	32.2
I seem to get sick a little easier than other people	*f*	18	28	136	244
	%	4.2	6.6	31.9	57.3
Ill health sometimes prevent me from going to the office	*f*	23	80	146	177
	%	5.4	18.8	34.3	41.5
My health interferes with normal social activities	*f*	17	55	96	258
	%	4.0	12.9	22.5	60.6
I am currently on regular medication for an illness such as	*f*	82	131	106	107
diabetes, cardiovascular disease or arthritis	%	19.2	30.8	24.9	25.1

Table 2 shows that a sum of 213(50%) of the respondents claimed that are currently on medication for an illness such as diabetes, cardiovascular disease or arthritis. Also, 156 (35.3%) of the respondent claimed that their health interfere with normal social activities and 140 (32.9%) perceived that they do avoid physical exercise or games because of their health. I seem to get sick a little easier than other people has the least responses of 46 (10.8%) is revealed.

Table 3: Frequency and percentage of health-seeking behaviour of respondents

How do you seek for wellness?		SA	A	D	SD
I visit Doctor's clinic for treatment	*f*	45	80	84	217
	%	10.6	18.8	19.7	50.9
I buy un prescribed drugs from the pharmacy shop/medicine vendor	*f*	46	97	126	157
	%	10.8	22.8	29.6	36.9
I consult local herbal drugs to modern drugs	*f*	24	35	232	135
	%	5.6	8.2	54.5	31.7
I always claim my healing through faith when sick	*f*	65	81	91	189
	%	15.3	19.0	21.4	44.4
I do not visit the hospital for medical check-up	*f*	54	66	168	138
	%	12.7	15.5	39.4	32.4
I visit healing/deliverance spiritual centres	*f*	44	99	119	164
	%	10.3	23.2	27.9	38.5

Table 3 reports the health-seeking behaviour of respondents. It shows that 146 (34.3%) of the respondents claimed healing through faith when sick which topped the list. This was followed by 143(23.6%) of the respondents who patronize healing/spiritual homes or buy drugs from pharmacy/medicine provider.

Table 4: t-test showing the differences between rural and urban dwellers in the self-rated heath status and health-seeking behaviour

Variable	**Location**	**N**	**X**	**SD**	**Df**	**t**	**Sig.**	**Decision**
Self-rated health	Urban	191	12.87	3.40	424	1.79		NS
status	Rural	235	13.44	3.11			0.075	
Health-seeking	Urban	191	14.27	2.68	424	0.82	0.85	NS
Behaviour	Rural	235	14.22	3.05				

Table 4 shows the results of location and health-seeking behaviour as well as self-rated health status. The obtained t-value (df=424; t=1.79; p>0.05) shows that there is no significant difference between rural and urban dwellers and self-rated health status. Also, significant difference was not established between rural and urban dwellers on health-seeking behaviour (df=424; t=0.82; P>0.05). The stated hypothesis is not rejected. By implication, it means that there is no significant difference in the self-rated health status and health-seeking behaviour between school administrators in rural and urban location.

Table 5: Pearson Product Moment correlation of self-rated health status and health-seeking behaviour of school administrators

Variable	**N**	**Mean**	**Std. Deviation**	**r**	**P**	**Decision**
Self-rated health status	426	13.1854	3.24757	0.82	0.91	NS
Health-seeking behaviour	426	14.2324	2.88851			

Table 5 shows the Pearson Product Moment Correlation between self-rated health status and health-seeking behaviour of school administrators. The findings (N=426, r=0.82, S=0.91) shows that the significant value is greater than 0.05 set for the study. Therefore, the stated hypothesis that there is a significant relationship between self-rated health status and health-seeking behaviour is not rejected.

Discussion

The findings showed that over two third (69.9%) of the school administrators rated their health to be very good or good. This negates Olusile, Adeniyi and Orebanjo (2014) and Bora and Saikia (2015) where only21.2% and 30% reported excellent and good health status respectively. The finding agreed with Saigal et al (1996) where over 80% claimed excellent and good health status. The findings in this study also showed that 10.2% of the respondents self-rated poor or very poor health status. The findings of 22.3% recorded by Amsadter et al (2010) is higher than the 10.2% discovered in this study while Nabofa and Oniomovigho (2014) recorded a lower figure of 1.1%.

The findings showed that more than fifty percent of the respondents were on medication while ill health affects the income of over thirty percent. The findings concurred with Nabofa and Oniomovigho (2014) where seventy-five percent of the respondents claimed excellent and good health, despite the self-rating, fifty-two percent of the respondents claimed to be limited in their daily physical activity performance capabilities. On the other hand, the findings in this study disagreed with Manuti et al. (2013) where majority evaluated their health as unsatisfactory and noted significant limitations as well as reported problems.

On health-seeking behaviour, claiming of healing and health through faith topped the list with thirty-four percent responses. This was closely followed by patronizing healing or deliverance spiritual centres with thirty-three percent. The argument of the outcome of the study could be linked to some religious teachings where claiming to be healthy despite ailment is taught or cultural inclination that health condition could worsen if the sick confesses the truth as evil people could echo the ailment and thus resulting into complications may hinder owing up. Thus, the self-rated health status discovered in this study could help to substantiate the understanding that self-rated health status may negate the appraisal of medical experts. Other health seeking behaviours reported revealed that almost thirty percent of the respondents will not go to the hospital for medical check-up. The figure though, lower than the findings of Abdulraheem (2007) where more than two third (68.8%) of respondents had never visited health facilities in the last one year even for ordinary medical check-up showed that the health seeking behaviour seems to be poor. The fact remains that to live a healthy and productive life, it is expected that anyone whose age is above forty years should visit the hospital for medical check-up to discover any chronic disease in time and nib same in the bud.

The significant difference that was not established between rural and urban dwellers on self-rated health status and health seeking behaviour concurs with Bourne (2010) where a statistical difference did not exist between health-seeking behaviour and area of residence. Finally, absence of significant relationship between self-rated health status and health seeking behaviour could not substantiate the findings of Meng, Xie and Zhang (2014) where disease status and health-seeking behaviour were the most powerful predictors of self-rated health status.

Conclusion

Based on the findings, it was concluded that school administrators overrated their health status vis-à-vis the limitations their health imposed on them. Notwithstanding, one could deduce that the health status is moderate. The health seeking behaviour seems to be poor considering the fact that over thirty percent do not visit doctors or clinics for treatment and claiming that healing through faith has more responses than going for medical check-up. In ensuring national development the health of teachers and administrators should be ensured. It is trite fact that only healthy people can be productive. Therefore it is when teachers are healthy that they can contribute maximally to national development.

Recommendations

It is recommended that health educators should organise educative programmes on the importance of good health-seeking behaviours. Government should encourage the administrators to patronise modern health care. The government can also make regular medical check-up compulsory. Government should upgrade the school health services to be able to meet the needs of the busy school executives.

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SOCIO-ECONOMIC STATUS AS CORRELATES OF REPRODUCTIVE HEALTH SERVICES AMONG UNMARRIED SEX WORKERS IN THREE STATES OF SOUTH WESTERN NIGERIA

Osakinle Eunice Olufunmilayo[1], Alao Dokun David[1] and Ejikeme Theresa Uchechi[2]

[1]Department of Guidance and Counselling, Faculty of Education, Ekiti State University, Ado-Ekiti.

[2]Department of Educational Foundations, Faculty of Education, University of Jos.

Abstract

The study investigated socio-economic status as correlates of reproductive health services among unmarried sex workers in three States of South Western Nigeria. Descriptive research design of the survey type was employed and used. The population of the study was all unmarried sex workers in the three states. A total of 696 respondents were randomly selected using multistage sampling technique. A self-designed instrument titled "Sexual Behaviour Questionnaire" (SBQ) was used. The validity of the instrument was ascertained and the reliability of the instrument was ensured through the use of test-re-test method. The generated hypothesis was tested using Pearson Product Moment Correlation analysis. The result showed a significant relationship between socio-economic status and unmarried sex workers utilization. Based on the findings, it was recommended that all concerned organizations should provide jobs for unmarried adolescents generally and that first hand information should be provided for them to reduce the rate of harmful sexual behaviour. Things that will benefit unmarried adolescents in the area of sexual and reproductive health should be incorporated into the curriculum in order to enhance good living among them.

Keywords: Unmarried Adolescents, Harmful Sexual Behaviour, Sex Workers.

Introduction

Commercial sex is basically sex for money. It is not restricted to any culture, it is global and it transcends all age barriers as in some cases girls as young as eight years are involved and it has evolved over the last two decades, (National Behaviour Survey, 2004). Commercial sex has particularly taken a worrisome and indeed despicable turn on the continent through trafficking in persons and violation of people's human righst and these have become major issues in West Africa (Human Right Action, 1997). In recent time, commercial sex has become a lucrative business in Nigeria especially among the adolescents (Ikpe, 2008).

According to John and Ken (2005), commercial sex work has gained prominence and it is practiced across the globe even though some nations condemn the act in totality.Even though the sex industry has divergent legal status, its practices is from time to time

[1] Author alaodokun@yahoo.com

[2] Author theresaejikeme@yahoo.com

referred to as the world oldest profession with estimated generation of over $100 billion worldwide. Based on the extent to which this business is contributing to the socio-economic well-being of those involved, it may be difficult for them to see the act as a social evil. Christian and Moslem faiths appear to be the only group that condemns the act in totality.

Onah (2000) affirms that sex work has now become an occupation especially for the girls in countries like Nigeria. Despite all efforts made by the government and other organizations to exterminate sex work in south western Nigeria, it appears to have become the outstanding social problems that have really apprehended the people. Despite the fact that many unmarried adolescents practice commercial sex works, they appear not knowing where to get timely and adequate reproductive health services either as a result of poor socio-economic status or lack of interest. It is on this backdrop that, this study attempts to find a possible relationship that may exists between socio-economic status and the use of reproductive health services by commercial sex workers in three southwestern states of Nigeria.

Young people in Nigeria appear to be at risk of a broad range of health problems. Sexual and reproductive health behaviours seem to be the main causes of death, disability and diseases among young people. They appear to be at particular risk of unwanted pregnancy and pregnancy related complications, STIs and HIV/AIDS. Other significant problems may include physical and psychological trauma resulting from sexual abuse, gender-based violence and other forms of physical violence and accidents. Unmarried commercial sex workers seem to be vulnerable to these problems because of the rate at which they venture into sex with multiple partners; engage in alcohol and drug abuse, have limited awareness of STI prevention, lack of interest in skills to negotiate safer sex and have poor health-seeking behaviour.

The combination of income, occupation and education is often used to measure the socio-economic status (SES) of an individual. It is usually conceptualized as the class or social standing of an individual. It is mostly emphasized through power, privilege and control. In addition, socio-economic status brings to the public notice the inequities in access to as well as distribution of resources. SES appears to affect overall human performance, including physical and mental health. Variance in socio-economic status affects everyone but women seem to be overrepresented among those living in poverty. As the ones mostly responsible for raising children and at the rate at which single motherhood is increasing, it becomes very important to look at the socio-economic standing of women as it is of great importance to the well-being of future generations, especially among the unmarried commercial sex workers. A number of studies revealed that access and use of health information could influence adolescents' attitudes toward reproductive health practices. Odujinrin and Akinkuade (1991) examined adolescents' knowledge of AIDS, their attitudes, beliefs and preventive measures adopted by them. The study affirmed that accurate information could lead to attitude change and behaviour modification.

There has been considerable concern in many countries about the sexual and reproductive health of young people, in part because of their perceived increased vulnerability to the risk of sexually transmitted infections (STIs), including Acquired Immune Deficiency Syndrome (AIDS) (Scommegna, 1996), the potential risks to their health due to early pregnancy and the negative consequences of early and non-marital childbearing to young people's life prospects. Public concern over the reproductive health problems among Nigerian youth has drawn the attention of researchers, non-governmental organizations (NGOs) and policy makers to examining the driving force behind the upsurge in adolescent sexual activity. For instance, Isiugo-Abanihe (1994) has shown that more than 38 % of female adolescents in Nigeria, age 15 to 24 years, had initiated sexual activity in 1990, with a mean age of sexual debut less than 17 years. Despite the near universal adult and policy makers' discomfort with the subject, consensus has begun to build in Nigeria that young people need expanded information, skills, and services with respect to sexual and reproductive health.

The overall health and development of the youth are shaped by many factors of which health programming is only one; these factors range from the social, economic, cultural and political conditions of the wider society, to those that characterize the living situation of an individual adolescent, including the family situation with respect to education, and income levels. Interest in the health of adolescents has grown, particularly in sub-Saharan Africa countries that are characterized by economic environments of endemic poverty. The downturn in Nigeria's economy over the last two decades, associated with increased unemployment, retrenchment of workers and reduction in family income, has adversely affected living standards, as parental resources have become inadequate to meet the various needs of household members, especially those of adolescents and young people. As a result, many families had to withdraw children from schools, giving rise to early entry into the informal labour force and increased contribution by children to family income through various means.

Mass poverty during this period and people's subsequent adjustment activity aggravated several adolescents' antisocial behaviour, particularly indiscriminate and clandestine social involvement. Female adolescents had to contend with the allurement of financial gratification and sexual overtures by relatively richer peers and adults. Consequently, poverty or the need to survive became the driving force and motivation behind the sexual activity of adolescent girls (Isiugo-Abanihe and Uche, 1993). Indeed, evidence from many developing countries suggests that poorer women are more likely to have non-regular partners and that condom use with non-regular partners is significantly lower among poorer women.

Consequently, this business appears to have suffered several hazards such as societal condemnation, sexual infection, unwanted pregnancies and abortion, lack of prospects in the job especially at old age and high risk of insecurity to lives and property. These have threatened the fortunes of the business on one hand, the moral value on the society, the personal lives and integrity of the women on the other hand. Thus, it has posed series of challenges to the society, women folk and the citizenry in general.

Therefore, this research shall explore the various issues and challenges to the sex industry.

Research Rational

Sexual activity among young people is not always with consent and this exposes them to greater risks. Thus, adolescents are more vulnerable to rape, harassment, sexual exploitation, physical and verbal abuse because they are less able to prevent or stop such incidence. Providing reproductive health information and services to adolescents would very likely improve their sexual health.

Unmarried commercial sex workers appear to lack knowledge of available preventive reproductive health services. One of the greatest challenges facing commercial sex workers is lack of sufficient understanding of the reproductive health services that can provide needed and timely reproductive health information. Also the lack of specific adolescents' reproductive health services poses a big challenge to adolescents when trying to access and utilize reproductive health services. Similarly, it was observed that majority of the commercial sex workers are engaging in such act as a result of poor family background, lack of gainful employment and inability to meet daily needs. In addition to this, lack of apposite forum for sharing sexual and reproductive health concerns also contributes to the menace.

Methodology

The study made use of descriptive research design of the survey type. The population includes all the commercial sex workers in Lagos, Oyo and Ekiti States. 696 respondents were selected from the three states using multistage sampling technique. The states were selected using purposive sampling technique. This was done because of the population of commercial sex workers and nearness of the States to the researcher. Purposive sampling technique was also used to select 3 Local Government Areas from Lagos State, 2 Local Government Areas from Oyo State and 1 Local Government Area from Ekiti State. This was done in order to choose the Local Governments that are having higher concentration of commercial sex workers. Stratified sampling technique was used to select unmarried sex workers based on educational level, income level, location, etc. A self-designed instrument titled "Unmarried Adolescent's and Reproductive Health Service Questionnaire" (UARHSQ) was used for gathering data. Section A provided bio-data information. Section B contained items that give a measure of the socio-economic status of sex workers and how they influence reproductive health service utilization in the 3 States. The validity of the instrument was ensured by subjecting it to experts in the Department of Guidance and Counselling, Human Kinetics and Test, Measurement and Evaluation. The instrument reliability was ensured using test-re-test method. This was done by administering copies of the instrument on 40 respondents from another State that was not part of the States chosen. Two weeks after the first administration, copies of the instrument were re-administered. Pearson Product Moment Correlation Analysis was used to correlate the scores from the two administrations. A reliability coefficient of 0.82 was obtained and found significant at 0.05 level of significance. The instruments were administered by the researchers and trained assistants. Inferential statistics of correlation analysis was used to test the hypothesis generated.

Findings

Hypothesis: There is no significant relationship between socio-economic status of unmarried commercial sex workers and their utilization of reproductive health services in Ekiti State.

In order to test the hypothesis, scores on socio-economic status and unmarried sex workers utilization of reproductive health services were computed and subjected to Pearson Product Moment Correlation Analysis at 0.05 level of significance. The result is presented in Table 1.

Table 1: Pearson Product Moment Correlation Showing the Relationship between Socio-Economic Status and Unmarried Commercial Sex Workers utilization of Reproductive Health Services

Variables	N	Mean	S.D	r_{cal}	r_{tab}
Socio-economic status	696	8.95	1.609	0.392*	0.195
Reproductive health services	696	9.48	1.619		

P<0.05

Table 1 presents that r_{cal} (0.392) is greater than r_{tab} (0.195) at 0.05 level of significance. The null hypothesis is rejected. This implies that there is significant relationship between socio-economic status and unmarried commercial sex workers utilization of reproductive health services.

Discussion

The result shows a significant relationship between socio-economic status and unmarried commercial sex workers utilization of reproductive health services. The socio-economic status plays an important role in the reproductive health services utilization by unmarried commercial sex workers. Socio-economic status, as measured by parents' income, parents' occupational status or parents' educational attainment, is associated with many measures of utilization of reproductive health services by unmarried commercial sex workers. Socio-economic status influences the utilization of reproductive health services by unmarried commercial sex workers by circumscribing social and educational opportunities, limiting access to reproductive health services, and shaping health behaviours. Family instability, income and change in income are related to the risk of premarital birth, unwanted pregnancy and risky sexual behaviours. This work supports the study by Hayward, Grady and Billy (1992) who found that higher socio-economic status, as measured by parental education, has also been associated with a decreased probability of adolescent pregnancy. This also supports the findings of Schoepf (1994) who found that as a result of poor socio-economic status, many unmarried adolescents have shifted their attention to 'sugar-daddy' syndrome, whereby schoolgirls enter into sexual relationships with older, wealthy men in order to get assistance with school related expenses or the purchase of material goods. Also, Otengwo (2002) observed that many ladies turn to prostitution just for the sake of purchasing power and they have unaccountable ways of seducing those they perceive as rich people, meaning that most of the ladies today do not believe in the philosophy of hard-work but rather prefer selling themselves instead of working to get what they want. The downturn in Nigeria's economy with increased unemployment, retrenchment of workers and reduction in family income, has adversely affected living standards, as parental resources have become inadequate to meet the various needs of household members, especially those of unmarried adolescents. From the result, many of the unmarried sex workers are sponsoring themselves and also supporting their family without any gainful employment.

Conclusion

It was therefore concluded that socio-economic status of unmarried commercial sex workers in Lagos, Oyo and Ekiti States greatly influence their involvement in sex work and at the same time influence their utilization of reproductive health services. They are making use of both male and female condoms in large numbers, but they appear not aware of reproductive health information needed to live a good and purposeful life. There is significant relationship between socio-economic status and unmarried sex workers utilization of reproductive health services.

Recommendations

Based on the findings of this study, it is recommended that all concerned organizations should provide jobs for unmarried adolescents generally and that first hand information should be provided for them to reduce the rate of harmful sexual behaviour. Things that will benefit unmarried adolescents in the area of sexual and reproductive health should be incorporated into the curriculum in order to enhance good living among them. For improved access to sexual and reproductive health services for unmarried adolescents, governments, humanitarian organizations and development agencies need to urgently address adolescents' sexual and reproductive health from the onset of an emergency through protracted crisis and recovery.

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SOCIAL PERCEPTION AND PREFERENCE FOR CAESAREAN SECTION (CS) DELIVERY AMONG URBAN WOMEN OF OYO STATE, NIGERIA

[1]Oluwadare, C. T., Abiodun, O. C., Ijabadeniyi, O. and Ibikunle, M. A.
Department of Sociology, Ekiti State University, Ado Ekiti, Nigeria

Abstract:
Objectives: This study examined social perception and preferences of Caesarean section as a form of medical technology among urban women of Oyo State. Specifically the study was undertaken among ANC and OPD attendees in selected hospitals located in Ibadan, the State capital.
Methods: Exit interviews using Questionnaire schedule were adopted to elicit information from women with at least a live-child but who volunteered to be part of the study. Overall, one hundred and fifty (150) questionnaires were successfully administered and analyzed for the study. Purposive sampling procedure using snowball method was used to contact the respondents in selected public hospitals and clinics.
Findings: The result of the findings showed that most of the respondents are married with mean age of 36 years, literate above secondary school and the mean number of children ever had was three which corresponds to mean number of live births and number of deliveries. Most women have heard about CS. However, 13 percent of the respondents have experienced CS. Though, 38 percent acknowledged that CS is dangerous to the baby and the mother, 80 percent of the women would encourage it if recommended by medical doctor. Also, most of the respondents acknowledged that CS has biological/medical effects on women. Overall, antenatal care (ANC) and adherence to medical advice are the measures recommended by the respondents to improve safe delivery while improved health infrastructure is recommended for safe CS operation. In conclusion, the women in this study of Oyo State agreed that CS is a good remedy to save the mother and child as recommended by medical doctors but it must be made safe by the medical system.

Keywords: Caesarean section, emergency obstetric care, child delivery, maternal death

Introduction

Caesarean Section serves as a salvage surgical procedure facilitating rapid delivery of the fetus when prolongation of the pregnancy is deemed undesirable. Caesarean delivery could be performed as an elective procedure when there is a predictable risk to the mother or fetus during labor or in the presence of an identifiable indication for the procedure. The procedure is however undertaken as an emergency when a complication of pregnancy or labor warrants quick intervention to deliver the fetus (Nwobodo, Isah and Panti 2011; Jaiyesimi and Ojo, 2003). The rate of Caesarean sections has been on the increase in maternity centers across the world, largely due to a shift in emphasis from the method and technique of delivery to a greater concern about perinatal outcome following delivery. The incidence of Caesarean section

[1] Author taiwo.oluwadare@eksu.edu.ng, +234 8033976565

globally ranges from less than 10% (in Africa) to above 30% (in South America) and about 25 percent in China. In Nigeria, the rate of CS is one of the least percentages while Africa is less than ten percent (Gibbons L., Belizán, J. M. Lauer, J.A. Betrán, A.P. Merialdi, M and Althabe, F., 2010). The problems of CS notwithstanding, it serves as an alternative to vaginal delivery and emergency obstetric procedure to save both the mother and the fetus. It is noteworthy that significant percentages of mortalities are recorded from CS deliveries worldwide. In developed nations, CS is often preferred to vaginal delivery by most women, but the reverse is the case in Africa. However, physicians prioritize Caesarean Section over vaginal delivery due to its convenience and quick handling. WHO (1985) recognizing the attendant frivolity of prescribed CS advocated for a threshold of CS rates across nations, stating, "There is no justification for any region to have CS rates higher than 10-15%". This paper therefore examined the perception and preferences of women in the face of increasing prioritization of the same technology by medics in Nigeria.

Research Methods

This research was founded to answer two basic questions; what is the pattern of women's perception towards Caesarean section in urban Oyo State? And what are the factors that determine preference for Caesarean section among women in Oyo state? In order to situate the path of the research on very robust conceptual framework, Theory of Planned Behavior was chosen as guide to the research since this theory adequately captured all the themes of perception and preference especially for C-Section. Decisions around C-Section have been found from literature to be influenced at personal, interpersonal and public policy or institutional levels which the theory of planned behavior adequately encapsulates. This theory equally acknowledges that there could be other factors affecting preferences and attitude that would be outside the control of the individual. A given case is the emergency obstetric service of CS. The outcome of such decision can be either positive (survival) or negative (mortality). This theory is aligned to Social Cognition theory which was primarily expounded in Bandura (1977) and Alzen (2012).

Research Design: This study is descriptive using the sample survey design. The focus was on women with at least an experience of child birth in a typically urban population. Therefore, the study area was Ibadan, the capital city of Oyo State with two local government areas of Ibadan North and Ibadan North West randomly selected among the existing eleven LGAs in Ibadan as the State capital. The city was reputed to be the third largest city in Africa and the most populated town in West Africa (Oketoki 1998) with a population of about three million people. The personal interview schedule was used to elicit information from the respondents and the sampling procedure was the multi-stage purposive with exit interview and snowball strategies. In all 150 women with at least a live-birth were contacted. This number is about one percent of the projected 17,262 population of the households in the area (NPC 2006). SPSS Analysis of the administered interview schedule was done using simple frequency and multi-regression statistics of the effect of socio-economic variables on the experience of CS.

Findings

Social Characteristics of Respondents

Most of the respondents are within the 20 and 45 years of age and the mean age is 36 years. About 13 percent are above 49 years of age while only four respondents are less than 20 years of age. This pattern is not unusual since respondents were purposively contacted based on live-birth experience. Also 88 percent of the respondents are in stable marital unions while about seven percent are separated from respective spouses and seven respondents are either divorced or widowed. Religious affiliation of the respondents shows that about 73 percent are Christians, twenty four percent Muslims. About 90 percent of the respondents, that is, overwhelming majority is of Yoruba (native) ethnic group while the Igbo and Hausa ethnic groups constitute six and one percent respectively. The level of education of the respondents shows that about 89 percent of the women have minimum of secondary school education while about ten percent have less than ten years of education. Related to this is the pattern of economic activity by the respondents. About half of the respondents are engaged in trading, business and small holding activities. Less than ten percent are into farming while about 20 percent could not ascertain a particular occupation. Related demographic characteristics show that the range of number of children ever had is one and six; while the mean is three children and ten percent have more than four children.

Experience and preference of Caesarean Section: About 85 percent have heard of CS procedure mostly through antenatal meetings, while 13 percent of the respondents have experienced the method of child delivery. Majority of 91 percent preferred normal (vaginal) delivery. Reasons for negative disposition to CS delivery are cost of the procedure, ignorance of the procedure by the people and religious beliefs. From a multiple regression statistics to predict experience of CS across age, religion, educational status, occupation and number of live births of women, it was revealed that educational status of women has the highest positive relationship with experience of CS followed by age and occupation respectively. But religion and number of live births have no predictable relationship. Figure 1 below shows that the attitude is negative towards CS though respondents affirm they will encourage it if prescribed and to be undertaken by medical doctor(s). Also, 75 percent of respondents believe less educated and poor households will resist CS when prescribed. Religion to 67 percent of the respondents does not have much influence in preference for CS.

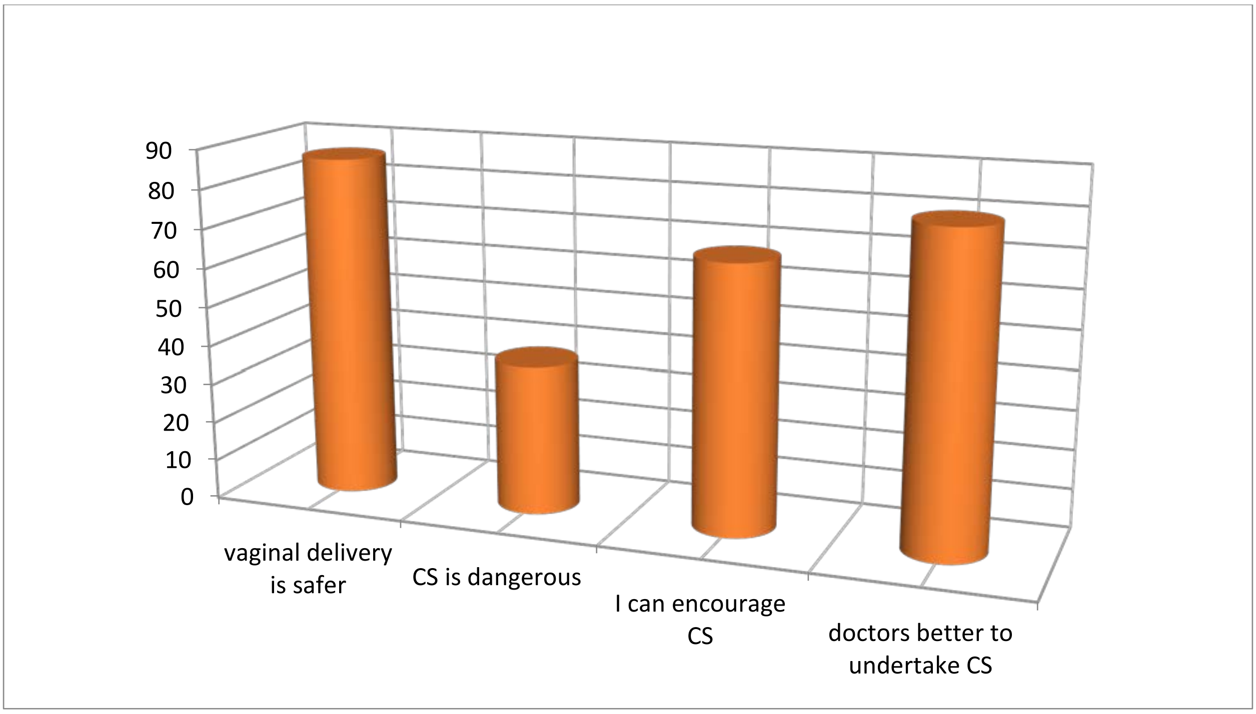

Figure 1: Attitudes towards CS

What to do to improve CS operation: Further enquiry about boosting the acceptance of CS as alternative to normal delivery reveals respondents' opinion on this as shown in Table 1 below. About 41 percent of respondents hinged on improved health care infrastructure especially skilled personnel and medical equipment while about 35 percent of the respondents emphasized on adequate medical counseling, enlightenment and education for reproductive women towards safe delivery and CS as alternative. 12 percent advocated for prompt response to emergency obstetric service and 12 percent recommended free or subsidized CS operations. From the Table it could be deduced that the perceived quality of health care in terms of skilled medical manpower and infrastructure about maternal health care will encourage people to approve of CS when recommended while cost of the service is not the most important factor since CS is mostly prescribed to save life and when life is involved, money or affordability takes secondary seat. The primary concern is the safety of the mother and of the baby. The second important suggestion is equally related to quality of care, which is health communication between medical care providers and the mothers or pregnant women. This will be from the start of antenatal to delivery point and undertaken by skilled and complementary medical and health personnel.

Table 1: Respondents' Suggested ways of improving CS service

S/N	Response	Frequency	Percentage
1	Funding and improved healthcare services	62	41.3
2	Medical counseling and enlightenment	52	34.7
3	Response to and supervision of (CS) Operation	18	12.0
4	Reduced cost of CS	18	12.0
	Total	**150**	**100.0**

Conclusion

The respondents in this study show appreciable awareness of CS as a form of child delivery and about 13 percent of them have experienced it. The prevalence percentage is still within the acceptable WHO threshold though to be guided according to Gibbons, Belizan and Lauer, et al. (2012) due to associated risk. Also respondents did not prefer CS due to the dangers involved. Given the increasing uptake of CS and also the associated mortalities of both the baby and mother especially in EOC situations in poor the health infrastructure environment of Nigeria, the major recommendations of this study are for governments at both federal and state levels to assure of quality maternal and obstetric care services.

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SOLID WASTES RECYCLING: A PANACEA TO SUSTAINABLE SOCIO-ECONOMIC DEVELOPMENT IN ADO-EKITI, NIGERIA.

[1]Adegboyega, E. R. and Owolabi J.T

Department of Geography and Planning Science, Ekiti State University, Ado-Ekiti

Abstract

This study is an assessment of the nature and problems of solid wastes removal by miscreants and scavengers in Ado-Ekiti. Ado-Ekiti being a medium-sized state capital should be well sustainable in its entire ramification. Having understood that Sustainable environment is the one that meets the present needs of the people without jeopardizing the future needs. Such environment comprises of places void of cankerworms such as poverty, pollution, municipal solid wastes that eat up its beauty and leave it with carcass. The study aims at turning the solid wastes into wealth through entrepreneurial schemes so as to transform this empirical research into commercial venture in Ekiti State. The method used for this work is through the primary data source. Forty questionnaires were drawn through selective random sampling on the people removing these solid wastes from the dump sites. The data analysis was done using both descriptive and inferential statistics. It was discovered that the majority of the solid wastes removers earn their livings through this act by picking materials that could be recycled only. It was concluded that solid wastes removal is an instance of sustainable development in Nigeria of today. Consequent upon this, we therefore recommend that solid wastes should be turned to wealth making to serve as panacea to sustainable socio-economic development in Ekiti State.

Keywords: Solid waste, recycling, entrepreneurship, socio-economic development and sustainable environment.

Introduction:

Solid wastes generation, disposal and management is a global phenomenon and could be dated back to the ancient times. The primary purpose of managing it is to address the beauty of an environment and the health status of the people. Waste disposal constitutes menaces to the environment. It continues to grow and the authorities in developing countries are increasingly becoming unable to manage wastes due to urbanization (Aina and Salau 1994). FEPA (1993) and Okecha (2000) described solid wastes as unwanted materials , substances that are left or discarded materials after use that are no longer useful to the owner or in essence, as materials that have failed to fulfill their purposes, including by-products of process lines or materials that may be required to be disposed off by law. Solid waste is classified in a number of ways on the basis of sources, environmental risks, utility and physical property. On the basis of sources which is commonly used and classified thus: municipal, industrial, agricultural, mining, construction, household, demolition, healthcare, human and animal wastes (Omofunnwan and Eseigbe, 2009).

[1] Author adeolurotimi1@yahoo.com 08065237048; 08033862439

Adewole (2009) and Bassey et al, (2006) observed that municipal solid waste has been one of the environmental menaces apparently seen in our streets, compound and environment due to the uncoordinated system of disposal that allows it to block the roads and drainages, cause flooding, pollute the land, water and air. The consequential impact is health challenges which may eventually lead to death and loss of lives. Waste or solid waste is described as generation of undesirable substances which is left after they have been used once. It could be seen as useless and discarded things by the society

The United Nations Summit (1992) and Adebayo (2001) realized that wastes are bad and unavoidable and thus emphasized on the paradigm shift that we must reduce waste and prevent them in our society. Just as the types of wastes are changing with time likewise, the attitude of people towards wastes must change. People must realize that the solution to waste management lies in using waste as resources rather than seeing it as a menace in the society. For instance, some people inadvertently had been yielding to this idea of paradigm shift by removing the wastes disposed on dumpsites and use them as resources in the present day economy due to joblessness, poverty and hunger that is affecting them in their locality. Scavengers who had been in existence in cities like Lagos, Kaduna and Portharcourt have in recent times been witnessed in Ado-Ekiti, a medium-sized state capital of Ekiti State, and such needs to be properly looked into for bettering the lot of the city and its inhabitants.

Constance (2004) cited factors responsible for the increase in the relative size of wastes removed by scavengers in Latin America and emphasized such on the basis of unemployment due to global economic recession, and the uses of these wastes through recycling to develop those developed areas. Similarly, we must realize it is high time we went back to using waste as a resource for socio-economic development rather than discarding it off in our environment.

1.0 Aims and Objectives

1.1 Aim: This paper aims at turning wastes to wealth through entrepreneurship schemes in Ado-Ekiti.

1.2 Objectives: The specific objectives are to:
i. investigate the nature of solid wastes generation in the study area.
ii. investigate the causes of the waste removal from the dumpsites by scavengers.
iii. examine the socio-economic impact of wastes removed by the scavengers.
iv. provide migratory option for the problem of waste removal through recycling and transformation of wastes to wealth in Ado-Ekiti.

1.3 Literature Review

The concept of poverty and strategy for its alleviation has been addressed in numerous studies by scholars. Few examples are Aina and Salau (1992) and Ike (1996) who argued that structural adjustment programmes by different governments have caused economic hardship and recession. They believe that investment in human capital is best and necessary equipment that will lead to development and subsequently address poverty. These ones stressed the importance of entrepreneurship as basic approach to economic growth and poverty reduction. This has made everybody especially the poor to look for direct income earning to be able to finance their needs and requirement as affected individuals, state and the nation in general. Bohnet (1994) and Odihi (1994) are of the view that the most effective strategy that should address directly are reduced economic recession, is best channeled through non-governmental organization, entrepreneurship skill, community participatory programmes and self-help programmes of which recycling of a solid waste is one.

Materials and Method

2.0 The Study Area

The study area for the research work is Ado-Ekiti, Ekiti State. Ado-Ekiti being one-town local government serves a dual purpose of being the State Capital and the Headquarters of Ado Local Government Area. Ado-Ekiti is located between latitudes 7^0 35'N and 7^0 50'N of the equator and longitude 5^0 11' E and 5^0 29' East respectively of the Greenwich Meridian. The total land mass of Ado-Ekiti is about 266 square kilometers. The city is about 46km from Akure, the Ondo State capital. The city is bounded in the north by Irepodun/Ifelodun Local Government Area, in the East by Gbonyin Local Government Area , in the south by Ise-Orun Local Government Area and in the south by Ekiti-South West Local Government Area respectively (Figs. 1and 2).

The population of Ado-Ekiti Local Government Area is 308,621 (NPC, 2006). And based on the 2.5% growth rate suggestion, the population estimate of the growing city will be 385,776 in 2016. The landscape and the topography of the city are hilly and mountainous with several elongated outcrops of igneous and metamorphic complexes and superficial deposit ridges. Extensive plain growing surfaces are also noted in the area. Ado-Ekiti falls within the tropical rainforest with two major seasons that is, rainy and dry seasons.

Map of Nigeria showing Ekiti State

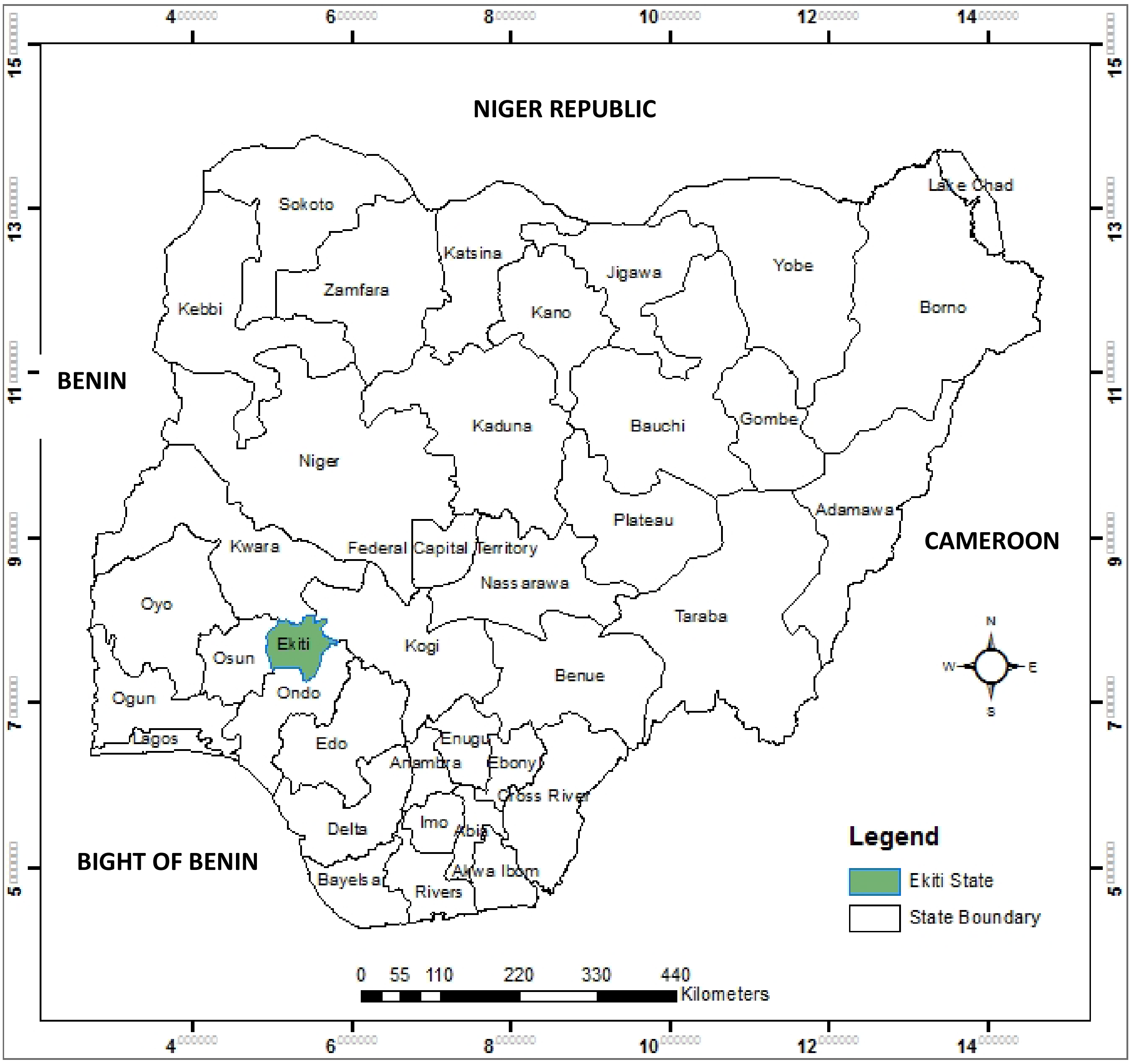

Figure 1: Map of Nigeria showing Ekiti State
Source: *Office of the Surveyor-General, Ekiti State, 2016.*

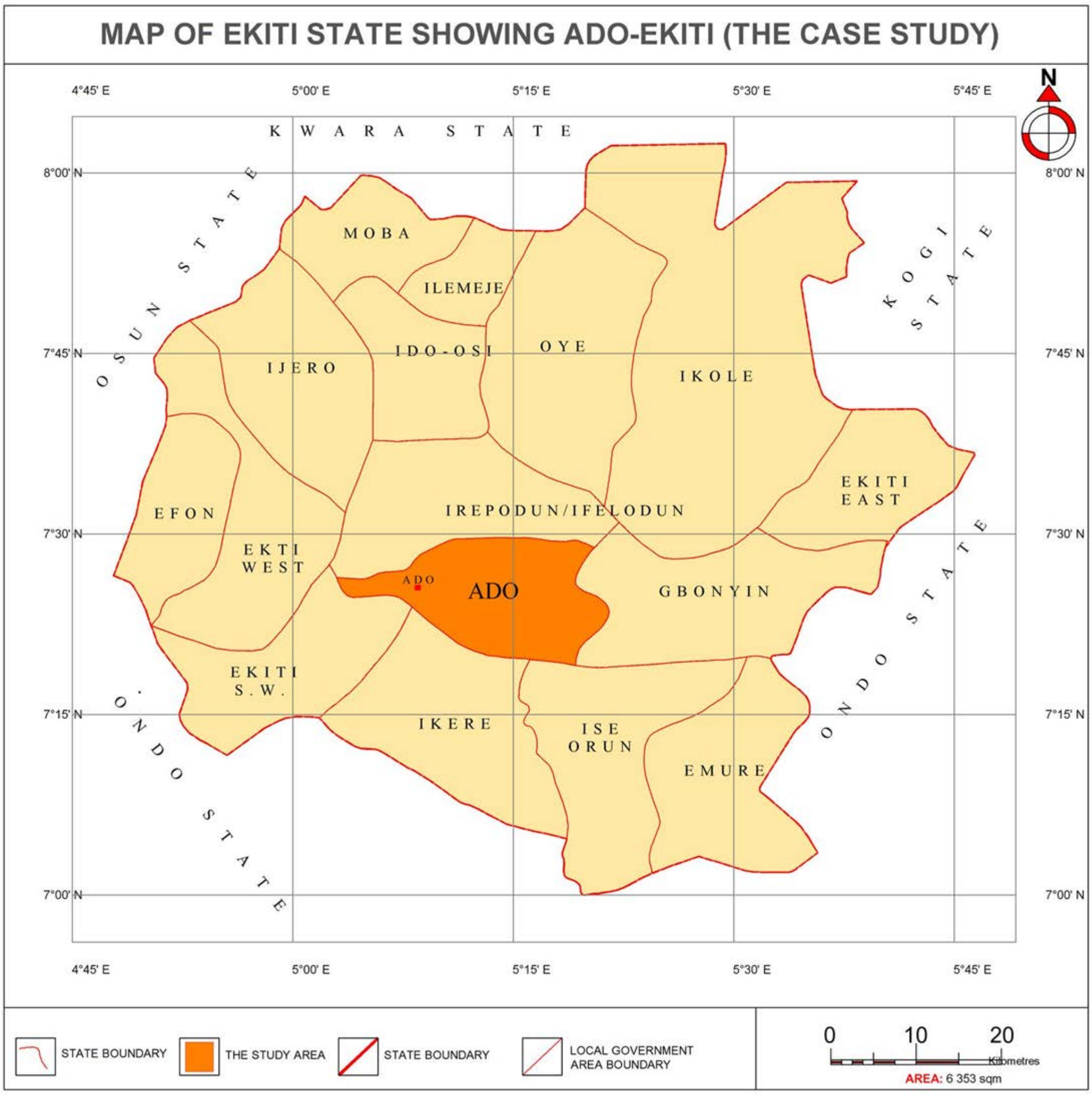

Fig. 2: *Map of Ekiti State Showing Ado Ekiti*
Source: *Office of Surveyor-General, Ekiti State, 2016.*

Methodology

2.1 Sources of data: Based on the stated objectives of this research, data pertaining to the nature of wastes generation, disposal and management were collected through primary source.

2.2 Primary source: Primary source was through survey, structured questionnaire and in-depth interview. An in-depth interview was done to solicit information from the scavengers who picked the waste materials from the kerb sites and dump sites in Ado-Ekiti.

2.3 Sampling size and procedure: Purposive random sampling technique was used for the administration of questionnaires from forty (40) respondents that is, the scavengers and the people living near the dump sites in six locations in Ado-Ekiti namely, Ekiti State University Teaching Hospital, Opopo-gbooro/Adebayo area, Similoluwa, NTA Road, Atikankan and Odo- Ado.

The indepth interview involved collection of information relating to why the scavengers were involved in removing some items from the dumpsites, the possible health challenges that could be encountered through such practice, the tribes found deeply involved in the practice, the educational level of the people involved and the relevance of the practice.

2.4 Results and Discussion

It is found that recycling of solid wastes is an activity that revolves around the human scavengers in local parlance who because of poverty and means of livelihood had taken to the practice of picking waste materials from the places where they are dumped to re-use it elsewhere. With the reconnaissance survey carried out, six sites were purposively selected to mark the area where those scavengers go to remove the solid wastes for onward transmission to the destination of their choice.

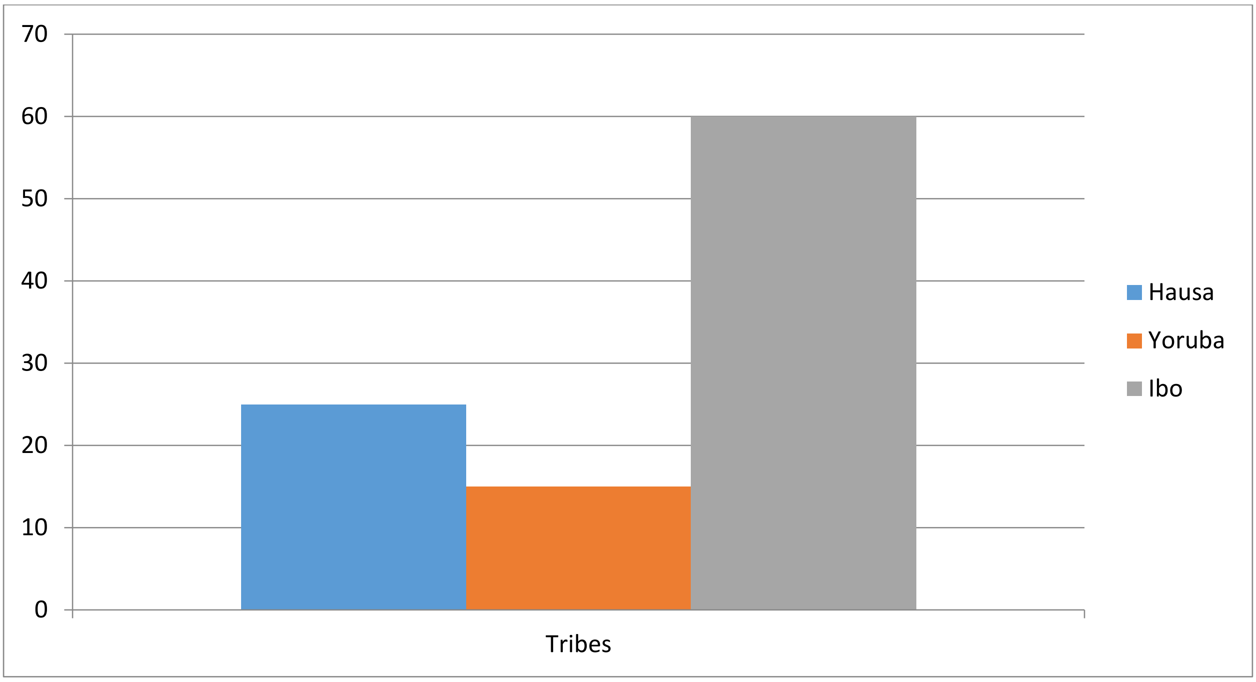

Fig 1: The Participating tribes involved in Scavenging.
Source: Authors' field survey, 2016

Fig. 1 reveals that 60% of the respondents are Ibos who came to scatter the wastes on the dumpsite and homes seeking for one material or the other especially, the metals, 25% of the respondents are Hausas and 15% of the respondents are Yorubas.

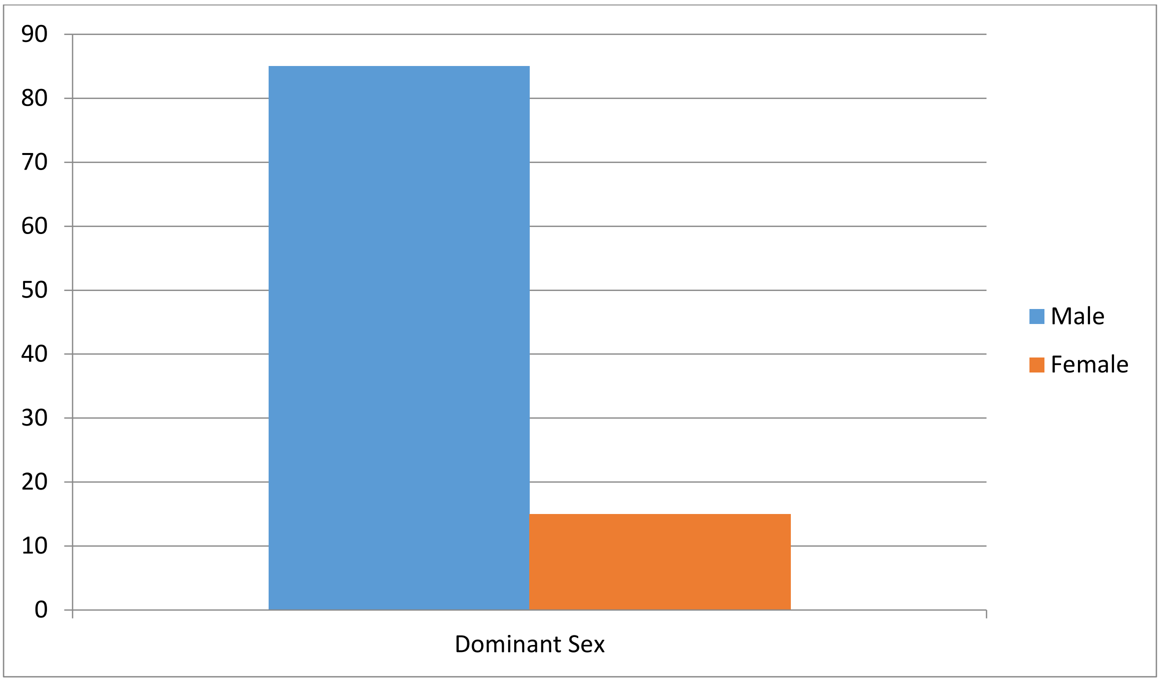

Fig. 2: The dominant sex
Source: Authors' field survey, 2016.

Fig. 2 shows that 85% of the respondents are males and 15% of the respondents are females. It implies that men folks are in the habit of scavenging on the wastes generated for re-use or re-supply as raw materials in other places as the demands surface.

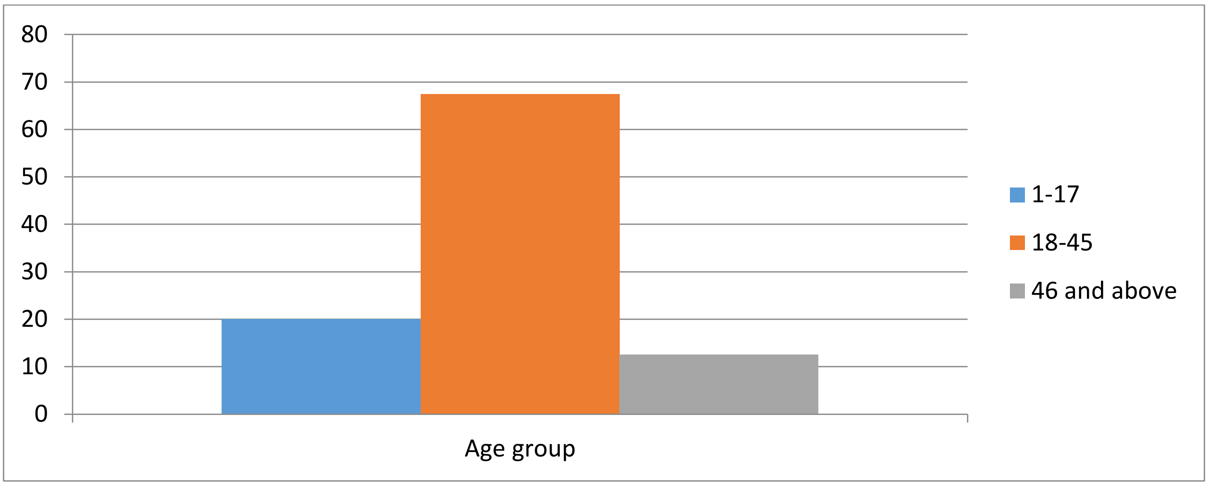

Fig. 3: The age group involved
Source: Author's field survey, 2016

Fig. 3 shows that the dominant age in this act is between (18-45) years which are the real working force. This finding is in consonance with Constance (2004) discovery in Latin America that men between the ages of 18 and 45 years have the socio-cultural attributes of scouting out to fend for their daily livings, while the children and women depend on their youth or working class for their daily bread.

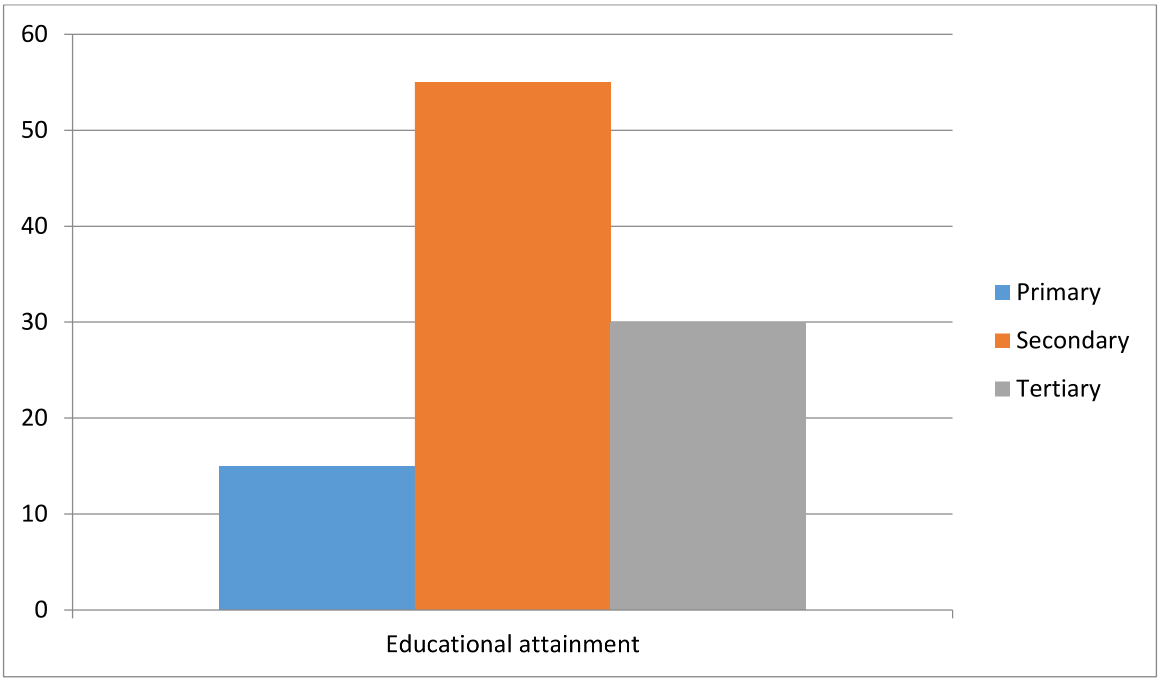

Fig. 4: Educational attainment of the respondents
Source: Authors' field survey, 2016

The population involved in scavenging work are summed up thus, 15% attained primary education while 55% of the respondents had secondary education and the remaining 30% had tertiary institution's experience.

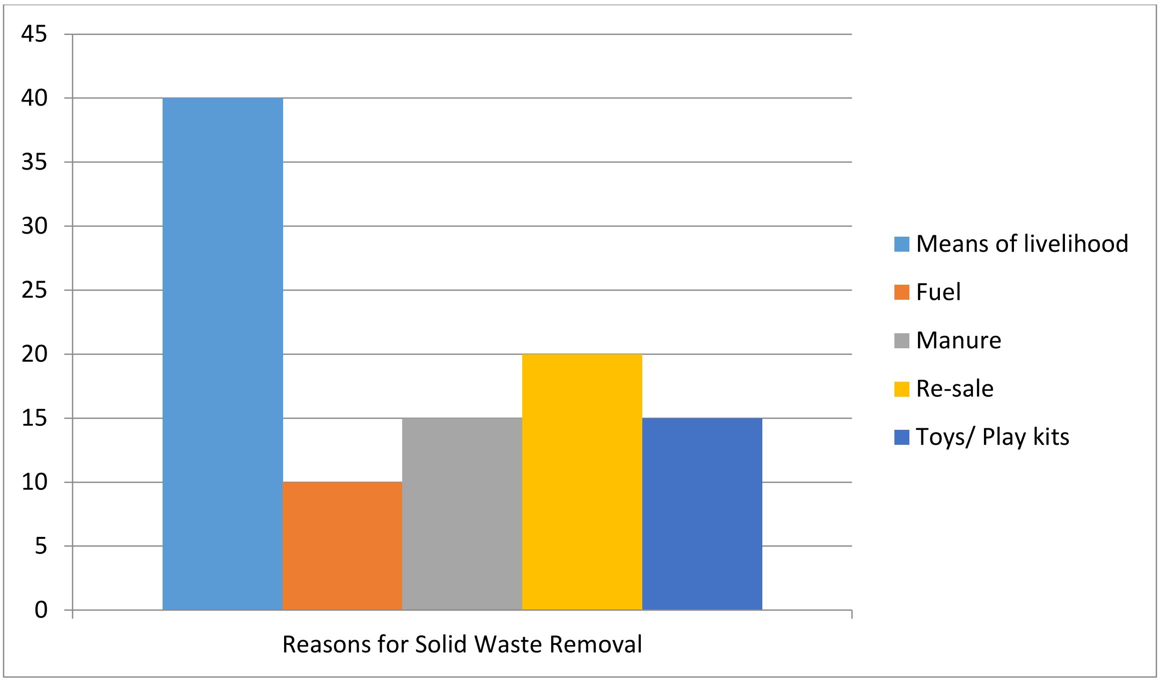

Fig. 5: Reasons for solid waste removal
Source: authors' field, 2016

Fig. 5 reveals that several reasons have been adduced for removing solid wastes from the dumpsites by the respondents. Majority of the respondents (40%) remove solid wastes as a means of livelihood, this is in tandem with submission of Agbesola (2013) who placed a particular advantage on wastes generation and disposal methods when he remarked that, 'to waste wastes is to waste wealth,' therefore, the youth among them cited joblessness as the reason and the need to keep the body and soul together. 20% of the respondents gathered them together and re-sell them to factories and neighboring towns for their up keeping and at ridiculous prices. While 15% of the respondents go to the dumpsite heaps to scoop manure (humus soil) which they use in their gardens as organic manure for urban agriculture, gardening and horticulture.

The younger ones whose ages are between five and eleven years old, removed solid wastes to supplement parental income in order to keep them occupied. It should be noted that two-fifth of the scavengers are migrants from far and near places in the country. They are Hausas, Igbos and partly Yorubas who are mainly from Osun and Oyo states.

Recycling of solid wastes is of necessity as the knowledge of it is low in Ado-Ekiti. Only few have the Knowledge of what is meant by it. Agbesola (2013) placed a particular advantage to wastes generation and disposal methods when he remarked that, 'to waste wastes is to waste wealth'. Therefore, recycling method helps in separating the piles of wastes of refuse in dumpsites especially in Urban centres (Ado-Ekiti) for instance. The minute people turn household waste such as papers to make tissue papers locally, some use cement papers mixed with other materials to make asbestors locally. The inorganic materials such as plastics, aluminium, metals, copper wire, bottles, zincs, cans, and broken plates, brass, broken iron and tins of paints from the laboratories and construction sites could be re-used once they are transported outside the local shore even though the cost of transportation them is costly.

Summary and Conclusion

In this study, a significant percentage of people are involved in turning waste to wealth. It is a help, self-help poverty reduction strategy that started few decades ago. At this juncture, the Ekiti State Government should establish a Recycling Plant in Ado-Ekiti where the wastes collected will be sorted out into the different portions such as biodegradable and non-biodegradable. The biodegradable ones can easily be transformed into manure which can as well be sold to farmers, and to serve as Internally Generated Revenue (IGR) for the Government while the non-biodegradable ones will be recycled and be sold out again instead of allowing it to be in the hands of scavengers who take them out of the state for their selfish interest. Recycling of wastes should not be relegated to society's social and economic fringe but should be given a proper support both by individuals and the society at large, it helps in sustainable development by creating job, reduces poverty, preventing pollution, conserve natural resources, supply low cost materials for industries and protect the environment.

Conclusively, recycling of wastes is an ad-hoc self induced arrangement, there is need for development of human capital that shall enable urban poor to be in control of their environment, give them access to the basic welfare and social amenities of life. By so doing, waste can be turned to wealth through entrepreneurship skill for all and sundry to enjoy in Ado-Ekiti and in Ekiti State general.

Recommendation

Based on the findings, the following are recommended.

1. Solid wastes removals should be incorporated into the formal sanitation system of the Health System
2. Micro Enterprises and Association should be encouraged among solid waste removers.
3. Provision of equipments like boots, gloves and other basic tools should be made to improve productivities of the solid wastes.
4. Recycling Waste Plant should be established in Ado-Ekiti so as to give room for job creation in the state. The Government of Ekiti State could do it in the form of Public Private Participation (PPP) for adequate supervision and effective monitoring.
5. Public awareness must be adequate on waste to 'wealth creation' so that some people could have interest and invest in the programme.

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SPATIAL ANALYSIS OF THE HEALTH IMPLICATIONS OF WATER POLLUTION IN ADO-EKITI

[1]Areola Modupe and Akintan Oluwakemi

Department of Geography and Planning Science, Ekiti State University

Abstract
Water abundance usually does not translate to its sufficient supply for various human uses; and even where available, it contains both dissolvable and non-dissolvable particulates. When water bodies become polluted, the quality is compromised, making them harmful to living organisms. This study investigates the water-use pattern of Ado-Ekiti residents vis-à-vis incidences of water-borne diseases. Evidences abound of anthropogenic water pollution in the area, which this study further confirmed revealing the fact that wastes are not properly disposed of. 202 residents were interviewed using structured questionnaire and the data thereby collected were analysed using descriptive and inferential statistics. Results revealed that the commonest means of domestic waste disposal was the government waste collection scheme (59.9%) known to be deposited in designated open spaces within the study area. Also, 63.9% of the respondents make use of sewage systems built on individual residential plots. These in turn are potential sources of water pollution, especially during the rainy season. Cases of major water-borne diseases reported among the respondents include cholera 15 (7.4%), typhoid 43 (21.3%) and dysentery 40 (19.8%), which are traceable to the intake of polluted water, directly or indirectly. Hospital records also further confirm the cases of such diseases in Ado-Ekiti between 2005 and 2015. The study therefore concludes that water pollution from open waste deposits and sewage leakages is a likely cause of ill-health in Ado-Ekiti. Cost effective water purification is recommended in the area to combat the health impacts of water pollution.

Keywords: Water Pollution, water-borne diseases, Health Impacts, Water Purification

Introduction
The scarcity of potable water is becoming one of the serious problems of the millennium. Water in itself is more than abundant – with about three-quarters of the planet water-covered. It is reported that the total amount of water on earth is stable at around 1.4 billion km^3, of which about 41,000 km^3 circulates through the hydrological cycle. The remaining is stored for long periods in the oceans, ice caps and aquifers (Acreman, 2004). Just one percent (1%) of this is available to humans as freshwater (Project Oceanography, 2000), the only source of potable water. This is obtained from surface waters and groundwater. As at the expiration of the Millennium Development Goals in 2015, reports showed water scarcity still affected 40 per cent of people in the world and is projected to increase.

[1] Author modupeareola@gmail.com; 08036272185

Water is a valued resource that is vital to the existence of all living organisms, but is increasingly being threatened as human populations grow and demand more water of high quality for domestic purposes and economic activities (United Nations Environment Programme Global Environment Monitoring System/Water Programme, 2008). The human body relies heavily on water. Every day each person needs twenty to fifty litres of water free from pollutants – harmful chemical and microbial contaminants, for drinking, cooking and hygiene (Corvalan, et al., 2005). Lack of safe drinking water affects more than a third of the people in the world (Schwarzenbach, Egli, Hofstetter, von Gunten, & Wehrli, 2010).

Harmful substances found in water bodies include toxic heavy metals (e.g. mercury, lead, cadmium) and metalloids, pesticides, organic toxins and radioactive contaminants; pathogens or chemical toxicants bio-accumulated toxic chemicals by aquatic organisms, including seafood and fish), among others (Mansour, (2012; Pirshtuk & Kuznetsova, (2014); Halder & Islam, (2015) and Schwarzenbach, Egli, Hofstetter, von Gunten, & Wehrli, (2010). These pollutants also include sediments from land erosion, organic wastes from industrial plants, municipal wastes,agricultural wastes, acid rain, oil spills and leakages.

At times, water pollution affects aquatic life first, and then the other organisms that feed on them and invariably humans who not only directly consume the polluted water but also feed on the contaminated aquatic organisms. Either through direct or indirect intake, many diseases have been traced to the intake of polluted water. These include cancer, birth defects, infertility and many water-borne diseases, such as diarrhoea, dysentery, typhoid fever, cholera, vomiting, nausea, headaches, gas, malaise, weight loss, hepatitis A and hepatitis E (Moorey, 2012). Okiki & Ivbijaro (2013) discovered that fever, chills, headache, weakness/muscle ache, skin rash, abdominal pain/cramps, diarrhoea, sneezing and coughing were significantly higher among residents that drank water from the well in Imota, Lagos State, than those that did not.

Methodology

This work therefore aims at evaluating the health implications of water pollution in Ado-Ekiti, with a view to working out practical remedies to them. The set objectives include establishing the presence and pervasiveness of water pollution in the area; identifying the common causes of water pollution and evaluating the effects of water pollution on human health. A review of literature was carried out to confirm the prevalence of water pollution. 202 residents were interviewed using structured questionnaire and the data thereby collected were analysed using descriptive and inferential statistics.

Findings

Literature study revealed localized anthropogenic contamination. Bacterial count and E-coli exceeding the WHO standard were found in the study area as well as other outlying settlements. This was traced to latrines and refuse dumpsites located close to hand-dug wells. A study of waste disposal methods adopted in the area confirmed this. From the 202 residents that were interviewed, the commonest means of domestic waste disposal was the government waste collection scheme (59.9%) known to be deposited in designated open spaces within the study area. Also, 63.9% of the respondents make use of sewage systems built on individual residential plots. These in turn are potential sources of water pollution of underground water, especially during the rainy season.

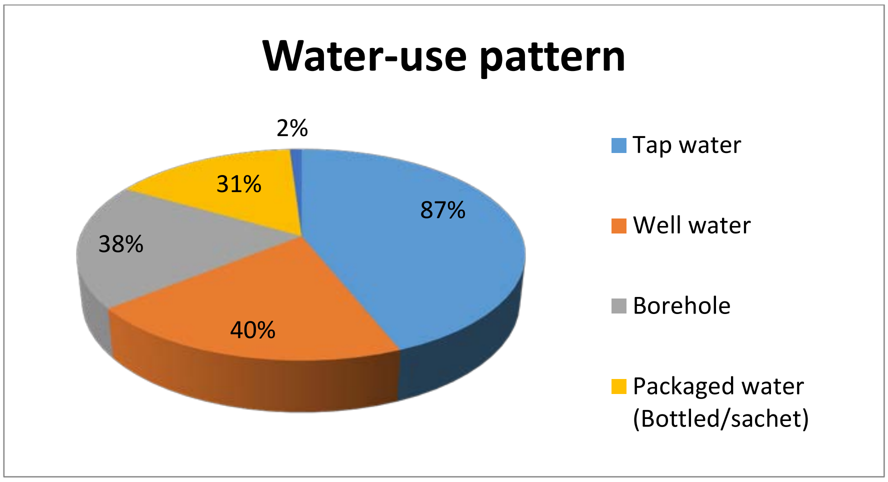

Figure 1: Water-use pattern of respondnets

The water-use pattern (Figure 1) showed that the people depend mostly on untreated borehole and well water. 43.1% of the respondents drink tap water, while 19.8% and 18.8% drink from wells and boreholes respectively. Only 15.3% drink packaged water (sachet or bottled). It is however common knowledge that what the residents regard as tap water is mostly underground water – well or borehole water pumped directly, without any treatment whatsoever, to houses or tanks where it is collected for drinking and other uses.

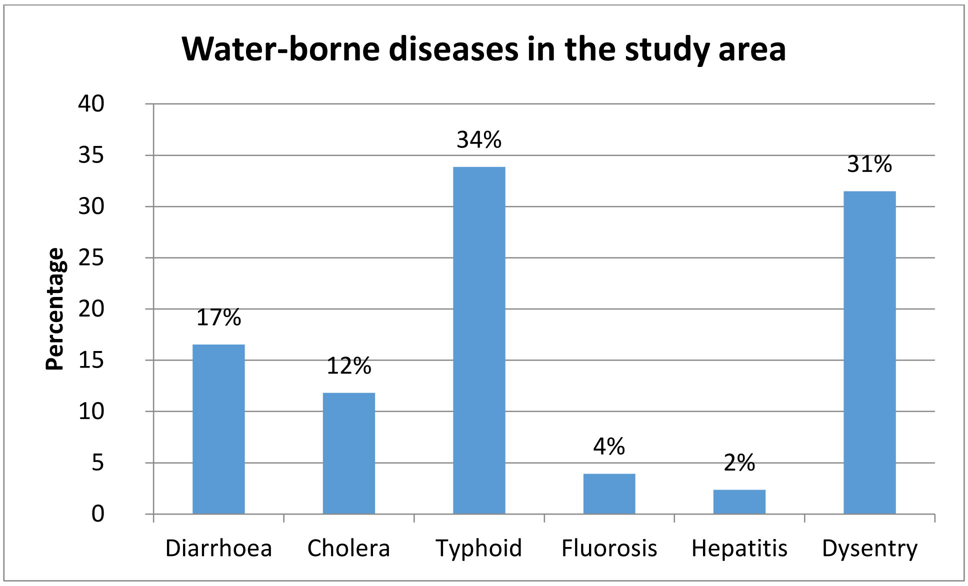

Figure 2: Water-borne diseases in the study area

Cases of major water-borne diseases reported among the respondents include cholera 15 (7.4%), typhoid 43 (21.3%), dysentery 40 (19.8%), diarrhoea 21 (10.4) and hepatitis

3 (1.5%) (Fig. 2). A Pearson's correlation analysis was carried out to reveal the relationship between the highlighted water-borne diseases and the water-use pattern in Ado-Ekiti. The result showed that water-use pattern has a low but positive correlation (r = .086) with water-borne diseases. The number of cases contributing to the correlation (N) is 110.

The findings of the study can be summarised thus:

- Presence of high bacterial counts in underground water is traceable to sewage and improper waste disposal.
- Residents are susceptible to water-borne/related diseases from the direct intake of polluted water
- The water-borne diseases that are prevalent in the area include typhoid, dysentery and diarrhoea.

These findings are in consonance with previous and similar studies (Akanbi, 2015; Nwabo & Ani,2015; Yusuff, Wasiu & Akintayo, 2014; Juneja & Chaudhary, 2013; Adefemi, Asaolu & Olaofe, 2007) among others.

Conclusion

In conclusion, this work by no means claims that the cases of water-borne/related diseases in the study area are directly caused by water pollution, but sought to establish a possible relationship. The results confirm such, though weak relationship. The study therefore concludes that polluted water from open waste deposits and sewage leakages is a possible cause of ill-health in Ado-Ekiti. It is therefore recommended that the government waste collection scheme be improved upon; the populace should be educated on the ill effects of improper waste disposal and intake of untreated water. Also, caution should be exercised in the use of packaged water as their absolute purity cannot be guaranteed.

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TAX REFORMS AND INVESTMENT DRIVE IN NIGERIA

Clement Olatunji Olaoye[1], Abiodun Rafiat Ayeni- Agbaje[2] and Ayobolawole Adewale Ogundipe[3]

Department of Accounting, Faculty of Management Sciences, Ekiti State University

Abstract

The study examined tax reforms and investment drive in Nigeria. It specifically focused on the influence of bilateral tax treaties on foreign direct investment, relationship between petroleum profit tax and oil investment, role of tax incentives on entrepreneurial development and impact of education tax on development. The study utilized descriptive survey and quasi-experimental design as its research strategies and sourced data from drafted and structured questionnaires, which were analyzed with the use of linear regression and Pearson product moment correlation. The findings revealed that, bilateral tax treaties has 29.8% ($t=12.60$, $p<0.05$) influence on foreign direct investment; there is significant positive relationship {$r= 0.762$, $p=0.000<0.05$} between petroleum profit tax and oil investment; tax incentives played 65.2% ($t=5.701$, $p<0.05$) significant role on entrepreneurial development and education tax has significant impact on educational development with 20.3% ($t=6.531$, $p<0.05$). The study concluded that the series of tax reforms in Nigeria are highly influential on the present level of investment drive in the country. It is therefore recommended that there is need for dynamism in the Nigerian tax system in order to fit into the changing international economies.

Keywords: Tax Reforms, Investment Drive, Foreign Direct Investment, Petroleum Profit Tax, Education Tax

Introduction

The level of independency of a government is dependent of its revenue base because governments need a wide revenue base in order to perform its political and socio-economic functions. In Nigeria, the government is often faced with a gap in its revenue base which has threatened the economic status of the country due to the economy's over dependence on the public sector and government's over dependence on oil revenue. In order to curb this perpetual incidence the government had embarked on series of reforms that span across all its revenue generators in which the second largest that is taxation is not an exclusion.

The Nigerian tax system witnessed series of reforms that span from the pre-independent days (income tax in Nigeria between 1904 and 1926, Nigerian Inland Revenue Autonomy 1945; 1957 Raisman Fiscal Commission; Inland Revenue Board Formation 1958; Petroleum Profit Tax Ordinance No. 15 of 1959) to post independent reforms (Income Tax Management Act 1961, Companies Income Tax Act (CITA) 1979, Federal

[1] Author [1]clementolusegun@yahoo.com,[2]abiodunvictory@yahoo.com,[3]ayobolawole@gmail.com
08064406376, 08062564459, 07068412172

Board of Inland Revenue establishment under CITA 1979, Federal Inland Revenue Service establishment Between 1991 and 1992; and tax policy and administration reforms amendment 2001 and 2004). According to Ogbonna and Appah (2012) the government embarked upon the latest tax policy and administration reforms amendment 2001 and 2004 by instituting Study Group on the Nigerian Tax System that comprised of individuals from business, academia, and the government to study the tax laws and recommend the appropriate reform in general and their impact to the overall economy. This resulted to nine (9) bills on tax reforms which were approved by the Federal Executive Council for the consideration of the National Assembly and subsequently passed as Act. These Acts are enumerated as follows: Federal Inland Revenue Service Act 2004; Companies Income Tax Act 2004; Petroleum Profit Tax Act 2004; Personal Income Tax Act 2004; Value Added Tax Act 2004; Education Tax Act 2004; Customs, Excise Tariffs, etc (Consolidation) Act 2004; National Sugar Development Act 2004; and National Automotive Council Act 2004. The recent tax reforms in the country according to Offiong (2016) also resulted to the promulgation of; Federal Inland Revenue Service Act 2007, National Information Technology Development Agency Act 2007, Tertiary Education Trust Fund Act 2011, Personal Income Tax Act and Federal Capital Territory Act 2015.

The series of tax reforms in the country is premised on the necessity to: bridge the gap between the National Development needs and the funding of the needs, ensure taxation, as a fiscal policy instrument, improve service delivery to the public; improve on the level of tax derivable from non-oil activities, vis-à-vis revenue from oil activities; efforts at constantly reviewing the tax laws to reduce/ manage tax evasion and avoidance; and to improve the tax administration to make it more responsive, reliable , skilful and taxpayers friendly and to achieve other fiscal objectives (Alli, 2009). In relation to the United States, proponents of fundamental tax reform claim that tax reform would increase saving and investment and create a simple tax system depending on how reform would change the tax treatment of business organization and financing decisions (Auerbach, 1996; Slemrod and Bakija, 1996 cited in William and Glenn (1998). Based on the view expounded in both the developing and developed economies, it is evident that one of the reasons for tax reforms is to enhance the level of investment which according to Njuru, Ombuki, Wawire and Okeri (2013) usually impacts positively on socio-economic and political development of a country, due to its influence in the creation of employment in the country through capital accumulation for productive endeavors. Ahuja (2007) stated that economic activity is a stimulant of the level of investment which was opined by Gillis, Perkins, Roemer and Sodgrass (1987) in Njuru, Ombuki, Wawire and Okeri (2013) not to be less than 15 per cent at any time. Increase in investment decision may lead to increase in government revenue as a result of taxes from the earnings of factors of production (United Nations, 1993; Ahuja, 2007).

The relationship between tax reforms and investment decisions has been the focus of many studies most especially in the developed economies, but in the developing countries particularly in Nigeria there seem to be a dearth of literature on the role of series of tax reforms from pre-independent era to the SAP era in which the Federal Government's efforts under the framework of SAP was to address the nation's fiscal and balance of payment (BOP) problems, and the persistent fall in industrial production in the second half of the 1980s, resulted in a number of changes and reviews in the nation's tax system. Evident from the above, this study examined tax reforms in terms of bilateral tax treaties, petroleum profit taxation, education tax and tax incentive on the level of investment drive in Nigeria.

Methodology

This study employed descriptive survey research design. The descriptive survey design enabled collection of data without manipulating the research variables from a large sample and generated findings that represented the whole population. The target population of the study were the officers from the followings; Federal Inland Revenue Services (FIRS) State offices, Oil servicing Companies, Manufacturing companies and Government Tertiary Educational Institutions in Nigeria. This stated population of the study was based on the relevance of each to the specific objectives of the study. The sample of the study were members of staff of FIRS state offices, manufacturing companies and government tertiary educational institutions in SouthWest Nigeria, while the Oil servicing companies quoted on the Nigerian Stock Exchange. The former were selected based on the proximity to the researchers and availability of the stated region, while the latter was selected because most of the oil producing companies were situated in that region. The study utilized a five point Likert scale drafted and structured questionnaires that captured tax reforms and investment drive which were later subjected to face and content validity. Its reliability was based on test-retest techniques that derived an acceptable Cronbach's Alpha. The administration of the research instruments were ethically refined in terms of consents, flexibility and privacy of the participants based on the view propounded by Kimmel (2007).The respondents' scores for the questions were analysed with inferential statistics in the form of Pearson product moment correlation and linear regressions at 5% level of significance.

Operationalization of Research Variables

Investment Drive (I^d) is a function of Tax Reforms (TAX^r)

Tax Reforms (TAX^r) is measured with indicators and variables given as follows:

$X=(x_1, x_2, x_3, x_4, \ldots, x_n)$

Where:

$x_1 =$ Bilateral Tax Treaties (ByT), $x_2 =$ Petroleum Profit Tax (Petax), $x_3 =$ Education Tax (Edutax)

$X_4 =$ Tax Incentive (TaInc)

Investment Drive *(I^d)* is multidimensional variables, thus the study adopted the following:

$Y= (y_1, y_2, y_3, y_4, \ldots, y_n)$

Where:

$y_1 =$ Foreign Direct Investment (FDI), $y_2 =$ Oil Investment (Oil^{in}), $y_3 =$ Educational Development (EDU^{dev}), $y_4 =$ Entrepreneurial Development (ENT^{dev})

Based on the above:

$y_1 = f(x_1) \rightarrow FDI = f(ByTT)$

$y_2 = f(x_2) \rightarrow Oil^{in} = f(Petax)$

$y_3 = f(x_4) \rightarrow EDU^{dev} = f(Edutax)$

$y_4 = f(x_5) \rightarrow ENT^{dev} = f(TaInc)$

Findings

Table 1: Regression Analysis on the Influence of Tax Reforms on Investment Drive

Model Summary

Model	R			R Square			Adjusted R Square			Std. Error of the Estimate		
	ByT&FDI	TaInc& ENTdev	Edutax& EDUdev	ByT&FDI	TaInc& ENTdev	Edutax& EDUdev	ByT&FDI	TaInc& ENTdev	Edutax& EDUdev	ByT&FDI	TaInc& ENTdev	Edutax& EDUdev
1	.719[a]	.424[a]	.463[a]	.518	.180	.214	.514	.175	.209	1.2260	2.4409	1.59354

Source: Olaoye, Ayeni- Agbaje & Ogundipe, 2016.

Table1 showed that Bilateral Tax Treaties (ByT) has 71.9% relationship with foreign direct investment (FDI), while the Rsquare indicated that Bilateral Tax Treaties (ByT) explains 51.8% variation in FDI. Tax Incentives (TaInc) has 42.4% relationship with Entrepreneurship Development (ENTdev), while the Rsquare indicated that TaInc explains 18% variation in ENTdev. Education Tax (Edutax) has 46.3% relationship with educational development (EDUdev), while the Rsquare indicated that Edutax explains 21.4% variation in EDUdev.

Table 2: Regression Analysis on the Influence of Tax Reforms on Investment Drive

Coefficients[a]

Model			**Unstandardized Coefficients**						**Standardized Coefficients**			**T**			**Sig.**		
			B			**Std. Error**			**Beta**								
FDI	ENT dev	EDU dev	FDI	ENT dev	EDU dev	FDI	ENT dev	EDU dev	FDI	ENT dev	EDU dev	FDI	ENT dev	EDU dev	FDI	ENT	EDU dev
C	C		2.74	14.20	3.798	.452	.950	.631				6.05	14.96	6.02	.0	.0	.0
ByT	TaInc	Edutax	.298	.652	.203	.024	.114	.032	.719	.424	.463	12.6	5.70	6.35	.0	.0	.0

	Objective1	**Objective2**	**Objective3**
Explained Variables	FDI	ENTdev	EDUdev
Explanatory Variables	ByT	TaInc	Edutax

ByT, TaInc, Edutax

Source: Olaoye, Ayeni- Agbaje & Ogundipe, 2016.

Dependent Variables: FDI, ENTdev, EDUdev

Based on Table 2, it could be inferred that if the explanatory variable (ByT) is held constant, the explained variable (FDI) will be 2.736 units, which implies that in a situation where there is no Bilateral tax Treaties, tendency for Foreign direct investment in the country will be influenced by 2.736. The unstandardised beta coefficient of ByTis 0.298 (s.e = 0.24, t= 12.600and $p < 0.05$). This implies that an increase in the tax treaties of the Nigerian government with other countries in the world would result in 29.8% significant inflow of its foreign direct investment. This evidence is in agreement with empirical works of: Neumayer (2007) cited in Fabian, Matthias and Eric (2009) which estimated the effect of DTTs on FDI to developing countries, using both dyadic outbound FDI stocks from the United States as well as the total inbound FDI stocks of developing countries and the FDI inflows to developing countries as dependent variables and indicated that the existence of a DTT is associated with a 22% higher FDI outbound stock in fixed-effects estimations. The positive impact is confirmed in the non-dyadic dataset, suggesting that countries with a higher number of cumulative DTTs have both a higher FDI stock as well as higher FDI inflows and also Fabian, Matthias and Eric (2009) that indicated that DTTs do lead to higher FDI stocks and that the effects are substantively important, because DTTs serve as encouragement of FDI. In furtherance, it was also evident in the study of Arjan (2014) that indicated a significant impact of tax treaties on FDI; in such that twenty extra tax treaties increase bilateral FDI stocks by about 50 percent in OECD and non-OECD countries. This contradicts the findings of Millimet and Kumas (2009) that applied the data of Blonigen and Davies (2005) that in the short run a significant and negative impact of tax treaties if FDI is large while there may be potential benefits with limited FDI flows.

In relation to the role of tax incentives-TAInc on entrepreneurial development-ENTdev, if the explanatory variable (TaInc) is held constant, the explained variable (ENTdev) will be 14.201unit, which implies that in a situation where there is no TaInc, the tendency for entrepreneurial activities to develop in the country will be 14.201. The unstandardised beta coefficient of TaIncis 0.652 (s.e = 0.114, t= 5.701 and $p < 0.05$). This implies that an increase in the tax incentives given by government in the tax laws in the form of tax holidays, investment allowance, rural investment allowance, tax free interest, deductible capital allowance, research and development, tax-free dividends, tax treaties, reliefs and allowances and capital allowances influences entrepreneurial development in the country by 65.2%.

In respect to the impact of education tax-Edutax on educational development-EDUdev, when the explanatory variable (Edutax) is held constant, the explained variable (EDUdev) will be 3.798 units, which implies that where there is no Education Tax, tendency for educational development in the country will be influenced by 3.798. The unstandardised beta coefficient of Edutax is 0.203 (s.e = 0.032, t= 6.351 and $p < 0.05$). This implies that an increase in the collection of education tax of Nigerian government will result to 20.3% significant impact on educational development.

Table 3: Relationship between petroleum profit tax and oil investment

Correlations

		Oilin	Petax
Oilin	Pearson Correlation	1	.762
	Sig. (2-tailed)		.000
	N	150	150
Petax	Pearson Correlation	.762	1
	Sig. (2-tailed)	.000	
	N	150	150

Source: Olaoye, Ayeni- Agbaje & Ogundipe, 2016.

The results as presented in Table 3 shows r =0.762, p<0.05 values for oil investment (Oilin) and petroleum profits tax (Petax), which signifies a significant positive relationship between petroleum profit tax and the level of oil investment in Nigeria. Though there exists dearth of empirical evidence on the relationship between Petax and Oilin, but related prior evidence in terms of Petax and GDP showed that there is a very strong relationship between petroleum profit tax and economic development (Adegbie & Fakile, 2011) and oil revenue has a positive and significant relationship with gross domestic product (GDP) (Ogbonna & Appah, 2012).

Conclusion

The study examined the relationship between Nigerian tax reforms and investment drive. Based on the results and empirical evidence, it is concluded that series of tax reforms in Nigeria are highly influential on the present level of investment drive in the country and also concluded that Nigerian bilateral tax treaties has significant influence on foreign direct investment in Nigeria which implies that countries with a higher number of cumulative ByT have both a higher FDI stock as well as higher FDI inflows; the level of petroleum profit tax rate is highly related to the level of oil investment in the country; tax incentives is highly influential on entrepreneurial development and education tax impacted positively on the level educational development in Nigeria. The study's foremost recommendation is a need for dynamism in Nigerian tax system in order to fit into the changing international economies. The study also recommends that; Nigerian government should expand is bilateral tax treaties with other countries, because it significantly encourages FDI which in turn enhances economic growth; the petroleum industry bill should be speedily passed, based on the fact that it ensures 35% reduction in tax charged on oil companies' profit which will result to increase in oil investment as high tax rates are deterrent to investment; a review of tax incentives is necessary in the country, though it influences investment but might result to reduction in the ax revenue; government should monitor and expand the utilization of revenue derived from education tax also capture the best brains (graduates) produced by public tertiary institutions in other to ensure "catch them young".

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THE IMPACT OF LEADERSHIP AND STEWARDSHIP ON HEALTH SECTOR PERFORMANCE OUTCOMES IN NIGERIA: SUSTAINABLE ECONOMIC DEVELOPMENT PERSPECTIVES

[1]Ogunsakin Sanya and Ilori Isaac Aduralere

Department of Economics, Ekiti State University, Ado Ekiti, Ekiti State, Nigeria

Abstract

Despite series of health sector reform program initiatives and health policies put in place by the government in 1960 aimed at enhancing good leadership and governance for healthcare of the people, much of the underlying weaknesses and constraints of the Nigerian health sector still persist. On this premise, this paper investigated the impact of leadership and stewardship on the Nigerian health sector performance outcomes using annual time series data spanning 1981 to 2015. It used the recent bounds testing co-integration approach developed within the framework of the Autoregressive Distributed Lag (ARDL) procedure, proposed by Pesaran, Shin, and Smith (2001) which has several advantages compared to widely used Johansen and Juselius (1990) co-integration technique and also based on econometric tools. The long-run and short run dynamic results show that government healthcare expenditure (GEXP), urban population (UPOP), institutional quality (INST) and per capita income (PCIN) impacted positively and significantly on health sector performance outcome proxy by life expectancy rate (LEXR) in Nigeria in the achievement of sustainable economic research and development. The long term estimates result further showed that a 1% increase in GEXP, UPOP, INST and PCIN would increase life expectancy rate by 0.06, 20.31, 1.23 and 0.03 percent respectively. Finally, the study recommends the need for government to harness the potentials of good leadership and governance for the achievement of healthy human capital necessary for a sustainable economic and national development.

Keywords: **Leadership, Stewardship, Health Sector Performance Outcome, *Autoregressive Distributed Lag (ARDL)*, Economic Development.**

1.0 Introduction

'Health is Wealth' goes the popular saying and therefore in every country. In spite of this, the health sector is crucial to social and economic development with ample evidence linking productivity to the quality of the health care system (Babatunde, 2009). In Nigeria, the vision of becoming one of the leading 20 economies of the world by the year 2020 is closely tied to the development of its human capital through the health sector performance. However, the health indicators in Nigeria have remained below country targets and internationally-set benchmarks including the MDGs, which have recorded very slow progress over the years and also frequent changes in leadership at all levels, corruption, lack of accountability and transparency characterize poor leadership systems and crises in governance structures in Nigeria's health system.

[1] Author: isaaceco.52@gmail.com; Tel-08034387112; 08035821082

Nigeria's overall health system performance was ranked 187th position among 191 member States by the World Health Organization (WHO) in 2000. Primary Health Care (PHC), which forms the bedrock of the national health system, remains in a prostrate state due to gross under funding, mismanagement and lack of capacity at the LGA level. The 2003 NDHS indicators demonstrating the performance of the health system indicate an immunization coverage of 23%; 6% of under-fives sleeping under insecticide treated nets (ITNs) with only a third of children with fever appropriately treated with anti-malaria at home and less than half of deliveries attended to by skilled health personnel. It is noted that wide variations of these indicators exist in different geographical zones, states and rural/urban locations.

Recognizing that recent improvement in Nigeria's macroeconomic performance has not translated into discernable improvement in the health system and quality of life of Nigerians, the Federal Government's 7-Point Development Agenda has underscored human capital development as the bedrock of this national agenda with explicit reference to the health sector. Access to quality health care and prevention services are therefore considered vital for poverty reduction and economic growth, particularly as Nigeria is lagging behind in attaining the health-related MDGs.

In order to meet the challenges of achieving improved health status particularly for its poorest and most vulnerable population, the health system must be strengthened; proven cost-effective interventions must be scaled up and gains in health must be sustained and expanded. The Federal Ministry of Health (FMOH) appreciates that this can best be done within the context of a costed National Strategic Health Development Plan (NSHDP), which is aimed at providing an overarching framework for sustained health development in the country. The NSHDP is to be developed in accordance with extant national health policies and legislation, and international declarations and goals which Nigeria is a signatory to, namely; MDGs, Ouagadougou Declaration on PHC and the Paris Declaration on Aid Effectiveness.

As a prelude to the development of the NSHDP, a generic framework has been developed to serve as a guide to Federal, States and LGAs in the selection of evidenced-based priority interventions that would contribute to achieving the desired health outcomes for Nigerians. It is expected therefore, that in using this Framework, the Federal, States and LGAs would respectively develop their respective costed plans through participatory approaches to reflect their context and prevailing issues. The end product being a harmonized National Strategic Health Development Plan (NSHDP) with its appropriate costing will thereafter serve as the basis for collective ownership, adequate resource allocation, inter-sectoral collaboration, decentralization, equity, harmonization, alignment, and mutual accountability in Nigeria. It would also stipulate requirements for future health investments towards achieving sustainable universal access and coverage within the planned period of 2009 - 2015.

Furthermore, Nigeria has adopted five successive national and over twenty-four sectoral health policies since 1960, when the country gained political independence (WHO, 2008). The first four policies were incorporated into various national development plans formulated between 1960 and 1985. The initial guiding philosophy of pre-1985 policies was based on the assumption that improving the health of the population was essentially dependent upon the availability of health providers and access to health facilities. Nonetheless, an overarching law-the National Health Bill in May 2008 which is currently in the process of being enacted attempts to clarify the structure, roles and responsibilities of the different levels of government. As a result of this, the poor performance of the health system is not helped by the lack of clearly defined roles and responsibilities which results in duplication of efforts. This is compounded by inadequate political commitment especially at lower levels, poor coordination, lack of communication between various actors, lack of transparency and poor accountability. In addition, the private sector, a major contributor to health care delivery in the country, is poorly regulated due to weak capacity of State governments to set standards and ensure compliance. All these factors have led to the lack of strategic direction and an inefficient and ineffective health care delivery system. Nonetheless, there have been relatively successful attempts including the Health Sector Reform Programme between 2004 and 2007, and past health policies and programmes aimed at enhancing leadership and governance for health.

Evidences from available records indicated that the health sector is characterized by lack of effective stewardship role of government, fragmented health service delivery, inadequate and inefficient financing, weak health infrastructure, mal-distribution of health work force and poor coordination amongst key players. To address these ugly situations, the Federal Government implemented the Health Sector Reform Program (HSRP) from 2004 through 2007, which addressed seven strategic thrusts revolving around government's stewardship role; management of the national health system; the burden of disease; mobilization and utilization of health resources; health service delivery; consumer awareness and community involvement; partnership, collaboration and coordination. The HSRP recorded a number of policy and legislative initiatives, notable among which are the National Health Policy (NHP) review, the National Health Bill and strengthening the National Health Insurance Scheme (NHIS). Furthermore, efforts were directed at strengthening disease programmes and improving the quality of care in tertiary health facilities. Despite these initiatives, much of the underlying weaknesses and constraints of the health sector persist. This paper therefore aims at contributing to the knowledge of the factors affecting health sector by investigating the impact of leadership and stewardship on health sector performance outcome in Nigeria, using a more robust dynamic modelling methodology based on Autoregressive Distributed Lag (ARDL) procedure and to facilitate both the long and short runs estimates reaction function. To the best of our knowledge, similar empirical studies are not available. The remainder of the paper provides a brief review of directly related literature followed by empirical methodologies and data, discussion of results, conclusion and policy recommendations.

2.0 Research Methods

Theoretical Framework

The theoretical base of this study is the Mosley-Chen theory of mortality developed by Mosley and Chen (1984) in an attempt to bridge the gap between social science approach and medical approach. The Mosley and Chen model suggested combining social science and medical science approaches to study child survival in developing countries like Nigeria. The model is built on a transmission mechanism as shown below:

Socio Economic Status → Proximate Determinants → Risk of Diseases → Mortality Outcomes

Their argument is that social economic status influences the proximate determinants of health and risk of diseases, which in turn directly influence health and mortality outcome.

Model Specification

Premised on theoretical exposition and following the extant literature in the work of Mosley and Chen (1984); Filmer and Pritchett (2001); Olarinde and Bello (2011), their models were adapted and modified by employing two (2) additional explanatory variables: Population of people living in the urban areas (UPOP) and Per Capita Income (PCIN). Thus, the new model for this study is of the general form:

$$HSPO = f(GEXP, INST, UPOP, PCIN) \ldots\ldots\ldots\ldots\ldots\ldots\ldots (1)$$

Where: (HSPO) = Health Sector Performance Outcome proxy by (LEXR) = Life expectancy rate; (GEXP) = Government healthcare expenditure; (INST) = Institutional quality used to capture leadership and stewardship impact; (UPOP) Population of people living in the urban areas and; (PCIN) = Per Capita Income.

Data Sources

Annual data from 1981 through 2015 were employed. Health sector performance outcome; government healthcare expenditure, urban population, institutional quality, and per capita income data from Central Bank of Nigeria (CBN) statistical Bulletin (2015) and World Bank, World Development Indicators (2015) various issues respectively were used in this study.

Unit Root Testing

Since the data is time-series in nature, it is important to confirm its stationarity. According to Gujarati and Sangeetha (2007) if ρ is equal to 1, then there is a case for non- stationarity. Such became possible by means of conducting an Augmented Dickey Fuller test (ADF).

Co-integration- ARDL Bounds Testing Approach

This study uses the ARDL bounds testing approach introduced by Pesaran and Shin (1999) and extended by Pesaran, Shin and Smith (2001) to investigate the co-integration relationship among government healthcare expenditure (GEXP), urban population (UPOP), institutional quality (INST) and per capita income (PCIN). This test has several advantages over previous co-integration tests, such as the residual-based technique by Robert and Granger (1987) and Full Maximum Likelihood (FML) test based on Johansen (1988, 1991) and on Johansen and Juselius (1990). First, unlike other co-integration techniques, the ARDL bounds testing approach does not impose the restrictive assumption that all the variables under study must be integrated of the same

order. The ARDL approach can be applied to test the existence of a co-integrating relationship among variables regardless of whether the underlying regressors are integrated of order one [I(1)], order zero [I(0)], or fractionally integrated.
Second, conventional co-integration methods estimate the long-run relationships within the context of a system of equations, the ARDL method employs only a single reduced form equation (Pesaran & Shin, 1999).

Third, the ARDL technique generally provides unbiased estimates of the long-run model and valid t-statistics even when some of the regressors are endogenous (Odhiambo, 2007; Odhiambo, 2010).

Fourth, while other co-integration techniques are sensitive to the size of the sample, the ARDL test is suitable even when the sample size is small. Thus, the ARDL test has superior small sample properties compared to the Johansen and Juselius (1990) co-integration test. Consequently, the approach is considered very suitable for analyzing the underlying relationship and it has been increasingly used in empirical research in recent years. Based on the previous studies and the availability of data, the following double-log model is specified.

$$LNLEXR_t = \psi_0 + \psi_1 LNGEXP_t + \psi_2 LNUPOP_t$$
$$+ \psi_3 LNINST_t + \psi_4 LNPCIN_t + \vartheta_t \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots(2)$$

Where, $LNLEXR_t$ = Natural log of life expectancy rate; $LNGEXP_t$ = Natural log of government healthcare expenditure, $LNUPOP_t$ = Natural log of urban population, $LNINST_t$ = Natural log of institutional quality, and $LNPCIN_t$ = Natural log of per capita income. A-priori expected signs of coefficients are $\psi_1 > 0$, $\psi_2 > 0, \psi_3 > 0$, and $\psi_4 > 0$. An ARDL representation of equation (2) is

$$\Delta LNLEXR_t = \psi_0 + \sum_{i=1}^{p} \psi_1 \Delta LNLEXR_{t-i} + \sum_{i=0}^{p} \psi_2 \Delta LNGEXP_{t-i}$$
$$+ \sum_{i=0}^{p} \psi_3 \Delta LNUPOP_{t-i} + \sum_{i=0}^{p} \psi_4 \Delta LNINST_{t-i} + \sum_{i=0}^{p} \psi_5 \Delta LNPCIN_{t-i}$$
$$+ \gamma_1 LNLEXR_{t-1} + \gamma_2 LNGEXP_{t-1} + \gamma_3 LNUPOP_{t-1}$$
$$+ \gamma_4 LNINST_{t-1} + \gamma_5 LNPCIN_{t-1} + \vartheta_t \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots(3)$$

Where: Δ is the first difference operator, the parameters ψ_{ij} are the short-run parameters and γ_{ij} are the long run multipliers respectively in equation (3). The null and alternative hypotheses are:

$$H_0 : \gamma_1 = \gamma_2 = \gamma_3 = \gamma_4 = \gamma_5 = 0$$
$$H_1 : \gamma_1 \neq \gamma_2 \neq \gamma_3 \neq \gamma_4 \neq \gamma_5 \neq 0$$

Once the selected long run model is estimated, then the short run dynamic elasticities of the variable within the framework of the errors-correction representation of the ARDL model is estimated as follows in equation 4.

$$\Delta LNLEXR_t = \psi_0 + \sum_{i=1}^{p} \psi_1 \Delta LNHSPO_{t-i} + \sum_{i=0}^{p} \psi_2 \Delta LNGEXP_{t-i} + \sum_{i=0}^{p} \psi_3 \Delta LNUPOP_{t-i}$$

$$+ \sum_{i=0}^{p} \psi_4 \Delta LNINST_{t-i} + \sum_{i=0}^{p} \psi_5 \Delta LNPCIN_{t-i} + \varphi ECM_{t-1} + \vartheta_t \text{.............................}(4)$$

Where: ψ_i are the short run coefficients; φ_i is the speed of adjustment and ECM_{t-1} is the residual obtained from equation (4)

Dynamic OLS (DOLS)

The ARDL co-integration test is complimented with the dynamic OLS (DOLS) estimates. The panel Dynamic Ordinary Least Squares (DOLS) methodology will provide the estimation of the statistic long-run relation augmented by leads and lags. This will improve the efficiency of the long-run estimates but does not provide guidance on the short-run behaviour. The following model is estimated:

$$LNLEXR_t = \beta_0 + \beta_1 LNGEXP_t + \beta_2 LNUPOP_t$$

$$+ \beta_3 LNINST_t + \beta_4 LNPCIN_t + v_t \text{................................}(5)$$

3.0 Findings

The following empirical findings are carried out for the study, which include appropriate tables and figures as part of the extended abstract procedure.

Table 3: ARDL Bounds Test for Co-integration

Null Hypothesis: No long-run relationships exist

Test Statistic	Value	K
F-statistic	3.598177	4

Critical Value Bounds

Significance	I0 Bound	I1 Bound
10%	2.45	3.52
5%	2.86	4.01
2.5%	3.25	4.49
1%	3.74	5.06

Source: Author's Regression Output, 2016

The results of the F-test suggest that there exists a long-run relationship among LNLEXR, LNGEXP, LNUPOP, LNINST and LNPCIN. Therefore, the empirical findings lead to the conclusion that a long run relationship between life expectancy rate and government healthcare expenditure, urban population, institutional quality and per capita income exists.

The above result is a step forward to the estimation of long-run coefficients which are reported in Table 4. The long-run estimated coefficients of urban population are significant at 5% level and the coefficients of government healthcare expenditure, institutional quality and per capita income are significant at 1% level. The result of long run estimated coefficients shows that a one percent increase in government healthcare expenditure, urban population, institutional quality and per capita income is expected to lead to 0.006, 20.12, 1.23 and 0.03% increase in life expectancy rate respectively.

Table 4: Long Run ARDL Model (1, 1, 0, 1, 0)

Long Run Coefficients

Variable	Coefficients	Std. Error	t-Statistic	Prob.
LNGEXP	0.000063	0.00001	5.120874	0.0000***
LNUPOP	0.2012771	0.291422	0.690654	0.0159**
LNINST	0.0123303	0.036920	0.333222	0.0016***
LNPCIN	0.000310	0.000306	1.013017	0.0004***
C	44.682086	1.444554	30.931413	0.0000***

Notes: *(**) *** denotes stationarity @ 10%, 5% and 1% significance levels.

Source: Extracted from Author's Regression Output on E-views 9.2, 2016

Diagnostic Tests:

Adjusted R^2	0.984863
Ramsey RESET Test	11.65860(0.0003)
Jarque-Bera Normality Test	14.65818 (0.000656)
Breusch-Godfrey Serial Correlation F-Test:	0.455014 (0.3398)
Breusch-Pagan-Godfrey Heteroscedasticity F-Test	1.453637 (0.2273)

In Table 4, the results of the estimated long-run ARDL co-integration model show that all the variables had their expected signs and also confirmed that they are the true key determinants of health sector performance outcome proxy by life expectancy rate (LEXR). The coefficients of these variables stood at 0.000063 for LNGEXP, 0.2012 for LNUPOP, 0.0123 for LNINST and 0.00031 for LNPCIN and they are all statistically significant at 1%, 5%, 1% and 1% respectively. Specifically, the coefficients of LNGEXP suggest that in the long-run, an increase of 1 percent in government healthcare expenditure is associated with an increase of 0.00006 percent in life expectancy rate. All other variables including LNUPOP, LNINST, and LNPCIN had similar positive impact on life expectancy rate in Nigeria.

The coefficient of adjusted degree of freedom R^2 is 98%, explaining the variation in life expectancy rate by changes in LNGEXP, LNUPOP, LNINST and LNPCIN. To further verify our findings on the impact of leadership and stewardship on health sector performance outcome, the error correction version of ARDL is estimated for equation (4).

Table 5: ADRL Co-integrating Short-Run Error-Correction Model

Short-Run Coefficients

Variable	**Coefficients**	**Std. Error**	**t-Statistic**	**Prob.**
∆LNGEXP	0.000016	0.000010	1.619861	0.0173**
∆LNUPOP	0.123943	0.178528	0.694252	0.0437**
∆LNINS	-1.144124	0.017952	-8.028381	0.0000*
∆LNPCIN	0.000191	0.000205	0.931118	0.0604***
ECM(-1)	-0.615802	0.167856	-3.668630	0.0011*

Notes: *(**) *** denotes stationarity @ 10%, 5% and 1% significance levels.

Source: Extracted from Author's Regression Outputon E-views 9.2, 2016

Empirical findings from table 5 further shows that institutional quality is inversely and significantly related to health sector performance outcome proxy by life expectancy rate in Nigeria for the period 1981-2015. This result is consistent with Neo-classical theory as well as previous empirical studies Gupta et al. (1999); Kaufmann et al. (1999) and Kaufman et al. (2004). All other variables including government healthcare expenditure, urban population and per capita income had the expected positive sign and significance at 5%, 5% and 10% respectively. Finally, the error correction term ECM_{t-1} which represents the speed of adjustment is significant and carries the correct sign. Therefore, the long-run equilibrium is achievable. The coefficient of 0.62 suggests that in Nigeria, the adjustment from the short-run to the long-run equilibrium is very fast. The coefficient of determination R^2 indicates that 62 per cent of the total variation in health sector performance outcome proxy by life expectancy rate is jointly explained by government healthcare expenditure, urban population, institutional quality and per capita income.

Parameter Stability Tests

One of the requirements for well-specified ARDL approach is the presence of stability of parameter. Therefore, the use of cumulative sum of recursive residuals (CUSUM) and cumulative sum of squares of recursive residuals (CUSUMSQ) become imperative as suggested by Brown, Durbin and Evans (1975). Figures 1 and 2 report plots of the CUSUM and CUSUMSQ graphs. A cursory look at the plot shows that only CUSUM test stays within the critical 5% bounds. This confirms the long-run relationships among variables and as well indicates the stability of the coefficients overtime, while the CUSUMSQ test shows the existence of parameter instability due to the fluctuations of the time series data in the model.

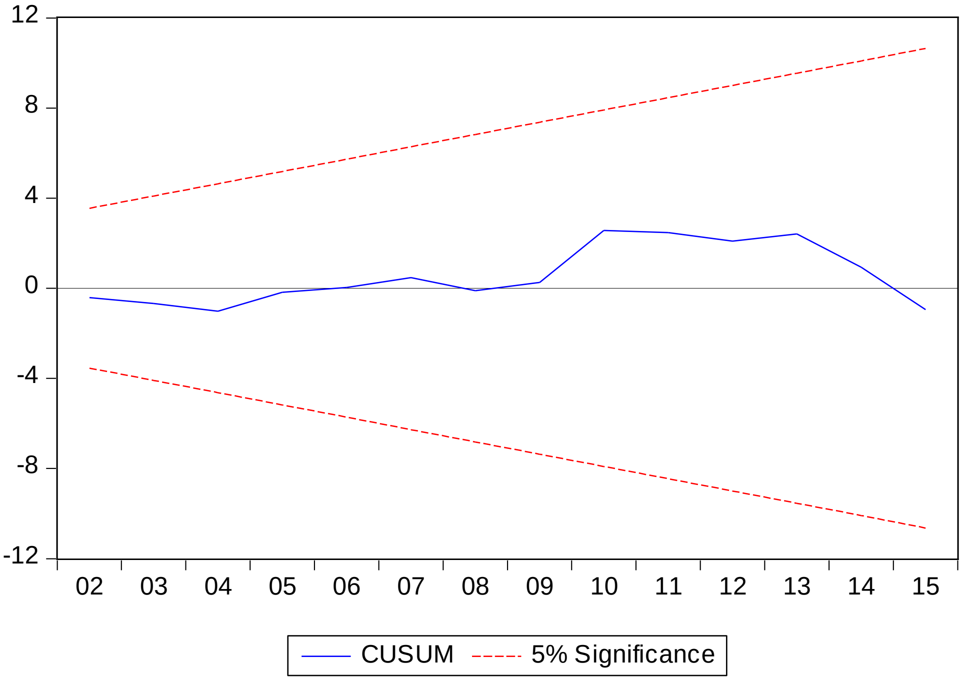

Figure 1: CUSUM Test for Stability, 2016

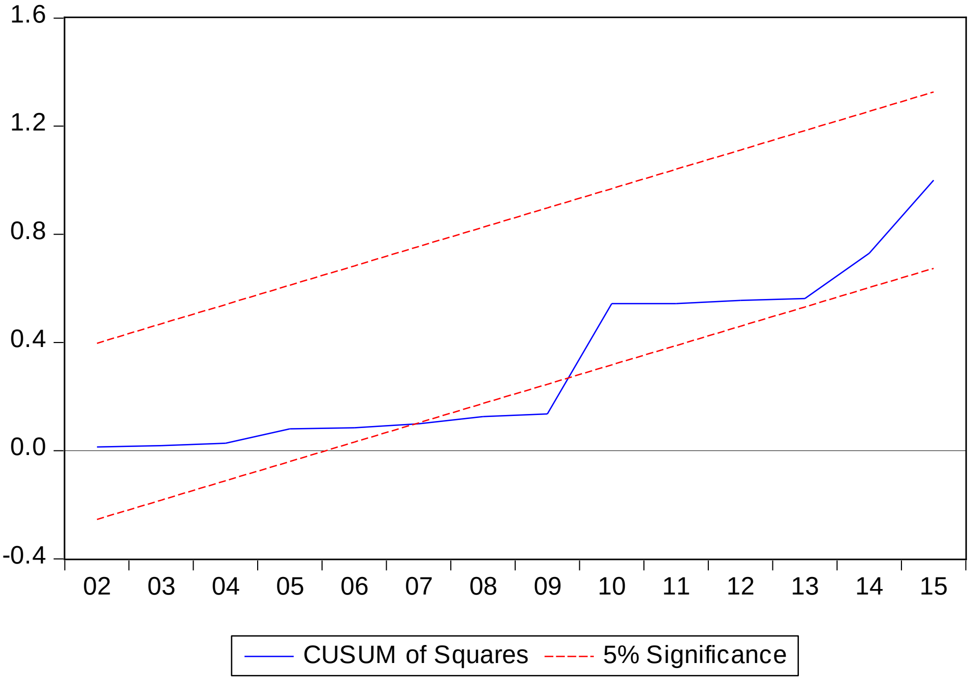

Figure 2: CUSUM Square Test for Stability, 2016

4.0 Conclusion

This paper attempts to explore the impact of leadership and stewardship on health sector performance outcomes in Nigeria using ARDL approach and dynamic OLS (DOLS) for the period 1981-2015. It is broadly concluded based on our results and discussion of findings that there existed a long-run relationship among the variables, and used it to estimate both the long-run and short-run performance of health sector model for Nigeria. The long and short runs dynamic results show that government healthcare expenditure (GEXP), urban population (UPOP), institutional quality (INST) and per capita income (PCIN) impacted positively and significantly on health sector performance outcome proxy by life expectancy rate (LEXR) in Nigeria for the achievement of sustainable economic and national development. The long term estimates result further showed that a 1% increase in GEXP, UPOP, INST and PCIN would increase life expectancy rate by 0.06, 20.31, 1.23 and 0.03 percent respectively.

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TOWARDS EFFECTIVE TEACHING AND LEARNING OF FRENCH LANGUAGE IN SCHOOLS AND COLLEGES IN NIGERIA

[1]Bosede Elizabeth Bakare

Department of Arts and Language Education, Faculty of Education, Ekiti State University, Ado-Ekiti, Nigeria

Abstract

This paper examined the concept of effective teaching in relation to the learning of French language in schools. It investigated the various problems militating against the teaching and learning of French, such as lack of interest, lack of well equipped French resource centre, inability of parents to provide materials (French text-books) for their wards, inability of French teachers to function freely in their area of specialization among others. Using copious literature, it found that these problems can be solved. First, learner-centered activities as against teacher-centered ones should be encouraged. Second, motivation of students' interest in the subject using a well prepared lesson plan and communicative approached method of teaching French language following these steps: anticipation, reperager comprehension, systematization and production/evaluation The paper therefore recommended that teachers, parents, government and other stakeholders should make available resources to create conducive learning environment for learners towards effective teaching and learning of French language in Nigeria.

Keywords Effective, Teaching, Learning, Interests, Motivation.

Introduction

Teaching is viewed as a means of imparting relevant skills and knowledge in a sequential manner. Teaching cannot exist in isolation without interaction with the learner, the encoder and the decoder. *The Oxford Advanced Learner's Dictionary* defines teaching as a means of giving lessons to students in a school, college, university. It is a process that has to do with giving information to a group of learners in an attempt to learn. According to Gbenedio (1996) teaching a second language may not be an easy task but it can always be a pleasurable experience to a teacher who is well prepared for the task. It has been observed that many learners see French Language as a burden. Learners see French as a strange language unknown to parents which teacher is imposing on them.

Teaching is said to be effective when a learner is able to give a positive feedback to the teacher. French, like other subjects is not learned until the French student is able to communicate with the language. Yet many problems are militating against effective teaching of French language in schools. Some of the problems are highlighted

[1] Author *bakarebelizabeth01@gmail.com, (07030233784)* .

Problems Militating against Effective Teaching and Learning of French Language.

According to Morakinyo (2006), even though foreign language education in Nigeria especially has recorded some growth and development over the years, it is not without a long line of problems, some of the problems are stated below:

Lack of Interest: Teaching cannot succeed in isolation without the learners' interest because the learner's interest can aid or mar effective teaching of French. Research has shown that some students find themselves learning French as last option to gain admission into higher institution in view of this they show little or no interest towards learning the language whereby showing wrong attitudes to French. Eveylik (1999) defined attitude as the state of readiness to respond to a situation and an inclination to behave in a consistent manner towards an object. So attitude refers to our feeling and shapes our behaviours towards learning. Students' attitude is an integral part of learning and it should become an essential component of second language learning, Olorunsola (2005) stresses that, some students use to run out of classroom before their French teacher enters the class. Those that even stay will just engage themselves in writing notes of previous lesson of another subject due to lack of interest. Most students are probably lazy in reading. They seem not to be able to read French language very well, because of lack of interest. Through sampled opinion the researcher observed that the admission procedure of student into 4-year French programme is not always based on the interest of the intending candidates. Some students interviewed confirmed that some of them were forced into most of the programme. This is to express that some of the students would not have offered French if given the opportunity to select courses, some confirmed that it is more of accident than design. As a result of this, they exhibit lack of interest in class.

Lack of Relevant Material and textbooks: Another problem militating against the growth and development of French language in Nigeria is lack of relevant textbooks and instructional materials. Ajiboye (1990) affirmed that the attitudes of parents towards learning French seem to be poor. Most of the parents and guardians are thinking that the French language is not profitable. They have the notion that studying French in not leading whoever studies it to any wider scope of choice but only to the teaching profession. In view of this they show no interest in providing relevant materials and textbooks for their wards. Out of sheer ignorance, parents believe that the government has to provide free books for their children, as it was the practice during free education era under the civilian government in Nigeria. Despite the knowledge of the fact that textbooks and instructional materials aid lesson clarification, little or no provision is made by the authorities, thereby hindering effective teaching and learning French language.

French teachers' constraint to function: Inability of French Language Teachers to Function Freely in Their Area of Specialization: The dearth of qualified French language teachers seems to be another clog in the wheel of progress as far as French language in Nigeria is concerned, the few ones available are often implored to teach English on the pretence that English teachers are not adequate and that English is more important to the student than French. Ayodele (2011) holds the view that students taught by more qualified teachers; in terms of academic qualification perform significantly better than students of less qualified teachers. Instead of employing qualified hands, government prefers to employ teachers from the neighboring French-speaking West African countries just because they can speak the language fluently. Today many indigenous French graduates and students see French as difficult to teach and learn. As a result of this, those who are to teach French language as a subject are scarce at the pre-primary, primary, secondary and tertiary levels.

Problem of Translating Cultural Expression: Cultural translation poses a lot of difficulties to translators, diversities in culture constitute another problem as most cultural expression are badly translated from French to English by incompetent teacher who are not proficient in both languages. Over the year's most French text-book are written in the cultural setting of the francophone where names or terms used in passages are unfamiliar to learners. Toury (1978)

Over population in classroom sitting arrangement: Nwena (2000) defined over population as when the people occupying a given geographical location are more than available resources. Effective teaching and learning is difficult where there are over sixty pupils in class, some learners will eventually sleep off or be emotionally disturbed as the teacher may not be able to have effective class control/classroom management

Lack of well Equipped French Language Resource Centre: A well furnished French language resource centre will facilitate effective teaching and learning of French. In many schools, audio visual equipment that could assist learners is missing, quiet in many schools where these facilities are not available. Most school is not electrified let alone of having an equipped French language resource centre.

Lack of Information, Training and Re-Training of Teachers: Adeniyi (2007) remarks that; some teachers were trained years ago and needed to be retrained. If teachers are properly trained through seminar and workshop ,there will be less supervision .Thus the need for them to be trained and retrained towards strengthening the teacher's cadre to produced set of teachers' that are well motivated and equipped. Teachers have to be familiar with the most recent knowledge, methods and content. French as a language is dynamic and subject to changes, As Educational Curriculum keeps changing with time, teachers are to be updated with these changes in order for them to be informed; research has shown that seminars/workshops meant for the practising teachers in schools are given as sloth to their counterparts in ministry of education to attend seminars/workshops, just because they are closer to the source of information. In view of this the teachers who are to be carried along with changes in the educational curriculum are deprived. Some French teachers who have been teaching for years never had any opportunity to attend any seminars/workshops, where there are training and re- training activities, most teachers become Obsolete to effective methodology of French as they are used to their traditional method of teaching .

In this paper, the writer is of the opinion that the subject can be handled properly through the following steps:

Motivation as a Tool for Arousing Learners’ Interest: Motivation in the classroom as a tool for arousing learner’s interest, the major aims and objective of motivating learners in the classroom is to enhance and promote learners interest in order to achieve a realistic goal of the teaching and learning process. Motivation is a derivative of the word motive. Motive can be regarded as desires to achieve certain goal. Emeruwa (1988) sees motivation as a drive to learn, an event that prompt to action. The need for motivation becomes imperative because learning entails interaction among learning concepts: what is to be learnt, the students and the teachers. In order for interaction to be very effective, Alimi (1995) opined that both the teachers and students that are involved need to be motivated especially in the area where French language is learnt and taught as second language.

Emenanjo(1998) observed that language education today has become a clear yardstick for the overall development of any state since government policies are formulated in language, implemented through language and everything thought of and done in and out of government by individual are realized in language and through language. Towards effective teaching and learning of French language French should be giving a pride by French learners and they should show more interest to learning French. Learners’ attitudes should be positive as French should be given a place of pride in the educational system, not as an elective status. Learners should be encouraged by their French teachers to offer French at senior secondary school certificate exam (WASSCE and NECO)

To solve the problem of inability of qualified French language teachers to function freely in their area of specialization, the researcher is of the opinion that government should employ qualified French language teachers and ensures they are deploy to schools to teach French.

Audio visual equipment is a tool in language learning as it boosts effective communication French learners will be exposed to correct pronunciation of French word through audio-visual interaction with the native speakers of French. The school management should ensure that a well equipped French resource centre should be provided in schools. Provision of relevant French text-books and instructional materials should be taken care of by parents, guardians, government and related authorities.
A well prepared French lesson plan should follow this pattern:

Anticipation: At this level, the teacher should brainstorm with the learners on the intending topic to be taught in order to arouse the learner’s interest

Reperager: At this level, the teacher and the learners will identify some verbs whichs they conjugate and use at various tenses level. The grammatical, lexical and linguistic objectives should be realized at this level.

Comprehension: At this level the teacher will present similar verbs on le voyage, expressions on le voyage through the use of images. In related manners as touching the initial ideas of the learners at anticipation stage

Systematization: The learners are exposed to various means of transportation regarding a journey in French making use of verb that has to do with ''le voyage'' e.g. Aller, voyager,conduire, amener etc.

Production: At this stage learners are expected to give feedback to the teacher, through evaluation on the four skills of language; they are also expected to answer oral and written form.

Apart from this sample of a comprehensive lesson plan, effective teaching and learning cannot be achieved without providing solution to the problems highlighted above. Where there no text-books and Instructional materials, parents and governments should ensure provisions of these relevant materials to complements the good effort of the teachers. Schools management should ensure a well furnished French language resource centre where learners would have access to audio visual equipment's to encourage them to learn. The paper therefore recommends the following:

1. Admission process should be based on learner's interest.
2. Adequate provision of relevant instructional materials should be made by parents and government.
3. A well equipped French resource center should be encouraged in schools.
4. Qualified teachers should be assigned to teach French.

Conclusion

Summarily, this paper has attempted to discuss effective teaching and learning of French language in schools and colleges in Nigeria. It enumerated the various problems militating against the effective teaching of French language suggesting that learners should be motivated to learn in a conducive learning environment. Adequate and relevant French materials should be provided by government and parents; teachers should be updated regularly through workshops and seminars. A well equipped French language resource center should be provided to facilitate effective communication through audio visual activities. Also, teachers should plan and present their lesson plan towards effective teaching and learning of French language.

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TRANSFORMING RESEARCH FINDINGS INTO COMMERCIAL PRODUCTS USING TECHNOLOGICAL INNOVATIONS FOR NATIONAL DEVELOPMENT

[1]Jumoke E. Akinlosotu, Dung E. Jidong and Benjamin O. Omolayo

Department of Psychology, Federal University, Oye - Ekiti. Ekiti State, Nigeria.

Abstract
Research outcomes seem to be under-utilized in Nigerian enterprises. As such, this paper examined some essential elements that could be considered as judicious elements in the dissemination of research findings for practical use in the Nigeria enterprise sector. Thus, research findings can be efficiently transferred from the research fields into the commercial or production settings. The applied knowledge from a pool of research findings of new designs, manufacturing tools, new ideas and the utilization of knowledge-based innovations can be better maximized using appropriate channels. This effort would increase revenue capacity, profit efficiency and the general growth of the nation's economy. Furthermore, the process of transforming research and development into innovation cannot be taken out of context, and therefore, it should be treated as a component of the national innovation project. Finally, research institutions need to play a more active role in their relationship with the enterprise sector in order to maximize the use of the research oriented innovations.

Keywords: Development, Transforming, Products, Innovation, Research.

Introduction
As generally known research and development as a crucial component of the innovation process was performed outside of enterprise such as universities and other higher education's institutions and in independent research institutions.

Universities and research institutes appear to be key components of the national innovation system responsible for creating economic opportunities and wealth. The capabilities of each component and the strength of their interactions could determine the extent of wealth creation, economic development and global competitiveness of individual nations. Universities and research institutes are saddled with the responsibility of generating and impacting new knowledge within the domains of science and technology. These institutions are essential in developing new ideas that can be transformed into market value for commercial purposes.

Nigeria has aspirations to be one of the top 20 world economies by 2020 and this creates two key issues. The first is need for massive investment in science and technological research and development over the next few years. Secondly, strategic opportunities abound for researchers in research activities and new product

[1] Author : jumokeesther71@gmail.com, +234 9033257713

development. Thus, a national critical concern would be essential in knowing the capability of the Nigerian researchers to effectively harness these opportunities in order to achieve the Nigeria's economic revolution.

Furthermore, the need for sharing knowledge between research institutions and industries has become increasingly evident in recent years. Historically, research institutions were perceived as a source of new ideas and industties offered a natural route to maximizing the use of these ideas (Janex & Gunter, 2007). In addition, it has become clear that research institutions need to play a more active role in their relationship with industries in order to maximize the use of research findings (Janex & Gunter, 2007). The new role would require specialist staff that could function by way of identifying and managing knowledge resources with business potential. Thus, the responsibilities of these specialist staff may also include step-by-step strategic planning and harmonious utilisation of research findings. For example, other activities would include; discoveries about how best to take a new idea to market, follow-up process to ensure appropriate resources such as funding and support services are readily available for execution of research-based innovations.

The significance of innovative ideas to the general growth of societies cannot be overemphasised, for instance, it is evident that the involvement of the enterprise sector in governance of research institutions can help to orient research activities that support knowledge transfer to industries, and signal willingness to introduce innovative-oriented approaches in all activities. Such interaction has helped to facilitate inter-sectoral mobility, and perhaps, through the hiring of young graduates by industries (Janex & Gunter, 2007). In addition, the development of the knowledge economy is inducing a paradigm change in the innovation process, collaborative research and sharing of knowledge and intellectual property (Siyanbola, 2008). According to Premus (2002), technology transfer occurs when a technology crosses the boundary from one organization to another.

It is arguable that innovation processes could stand on two pillars. The first pillar lies in research and development, while the second pillar lies on the production process. Thus, a permeable transfer between the two pillars is important in technological development. Furthermore, in advanced market economies, it appears feasibly clear that good cooperation between research institutions, development sector and industry creates favourable conditions for technology transfer from science to the business sector and for technology transfer among industrial enterprises. In the situation where research and development are being performed or located mainly in the science sector while innovation is being implemented mainly in industries/enterprises, an issue of science-industry linkage or cooperation is of crucial importance and a transformation of research results into practical applications would take place. Therefore, in the case of Nigeria, the quick, broad and successful transformations of new knowledge created within the spheres of public research into industrial innovations are extremely important for improving the country's low level of innovativeness.

A key objective of publicly-funded research is to exploit the results, which goes one step further than the mere production and dissemination of new scientific knowledge. Such an approach is essential to tackle the Nigerian Paradox: which is similar to strong research-based activities but weak innovation performance.

Therefore, increased emphasis is placed on innovation in the national funded researches. Innovation is understood as any activity aiming to promote not only the dissemination of knowledge but the subsequent exploitation of the results of each research project. This implies that the innovation cycle is a continuous process with parallel activities. Thus, the national innovations system approach stresses that the flow of technology and information among people, enterprises and institutions is key to the innovative process.

Transforming Research and Developing Practical Applications

When a research project is completed, a transformation of its results often begins. This would lead to a technical innovation. The essence of the transformation process would likely be the implementation and commercialization of the research outcomes. The subject of analysis here is a set of processes that can make up a whole innovation process. These partial processes are the researches; transformation of its results into practical applications; accompanying processes of technology transfer and diffusion of technological innovation into practical usage.

According to Pavitt (1999), the innovation process consists of the following phases;

i. Scanning the business environment and processing relevant signals to identify threats and opportunities for change.
ii. Deciding which of these signals to respond to.
iii. Obtaining the resources to enable the response.
iv. Implementing the project to respond effectively, and,
v. Learning from progressing through this cycle.

More illustratively, the transforming of research findings to practice could also be seen from vertical and horizontal perspectives. Thus, a symptom of vertical technology transfers from a research institution to an enterprise setting in particular or, the industrial sector at large. On the other hand, a horizontal transfer of research knowledge and development outcomes into practical applications is essential in the case of small and medium sized enterprises which are likely not to have their own in-house research and development facilities due to the small nature of their businesses in terms of capacity, net worth and funding in comparison to multinational industries

On the basis of this, the whole set of processes can be presented comprehensively in the form of a chain as illustrated below:

Initiation

A starting point here in a research initiation which can come from various sources like, enterprises, universities, research and development organisations and public/private research-oriented institutions. Subsequently, the research and development are performed the research results are then propounded in the form of new knowledge or ideas to salvage scientific and technological solutions. Then, this knowledge is usually transferred from research institutes to various economic entities where its implementation and commercialization take place. The above illustrations could best exemplify the transformation of research findings into practical application. Finally, their diffusion should be treated as a natural, desired completion of the innovation process (Jasinski, 1992). Thus, the Nigerian processes of innovation diffusion have been very weak and narrow for many decades (Jasinski, 2011). Moreover, the diffusion processes in the national economy seems to be poorly investigated by researchers. These and many other factors conglomerate to form the rationale for the present article with visionary thoughts around the transition of evident-based ideas from various viewpoints to full utilisation.

The transition process from various points of view

The process of transforming research and development into innovation cannot be taken out of context, and therefore, it should be treated as a component of the whole innovation project. Thus, the transformation process consists of several elements for suitability and structural processes. Although, there is no universal depiction of this process because it can be considered from various points of view (Jasinski, 2011). The transition process could take place in the following fashion:

Engineering sector: It will be a set of production and technological operations which should result in manufacturing and selling of a finished product. The process can conventionally be divided into four stages:

i. Maturation: Results of research and development should be completed in detail and lead to a form suitable for implementation.
ii. Real Investment: Usually new physical assets are necessary to innovate.
iii. Implementation ending with a start of production.
iv. Commercialization: A new product appears in the market.

Managerial function: It could be a decision-making process concerning investment, production, marketing, financial and similar decisions. Thus, the transformation process is subject to management. Simplifying the flow of research findings to the practice – as a decision process can be expressed in the following phases;

i) Preparatory activities which should start before the project ends; that is, marketing, co-operation, partnership, etc.
ii) Decision concerning a form/way of flow. E.g. commercialisation of research results, user license, etc.
iii) Decision on who will deal with an organisation of the flow:
    a) “We on our own” that is, the research institution where the scientific and technological solution appeared or
    b) “Foreign hands” that means professionals.
iv) Conclusion of contracts with producers, banks, agents.
v) Assistance towards an innovating form in the implementation and commercialization and control of these activities.
vi) Evaluation of the whole transformation process, together with the partners.

Economist function: Research findings would be essential in generating expenditures (cost) and effects (incomes, profits). In other words, an economist would look at the whole process via the prism of effectiveness. Nevertheless, he/she differently evaluates the earlier stages then the later ones;

- The research and development – via the prism of expenditures and,
- The commercialization phase – via the prism of economic effects

For a marketer: It will be a chain creating a value for a user/buyer in subsequent phases. In a comprehensive approach, we have three basic stages or links in an innovation creation chain viz;

i. Initiation and establishment of a research project – the main addressees of the offer would be Research and Development.
ii. Research and development – here an investor or entrepreneur would be the results' user.
iii. Implementation and commercialization – in this phase, the main users of new product will be consumers/households or producers-buyers of industrial goods. In Nigeria, marketing experiences in economic entities in field of research and development and innovation seem to be very poor.

As stated earlier, each point of view is different and within each of them exist a number of stages in the transformation process that are different too, although some phases are similar. Each one needs to be evaluated as a single entity. Generally speaking, all the viewpoints should make a complex and integrated approach that could be set aside to meet different transformation conditions.

Conditions for the transformation process management

For an efficient course of innovation utilisation process, a potential user of research findings such as entrepreneurs either large or small enterprises would require putting the following into cognizance;

- Become involved in the research process/project as early as possible. This refers to the concept of user-driven innovation.
- Co-finance the research projects as much as possible.
- Have potentials to attract external supports at both local and internal levels.
- Have a guarantee of decent profits.

As mentioned earlier, the transformation process is usually preceded by a technology transfer. According to Rosenberg (1982), the essence of the modern technology transfer is diffusion of information based on new scientific-technological solutions and the knowledge about their potential applications. In turn, a range and speed of information diffusion may depend on the organization and functioning of various networks using common success factors.

Common Success Factors of Transforming Research

Findings Into Commercial Products

These include highly skilled and motivated research teams, enthusiastic leaders with high level of commitment and support to research projects; Close collaboration between companies and universities/research institutes. Although, there is bound to exist some forms of challenges but they are tackled in a related fashion. Thus, good knowledge of the state-of-the-art developments in the field is needed to tackle technical problems. There is need to balance quality and cost due to budget limitations. For instance, an inflow of the new knowledge to an enterprise is the result of an outflow of this knowledge from a research institution. These are like two sides of the same coin. Both sides may create conditions favourable for knowledge transfer. However, they seem to speak different languages and have different expectations and aspirations which result from a dissimilar nature of the science sector and the business sector.

Benefits to Research Institutions

Benefits to research institutions resulting from knowledge transfer to industry are not limited to financial gains. Even though, many revenues are resulting from research and development activities, as well as knowledge transfer activities respectively. However, the main benefit could be indirect and should be considered in the long term positive effect. These long term benefits may include the following:

a. The enhancement of research institutions' research activities, access to the state-of-the-art industrial equipment, improving research institutions' project management skills, complementing the research institutions, competence based on the new skills and techniques developed in industry, improved understanding of the market needs and of industrial problems.
b. Gaining status and prestige resulting from successful partnership and products.
c. The enhancement of research institutions' teaching activities, involvement of industry-based lecturers, enrichment of teaching contents and materials with practical examples, learning how to apply skill and knowledge to solve real business challenges.
d. Attracting, retaining and motivating good scientists interested in the entrepreneurial aspect or in new professional career opportunities.
e. Contributing to public authorities, better recognition of the socio-economic relevance of publicly- funded research, potentially leading to increased funding thereof.

Benefits to the Society

The successful implementation of policies to deal with inventions and collaborations with industry can lead to a number of benefits for the society at large and the local economy in particular. These benefits include new jobs, new products on the market and better education.

Recommendations

Nigerian research institutions should set up knowledge transfer units and aim to improve collaboration and exploitation of research findings and their utilization by business organisations. Their success would be largely dependent on the skills and competencies of their staff as well as the strategic role assigned to them and the managerial autonomy. The personnel working on knowledge transfer are expected to possess a wide range of skills in order to carry out their tasks efficiently.

Furthermore, in order to implement knowledge transfer activities effectively, research institutions need to have sufficient autonomy to recruit experienced knowledge transfer staff on a competitive basis. The knowledge transfer staffs are staffs who participate in a range of public engagement activities to keep the public informed about current research outcomes and new innovations. Increased mobility between the public and private sectors will help research institutions and the enterprise sector to identify shared needs.

In addition, 'patent pool' is essential in this perspective as it involves initial agreement between two or more patent holders to aggregate some/or all of their patents for the purpose of cross-licencing in maximising efficiencies. It is a combination of at least two companies or individuals agreeing to cross- licence patents relating to a particular technology. In bringing research findings into commercial products for national development using technological innovations, a patent pool can help create a critical mass of intellectual property which is necessary for innovative ideas to be attractive to the public/private sector. If marketed properly, every relevant industry player could be made aware of the research centres that generated the Intellectual Property and this would help catalyse links with industry. More so, building a patent pool can lead to stronger relationships between knowledge transfer offices and provide a basis for further inter-institutional endeavours. Such pooling of resources appears to be particularly appropriate for those research institutions that do not have the scope and volume of exploitable research result to justify the establishment of a knowledge transfer office.

Note, it is obvious that promoting innovation and disseminating new knowledge can be compatible, provided that intellectual property issues are understood and managed professionally. In addition, Siyanbola (2008) posits that the concept of developing knowledge economy has initiated a paradigm shift in the innovation process and promotes collaborative research and sharing of knowledge and intellectual property with numerous benefits across board.

Conclusion

There is no universal model of transforming research and development into innovations. This process requires an approach from various stand points. The process may end in success or failure wherein success here should be treated as the successful commercialization of evidence-based innovations such as new products or manufacturing process. Broad and quick inflows of a new science and technology knowledge to firms, especially to SMEs, will make the transformation process more efficient. Finally, among other various success factors, one seems most important, and this is the skilful management of both the research processes/projects as well as the transformation process of the findings into practical applications in the enterprise sector.

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UTILIZATION OF INFORMATION AND COMMUNICATION TECHNOLOGY IN THE TEACHING OF SCIENCE FOR NATIONAL DEVELOPMENT

[1]Margaret Foluso AYENI and Funmilayo Elizabeth OLU-AJAYI

Department of Science Education, Faculty of Education, Ekiti State University, Ado-Ekiti, Nigeria

Abstract

Education is adopted as a tool for effective national development and growth so as to produce citizens that are dynamic both in thought and deed, self-sufficient, effective and show civil responsibility. Advancement in Information and Communication Technology (ICT) has brought tremendous relief to the human race. The use of ICT in education has provided complete opportunity through which information is transmitted and shared by people all over the world. Technology has made life easier and more meaningful. It has been a powerful force in the area of National development. Science subject in the secondary school programme occupies a unique position and being a good academic subject, has many useful applications aimed at maintaining a healthier and more productive biosphere for the life of man and other living things. Science in various ways has reduced human labour and improved productivity geometrically. This paper investigates the use of Information and Communications Technology in the teaching of science for national development. It also examines the concepts of ICT, its relevance and effectiveness in science teaching. It concludes by recommending provision of ICT facilities such as internet and adequate provision of electricity in schools for effective utilization which will broaden the knowledge of students most especially in science in order to compete with their colleagues in developed countries globally.

Keywords: Utilisation, Information, Communication, Technology, Science.

Introduction

The development of any nation can be measured in terms of science and technology advancement. Information and Communication Technology (ICT) has permeated all activities that man engages in globally.

ICT refers to a variety of tools and activities including computers, software, digital video and audio, communication technologies, email, internet, database and peripherals such as smart boards, cameras, scanners and musical instrument (Schrum & Schrum, 2009). In this modern age, the use of ICT to enhance effective teaching and learning of science becomes imperative for students and teachers to be able to move with new developments and new ideas to interact with people in other parts of the world and to be able to think globally.

[1] Author: folumargaret67@gmail.com +234 806 323 2349

The global adoption of ICT has often been been premised on the potential of technological tool to revolutionalise an out model educational system and as such better prepare students and the average citizen for the information age, and or accelerate national development effort (Albirini, 2006).

Government is interested in the use of ICT in education because of its enormous potentials it offers concerning the development of a nation. This is the reason why government clearly stated in the national policy on ICT in education that government shall build and encourage the development and sustenance of the ICT manpower required to achieve an ICT-driven education (Federal ministry of Education 2010).

Bandele (2007) supported that ICT should hence be seen as a network technology comprising the use of information processing and sharing facilities or equipment relevant to meeting the societal demands.

The Concept of Information and Communication Technology (ICT)

ICT is a combination of two concepts that is, information technology and communication technology. Information technology is the technology of creating, processing, storing, retrieving and transmission of data and information. Information has to be accurate, relevant, complete, reliable, consistent, refined, adequate, timely and appropriately packaged in order to meet the individual's needs.

Communication involves the various ways of travelling, moving goods, people sending information, connection by means of roads, railways, radio, television, air and sea. Adeosun (2002) defined communication as the process of information exchange between two or more individuals in an attempt by one or more of them to change the behavior of the other(s). Technology is a systematic field of study which employs the application of scientific principles and skills in creating essential goods and services of mankind. Ede and Olaitan (2009) added that ICTs refer to the convergence of micro-electronics, computers and telecommunications which makes it possible for data, including text video and video to be transmitted anywhere in the world where digital signals can be received. Liverpool (2002) discussed the concept of ICT and classified its functions into four: they are: ICT as a subject, ICT as an assisting or aiding tool, ICT as a medium of transmission and ICT as a tool for organization and management of school. The use of ICT has become an integral part of education globally. This is because, ICT enhances the ability of each learner to be able to generate, access, adopt and apply knowledge and interaction,

ICT and Science Teaching

The challenge of the school system throughout the world is that of providing an effective education for all children and young people which will prepare them for inclusive participation in the workplace, social environment, political sphere and sports arenas (UNESCO 2003).

Pulkkinen (2009) suggests a more systemic or holistic vision for ICT integrations and contends that problem of access, quality, efficiency, effectiveness and relevance at different levels of educational systems can be resolved by different and innovative uses of technology. The use of ICT in science teaching has become imperative to improve the efficience and effectiveness at all levels and in both formal and non-formal setting. Education even at school stage has to provide computer instruction.

According to Sani(2011):
Three major roles played by ICT as stated in Nigerian school curriculum includes,

v. Learning about ICT: This is when ICT becomes the subject or an area of study for the learners. In this case, the learners study the composition, structure and function of ICT.
vi. Learning with ICT: This is concerned with the use of ICT as a medium of facilitating classroom instruction.
vii. Learning through ICT: This is concerned with the integration of ICT as an essential tool or component of the course of study that teaching and learning of that course without the use of ICT becomes relatively impossible.

Science students should be able to use technology because of the following benefits:

- It enables student to exchange and share idea among themselves for academic growth
- It allows them to use the online resources like email, chat, discussion forum to support collaborate writing and sharing of information which can greatly facilitate enquiry.
- It enables students to broadcast material on line facility or CD-ROM which can be used as source of information in different subjects.
- It allows students to demonstrate the ability to apply online critical thinking skills
- It gives room for students to facilitate video conferencing or other forms of tele-conferencing which could involve a wide range of students from distant geographical areas to share ideas.

Relevance of ICT in Science Teaching

Many countries now regard understanding of ICT and mastering the basic skills and concepts of ICT as part of the core of education. ICT therefore makes available tools for acquiring and using information for thinking and expression; which is the basic of science.

According to Daniels (2002) ICT has become within a very short time, one of the basic building blocks of modern society. ICT has the potential to innovate, accelerate, enrich and deepen skills to motivate and engage students to help relate school experience to work practices, create economic viability for tomorrow workers, as well as strengthening teaching and helping schools change (Yusuf, 2005).

Lavonen (2008) in his submission highlighted ways by which science teachers can make ICT relevant in the teaching of science. These are:

vii) Ensure that ICT use is appropriate and adds value to learning or new goals are activated for teaching and learning science.

viii) Build ICT use on teachers own existing skills and practice or students prior knowledge and conceptions.

ix) Plan activities or tasks for offering students' responsibility, choice and opportunities for active participation.

x) Prompt students to think about concepts and relationships

xi) Create time for discussion, reasoning, analysis and reflection.

xii) Develop students' skills for finding and critically analyzing information.

Utilisation of ICT in Science Teaching

The usefulness of ICT in science teaching becomes important in such a way that the government of many countries invested on production of educational software.

Government is interested in the use of ICT in education because of its enormous potentials that often concern the development of a nation. ICT in itself cannot bring about effective learning but the teacher who has the task of utilizing ICT in such a way as to make teaching and learning effective and efficient is very important. The government stated in the National policy on ICT in education that government shall build and encourage the development and sustenance of the ICT manpower required to achieve an ICT-driven education. Objectives of ICT in education according to FME (2010) are:

- To facilitate the teaching and learning process
- To promote problem-solving, critical thinking and innovative skills
- To promote life-long learning
- To enhance the various teaching/learning strategies required to meet the needs of the population.
- To foster research and development
- To enhance universal access to information
- To support effective and efficient education administration
- To widen access to education and the range of instructional options and opportunities for anywhere, anytime, any pace and any path learning.

The importance of ICT use in science education can improve the quality of teaching and learning science. This can be supported by Osakinle, Adegoroye & Olajubutu (2009). They believed that the field of education has been affected by ICTs, which have undoubtedly affected teaching, learning and research.

Challenges of ICT in Science Teaching

1. ***Paucity of funds:*** Information and Communication Technology has been rather slow in taking its place in science teaching due to lack of funds to purchase the necessary equipment. Some schools cannot afford to install and maintain an ICT centre. This has a receptive effect on the acquisition of necessary equipments.
2. ***Inadequate proper training:*** The trainings given to the teachers in form of workshop or seminar are not always detailed. It is only the trainer that will have access to the laptop. The trainees will be on looking and not have access to the laptop which resulted into fruitless effort.

3. ***Insufficient facilities:*** ICT involves the use of devices and gadgets that can enhance the teaching and learning of science. It is sad that the internet service providers operating in the geographical zone are either not many or tend to be concentrated in urban areas to the neglect of the rural areas.

4. ***Inadequate power supply:*** The problem of inadequate power supply in Nigeria has rendered many ICT equipment unusable as well as damaging others. Despite huge amount of money invested into the power sector, irregular supply of power is still more of an ideal than a reality. Vandalisation of power lines and equipment by fire and criminals has rendered the supply unsatisfactory to support ICT. Most schools could not afford to purchase generator set to power the ICT gadgets.

5. ***Non-competence of ICT personnel:*** Science teachers that are expected to use ICT gadgets are not competent enough in the handling of the gadgets. Majority of the personnel who are graduates from universities and polytechnics have tended to be more theoretical than hands on. This has been a problem to effective teaching and learning of science.

Conclusion and Recommendations

It is believed that early involvement in the use of ICT will meaningfully enhance the teaching and learning of science. In view of this, it is imperative that science teachers must be willing to adopt the application of ICT in their approach to science teaching. Also it is important that science teachers should be trained in ICT to develop competence for handling ICT resources and ability to use them to impact knowledge. School heads must try as much as possible to ensure that ICT gadgets, that is, the hardware and software on computers used in the schools reflect science research and are properly monitored to avoid unuseful information.

To prevent delay in the use of ICT gadgets in schools, regular supply of electricity coupled with provision of internet services will go a long way in assisting students and teachers in making effective use of ICT gadgets. Supply of Laptop to trainees should be done before the commencement of the workshop or seminars.

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THE INFLUENCE OF LEADERSHIP TENURE OF ACADEMIC STAFF ON THEIR LEVELS OF TEACHING AND RESEARCH PRODUCTIVITY IN COLLEGE OF EDUCATION, IKERE-EKITI.

[1]Adesua, Veronica Olubunmi, and Idowu, Ezekiel Kayode,
Department of Educational Management, Faculty of Education, Ekiti State University, Ado-Ekiti
Department of Curriculum Studies, College of Education, Ikere-Ekiti.

Abstract
In today's higher education the landscape and the world of higher education among academic staffs are faced with a plethora of challenges. The success of a college or university is largely based on the productivity of its staff. The academic staffs level of productivity is measured in terms of teaching and research, the publish or perish challenge play a major role in determining the part to a successful career Since the goals of tertiary education is pursued mainly through teaching, research and development. The purpose of this study is to examine the influence of leadership tenure of academic staff on their levels of teaching and research productivity. A questionnaire titled influence of leadership tenure on the level of teaching and research productivity of academic staff "ILTLTRPAC" was designed to elicit responses from respondents on their level of participation in teaching and research when they occupy leadership position.
The population of the study comprises Deans, Vice-Dean, Directors, Assistant Directors and Heads of Department in various departments, units and schools. The sample comprises one hundred and twenty respondents. Purposive sampling technique was used to select the sample of the study. The reliability of the instrument was ensured using test-retest method, the reliability co-efficient of 0.85 was obtained. Findings revealed that although majority of the Academic staffs had time to engage in teaching and research (writings and publications), they do not have time to attain seminars and workshops to improve their teaching productivity. Moreover, majority rarely time to participate in writing articles in international journals and also attend/participate in international conferences to improve the quality and quantity of their articles in reputable international journals of high standard. Based on the findings, since the amount of teaching and research productivity is measured in terms of the quality and quantity of articles published in reputable journals of high standard, it was recommended that management should strengthen links between teaching, learning and research among academic staff and academic staff should ensure that their leadership tenure does not undermine their career as teachers and researcher. Encourage and organize seminars and workshop during their leadership tenure. Encourage and promote participation in paired-paper review. Encourage students to participate in research writing. Management should encourage academic staff to attend international conference, workshop and seminars through TETFund assisted programmes because today's higher institution is not static but ever changing, dynamic, and developing more technologically in this computer age .

Keywords: Leadership, tenure, teaching, research, productivity, academic staff.

[1] Author: voadesua@yahoo.com *07034974939*

Introduction

Academic Staff who occupy administrative and leadership positions are faced with lots of challenges and competing demands on their jobs as teachers, researchers and administrators. Estes and Polnick (2012) explained that the success of a college or university is largely based on the productivity of its faculty, and that higher education institutions evaluate their objectives based on their performance. A study carried out by Zhang (2014) revealed that teaching load, research support faculty size, financial rewards, performance appraisal, tenure recognition, promotion respect interest, scholar improvement, contribution, sense of achievement, responsibility and autonomy and culture greatly influenced the research productivity of academic staff at all levels. Lertputtarak (2008) in his studies explained that certain essential factors or career development factors such as attitude, skill, experience, academic origin, tenure status and highest degree influence research productivity among academic staff. It is expected that academic staffs in higher institutions should be more efficient and effective in both teaching and research, regardless of the leadership tenure and positions they occupy. Researchers explained that the major responsibilities of academic staff in modern universities is teaching and research as well as performing administrative and community service. There is increasing pressure on higher education system and academic staff to be more productive in terms of teaching and research. Teaching and research seems to be the yardstick to reward performance of academic staffs. It appears that when academic staff occupies leadership position, they seem to be occupied during their tenure to perform their teaching and research responsibilities effectively. They seem to have little or no time to engage in teaching and quality research writings to improve their levels of productivity.

Methodology

Descriptive research design of survey type was adopted. The population comprises all academic staff (as at the time of the study was 354 academic staff). The sample of the study comprises all Deans, Vice- deans, HODs, Directors and Assistant directors, Chief lecturers, Principal lecturers and Senior lecturers who have occupied leadership positions and who are currently occupying leadership positions. Questionnaire titled Influence of Leadership Tenure on the levels of Teaching and Research Productivity of Academic Staff "ILTLTRPAC" was used to measure the influence of leadership tenure on the levels of teaching and research productivity. Purposive sampling technique was used to select the sample of the study. The reliability of the instrument was ensured using test-retest method, the reliability co-efficient of 0.85 was obtained.

Findings

The result of the findings revealed that majority of the academic staff had time to engage in teaching during their leadership tenure; although majority did not have time to attend seminars and workshops to improve their levels of teaching productivity. The findings also revealed that some of the academic staff only had time to participate in the writing of articles in local and national journals and attend local and national conferences during their leadership tenure. Majority of the academic staff did not have time to participate in writing articles in international journals and attend/participate in international conferences to improve their teaching/research during their leadership tenure. 76% of the respondents had time to write only in local journals; only 24% did not have time to write. However, only 18% of the respondents claimed that they had time to attend and participate in international conferences during their tenure in office while 82% claimed that they do not have time to attend/participate in international conferences during their tenure in office. Again, only 28% of the respondents claimed that they had time to participate in writing articles in on shore international journals during their tenure in office while 64% claimed that they did not have time to participate in writing articles in on shore international journals. Similarly, only 26% claimed that they had time to participate in writing articles off shore international journals while 74% did not have time. The findings of the study, supports that of Wodarski (2001) that research productivity depends heavily on how much time one spends on quality research-related activities. It slightly contradicts that of Zhang (2014) that teaching load, research support, promotion, financial rewards, performance appraisal, tenure, recognition and culture greatly influence the research productivity of academic staff at all levels.

Limitation

100 copies of the questionnaire were properly filled and returned out of 120 copies; hence 100 valid responses were obtained.

Conclusion and Recommendation

In a nutshell, majority of academic staff only have time to participate majorly in local/national journals and attend local/national conferences. The amount of teaching and research productivity is measured in terms of the quantity and quality of articles published in reputable journals and conferences of international standard. Academic staff needs to go international because today's higher institution is not as static but ever changing, dynamic and developing more technologically in this computer age. Academic staffs should be encouraged to publish not only in local and national journal, but also in international journals so as to increase the quality and quantity of their publications during their leadership tenure. Collaborative research should be encouraged during their leadership tenure. In the area of teaching, both junior and senior staff should be paired to teach courses in order to encourage effective delivery of their lectures and moderation of questions in line with the course content. Management should encourage academic staff to attend international conferences through TETFund assisted programmes. Those in leadership positions should strive to access international conferences through the internet to enable them participate in writing articles that are of international standard. An enabling environment should be provided in the College for more teaching and research oriented activities.

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