# THE IMPACT OF INVESTMENT IN HUMAN RESOURCES ON THE TRANSFORMATION OF NIGERIAN ECONOMY: FOCUS ON NIGERIAN UNIVERSITY SYSTEM

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A thesis in the DEPARTMENT OF ECONOMICS, Faculty of Social Sciences, submitted to the School of Postgraduate Studies, University of Jos, in partial fulfillment of the requirements for the award of the degree of DOCTOR OF PHILOSOPHY of the UNIVERSITY OF JOS.

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**DECLARATION** 

I, Elias Darlington Anzaku, do hereby declare that this work is the product of

my own research efforts; undertaken under the supervision of Dr J.H.Landi and Dr

A.O. Akerele and has not been presented else where for the award of a degree or

certificate. All sources have been duly distinguished and appropriately acknowledge.

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# **CERTIFICATION**

This is to certify that this thesis has been examined and approved for the award of the degree of **DOCTOR OF PHILOSOPHY in ECONOMICS (DEVELOPMENT ECONOMICS)** 

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# **DEDICATION**

To Ekom and Awoni

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#### **ABSTRACT**

This study centres on investment in human resources for the transformation of Nigerian economy with focus on the Nigerian Universities. Issues and problems relating to human resources development and planning are analyzed to ascertain the extent of its contribution to the transformation of the Nigerian economy. More to this was the examination of the issues surrounding the persistent yawning gap between highly skilled human labour developed at the Universities and the development of enabling economic infrastructure for Nigeria's transformation. In order to reach reasonable deductions in this research, seven research questions were posed along with a hypothesis to validate the data and abstraction of analysis. Seven prime objectives were identified to guide the fundamentals of achieving the goals of this research. The source of information for this study was derived from educational funding, gross domestic product, the labour force employed, gross capital formation, high level manpower from the university within the period 1970-2003. The method of data collection was based on secondary data and dialectical process. The data was analyzed using cointegration analysis and Granger causality test, simple percentages and dialectical analysis. Evidence from the data analysis revealed amongst other things that investment in human resources contributes to the transformation of Nigerian economy. There is inadequate investment resources allocated to education which has been responsible for the dysfunctional education provided at all levels, and this could not develop appropriate human resources to cope with the needs and aspirations of the development efforts of the Nigerian

economy. The study however, revealed absence of coherent and comprehensive policy on developing appropriate human capital that can facilitate the transformation of the Nigerian economy. The findings also revealed that all the productive life of the Nigerian economy rely on human resources development and utilization for their transformation; and this has unfinished panacea. Therefore, investment in human resources accounts for a significant proportion of the unexplained aspect of economic transformation in Nigeria as revealed in our findings from the cointegration analysis. The study recommends that any policy on human resources that have premium for development in Nigeria, must strike a balance between available critical manpower and categories of new employment and opportunities available and to be created. This calls for investment, training and education to be redirected to the development and utilization of human capital in the productive life of the economy. The thesis concludes that in order to achieve this, the state machinery most be directed and targeted at actualizing all goals of critical human resource development and utilization in Nigeria.

#### **CHAPTER ONE**

#### INTRODUCTION

#### 1. BACKGROUND TO THE STUDY

The intolerable gap between the rich and the poor countries has in these five decades hit the conscience of mankind and has informed the search for the role investment in human resources has helped in bridging this yawning gap overtime. This has informed the current emphasis on the transformation of the Nigerian economy to be anchored on the development, planning and utilization of its human resources, though this attempt had also been glaring with earlier efforts in development through the accumulation of material capital which has waned and has been replaced with a new dimension of human capital (Meier, 1978), Meier and Rauch, 2000, Meier and Stiglitz, 2001).

The ongoing emphasis is premised on the fact that improvement on the quality of life of the people who constitute the main agents of production is the central focus of development strategies and policies. Yet, this has not yielded adequate results in terms of developing Nigerian economy. The problem then, lies with how to exploit, improve, motivate and modify the Nigerian human potentials and skills towards transforming the economy. For Nigeria to advance away from its present state of underdevelopment, new and intricate forms of human potentials have to be exploited so as to transform the scale of production. This will be possible only with repositioning and redirection of economic setting of resources with human capital playing active productive and social roles. In this vein, Floud and Halsey

(1965), Jhingan (2002) might be right when they asserted that investment in human resources constitute a foundation in which a society can be advanced and transformed towards a civilization. For a nation to advance, it has to exploit and develop its existing human potentials. The philosophy, ideology and inherent dialectics on the direction of its human investment must be clearly stated and how this should be achieved must be clarified.

Exposing the prominent role of human resources to social and economic development, it becomes imperative to observe that, the uneducated is certainly an economic liability and unproductive as Nigeria moves into the technological epoch. The country has to train and educate its manpower in order to progress, grow and even to survive and sustain the challenges of development (Yesufu 2000). This implies creating sharp changes in the meaning and impact of knowledge for a nation. This is premised on the fact that men of high skills and knowledge have to be trained before they are organized, in order to exercise valuable and rational decision in the production process. In essence, this makes the highly educated man to become the central resource of a modern nation. Investing in Nigerian human resources will necessitate the supply of labour to exploit its economic, social, industrial, political and technological potentials.

Going by the contemporary global arrangement, human resources is essentially a prelude to a long-term investment by both the state and individuals for the continued existence, preservation of cultural values and improvement of the society. Human resource development constitutes the basic potent instrument that could effect national development as well as containing self-reliance. This, when

juxtaposed with the ancient military city state of Sparta, through the middle ages and the modern times, investment in human resource development is seen as being always used by the state for the advancement of the society and the overall national welfare.

Certainly, investment in human beings is motivated by several factors like acquiring of knowledge and ability to understand and interpret the world around, acquiring of Salable professional and vocational skills for good salaries jobs or self-employment, and the desired jobs or self-social status it confers on its recipients. These and many more may constitute the craze for investment in human resource development. Whether this premise is discernible or not, the aim is to be able to bail the individual out of ignorance and poverty such that he contributes his best towards the process of transformation of the national economy.

This critical role of human resource utilization and the transformation of productive base was aptly exposed, when, Todaro (1989), posited that educating individuals through formal education, informs the imparting of knowledge, skills, values, ideals, attitudes, initiation, innovative techniques and aspirations to individuals so as to assist them to function as agents of economic development in all ramifications. Indeed, no nation can develop without first transforming the skills of its labour force through investment in education. Education constitutes an important investment for development in any economy.

Today, investment in human resources is recognized to have intimate relationship between education and economic development (Thompson, 1983 Sachs and Warner 1999). This spiralded many nations to embark on transforming

their vast human potentials that are partly left untapped, under-employed, underutilized, unskilled, misplaced etc, through functional training and investment in education. Education becomes a fundamental parameter and decisive factor in determining the level and direction for which development is to propel since most societies today have reached their climax of development through first, diversifying their enormous human resources with investment in training through formal education as well as on-the-job-training.

In this thesis, much emphasis is placed on human resources in the realm of economic theory, ideology and philosophy. The attempt is to examine the role of education in economic development. It should be noted that education for citizenship, education for enhancement of the freedom, dignity, and worth of man are legitimate goals and philosophy but they express only in part the aspirations of modern societies (Ulich, 1961, Schultz 1992). This assertion by Ulich and Schultz perhaps expresses the critical role education can play when adequate investments are made on human resource development despite limitations.

Arguably, human resources have been traditionally thought of as one of the more or less inert input necessary in the life of the growing economy. Indeed, human resources creatively determine the subsequent nature and future of the national economic performance. But where the knowledge and skills of the populace are inadequate to take advantage of the potentials of a society, argued Hanna (1962), then that society will fall behind those that invest more intelligently in human development. Therefore, if growth rates are important for a nation's survival and advancement, then planned investment in education becomes a crucial factor

in determining the rate of transformation in the economy.

In reality, there should be no conflict between the economists and humanists view to human resource development since all are aimed at achieving economic development. Since, if one of the major goals of nearly all societies today is rapid economic growth, then that of human resource development must be designed to provide the knowledge, the skills, and the incentives required by a productive economy. But if one rejects the notion that investments in education must be productive, then one should be prepared also to reject the goal of rapid economic development and the idea that education must be oriented in significant respects to promote it, one needs not thereby reject a humanitarian concept of the role it can play to actualize. The development of man for himself may still be considered the paramount, but economic progress can also be one of the principal means of attaining it. Human resource development systems can be designed, which, intentionally could help to increase production of essential goods and enhance the freedom, dignity, and worth of the individual (Harbison and Myers, 1964).

It is glaring fact that the goals of modern societies are economic, political, cultural and social; and appropriate investment in human resource development is a necessary premise for achieving all of them. Nigeria for instance, needs educated political leaders, lawyers and judges, soldiers, trained economists, engineers, doctors, managers, artists, writers, craftsmen, journalists etc to spur its development. The bulk of these human potentials, are of the high level manpower whose environment of appropriate training is the university, with the technicians being trained at other tertiary institutions. It is most glaring in Nigeria that the

funding of education and the Nigeria university's funding (Aminu, 1992) have not received adequate attention which has seen to the ongoing crisis of the education sector. The required training and utilization of manpower have not been effectively placed and used even where appropriate human resource development is regarded as the most fundamental instrument in determining the rate of transformation of any economy. The present stage of transformation in the more developed economies cannot be isolated from appropriate investment in their human resources (Yahaya, 1992, Schultz, 1992).

If for instance, Nigeria is unable to develop its human resources, it cannot develop much else, whether this is reasoned from contemporary economic, political or social structure; a sense of national unity or higher standards of material welfare. This is a pointer to the observation raised by Curle (1962), Schultz (1992), Meier and Rauch, 2000), that countries are underdeveloped because most of their people are underdeveloped, having had no opportunity of expanding their potential capacities appropriately in the service of their society. Investing in human resource development becomes a key factor in transforming the national economy and serves as a basic instrument in development (Ozigi, 1990, Wey 1992, Jhingan 2002).

In almost all societies that have had their development beyond primitive level of production, their rate of advancement have resulted fundamentally on human effort.. This is because it is the human capital that develops capital, exploit natural resources and create and manage general process of production that sustains and propels growth of the economy. Moreover, the transformers of the economy are

educated elites of various kinds of human capital, who organize and lead, posited Harbison and Myers (1964), may be revolutionary intellectuals, nationalist leaders, or members of a dynastic or rising middle class. They advanced that effectiveness as prime movers depend not only on their own development but on the knowledge, skills, and capabilities of those whom they lead as well. In this light, the wealth of a nation and its potential for economic, political and social growth stem from the power to develop and effectively utilize the inert capacities of people.

It is against this background that this research is of the view that human resource investment may be more realistic and reliable indicator of transformation and modernization than any other single measure as it is, one of the necessary conditions for all kinds of development; and without which development may not be feasible. Though this thesis admits that this does not explain everything just like Nigeria may have well-developed human resources and yet its development may be lagged if it is unable to develop the human resources and institutions which can enhance the advancement of Nigeria. Appropriateness of training and relevance of human resources to the needs of the economy has adversely affected human resource development in Nigeria as the bulk of manpower appeared not so relevant to the technological take-off of the economy. This is true because, despite the huge investment made in human resource development in Nigeria so far, the country has nothing to show in terms of technology and its produced goods could be seen as direct output of efforts from human skills.

From this background, it could be deduced that not much attention has been given to human resource development especially the appropriateness of relevant

manpower to the needs of Nigeria's transformation. In this premise, this thesis seeks to assess human resources development efforts with a new perspective on the investment made in this area in Nigeria with focus on high-level manpower. Also to examine how despite enormous investment made so far in human resources, most of the tapped skills are still left wasted idly, unemployed, underutilized, under unemployed, misplacement in jobs with persistent underdevelopment of the economy at the expense of development. One also examines this on the premise whether there has not been adequate investment made in this area, particularly the funding of education in Nigeria; and its anticipated externalities on development. All these, call for this thesis to address investment in human resources and the attendant transformation of Nigerian economy with the universities in focus.

## 1.2 STATEMENT OF THE PROBLEM

This thesis analyzed the problems of human resource investment and its attendant transformation of the Nigerian economy based on the problems relatively associated with shortages and wastages of high-level manpower with critical skills and competence; and those that are related to unexploited human resources with redundant and under employed human capital (Harbison and Myers 1964, Appleton and Teal 1998); and appropriateness of training and funding of education. Investing in human resources on this ambit has the objectives of perhaps building knowledge and skills that are directed to the development of man's brainpower and provision of employment and broader opportunity for unutilized human capital. The aim of

investing in human resources is to structurally transform the human capital-skills and knowledge necessary for economic, political, cultural and social growth toward developing the national economy; and yet, this has been less achieved in Nigeria as development has persistently remained low.

The differences in educational provision and investment amongst nations, regions and classes, do reflect differences in the movement toward prosperity on the basis of modern technology transformation; educational and occupational inequalities; which all fundamentally determine social inequality and retardation of development in the economy. Technological advancement has been a problem in most economies and yet this can be guaranteed by investment in human resources; which constitutes the foundation of a modern society. Despite the investment made in human resources in Nigeria, the contribution to economic development has still remained an open question and a matter of concern to most economists. As there appear basically, there are limitations to generalize individual and social return to educational investment. The mobilization of skilled human resources for economic development is by no means a simple problem of the scale of formal educational development and investment (Anderson, 1965, Schultz, 1994, Adamu, 2003).

Problems of human resources are glaring in all ways round as this could range from inappropriate training, inadequate funding of education when compared to other sectors of the economy; and the overstress of certain manpower requirements even where they are not too necessary in the path of nation building. For incentives to human capital and improper placement of trained and refined manpower, have affected the contribution of human capital towards national

development.

The Ashby report of 1960 titled "Investment in Education" in Nigeria, saw this glaring problem of human resource development especially that of appropriateness of human skills to economic development and advanced that education has become an investment for which financing must be sought from Nigeria, as well as external sources; if required manpower for development is to be tapped. Hence, education was considered to be no longer a matter of budgeting on what the country could afford but on the future needs of the country, which were so massive that the Nigerian resources alone would be inadequate to finance them (Taiwo, 1986, Aminu, 1992, Yesufu, 2000); and yet, enormous resources were sunk in unproductive sectors like defence. This sourcing of financing education from external sources aside from internal funding, culminated into a very serious problem affecting investment in human resources today, since the type of labour needed to be trained and that could be viably utilized to transform the mode and means of production in the Nigerian economy are externally determined (Wey, 1992, Yahaya, 1992, Yesufu, 2000); and has really helped in delaying the process of transformation of the Nigerian economy, when both colonial and neo-colonial planning experiences are examined and put to questioning.

The problem is also unique in Nigeria where there are great wastages of effort in the use of available finance and human resources like where energies and resources are mostly wasted in bolstering up outdated forms of education. For instance, humanities based disciplines are stressed at the expense of science disciplines.

This becomes even more glaring with inadequate and inappropriate training of poorly educated teachers whose efficiency according to Castle (1972), Ncube, (1999) is depressed by discouragement and low pay; and indiscriminate admission to school and college of students with little academic promise (as in the case of Nigerian universities) that could result in the lack of suitably trained candidates for economically productive occupations. Unfortunately, there are inadequate funds to produce high-level skilled manpower that could help transform Nigerian economy as tenable in the current educational and underdevelopment crisis in the country. The Nigerian university system is a necessary tool in this dialectics for determining the extent to which investment in human resources can be used in transforming the Nigerian economy.

Despite the huge investment made in human resources in Nigeria so far, the performance of the Nigerian economy has remained generally disappointing. This is not to say that there has not been any transformation or any impressive achievement (Lowe et al, 1973, Jhingan, 2002). The problem was further highlighted that judging by the fundamentally realistic standards implied in the target set for the first UN development decades of securing a real rate of growth of 5 percent per annum in total GDP starting from 1969 to date, the African performance (Nigeria inclusive) leaves much to be desired.

In this thesis however, identifying problems and factors associated with investment on human resources and the transformation of the Nigerian economy is not, of course, to explain the whole problems; but that the only way out of this is to expose and analyze the issues that manifest in the funding of education,

appropriateness of training to the needs of the economy, effective allocation and utilization of trained manpower. Hence, the main problem is to expose those variables that are inherent in human potentials that when proper investments are made in education, and such skills are wisely and usefully exploited, productivity is ensured and thus ensuring transformation of the economy.

Thompson (1983) made this clearer, when he pointed out that most economists came to realize that the problems of development were largely problems of human resource development. This requires appropriate exploitation of the human potentials and the effective utilization of the available skills. Therefore, education is seen as the most crucial instrument for actualizing this, and this demands adequate funding if such aims are to be achieved.

Yet, it appears that if there is still a mystery in the all-comers game of economic development, it is that of the human resource factor. This has been quite unique with the experience of Germany, Japan and other countries and their phenomenal economic recovery after the devastations of much of their capital during the war, and equally, the amazing development of Israel, Sweden and Japan which are not particularly well endowed with natural resources, had the salutary effect of drawing attention to the importance of brainpower and human skills in the process of economic growth and development. Convincingly, the success of the present Russian Federation in competition with the United States in the arms and space races, the continued shortage of scientists and engineers even in developed economies rest on human resource utilization and its investment paradigm (Yesufu, 1969, 2000).

However, recent advances in micro-economic and macro-economic theories through development models, tend to confirm beyond doubt that observable increases in production and economic growth cannot only now be wholly explained by the traditional analysis of the cooperating factors of production alone and neither is it sufficient to attribute such increase to technological change. For this, generally, the problem is, as technological change presumes innovation, and innovation means (Yesufu, 1969, 2000), the application of new knowledge and skills to solve the practical problems that adversely affect the development of the economy. To stress this problem, is to emphasize the relevance of human resource factor in transforming the Nigerian economy. Though in Nigeria, there is a mismatch with what constitutes investment in human resources, economic ideology and development.

To expose the problem further, is to perhaps weigh the perception of man as a means of production that stresses both the problem of quantity that emanates from the size of the labour force employed; and its quality based on the skills, efficiency, brain power, experience, innovation, invention; effective allocation and utilization of such labour and appropriate training. All these, serve as some key factors surrounding decisions that do affect investment in human resources in the path of nation building. This demands some high-level manpower training that can ensure effective management and exploration of human resource endowment. The university becomes the central place of this training of high-level manpower.

In this study, the problems exposed are multifaceted. They will be investigated under human resource development in relative terms to economic development, education and training, effective allocation and utilization of human

labour and the general funding of education in Nigeria. In doing this, certain fundamental research questions are raised as stated hereunder.

### 1.3 RESEARCH QUESTIONS

Having established the problem, the following research questions are advanced to guide the study.

- i. Has economic planning in Nigeria made sufficient provision for relevant human resource development towards transforming the economy?
- ii. Have funding of education towards sustaining the exploration and training of appropriate human resources in the process of nation building been adequate?
- iii Has the existing human potentials been effectively allocated and utilized towards effecting development of Nigeria's economy?
- iv. Has investment in university education been sufficient to meet the required and appropriate human resources for transforming Nigerian economy?
- v. Have the financing of education been equitable with other sectors of the Nigerian economy in spite of its crucial role in developing the entire economy?
- vi. Despite the importance of human resource development to economic transformation in Nigeria, has its investment been given serious consideration in the process of development?
- vii. Has there been any divergence between investment in human

resource development and national philosophy and objectives reflected in National Development plans?

#### 1.4 STATEMENT OF HYPOTHESES

Basically, in order to test and analyze the data for this research, and to ascertain the degree of credibility of this thesis, pertinent null and alternate hypotheses are posed as follows:

Ho: The transformation of the Nigerian economy does not depend on investment in human resources.

Hi: The transformation of the Nigerian Economy depends on investment in human resources.

#### 1.5 RATIONALE FOR INVESTMENT IN HUMAN RESOURCES

The linkage between investment in human resources and the transformation of the Nigerian economy have not been given much precedence in economic development. This is because prior to Nigerian flag independence in 1960, very little was known about this linkage. This plight became manifested with the Ashby Commission Report in Nigeria on "Investment in Education" in 1960, when the need to link education and economic development, was given precedence. One striking imagination with this scenario is that economic development was everywhere related or linked to the level of education of the citizens of a country (Akangbou, 1985, Simon and Teala 1998, Meier and Rauch, 2000, Jhingan, 2000).

A serious factor in Nigeria with human resources development has been that of underemployment or disguised unemployment which has lingered in all productive life and which probably is attributable to inappropriate training as well as ineffective allocation of human resources in the path of nation building. This has rekindled the rationale for a rethinking in the investment criteria for exploring human potentials. Accordingly, the process of economic development ramifies with the process of expanding human potentials and capabilities. This entails on the attributes of human skills and capabilities. To make this more glaring, the CDP Report of (1988), UNDP (1996, 1997), Jhingan, (2002), observed that the enhancement of human capabilities often requires changing technologies, institutions and social values so that the creativity within human beings can be unlocked and which in effect could spearhead economic development and growth.

It is reasonable to advance that a country that has high level of literacy will invariably have low per capita income and low level of skilled manpower; and with investment and development in education will mean increase in skilled human labour and per capita income (Akangbou, 1985). This demands Nigeria to allocate more of its resources to the education sector, as without massive investment in human resources, the literacy level as well as the exploitation of inert human potentials of the citizens would not be elevated. This implies that transformation of the economy and investment in human resources are both mutually dependent.

As pointed out by Hoffman (1965), Schultz (1992), Jhingan (2002), the underdeveloped countries (including Nigeria) need high -level manpower just as urgently as they need capital. This calls for high level manpower training at the

university level; and since it is in the university that highly skilled and specialized labour is certain and guaranteed. With the relevance of investment in human resources towards national development, Obasanjo (1976), Gowon (1994), Meier and Stiglitz (2001) posited that education as investment in human resources constitute the basic instrument in nation building. Unless Nigeria is able to develop the appropriate and strategic plans for its education sector, it may not effectively absorb capital. This then resounds that of all the resources required for economic development, high talent manpower requires a long period for its gestation and creation. For instance, it takes a few years to build a dam, power stations, steel mills, air ports and textile factories, yet, it takes 16 to 20 years to groom and develop highly skilled teachers, engineers, and managers who will man and operate them. However, as affirmed by Ashby (1960), that school and college buildings can be erected in a matter of months but it requires decades to develop high-level teachers and professors.

This confirms the rational for more relevance to be attached to investment in human resources since, the overall transformation of the Nigerian economy can only be guaranteed through appropriate training and effective allocation and utilization of its human potentials. Further confirmation of the worth of this study is manifested in the analysis made by Gardner (1961:34-35) when he observed that:

The demand for high-talent manpower is firmly rooted in the level of technological complexity, which characterizes modern life, and the complexity of modern social organization. And even more important than either of these is the rate of innovation and change in both technological and social spheres. In a world that is rocking with change we need more than anything else a high capacity for adjustment to changed circumstances, a

capacity for innovation. Only high ability, and sound education can equip a man for the continuous seeking of new solutions.

This exposes the fact that there is rationale to invest in human resources since it is the human talent that determines the rate of transformation and quality of production in an economy. Therefore, it is through concerted effort towards grooming, charting, exploiting and managing the Nigerian human resources development that all-round and wholistic development of the economy can take place and be sustained.

The rationale for this study has been necessary in the face of rising unemployment problem and underdevelopment syndrome that are quite pronounced in both urban and rural areas. There is the need to explore the possibilities of training of appropriate human resources in order to provide skilled personnel required for implementing development policies and programmes. Such skilled personnel have been quite inadequate in the process of transforming Nigerian economy; and hence the prevailing underdevelopment and unemployment syndrome that have perpetrated the development process.

However, with shortage of high-level manpower in Nigeria, human resource development has become highly relevant. This is because; human resource has become an indispensable means for transforming all resources for human use and development. Therefore, to develop Nigeria is anchored on how well the human skills are developed and appropriately allocated to the existing opportunities and competing need in the process of production and transformation of the economy.

The method, approach and philosophy we adopt will certainly determine the Nigeria of our dream.

#### 1.6 OBJECTIVES OF THE RESEARCH

In order to have a sustained base for analyzing and exposing the fabrics of investment in human resources and the transformation of the Nigerian economy; this study has the following objectives to guide the findings:

- It will ascertain the extent of government efforts in the development of Nigeria's human resources.
- ii. It will identify problems and prospects of unemployment, underdevelopment as well as those of inappropriate training as well as the problems of utilization and allocation of human resource capabilities in the Nigerian economy.
- iii. It will dwell on investment in education and its contribution to the transformation of the Nigerian economy, the funding of education as it relates to other sectors of the economy and as well identify necessary avenues for ameliorating this defect.
- iv. It will examine the role of Nigerian universities Commission (NUC) in financing universities education along with enrolment into various disciplines by faculties. Equally, the role of other levels of human resource development will be examined at a dialectical level. Thus, this study will tend to establish the role of the university in promoting high-level manpower development for the transformation of the Nigerian economy.

- v. A pertinent objective of this study is to expose the inherent dialectics between investment in human resources and the attendant transformation of the Nigerian economy. To do this, this research will attempt to verify the extent to which investment in human resources has helped in shaping and directing Nigeria's path to development.
- vi. This study shall attempt to establish the relationship between the philosophy of human resource development and the transformation of the Nigerian economy. In doing this, implies examining the guiding philosophy surrounding Nigeria's economic development planning; and pertinently the investment criteria on man and nation building and as well as aspects of technological development.
- vii. This study is also aimed at determining whether human resource development has been based on societal goals and needs and have met the requirements for transforming the structure of the Nigerian economy. Within this framework, this study at its refinements and conclusions, will proffer policy options towards improving the status of investment in human resource development in the process of elevating the Nigerian society.

## 1.7 THE SIGNIFICANCE OF THE RESEARCH

Since economics of education has been relatively a new field in development economics, particularly in developing economies like Nigeria; this study becomes relevant in exposing the role of human resource development in nation building. It becomes glaring that the findings thereof, will serve as unique force in resolving the

crisis and distortions on the investment pattern in human resources - pertinently in the areas of labour utilization, appropriateness of training, employment and underdevelopment as well as unemployment and wastages.

The case of funding education becomes crucial in the light of the relevance of this study since the inherent dialectical analysis will expose the major distortions surrounding the investment processes and criteria in Nigerian human resource development and planning. This study will be fundamental in identifying the manpower requirements and needs of the country. This study is relevant in identifying the extent to which high-level manpower has been developed and utilized in Nigeria as well as contributes to its economic transformation.

In the light of the findings emanating from this research, the government, researchers, policy planners and makers with scholars and the general public should in no small count find this study re-awakening them with the goings-on in this field and the prospects they could attain in it, using this available research output. It is equally hoped to serve as a reference source for other researchers and for policy consideration in view of the political economy inherent in the dialectics and data availed.

#### 1.8 SCOPE OF RESEARCH

The research period sprang from 1970 -2003. This period is chosen for the fact that the required secondary data needed for the analysis of this work before 1970 is envisaged with some dearth and hence the employment of dialectical methodology in juxtaposition with the simple survey to further give a detail analysis. The period

cover all the development plans. The first plan 1962-68 had some distortions in its implementation and will most appropriately be treated at the level of dialectics. Even the case of first Rolling Plan 1990-92 shall have this same dialectical treatment with the mystique surrounding the prevailing structural development of Nigeria, when a succinct political economy of development is addressed to its economic policies. But for the Second Plan 1970-74, Third Plan 1975-80, Fourth Plan 1981-85, human resource development policies were examined.

The general characteristics of human resource development were highlighted in this thesis. They include investment, under-employment, unemployment and wastages of labour, utilization of human skills and appropriateness of training and human resource allocation to meet the needs of the country. Consequently, the ideology, philosophy and methodology of the economics of human resource development and planning in Nigeria were considered as the central piece of this study.

The analysis was based on investment information in human resources development at the macro aggregate levels, which include the funding of education and its contribution to economic development; and the general funding of university education by NUC as well as the general universities enrolments and outputs. Some treatments were made on the enrolments into subject discipline and specialization. This is in cognizance with the fear of dearth of data in many sectors of the economy, and particularly the distorted nature of data in various official records. However, the aggregate national income figures on education, gross physical capital formation and employed labour force are used.

Thus, the scope of this study is based on the political economy of investment in human resources and the attendant transformation of the Nigerian economy.

## 1.9 METHOD OF STUDY

This study used secondary data in retrieving relevant information regarding investment in human resources. This is chosen in view of the broad nature of investment in human resources, which can not been adequately covered because of the dearth and inconsistency of data in Nigeria. The research narrowed data to selected aspects of investment in human resources for analysis of input-output of the system between 1970 and 2003. These include real gross domestic product, recurrent expenditure on education, gross physical capital formation, labour force employed and high level manpower produced at the Universities. It also generally used data in enrolment from the education sector and the general funding.

Further, we settled down to dialectical method in order to bring out a detail analysis on the inter-connection between investment in human resources and the transformation of the Nigerian economy. This process establishes an understanding of the mutual connection in the process of seeking solution to any question arising from the impact of relationships between funding and output of education and the university system as well as utilization of skilled manpower in Nigerian economy. The dialectical method in this study gives a detail analysis on the abstract relationship between the input and output of human resources in a qualitative process of this study.

The presentation of this dialectical process differs in form from that of inquiry. As an inquiry has to appropriate the material in detail so as to analyze its different forms of development, and to trace out their inner connection. Therefore, the dialectical method adopted in this study is out to examine the political economy of investment in human resources in the development of the Nigerian economy. This position, argued Mandel (1974), that the origin and evolution of a material science can only be discovered through its dialectical study. To affirm this further, Mandel posited that the logical course of exposition is more easily demonstrated through dialectical analysis.

The dialectical method was employed and this gives a detail analysis of the existing and arising problems of human resource development and investment in Nigeria. The dialectical method in essence is not an arbitrary process, but reflects and reveals detail relations in a phenomenon as used in this study.

#### 1.10 **DEFINITION OF SAMPLING UNITS**

The survey units are the federal expenditure on education that is required to enhance transformation of the Nigerian economy. Such investments include the Federal Budgetary allocations (capital and recurrent) to the entire educational industry and general enrolments in education between 1970 and 2003. The Nigerian Universities, especially the 24 Federal Universities were surveyed with more reliance on total expenditure to Universities enrolment into disciplines and output between 1970 and 2003. The focus is on high-level manpower at the Universities. However, Data was also collected and used on the gross domestic

product, physical capital formation, labour force employed and output of the universities (1970 – 2003).

# 1.11 SAMPLING FRAME, SELECTION AND STRATIFICATION

This research is based on the Federal Government's expenditure (capital and recurrent) to the educational sector and total enrolment and output. This involves enrolment and output at the tertiary level, the University and its funding during various development epoch 1970-2003. During this period, military and civilian administrations governed the country with different economic and education policies. Relevant expenditure on defense and agriculture were used to allow room for comparison. Sources of educational finances, the nature of investment on education, the enrolment and number of disciplines turn out in Nigerian Universities were examined between 1970 and 2003. Also data on gross domestic product, physical capital formation, labour force employed (1970 – 2003) were collected and utilized.

#### 1.12 SAMPLE SIZE

The sample size was determined by the Federal Government's expenditure (capital and recurrent) made to educational sector, the Nigerian Universities Commission and general enrolment on all disciplines. The enrolment rates to these disciplines were ascertained in order to establish the relationship between actual investment and output of high-level manpower produced at the University. This

sampling was made on high- level manpower as informed by the euphoria of investment in human resource development in Nigeria, 1970 – 2003. The sample also included real GDP, physical, capital and labour force employed 1970 – 2003.

## 1.13 METHOD OF DATA ANALYSIS

The objective of this study is to establish the linkage between investment in human resources and the transformation of the Nigerian economy based on high-level manpower (output), especially its contribution to the quality of the development of the economy. To establish this link, the method of cointegration lanalysis and simple percentages were used. In addition, the dialectical method was employed in order to make detail analysis and to bring out the interconnection between investment in human resources and the transformation of the Nigerian economy.

A glimpse at the objective of the research and the null and alternate hypotheses focused on the model, entail that only one statistical estimation method is used along with simple percentage to analyze the information collected from the secondary data.

These hypotheses were validated based on cointegration estimation method and granger causality test. The analysis is necessary in this study as it established the linkage between investment in human resources and the transformation of the Nigerian economy. To further establish the strength and consistency of the regression coefficients, granger causality test was used. This facilitates the use of time series in forecasting of the investment paradigm in human resources and the anticipated change in the general growth and development of the Nigerian

economy. This becomes even more relevant in forecasting the pattern of investment in human resources. The investment premises and anticipated output with reference to human resources were analyzed from the size and sign of the regression coefficients.

Apparently, in order to further give a detail analysis of the interconnection between investment in human resources and the transformation of the Nigerian economy, a dialectical method of analysis is employed as highlighted earlier. The dialectical method and cointegration analysis employed in this research further strengthened the analysis with greater reliability on the parameters.

#### 1.14 THE MODEL

We consider our model under the neoclassical economic growth theory, which posits that changes in the output of factors of productions are responsible for economic growth and development (Solow 1956, 1957, Meade, 1961, Mankiw, Romer, Weil 1992 Sachs and Warner, 1999, Jhingan 2003, Adamu, 2003, Green, 2003, Dornbusch, Fischer and Startz, 2004). Neo-classical growth model is designed to show the way in which the simplest form of economic system would transform during the process of development (Hoeffder, 1997, Jhingan, 2003, Green, 2003, Dornbusch, et al 2004). Considering this relevance, we employ the augmented solow model of neoclassical production function. Solow postulates a continuous production function linking output to the inputs of capital and labour, which are substitutable (Dornbusch, et al 2004).

Output grows through increase in inputs and through increase in productivity

due to improved technology and a more able workforce (Barro, 1999, Jhingan, 2003). The production function provides a quantitative linkage between inputs and outputs. As a simplification, we assume that labour (L) and Capital (K) are the only important inputs.

$$Y = AF(K, L) - - - - (1)$$

Where A represents the level of technology because the higher A is, the more output is produced for a given level of inputs. Equation (1) relates the level of output to the level of inputs and the level of technology.

Since output is produced with capital and labour, technological possibilities are represented by the production function as

$$Y = F(A, K, L) - - - - (2)$$

It is easier to work with growth rates than with levels. Therefore, the production function in equation (2) can be transformed into a very specific relationship between input growth and output growth. Differentiating with respect to time to arrive at rate of change of capital stock, we divide by Y and rearrange the terms, we derive:

$$\frac{\Delta Y}{Y} = (\underline{AA}) + (F_k \underline{AK}) \qquad (\underline{K}) + (F_L \underline{AL}) \qquad (\underline{L}) \dots (3)$$

Where

 $\begin{array}{ll} \underline{Y} & = \text{rate of growth of output} \\ K & \\ \underline{K} & = \text{rate of growth of capital} \\ K & \\ \underline{L} & = \text{rate of growth of labour force} \\ L & \\ F_K F_L & = \text{Social marginal product of capital and labour} \end{array}$ 

<u>AA</u> =Hicks neutral rate of change of technological progress

From equation (3), the contributions of input growth and of improved technology portend that labour and capital each contribute an amount equal to their individual growth rates, multiplied by the share of that input in income; and that the rate of improvement of technology is the third term in equation (3). Hence, there is growth in total factor productivity when we get more output from the same factors of production.

However, from our model in equation (3), there is increase in national output as a result of accumulation of physical capital characterized by an increase in labour force and improved technological progress. In this process, human capital is considered the major determinant of labour productivity as it stimulates and promotes the absorption of new technology. It equally enhances the rate of innovativeness and facilitates effective and efficient management of resources (Jhingan, 2002, 2003, Adamu, 2003, Dornbusch, et al, 2004).

Technological progress is facilitated by high labour productivity that is sustained through investment in human capital. The accumulation of physical capital is facilitated by enhanced knowledge, skills, capacities, innovation, invention and attitudes of people that contribute to the development process (Lucas, 1998, Schultz, 1992, Jhingan, 2002, 2003, Adamu, 2003, Chete and Adeoye, 2003). Consequently, increase in high level human resources will lead to high income per head and a corresponding rise in physical capital accumulation. This makes human

capital formation and economic growth and development to be mutually reinforcing.

As Jhingan (2003:387) captures this that:

now it is increasingly recognized that the growth of tangible capitals stock depends to a considerable extent in human capital formation, which is the process of increasing knowledge, the skills and the capacities of all the people of the country.

This led to the adoption of the augmented Solow model, applying Cobb-Douglas production function with the incorporation of human capital into it. Several studies Mankiw etal (1992), Romer (1990), Hoeffler (1997), Sachs and Warner (1999), Barro (1999), Adamu (2003), Chete and Adeoye (2003), Uwatt (2002), Jhingan (2002, 2003), Dornbusch, et al (2004) utilized this and on this, strength, we present the augmented Solow model to validate our data as follows:

$$Y(t) = K(t) \alpha H(t) \beta (A(t) L(t)) 1:2:\beta -----(4)$$

Where

Y =output

K =physical capital

H =stock of human capital

L =labour force

A =level of technology

 $\alpha$ ,  $\beta$  < 1 = implying decreasing returns to capital.

We specify the model in order to determine the impact of investment in human resources for the transformation of the Nigerian Economy.

We state the model thus:

RGDP= (CEED, REED, GCF, LFE, HLMU) ......)5)

RGDP = Real gross domestic product as a proxy for economic transformation

CEED = Capital expenditure on education

REED = Recurrent expenditure on education

GCF = Gross physical formation as a proxy for physical capital

LFE = Labour force employed

HLMU = High-level manpower produced at the Universities.

We present investment in human resources as proxies vide capital and recurrent expenditure in education. This is to ascertain the extent to which they contribute to the development process. This approach was earlier supported in studies by UNDP (1996, 1997), Sachs and Warner (1999), Adamu (2003), Uwatt (2003), Chette and Adeoye (2003), Hoeffler (1997), Jhingan (2002, 2003) and Dornbusch, et al (2004).

We state the equation in a linear form thus:

RGDP = 
$$\alpha_6 + \alpha_1$$
 CEED +  $\alpha_2$  REED +  $\alpha_3$  GCF +  $\alpha_4$  LFE +  $\alpha_5$  HLMU +U ... (6)

We state our apriori expectations as:

$$\alpha_0$$
,  $\alpha_2$ ,  $\alpha_3$ ,  $\alpha_4$ ,  $\alpha_5 > 0$ 

The coefficients are expected to be positively related to RGDP at the apriori level. This demonstrates that capital and recurrent expenditure on education, human capital formation, the size of the labour force employed and the number of high-level manpower have positive relationship with economic growth and

transformation. The thrust of this thesis however, is to determine how these parameters contributes to human resources development and its impact on economic transformation of Nigerian Economy.

In line to this study, we adopt equation (6) as our empirical model to be estimated for 1970 – 2003. This study adopts the cointegration analysis and error correction mechanism and Granger causality test to estimate equation (6). This is in view of the fact that if the parameters are non-stationary, the desirable properties of efficiency, consistency and unbiaseness will be lost given that ordinary least squares technique is to be applied to estimate this equation. This can lead to poor results and inferences and equally inaccurate predictions.

This study is different from previous studies in terms of the estimation technique employed and the data used which is extended to 2003.

#### 1.15 LIMITATION OF STUDY

This study is limited to issues relating to investment in human resources and the transformation of the Nigerian Economy. It is constrained to financial resources capital and recurrent expenditure allocated to education sector between 1970 and 2003 and also relevant economic data of GDP, physical capital, employed labour force, output of the education sector and universities. The method of study was limited to secondary sources and the analysis is limited by the model of Cointegration and Granger causality test as well as the dialectical process employed.

In view of these constraints and also cost of carrying out the data gathering and analysis, the study has to limit its scope to the affirmatives above. Despite this, the findings are worthy of generalizations.

#### 1.16 RESEARCH OUTLAY

This research is structurally undertaken to establish the role of human labour in the transformation of the Nigerian economy. In order to expose the interconnections and bring out the findings, the research has to adopt the outlay espoused herewith.

The research has six chapters and within which chapter one looks at issues relating to the general background of the research problem, questions, hypotheses, rationale, objectives, significance, scope and methodology of the study. Chapter two delved into review of related literature on issues relating to investment on human resources and the transformation of the economy.

Chapter three had its focus on issues and structure of investment in human resources and efforts in transforming the Nigerian economy. Attempts were made at the dialectical and analytical levels to expose the inherent inter- connection between investment in human capital and the transformation of the Nigerian economy. Quantitative data was also used to enrich the analysis.

However, chapter four of this work had its focus in the critical area of highlevel manpower development, the center piece of this thesis. Issues relating to university education were dialectically and quantitatively analyzed along funding, enrolment and graduate output. While chapter five of the work analyzed the quantitative data regarding the funding of education and enrolment, and university funding and enrolment. Chapter six however, brought out the implication of the study and proffer policy options towards implementing the research findings of this work. Contribution to knowledge and conclusion were drawn with inferences from the work.

## 1.17 SUMMARY

From the background so far, it is plausible to deduce that human capital has a role to play in championing the cause of transformation of the Nigerian economy, and yet, the investment paradigm has remained low. It is clear from the statement of the problem that even where human resources were considered relevant for development of all facets of the economy, there are problems of shortages and wastages of high-level manpower due to inappropriate training and utilization. All these are tied to investment policies that have not addressed fully the development of critical skills. Larger Chunk of the problem hinged on the poor funding and other extraneous parameters that affect the general pattern of human capital formation.

Critical in this perspective are the research questions and hypotheses that had the main thrust of the research that is, on issues relating to funding and enrolment in general education and University education. Other critical areas were also examined as to further establish and expose the dialectics that exist within the phenomenon. The rationale for the study further strengthened the dynamics of investment in human resources that saw the need for exploring the possibilities of training appropriate human resources and its utilization in the development process.

Of course, the objective was to establish the linkage between human resources investment and the transformation process of the Nigerian economy. The significance of the study was to avail policy makers and researchers cum scholars, with basic frame under which they could appreciate the distortions surrounding investment process in human resource development in Nigeria so that they can plan viably to improve the status quo ante. Indeed, the scope of the study rests on the political economy of investment in human resources and the transformation process of the economy.

The study sprang from 1970 to 1990. It used simple survey and dialectical process in data and information gathering, analysis and synthesis. Along this, simple percentages and ordinary least square regression were used to further standardize the output of the research.

Indeed, the chapter serves, as eye opener to the litmus test of the dialectics in vogue in the dynamics of issues surrounding human capital and the development of the Nigerian economy.

#### **CHAPTER TWO**

## **REVIEW OF RELATED LITERATURE**

## 2.1 INTRODUCTION

The current debate on the transformation of any economy has rested on the development and planning of the human resources which have been neglected over time. From all ramifications, it is the human resources of the nation that determine the character, structure and pace of economic, social and political development. This is because all other inputs of production depend on this human capital for exploitation and exploration.

Notably, the character of this human resource investment rests on formal education, non-formal education and on-the-job training; though the stress in this research is heavily lending on high level manpower development and planning.

Thus, attempts in this review will be based on issues relating to investment on human resources and the attendant transformation of the economy. These issues are reviewed as follow:

#### 2.2 A CONCEPTUAL FRAMEWORK OF INVESTMENT IN HUMAN RESOURCES

The basic idea that the acquisition of education in any form in a modern economy provides opportunities for individuals to invest in themselves (Blaug, 1976), tantamount to taking decisions that are fundamentally influenced by

expected economic returns. This is perhaps part of an explanation of economic analysis on investment in man and the use of brain -power to transform the society.

Investment in human resources involves, the cost incurred during the process of acquiring and increasing the number of persons who have the skills, education and relevant experience which are critical for economic and political development of a country (Jhingan, 2000, 2002, Meier and Rauch, 2000). Human resources development therefore relied in investment in man and his development as a creative and productive resource (Harbism, 1962, Schultz,1994, Todaro & Smith, 2003). Education is a form of saving that creates accumulation of human capital and growth of aggregate output if human capital is considered as an input in the aggregate production function (Meier and Rauch, 2000). In a more disaggregated perspective, greater educational attainment helps a country to move up the ladder from production and export of less to mere skill and capital intensive goods (Jhingan 2002, Meier and Rauch, 2000). Indeed, a more educated work force is also better able to attract and absorb foreign technology relevant to transform its production process.

Yet, it is observed widely that education relates closely to the production processes (Mankiw et al. 1992, Romer 1990, Barro 1991). It is seen as a direct impute to production and serves as a means of learning the production process and improving it, will yield more output for given levels of inputs (Schutlz 1992, 1994, Appleton and Teal 1998, Meier and Rauch, 2000). Put succinctly by Jhingan (2002), that the growth of tangible capital stock depends to a considerable extent on human capital formation, which is the process of increasing knowledge, the skills

and the capacities of all people of the country. Studies by Schultz (1994), Jhingan (2002), Meier and Rauch (2000) reveal that one of the important factors responsible for the rapid transformation of the American economy has been the relatively increasing investment on education. They reveal that, a dollar invested on education brings a greater income in natural income than that spent on dams, roads, factories and other tangible capital goods.

Thus, conception of investment in man had its historical root right from the classical economics. It was then affirmed that investment in human resources has the ability to increase capacity utilization of industrial input and consequently increase output as well as generate income. This earlier explanation was confined to the stock of tangible capital goods that could generate future income (Ncube, 1999); despite the fact that it was not so fundamental to extend investment to the development of human capital. With time, and emerging new technologies and improved production, it was thought that the only input that could direct what is to be produced and how it should be produced is human capital, otherwise known as the brainpower.

But with the position of Schultz (1959, 1961, 1992, 1994), it became glaring that investment in human capital comprised of intangible human assets through the acquisition of formal knowledge. This involves on-the-job skill development, skill and use of human capabilities, formal education and vocational training that stress the need to improve the status quo with investment in education leading to the accumulation of the stock of human capital through its formation. Schultz's position is clear as he affirms the human capital development resolutely to the acquisition of

knowledge and skills. These knowledge and skills is basically the product of investment in human resources that have bearing on transforming the production process. Thus, investment in human capital provides a framework of improving skills and knowledge that promotes the quality of human efforts and capabilities towards enhanced productivity. Investing in human capital implies that people can increase the range of choice available to them through new innovations and invention in technologies that facilitate production output.

Schultz (1961, 1962, and 1994) posits further that the problem of a growing economy can easily be resolved once human investment is taken into account appropriately. This fact is relevant, as human capabilities in all ramifications have no limiting factor to economic growth and development at each epoch. All that is required is to continuously train and redirect the needed manpower appropriately. A situation, most developing economies have neglected over the years, and are just starting to realize the importance attached to human capital formation for economic development. Jhingan (2002) points that the larger part of most economics industrial growth was not from mere capital investment but from investment in men and improvements brought about by improved men.

Yet, the place of human capital in nation building and the transformation of production output is glaring with the contribution of the labour force to increased national output in all ramifications (Adamu, 2003, Yesufu, 2000). At present, the production capacity of human beings supercede all other form of wealth taken together; as every input of production requires humans to manipulate and direct its course. In this light, human labour constitute the fundamental base of economic

development; since such capital has more economic value, and decides what goods and services are to be produced in the economy. But when this is addressed to Shaffer's (1961) perception about Marshallian's position, it was inferred that human capital is a metaphor without substantive economic value. Yet, over the years, this view has been denounced, as events appear to have shown that the economic value of human capital was necessitated by the fact that human capital, if properly planned, can enhance and sustain economic growth and development. The existing advancement in the industrialized nations was not without investment in human resources. It has been this human factor that spearheaded the industrial growth as well as its output. Since it has been widely accepted that education and school makes the difference in development (Meier and Rauch, 2000, Pritchett, 2001).

The poverty of less developed countries has not totally been related to lack of natural resources, but as argued Eicher and Liedholm (1970), Collier and Gunning (1999), this has lurked to the underdevelopment of human resources which could have tapped the available natural resources. The absence of appropriate human capital in the economy breeds inequality and promotes low production of output that steers growth and transformation process of the economy (Persson and Guido, 1991, Stier, 1993, Jhingan, 2002). To an extent, the availability of non-human capital without the relevant human capital to transform such is economically valueless for nation building. From this perspective, human capital is seen as a necessary tool for transforming an economy. This, according to Todaro (1981), that most economists would, probably agree that it is the human resources of a nation, neither its capital nor its material resources that ultimately determine the character

and pace of its economic and social development. This position espoused Harbison (1973), reveal that human resources constitute the ultimate basis for the wealth of nations. He argued that capital and natural resources are passive factors of production and hence, it is the human factor that is the active agent who accumulates capital, exploit natural resources, build social, economic and political organization and thence, carry forward national development. Plausibly, Harbison emphasized that a country which is unable to develop the skills and knowledge of its people and to utilize them effectively in the transformation of the national economy, it will out rightly be unable to develop anything else.

Fundamental activities that improve human capabilities are formally organized education at the elementary, secondary and tertiary level, in-service training, on-the-job training, self-development and correspondence course (ILO, 2000, 2001); all of which must be organized and coordinated to increase the quality of mankind for economic development. Thus far, in Nigeria, human resource development has been centered on the quantitative aspect (Okorafor and Nwankwo, 1986, Barro, 1991)); and has neglected the qualitative and human capabilities aspects of manpower development; which is very crucial in deciding the quality of labour in the production process. In this regard, Fourth National Development Plan (1981:421), for instance, it is stated that:

The main thrust of policy in our recent development plans has been, among other things, to increase the nation's stock of trained manpower through the expansion of existing educational and training facilities and theestablishment of new ones.

The stress here affirms this quantitative nature of manpower resources with less emphasis on the nature, character and quality of such existing stock of trained manpower. Ideally, the two, quality and quantity of manpower are supposed to be stressed concurrently. This again will have to be determined by the most needed and crucial manpower the economy requires at a particular period.

Thus, economic development depends more largely on the creation of a functional labour force that is equipped with the relevant technical and managerial skills to transform the modern industrial production; and equally anchored with the philosophy that permeates acceptance and promotion of economic and technical change as well as opening opportunities for inventions and innovations (Meier and Rauch, 2000, Jhingan 2002). From the foregoing arguments, investment in material capital over the years has had the contradiction of it not propelling itself but has to rely on human capital to move and direct the whole factors of production. It is this limitation in material resources development that has necessitated the ongoing thesis on investment in human resources. Apparently, this neglect must be attributed to the absence of a satisfactory analytical framework within which to conduct an economic analysis of human resource investment (Anzaku, 1991). This is basically the absence of the linkage between material resource development and the human resource investment that have had a wide gap in the euphoria of general investment paradigm. Human capital therefore, is imperative for transforming the entire institutional structure of an economy and can guarantee sustained development.

#### 2.2.1 Premises Of Investment In Human Resources

Since man is the creative and productive resource that can harness economic progress, there are bound to be fundamental premises under which such a resource can be developed. According to Schultz (1961, 1992, 1994), Jhinghan (2002), there are five premises under which a nation can invest and develop its human resources and, thus include;

- (i) health facilities and services, broadly conceived to include all expenditures that affect the life expectancy, strength and stamina, and the vigour and vitality of the people;
- (ii) on-the-job training, including old type apprenticeships organized by firms;
- (iii) formally organized education at the elementary, secondary and higher levels;
- (iv) study programmes for adults that are not organized by firms, including extension programmes notably in agriculture;
- (v) migration of individuals and families to adjust to changing job opportunities.

These are not exhaustive as import of technical assistance, expertise and consultants play vital roles in human capital formation and the development of the economy. Indeed, to capture the analysis clearer, investment in human resources in a broader perspective implies expenditure on health, education and social services in general and in narrower sense, it implies expenditure on education and training. However, most conventional reasoning tend to see investment in human resources in the narrower sense because expenditure on education and training is

capable of measurement as compared to the expenditure on social services (Umo, 2001, 2002 and Jhingan, 2002).

Meier and Rauch (2000) posits that the development of human resources is premised on first, building skills and then, providing productive employment for nonutilized or underutilized manpower. These relate to investment in man in the form of education and training which constitutes the process under which human capital is accumulated. In view of the relevance attached to human resources development, the United Nations Economic Commission for Africa (UNECA) (1990) sees human resources from the perspective of knowledge, skills, attitudes, physical and managerial effort required to manipulate capital, technology, land and material to produce goods and services for human consumption. This confirms one thing, that education has a positive value and impacts on the economy (Adamu, 2003), Arrow, 1999, Dornbusch, et al., 2004). According to them, education increases the number of knowledgeable workers by improving their skills and exposes them to new challenges. More so, education enhances occupational mobility, reduces level of unemployment, increases earning capacity and productivity of workforce, improves access to health information that facilitate increased life expectancy as well as lower fertility rate. An important aspect of education in nation building is its role in enhancing income distribution and promotion of social equity and bridging the gaps of inequality and social injustice across all strata of the society.

# 2.3 THE PHILOSOPHICAL PREMISE OF INVESTMENT IN HUMAN RESOURCES IN NIGERIA

The philosophical premise for investment in human capital is structurally determined on the ability of an education system to yield the required dividend to those who invest in education. This philosophy is best appreciated and understood within the context of education and the importance attached to it.

Therefore, Nigeria, if it has to transform more rapidly, it has to place education at the forefront of its economic, social, political and cultural development. This is because, the bulk of Nigerians are still largely held by ignorance, disease and poverty (Fafunwa, 1964, Wey, 1992). To move out of these problems, education must be made functional. Its philosophy has to be realistically addressed to the needs and aspirations of the people and the nation it purports to develop. Relevant manpower resources have to be developed and planned through a functional process of education. This has to be confined to the identified needs of Nigeria and Nigerians. Gowon (1994), Igwe (1989) perceptions about the philosophy of human resource development in Nigeria complemented this relevance of education; as he stated that education is essentially an investment by the state for its continued existence and development as well as offering general welfare to its citizens. This perception even though appear plausible, it lacks the comprehensiveness of articulating both private and public investment in education, as private investment in most circumstances in Nigeria has been largely responsible for the development of needed manpower. A glimpse at the supplements of user cost to schooling with tuition fees and provision of school necessaries by parents

and sponsors of education presently confirms this fact. For instance, the proliferation of private primary, secondary and university education are demonstrations of the impact of private investment in developing human resources in Nigeria. They have complementary roles to that of public investment in human resources development.

The urge in Nigeria to invest in human resources could not have been for the sake of investment alone, but in line with the national philosophy. At best, for any meaningful and rapid transformation to take place in Nigeria, it is considered more reasonable to concentrate on the improvement and development of the available human resources (Akinbote, 1988). Evidently, this informs the huge investments in education in Nigeria over the years, and perhaps the current emphasis on quality of human labour in juxtaposition with quantitative education.

The Nigerian experience in human resource development can be analysed in three phases, namely, traditional, colonial and neo-colonial.

## 2.3.1 The Philosophy Of Traditional Investment In Human Resources In Nigeria.

Basically, the philosophy of traditional investment in human resources is glaring within the premise of traditional education. Traditional education has been essentially based on individual initiative and private interest. The recipients of this form of education were expected to make use of it for subsistence purpose. Besides, it was to serve as bedrock for socialization in vocational education (Fafunwa, 1974, Aminu, 1992).

However, such investment, was to ensure and contain socio-economic development in agricultural education, trades and crafts and professional training; all geared towards development of their respective communities. Aside from these, traditional investment in human capital was to develop certain attributes on the people such as character training, weaving, hunting, farming, carving, drumming, dyeing, wood technology, dress making, wine tapping, pottery, cooking, smelting and blacksmithing. This investment was equally to ensure professional training and exposure in areas such as medicine, pharmacy and politics (Komolafe, 1988). Generally, all these were to create social services for the people and their local economies; such that societies could withstand the challenges of development in all ramifications at all epochs.

Apparently, the basis of philosophical premise of investment under traditional education was ultimately tilted towards apprenticeship and this has to be financed by the learner and his parents (Komolafe, 1988). To contain this, Callaway (1964), King and Hill (1993) maintained that the apprenticeship system starts by an apprentice, first, serving his master craftsman before actually learning the trade. During this process, the parents or guardians, pay some token fees when bringing in the apprentice and on his freedom. Despite the fact that the remuneration is in kind, the most interesting part of this is the joy and satisfaction of producing toprated professionals and the high reputation and recognition that go with it (Adesina, 1988).

In the traditional investment, emphasis has always been placed on vocation.

Therefore, any attempt to invest on the human skills was guided by the vocation

under which young boys and girls intend to pursue; and as such they were always directed. Most of the vocations are usually tilted in line with the family vocation, all aimed to prepare the individual as a functional and useful agent for developing his society. But these arguments in favour of traditional investment in education notwithstanding, the failure of this education to address the problems of modern development has been the concern for every development economists of our time. This education was not properly administered to move the economy forward or to transform the indigenous technology that should serve as instrument of modern development in Nigeria.

Despite the pitfall of traditional education, its investment and philosophy if they were properly and appropriately directed, the country would have witnessed a sustained growth and development, since this was based on resource endowment of the Nigerian economy.

## 2.3.2 The Philosophy Of Colonial Investment In Human Resources In Nigeria.

The search for the exploration and exploitation of new colonies for cheap labour and raw materials to finance the colonial capital saw to the introduction of colonial or western education in Nigeria. Thus, the initial human capital to propel these ideals was based mostly on expatriate's personnel, who were acting on the dictates of laissez faire basic philosophy, rooted in capitalist exploitation (Yahaya 1992). On the first premise, the missionaries introduced education with less reluctancy with monopoly of education then. With this laissez faire philosophy, the colonialist left the missions with a freehand to control education and even at the

barest recalcitrant areas; which indeed made the colonial administrators to respect a system of education that had taken her centuries to develop (Adesina, 1988).

In the second premise, even where the colonial administration showed interest in the development of education, the philosophy and methodology was adopted as a kind of dual type with statutory and voluntary bodies sharing the power of responsibility for the provision and maintenance of the education system. For instance, even where the Elementary Education Act 1876 in Britain made it compulsory for every child to receive primary education, and thereafter in 1889, elementary education was provided without payment of fees (Adesina, 1988); it does not necessarily implies that education was made free. This is in view of the fact that even where parents might not have had to pay fees, there were other alternatives of bearing the costs of providing education indirectly through tax and levy via contribution to the voluntary agency fund. This was followed by universal secondary education with its basic philosophy tilted on student's academic orientation for university education for the grammar schools; while modern secondary schools were to prepare students to pay up jobs at graduation.

Apparently, Britain who constituted the colonial mentor of Nigeria had an indifferent philosophy to formal education in this erstwhile colony. This was glaring at her negating the pragmatic benefits that are tenable from educating the citizens. Therefore as Komolafe (1988), Wey (1992) observed, the involvement of Britain in Nigerian education was in three-folds. First, the British churches wanted religions followers, second, British business interest had to be protected and thirdly, the need of British political authority was imperative. These premises led the colonial

government to introduce some forms of educational reforms, especially those that satisfied the promotion of European Commerce and Civilization. The missions were only used as catalyst and acted under the influence of groups of merchants, armed with classical economic weapons of capitalism; were more keen in developing new fields of trade with Nigeria and took the advantage of this to inform their religious and commercial penetration. The philosophy, that later, was misrepresented to read Nigerian philosophy of educational development.

Even Bowen (1857), Gupta (1990) admitted this religion and business philosophy as he affirms that to establish the gospel among any people, they must have Bibles and therefore, must have the art to make them or the money to buy them. This is firmly rooted on the philosophy of what the natives needed as amplified by the colonialist, an education, was a simple formal elementary education that would then, avail them the opportunity to read the bible and make money to buy it. According to Gupta (1990) the colonial philosophy on education had the same model, applicable to all colonies.

From this vantage point, Adesina (1988) romanced with the colonial education from the importance he perceived of the Christian missions in Nigeria which he accepted should be seen in the long run within the context of the country's political, social and economic development. This fact is largely disputed as the colonial educational system from the Phelps - stokes reports of the 1925 and the White Paper of 1925 Memorandum on Education Policy in British Tropical Africa, the type and philosophy of education provided, have not generally been the type best fitted for the masses of the people. He therefore, stressed that, it was

unfortunate, whereas the principle of education is universal application, and the type of education must vary with the state of a people's civilization and as practicable with requirements of the individual students. However, Phelps-Stokes Reports laid the philosophical foundation for the evolution of relevant education policies to develop local needed manpower, issues raised in it especially those that touched on relevance, organization and supervision have perpetuated to date and are still left amidst unresolved. However, practicability of this has not been feasible, even at developing the intermediate manpower, let alone high-level manpower development.

In all the revelations of colonial philosophy on investment in human resources, less emphasis was placed on training the indigenous manpower to take over the affairs of the state. As aptly exposed by the Phelps-Stokes Report, the educational services must be made to attract the best men from Britain, whether for permanent careers or for short-service appointments. Thus, even where other professional training were emphasized, this was based on, on-the-job training in government departments and apprenticeship, with no relevance attached to high level manpower training. Based on the foregoing analysis, one can aptly conclude and concord with Freire (1980), that the philosophy of colonial investment in human resources in Nigeria merely reflects the pedagogy of the oppressed. The education system in itself lacks fundamental relevance and the bulk of human resources to man all productive sectors of the economy were loosely left untapped, except to bread unprofessional like clergyman, interpreters at churches and courts, clerks and teachers of history, religion, civic, classics, music, literature, reading, writing and

British geography, etc. The wholesome neglect of training and developing functional and relevant manpower for productive sectors of Nigerian economy informs the poverty of philosophy of colonial investment in human resources.

# 2.3.3 The Neo-Colonial Philosophy Of Human Resources Investment In Nigeria.

At Nigeria's decolonization process in 1960, it became glaring for qualified personnel to take over the existing vacancies that will be left by the erstwhile British at both the public and private enterprises. To facilitate this process of replacement, scholarship boards, students' loans boards and award of bursaries to finance the education of Nigerians were encouraged. From this step, it became clear that an attempt was made to invest in human resources towards transforming the Nigerian economy (Godfrey and Hiskert, 1975, Aminu, 1992, Yesufu, 2000).

It must be noted however, that since the decolonization of Nigeria started in 1960, the Nigerian policies and economy have been transformed such that educational investment has taken a magnitude that needs broader and multifaceted approach rather than a narrow donor investment function.

As transformation persists with them, the neo-colonial investment in education shaped the philosophy of education away from the subsisted colonial philosophy. This philosophy as amplified in the Second National Development Plan (1970) and anchored on the National Policy on Education (1989:87), emphasized:

A free and democratic society;

A just and egalitarian society;

A united, strong and self-reliant nation;

A great and dynamic economy; and

A land of bright and full opportunities for all citizens.

In harmony of these five broad philosophies for Nigeria educational system, based on National philosophy of development, it is apparent to note that investment in education at this premise is no longer to only graduate job seekers and employment but extending largely to individual self-fulfillment in self-employment through initiative and creativity. In other words, this has to curtail unemployment, under-employment and wastage that were manifested rife in the colonial like education. Educational development must consider the job market and opportunities available.

No matter the flamboyant neo-colonial philosophy on human resources investment, it defies addressing the needs and aspirations of training and developing relevant manpower needed to carry Nigerian economy forward from its doldrums. For instance, the existence of so many job seekers that had no skills like the almajiris, motor parks tuats and season markets del-credere agents who all constitute labour waste. The education system was unable to provide for them. The consequent for which, the country has been unable to move ahead in almost all fronts. An antidote to this is the state of technology that has not been shaped in anyway, and the craze for certification rather than quality education for acquisition of appropriate skills and knowledge. There is complete lack of application of skills acquired since education in its relevance in Nigeria appeared seemingly dysfunctional and romanced with the erstwhile colonial philosophy and which in essence, Nigerian education philosophy has been unable to eliminate or set aside.

The only option is for the philosophy to be shaped in the classrooms. The fact remains that education is the only instrument that determines the level of transformation, prosperity and general security and welfare of the people. A rational philosophy of education must address these attributes otherwise the chances for achieving the main educational objectives are slim.

# 2.4 DEVELOPMENTS AND FORMATION OF HUMAN CAPITAL

The idea of higher earnings of educated people has made it significant for the demand and development of education and the formation of human capital; and which, in all economies of which we have knowledge, people with more education earn on average higher incomes than people with less education (Musgrave, 1966, Lewis, 1961, Bowman, 1961, Blaug, 1970). An additional education (Blaug, 1976) in this sense pays off in the form of higher life time incomes and improved wages; thereby the cost incurred in this process constitute an investment in human capital that has to do with future earning capacity.

Obviously, even where additional education did not increase lifetime earnings, education could still be considered as an investment from the social premise. Like for instance, if, Nigerian economy requires an increasing supply of highly educated manpower, the country might encourage students to stay on at school as a way of investing in the future production capacity of the people. In this sense, education remains a form of investment for both the individual and the society in general.

It is widely admitted that this implications of investment in human capital for economic development have not been really understood until quite recently, even where Adam Smith appreciated earlier that an educated man is a sort of expensive machine. Smith (1776, bk 1 ch. 10, pt I) advance this relevance further, as he puts it:

When any expensive machine is erected, the extraordinary work to be performed by it before it is worn out, it must be expected, will replace the capital laid out upon it, with at least the ordinary profits. A man educated at the expense of much labour and time to any of those employments which require extra-ordinary dexterity and skill, may be compared to one of those expensive machines. The work, which he learns to perform, it must be expected over and above the usual wages of common labour, will replace to him the whole expense of his education, with at least the ordinary profits of an equally valuable capital. It must do this too in a reasonable time; regard being had to the very uncertain duration of human being life, in the same manner as the more certain duration of the machine. The difference between the wages of skilled labour and those of common labour is founded upon this principle.

In spite of the superiority of human capital over other forms of capital, investment in it was almost completely neglected by economists throughout all epochs and up to the first half of the twentieth century. This is true, as even where Smith admitted this relevance in 1776, Marshall in 1890 destroyed such relevance, as he sees the notion of human capital as unrealistic and for which his magisterial authority was responsible for the demise of human capital. Marshall's rejection was rooted in the idea of including the acquired skills of a population in the measurement of the wealth or capital of an economy, even though he acknowledged smith's position that an educated man may be usefully appreciated

to an expensive machine. His position is that a man can only sell his work but he himself remains his own property; as those who bear the expenses of rearing and educating him, receive but very little of the price that is paid for his services in later years. Thus, Marshall did not count on the skills of the population as forming part of the capital stock or wealth of an economy. And indeed, his rejection did not count on the skills of the population as forming part of the capital stock or wealth of an economy. Yet, his rejection did not stop him from making use of the analogy of capital accumulation in analyzing the causes and effects of improving the quality of labour by means of education. He thus, regarded education as a national investment and that the most valuable of all capital is that invested in human beings (Jhingan, 2002). According to Jhingan (2002), that lack of investment in human capital has been responsible for the slow transformation of the developing countries. Therefore, unless such economies spread education, knowledge, knowhow and raise the level of skills and physical efficiency of people the productivity of physical capital is reduced (Romer, 1990, Summers, 1992, Jhingan, 2002).

Apparently, Blaug (1976) argued that the fact that the decision to invest in education is made by parents on behalf of their children rather than by the children themselves does not give rise to a fundamental difference between the material and human agents of production. Glaringly, this is a strong endorsement of the concept of human capital formation as we are ever likely to find elsewhere. Thus far, it can be argued that the cost of an individual's education constitutes an investment in future earning capacity. Therefore, it is no accident that educated people tend to earn more than those who lack education. Manifestive of one fact, is the premise of

some earnings from education that could be roughly comparable to the ordinary profits of an equally valuable capital that could sustain the supply of educated people. This still has to be stressed that individuals cannot capitalize their earning capacity which informs the decision to acquire education that involves consideration of extraneous to a deliberate balancing of returns over costs; a phenomenon quite relevant in human capital development and formation.

However, the economics of capital formation has been identified with the net increase of land, structures, durable equipment, commodity stocks, and foreign claims (Meier, 1976). Yet, Meier stressed that the population and the capacity and training of the population to use it effectively should interpret the capital stock more broadly to embrace the body of knowledge possessed. In this sense, expenditures on education and training, improvement of health, and research contribute to productivity by raising the quality of the population, and these, consequently produce a continuing return in the future. This constitutes the basis for human capital formation.

It could be reasoned that economic development hinges heavily on the creation and development of functional human capital, which is anchored with the necessary technical skills for modern industrial development, and consequently, imbued with the philosophy conducive to the acceptance and promotion of economic and technical change. Despite the concentration of the role of material and financial capital for economic development in the past, its shortcomings has Germane a deliberate emphasis on the role of human labour in spear heading all forms of production and development. Thus far, human capital in a contemporary

setting, constitute an important capital in view of its overwhelming contribution to the general growth and development of the national economy.

## 2.4.1 The Markets And Human Resource Development.

The markets play an important role in the development of human resources in all economies that undertake transformation through production of output. Often time, these markets are characterized by demand and supply of labour. Of course, it is obvious that despite the massive imports of physical capital in most developing countries, they have not been able to accelerate their growth rates as there are seemingly existence of undeveloped human resources that lack critical skills to meet up with the demand (Jhingan, 2002, Todaro and Smith, 2003). Despite this, some development is possible even in the absence of human skills, knowledge and capabilities (Dornbusch et al., 2004, Meier and Stiglitz, 2001).

The demand for human resource development is needed to staff new and expanding government services, to introduce new system of Land use, and new methods of agriculture, to develop new means of communication, to develop new technologies to carry forward industrialization and to build the education system (Lewis, 1954, Meier and Rauch, 2000, Jhingan 2002, Todaro and Smith, 2003). They observed further that innovation and the process of change from static or traditional society requires very large doses of strategic human capital.

Since most economies have more commitment towards developing programmes of constructing roads, dams, power houses, factories involving light and heavy industries, hospitals, schools, colleges Universities and so many other

activities related to development planning, there are bound to be demands for human resources to meet these needs. Such economies will demand for engineers technicians, technical supervisors, managerial and administrative personnel, scientists, doctors, nurses, pharmacists, veterinarians, agronomists, accountants, statisticians, economists, secretaries, etc.

To demand for these human resources will mean to develop and supply such labours. If there is a dearth of these varied types of human capital, physical capital as stated above cannot be productively utilized. As a result, machines break down and wear out soon, materials and components are wasted and the quality of production falls with low supply of required labour in the economy (Lewis, 1954, Schultz, 1998, Pritchett, 2001, Jhingan, 2002, Todaro and Smith 2003, Dornbusch et al, 2004).

Indeed, the human resource development has been characterized by economic backwardness that manifests itself in the markets low labour efficiency, factor immobility, limited specialization in occupations and in trade, deficiency supply of entrepreneurship and customary values and traditional social institutions that minimize the incentives for economic change (Jhingan,2000, 2002, Pritchett, 2001, Arrow, 1999). The slow growth in knowledge has severe consequences and restraints on the progress of the economy.

The economic quality of the population remains low when there is little knowledge of what natural resources are available, the alternative production techniques that are possible, the necessary skills, the existing market conditions and opportunities, and the institutions that might be created to favour economizing

effort and economic rationality (Umo, 2001, 2002, Jhingan, 2002). In order to remove economic backwardness and instill the capacities and motivations to progress, it requires an increase in the knowledge and skills of the people.

If the markets for human capital have no improvement through the quality of human labour it produces, the progress of an economy remains low and a Sham (IIo, 2000, 2001, Collier and Gunning, 1999, Jhingan 2000, 2002, Shultz 1962, 1998), Todaro and Smith (2003) aptly emphasized this that the markets for human resources is, as if we had a map of resources which did not include a mighty river and its tributaries. In this, the particular market is feel by Schooling, learning on-the-job, advances in health, and the growing stock of information of the economy.

Indeed, investment in human resources is required towards raising the general living standards of the people. This is feasible when the market for education and training make fuller and rational utilization of surplus manpower by providing larger and better job opportunities in both rural and urban areas. These in turn, will raise incomes and living standards of the people.

High level manpower is largely demanded more than sub-professional manpower in the developing economies because of its possessing a higher status and pay, and can easily be trained and adaptable to technical process and change. The quality of the output of production can easily be improved with high skills, knowledge and capabilities of individuals that are harnessed in the production process.

### 2.4.2 Prices And Rewards For Human Resources.

Growth models have consider prices and rewards for human capital as homogeneous (Kindleberger, 1977, Dornbusch etal,2004, Ncube,1999, Appleton and Teal, 1998); as each worker's contribution to output is equal to every other worker's (Kindleberger, 1977, Dombursch et al 2004). Yet, these models have not appreciated one fact, that workers in any given economy are varied in their skills, capabilities, work habits, remunerations and wages, the amounts of physical and other factors with which they work, which are determinant factors in their productivities (ILO, 2001, Umo, 2002, Arrow, 1999).

Going through an array of growth models, each worker is considered as the sum of two kinds of factors of production. The first is the raw labour that consists of unskilled physical work, which any person can expend. The second is, the skilled human capital. The skilled human capital is formed through investment just as in physical capital (Dornbusch et al, 2004). Of course earnings on total return to labour according to Dornbursch et. al (2004) are the sum of returns to raw labour and the returns to human capital that contribute to the production of an output. Therefore, human capital is unique in the sense that owners of labour cannot be physically isolated and separated from their factor of production must especially their prices and rewards. Thus, when workers sell their efforts, they always sell a package of prices and rewards that combines both these parts (ILO, 2001, Dornbusch et al 2004, Todaro and Smith, 2003, Lebergatt, 1994, Kindleberger, 1977). This is determined often by the amount of investment made to the development of an individual skill.

However, the heterogeneity of the labour force (Dornbusch et al 2004) stems from the absence of an equal distribution of human capital and rewards among the members of the labour force. Where each person had the same amount of human capital, either zero or any positive value, models that construe homogeneity of human capital become more realistic (Hoeffler 1997, Kindleberger, 1977, Lewis, 1954). Most models favour disaggregating the manpower in different strata according to education, skills and earnings in order to allow room to make for differential impact on output of varying amounts of human capital in the production process. Therefore, the length of time and cost associated with developing a human resource and the opportunities forgone during an individual training, have far implication for its price and reward. Early economists like Smith and Marshall acknowledged this and subsequent scholars of economics all admitted that the price of labour and its reward do determine the level of human resources development.

There is some evidence from studies that low levels of education is associated with low income, just as more education is associated with higher income. This has positive effects on labour market without necessarily offsetting an individual shadow price of time most especially in dominated low literate population (Meier and Rauch, 2000). Education of individuals in most developing economies including Nigeria, is associated with entry into the formal market, particularly into jobs in the modern sector. Participation in the labour market is determined by skills, knowledge and capabilities on the available jobs in the modern sector, despite the fact that there may be a causal effect of work in the formal labour market (Haveman

and Wolfe, 1984, Meier and Rauch, 2000, Meier and Stiglitz, 2001, Dornbusch et al, 2004).

Yet, in Nigeria, there are array of unskilled workers in the informal sectors like traders, artisans, craftsmen, mechanics, farmers etc found both in urban and rural areas that contribute positively to the growth of output and the transformation of the economy. Their unmeasured skills have great economic advantage in the transformation of the Nigerian economy especially when add up to the skilled workers of the formal sectors. The bulk of them had little education but when their efforts are translated into development, it is quite significant and unquantifiable.

#### 2.4.3 The Brain Drain

Currently, the number of scientists, engineers, physicians and a host of other specialist born in poor developing countries and working in the rich industrialized economies has been of great concern to policy makers and researchers (Meier and Stiglitz, 2001, Meier and Rauch, 2000, Kindleberger, 1977). This scenario exists in any competitive economy, where a worker earns and receives an amount equivalent to the money value of his marginal product. In this premise, the economy gets the output, while the worker receives a wage that he can trade off for output of equivalent value. In such a circumstance, if the worker were to leave the country, the national product would decline by an amount equivalent to the output of the emigrant even though the effective demand for output would fall by an equal amount (Grubel and Scott, 1966, Kindleberger, 1977, Meier and Stiglitz, 2001).

Viewed from these perspectives, inferences to a brain drain do entail an international population movement to which a country's people and their government could reasonably remain indifferent. Yet, the emigrations of trained professionals have largely remained a concern for most poor economies (Kinddleberger 1977, Todaro and Smith, 2002), like Nigeria. As most highly skilled manpower move out to other rich economies where working conditions are more favourable compared to what is obtained in the home country. This has often led to depletion of highly skilled professionals who would add more skillfully to the production of the output of their own economies but rather adds to rich economies.

However, the value of the output of such human resource may be worth more that the potential emigrant's wage (Grubel and Scott, 1966, Dornbusch, et al 2004, Meier and Rauch 2000, Meier and Stiglitz, 2001). This is explained by the relationship between marginal product and wage that can occur under conditions of monopony guided by classic exploitation of labour of such professionals. Indeed, a monopolistic situation exists for professionals working as emigrants when marginal products exceed individual wage rates. For instance, suppose the bulk of a nation's physician's work for the National Health Service; the country losing such physicians would be losing more in output than it gained in saving their salaries – that is, in saving for consumption by others the amount that the physicians were earning before their departure.

The human capital concepts above captures the explanation that part of their earnings represents a return to an individual's stock of human capital. As often time, the costs of human capital stock have been borne by the individual. An

individual who pays the full costs of a formal education rather than a lower amount based on state-subsidized tuition or who during the initial years of an on-the-job training programme, accepts lower wages that exactly offset the higher pay earned later, has borne the full cost of the investment (Dornbusch, et al 2004, Adams, 1968, Baldwin, 1970). Commonly, the state subsidizes human capital formation of all kinds. There exist justifications for such subsidies because education is seen as an investment for both economic and social reasons.

A strong argument that emanates from several views on Brain Drains do present a substantial reduction in some labour force skills and specializations. This is akin to where non-marginal reductions in particular types of labour occur, the marginal product of all other factors taken together falls. This leaves the rest of society, workers and employers to undergo welfare losses (Baldwin, 1970, Kindleberger, 1977, Todaro and Smith, 2003).

This loss represents a blessing in disguise as the educated unemployed threaten public safety than involuntary idleness with less formal schooling. Therefore, easing the potential stresses in a country by the emigration of educated persons who can achieve their aspirations elsewhere is superior to their staying at home and venting their inevitable frustration at their low levels of earnings on the nation at large (Adams, 1968, World Bank 1998/1999, Todaro and Smith, 2003).

The brain drain phenomenon has over the years affected the Nigerian economy adversely, as most qualified skilled workforce often emigrate to rich countries, the consequences for which lead to reduction of gross national product.

The scenario of brain drain has affected not only Nigeria negatively but the developing countries generally as captured in our analysis.

Indeed, the irony of brain drain today, is not merely that this traditional outlet for surplus people has effectively been closed off but that many of the people who migrate legally from poor to richer economies are the very ones that developing countries can least afford to lose – the highly educated and skilled (Todaro and Smith 2003). As most of these migrants move on a permanent basis, this perverse brain drain not only represents a loss of valuable human resources but could prove to be a serious constraint on the future economic progress of developing countries.

As revealed by Todaro and Smith (2003) that brain drain has its effects on the rate and structure of a country's economic growth as its impact is quite pronounced on the style and approach of educational systems of a developing economy. This is particularly true in the case of scientists, engineers, architects, academics and physicians, who ordinarily have been trained in home – country institutions at considerable social cost, only to reap the benefits from and contribute to the further economic growth of the already affluent countries. Brain drain has reduced the supply of vital professional people available within developing economies overtime and diverted attention of these professionals from important local problems and goals.

For instance, between 1960 and 1990, more than a million high – level professional and technical workers from developing economies migrated to Canada, United States and United Kingdom; while in the 1980s and 1990s, Africa lost nearly one-third of its skilled workers, with up to 60,000 middle and high-level managers

that migrated to Europe and North America (Todaro and Smith, 2003). Countries like Sudan lost 17% of its doctors and dentists, 20% of its university teachers, 30% of its engineers, 45% of its surveyors; while in Philippines lost 12% of its professional workers to the United States where as Ghana has 60% of its doctors currently practicing abroad. Generally, brain drain has adversely affected the transformation path of most developing economies, Nigerian economy is no exception of this human capital flight.

## 2.4.4 The Demand And Supply Of Human Resource Development

Arguing from the premise of Todaro (1981), Todaro and Smith 2003), the environment of non-market forces can affect human capital creation; which is largely determined by market or price mechanism of demand and supply. The emphasis here is that since education is mostly public oriented and provided for in the less developed world; in Nigeria, for instance, the determinants of demand, turn out to be much more important than the determinants of supply. On the demand side, two premises are feasible:

- The more educated an individual is, the more likely is his prospects of earning considerably higher income through future modern sector employment.
- ii. The educational costs, both direct and indirect which, a student or his family must bear, determines the nature and character of training and profession the family has to invest on him as well as the anticipated job opportunities

that may be availed to the recipient of such an investment (Dornbusch, et al 2004, Todaro and Smith, 2003, Jhingan, 2003).

From these premises, it can be deduced that in real terms, a derived demand for high wage employment opportunities in the modern sector determines the nature of human capital creation in an economy. In the very nature of human capital investment, access to jobs is largely determined by the amount of education, an individual acquires. For instance, in Nigeria, most people do not demand education for its intrinsic values and benefits but for purposes of meeting high employment. However, reasoned from sound economic argument, most economic analysis of return from education has been centred on the contribution of education to earning capacity and largely to production capacity.

Apparently, there is indeed a positive correlation between relating level of earnings to level of education attained; as persons who have acquired more education through long term schooling, earn more than persons with less education or short term schooling (Thompson 1981, Blaug, 1976, Meier and Rauch, 2000, Meier and Stiglitz, 2001).

Human capital creation on the supply side is largely determined by political considerations rather than related economic criteria. This is because supply of education is fixed by the level of government educational expenditure, and which again, is influenced by the level of aggregate private demand for education. More so, the amount to be devoted to the creation of human capital as inferred by Todaro (1981), Todaro and Smith (2003), Rogbesan (1992), Jhingan (2002), is more influenced by political process, since government decides where to site schools

and the nature of such schools and the curriculum which are all informed by the body politics of the state with less emphasis on economic development and benefits of investment in men. This characteristic has prevailed in Nigeria over time.

On demand and supply emphasis on the creation of human capital, Amin (1977), Gupta (1990), Summers (1992) argued that human capital formation must create a close link between theory and practice at all fronts and levels. In making this practicable, scientific knowledge and skill must be transmitted in a more critical dynamic form that could be further developed and enriched to the interest of transforming the existing institutional framework of the productive environment of the economy. The demand for human capital creation must proceed in close relation to existing opportunities and application within the context and character of economic growth and transformation of the economy. Impliedly, the economic, social and political considerations in human capital creation must prevail in such a manner as to guarantee work for all and opportunities for all workers irrespective of educational background to acquire increasingly more advanced skills towards sustained and improved production in the economy.

# 2.4.5 The Nigerian Approach To Human Capital Formation

The genesis of functional human capital formation in Nigeria is basically traced back to the Ashby Commission of 1959; which was headed by Erich Ashby and was empowered to conduct an investigation into Nigerian manpower needs in the field of post-school certificate and higher education. To make the commission's report functional and viable, Professor Frederick Harbison an economist expert in

manpower planning was invited to prepare for the commission, a special report on "High Level Manpower for Nigeria Future," and which Ashby's commission, later adopted his recommendation to project manpower requirement for Nigeria for the years 1960 - 70, using a concurrent growth rate with that of the national economy for the preceded years.

Ashby's report was considered and adopted in 1960 by the National Economic Council and in juxtaposition to this, also implemented Harbison's recommendation on high level manpower needs for Nigeria. Closely after this, the National Manpower Board was established in 1962, following the recommendation of Ashby's commission. The National Manpower Board was empowered to give full and comprehensive attention to all aspects of manpower development programmes throughout the country with reference to the following framework:

- i) The periodic appraisal of requirements for manpower in all occupations and in all productive activities throughout the federation. In particular, assessment should be made of manpower requirements of all development projects.
- ii) The periodic analysis of costs of formal education (both capital and recurrent) and the determination of the order of priority in expenditure for education to promote the economic, political, social and cultural development of the country.
- iii) The development of measures for in-service training of employed manpower both in the government service, in private industry, and commerce, and educational institutions.

- iv) The appraisal of wage and salary scales in the government services and in education in relation to the demand for high-level manpower.
- v) The formulation of policy governing scholarships and fellowships for study In Nigeria and abroad. Here, two important elements are involved;
  - (a) The use of Regional or Federal funds for scholarships and fellowships.
  - (b) The conditions governing acceptance by Nigerians of scholarships and fellowships offered for foreign governments for other institutions outside the federation.
- vi) The development of policies concerning Nigerianization in employment, and policies governing the entry and employment of expatriate in both public and private employment.
- vii) The periodic assessment of unemployment and Under-employment in major occupations and activities, and the development of measures to provide needed employment opportunities in particular sectors of the Nigerian economy.
- viii) The integration of manpower development planning with broader planning for economic, social and political development of the country (Investment in Education, 1960:67-72),

An insight into these sources of manpower development paradigm reflects the wholesome utilization of human resources towards containing and sustaining productivity in the economy. Therefore, estimates of future manpower needs in Nigeria, for instance, were based on the desirability of the economy towards

achieving full employment. High level and skilled manpower development for all sectors of the national economy deserves special attention if the country is to advance from this present state of underdevelopment trauma. Though we must appreciate the place of semi-skilled and unskilled labour from the informal and agrarian sectors of the economy in contributing to the physical capital formation in the Nigerian economy.

Human resource development policy without practical objective clearly enunciated, could almost easily lead to misdirection in the planning and production process of the economy. In view of this, Harbison (1964) position on objectives of manpower development strategy clarifies this notion; as he affirmed that any human resource development policy objective is to arrive at an effective balance in choice of policy objectives. He proffered that in a partially planned economy such as that of Nigeria, critical areas of choice are likely to be:

- In all areas of formal education, there is relative emphasis on quality versus quantity;
- 2. In secondary and higher education, the stressing of science and technical subjects versus law, arts and humanities;
- In skill development, the relative reliance on pre-employment formal training versus in-service or on-the-job training;
- In the general rationale of human resource development, consideration of the desires of individual versus the need of the country.

A possible way out of these is to have human resource development strategy anchored on purposeful incentives that could encourage people to engage in all

kinds of productive activity that are needed for and could enhance the transformation of the economy. Therefore, individuals must be compensated in relative terms to their contributions to the development process of the society. Certificate is relevant for skills development and recognition but should not be exclusively decisive factor in apportioning job task to individuals. The development of human potentials should tally with the manpower needs of the economy.

Similarly, Meier (1976, 1984) conforms to other expert's view that human capital should encompass much more than mere listing of heads and hands in specific occupation categories. This has to be conducted in such a way as to avert the dampening characteristics of economic backwardness in developing countries such as Nigeria, that is still manifest in several forms such as low labour efficiency, factor immobility, limited specialization in occupations and in trade, a deficient supply of entrepreneurship and customary values and traditional social institutions that minimize the incentives for economic transformation (Myint, 1954, Lewis, 1962, Denison, 1962). They all contended that developing countries have just realized the contribution of human capital development as compared to developed countries; effective demand for large numbers of educated workers will take considerable time to raise the present limited absorptive capacity of the economy for the educated persons to triumph, a situation glaring in Nigeria.

In Nigeria, however, the second National Development Plan (1970 - 74) was the first plan to explicitly expose government concern for manpower planning with specific terms of reference as follows:

- It contains the incidence of youth unemployment by provision of more training and employment opportunities.
- It aims to correct existing imbalance in the education system consistent with the changing requirement of the economy.
- 3. Reduction in the proportion of expatriate participation in employment.
- 4. Meet the manpower requirement for the successful implementation of the plan and the optimum development of the economy as a whole.

In view of these laudable objectives and the purported efforts to resolve imbalance and labour wastage in the economy, there was mass establishment of tertiary institutions, comprising the universities, federal polytechnics and colleges of education as well as vocations and training centres. The aim was to arrest the problems of unemployment and to avail relevant manpower for productive activities in the Nigerian economy. To resolve this crisis, the Third National Development Plan (1975 - 80) set out two of its seven major objectives to confirm as:

- (i) Reduction in the level of unemployment.
- (ii) Increase in the supply of high-level manpower.

A result for which education sector was transformed at all levels. There was proliferation of primary schools, secondary and teachers colleges, universities, colleges of education, polytechnics and variety of vocations and training and specialization that are needed in the frame of carrying the nation forward. This proliferation of institutions consequently saw to increased enrolment in the universities, which in essence, exceeded enrolment targets (Fourth National

Development Plan, 1981, vol. I). The Fourth National Plan however, identifies the following manpower problems inter alia:

- High labour turnover and imbalance in the distribution of skilled manpower between public and private sectors;
- The difficulties of expanding science based courses in the institutions of higher learning.
- 3. Increasing rate of unemployment resulting from:
  - (a) Failure of various development plan to generate anticipated employment opportunities; and
  - (b) Lack of labour market information.

Indeed, all the National Development Plans so far up to the First National Rolling Plan (1990), saw human capital as viable option in transforming the national economy, but the main bottleneck has tied on the problems of over abundance of unskilled labour and hence, wastes of labour perpetuates; and consequent upon which manpower shortages of the skilled labour. To diversify the human capital exploration, technical, vocational and agricultural education were emphasized with the view to improve the quality of unskilled labour that has already been endemic to solving the problems of modernization of the Nigerian economy.

In recognition of the enormity of diversification of the economy and making human capital an integrated approach in resolving the crisis of wastes of labour and its under-utilization, Nigerian government established federal Universities of Technology and Agriculture in the 1980s to train and develop human resources in the areas of needs for the transformation of the economy. This context was

particularly meant to develop manpower needed for the enhancement of Nigerian industries like steel, mining, petrol-chemical automobile, manufacturing industries and etcetera.

Thus far, all efforts by the Nigerian government to transform the economy through human capital have not yielded many results; loosely, perhaps due to lack of relevance and appropriate skills development that tallied with development goals and the needs of the economy.

# 2.4.6 The Status Of Human Capital Formation In Nigeria

The development of modern societies that has been premised on science and technology has relied largely on the development of people and the effective planning of the human activity. This is indeed, a fact to buttress as most nations today are more saddled with efforts to improve the lots of mankind. Such an attempt is to tilt human capital towards transforming the social, political, cultural and economic framework of the society; all aimed at achieving the goals of development.

Thus far in this thesis, the status and importance of human capital formation to economic development has been emphasized widely. This is further re-affirmed by the observation of the World Bank, Economic Commission that visited Nigeria in 1953 and thereafter prepared a report on the nation's economy; and noted that:

In the past, economic growth has been largely left to the efforts of expatriatentrepreneurs, administrators and technicians; the time has come to increase as speedily as possible the number of adequately trained Nigerians able to contribute effectively to that growth

(International Bank for Reconstruction and Development, 1955:69).

The immediate need and over-riding priority from this observation, was that of training Nigerians to acquire necessary skills, so as to overcome the shortage of technical and managerial skills; needed to carry forward an accelerated programme of economic transformation of the economy. Indeed, what further spur the need for human capital formation were the worsening unemployment situation and the shortage of high-level manpower that culminated into surpluses of unskilled labour and shortages of skilled labour in the country's economy.

The status of human capital formation in almost all economies is unique.

This necessity and uniqueness is clearly demonstrated by President John F.

Kennedy of the United States of America, when he asserted that:

Manpower is the basic resource. It is the indispensable means of converting other resources to mankind's use and benefit. How well we develop and employ human skills is fundamental in deciding how much we will accomplish as a nation. The manner in which we do so will, moreover, profoundly determine the kind of nation we become (Ojo et al eds. 1986: 4).

This revelation exposes the crucial role and status of human resource development in transforming other resources into productive output. Moreover, the overriding problems of destruction of non-human capital during the Second World War, the Nigerian civil war saw the need to invest in human capital as this ascertains training and development of more functional manpower in all fronts, the scientists and technocrats notwithstanding.

A deducible remark could be made that the Nigerian past, following trends of investment so far in human capital, has not adequately tackled the problem of developing the relevant manpower to meet up with the needs of the society, rather it has adopted a loose approach by embarking on general training and development of human skills. This has adversely affected the status of human capital in the sphere of nation building in Nigeria over the years.

## 2.4.7 Problems Of Human Capital Formation In Nigeria

The formation of human capital is the basic foundation for redirecting national development goals and targets. Its formation therefore, should constitute an integral part of national planning that should relate to the overall national development plans for more dynamic and effective economic planning and development. Notably, many researchers and scholars have observed often time that the fundamental goal of most of the human capital plan has been rooted in identifying the area and extent of shortages; and forecast the demand for high level manpower. This has often been addressed in the direction of provision of guidelines for educational expansion, the examination of priorities and the establishment of priorities for training schemes of various categories.

However, the almost complete lack of relevant and up to date statistical data and information on specific manpower requirements and needs for the country, have been responsible for the main distortion in the human resource development process in Nigeria. Indeed, most of the estimation of the stock and future requirements of manpower according to Rogbesan (1992), Okongwu (1986),

Yesufu, (2000) have been based on data compiled on the basis of survey, aggregated data being compiled on the basis of interview with senior management executives or the personnel officers of government departments and private firms. In this format, employer's records or personal knowledge of the occupational structure and of the labour force is often the only information provided and inferred. This, in most of the times provides incomplete information that is needed to take the stock of human capital for planning.

A satisfactory conduct of this can only be certain, if individuals are interviewed as to ascertain and verify their actual personal credentials and qualifications. At bare, this may avail some basic data on the characters of the skilled manpower potentials in the economy. Aderounmu and Aina (1986), Adam (2002) observed that information is not generally available on the basis of age, sex, training, experience and earnings accruing to the level of manpower available in the economy. Surveys conducted hardly inquire about the education and training that were attached with each of the occupational categories. There are therefore, a lot of omissions that are commonly made during such surveys, that provide inadequate data to be used. Worst still, even where required data are collected they are hardly tabulated nor published for researchers and those who need them to utilize for planning purposes.

Aside from data, Rogbesan (1992), Yahaya (1992), confirmed this in their studies that the statistical and sampling techniques in use were quite inadequate; and this makes it often difficult to determine the list of employers, which are inevitably unknown. Bemusing about this state, Aderinto (1985) in Rogbesan

(1992) posits that the data and statistical techniques used in Nigeria, has not had any estimation of the statistical margin or error implied by the sampling fraction it used. Instead, the method used was generously extremely unscientific and casual rather than the affirmative, statistically professional.

Interestingly, the methodology applied to human capital development in Nigeria lacks relevance. As attempts have often been made to advance a projection model for the supply and demand for manpower without considering the needs of the economy; which loosely have less relative effects on the future manpower that determine the prospective growth and structural transformation of This problem of methodology presumes that human capital the country. development is a crucial input for production and calculates what level of skilled manpower, which is needed to make feasible, a projected increase in output. Both employers and government departments in terms of their anticipated demand infer the worrisome aspects of this, on the explicit and implicit projects built-up from estimates. Appreciating this problem, Aderinto (1985) in Rogbesan (1992), Wey (1992) observed that it is over concentration of economic demand for skilled manpower which out rightly ignored other forms of manpower that are collectively needed in the production process. They elaborated their claim by exposing that the simple production approach nearly negates the wider spectrum of higher education which preclude for instance, job aspiration, work attitude, work ethics, income distribution, family structure, students attitudes, training facilities etcetera, which may usually have negative effects on the transformation of the economy.

Akin to the foregoing is the lack of manpower experts to participate in all the integral aspects of planning in the economy. In support of this, Ritzen (1977), Okongwu (1986), Yesufu (2000), Todaro and Smith (2003), observed that an essential problem of human capital formation is the lack of institutional linkages among the various units and departments responsible for manpower planning in Nigeria. This is peculiar with of the National Manpower Board that is responsible for national manpower planning and which finds it more tasking to identify the necessary manpower required for executing programmes it has no prior knowledge in its formulation. Indeed, the Board has no adequate manpower to discharge its arduous task. By the time various plans are collected at the centre for collation and integration, they often become so large that the National Manpower Board cannot easily handle such. This and many more are partly responsible for the slow development of human resources in Nigeria.

# 2.4.8 The Implementation Of Human Capital Formation In Nigeria

Investment in human beings through education in no doubt plays a significant role in the production capacity of the individual and the society. In this light, the art of forming this to fit in with the needs and demands of the economy must be well organized and planned within the context of the Nigerian environment. Colonial education notwithstanding was a model of general and academic education that was planned outside the context of the needs of the Nigerian environment. Confirming this, Aboyade (1976), observed that given the colonial nature of its institutions, the quality of formal education received that has practical relevance to

the development process of Nigeria, was almost ignored.

Wey and Osagie (1976), Wey (1992), favoured Aboyade's view and commented that the failure of formal education system in western countries and in the Third World countries to provide relevant education of training for most of their youths, has adversely affected the development of such economies. They advanced that this could be solved through a drastic change in the internal policies of the various countries in their dealings with other industrially advanced countries inclined towards the new integrate philosophy. Part of the problem as manifested from the exposition above could be associated with human resource development and its relevance to Nigerian development; and which Wey and Osagie (1976), Wey (1992), adduced these to a constellation of the following premises:

- The blending of technologies relatively simple techniques of production that can be quickly without intensive and lengthy formal education, using inexpensive and simple tools with high technology, plant and expertise which are lacking in the Third World countries to ensure a minimum quality and output.
- Combination of production with education in order to overcome the resource constraint.
- Planning of a locally based development policy financed out of local resources and not on the conditions of foreign demand and foreign capital which accompany outward direct growth; itself essentially beyond local control.

- Relating job creation to capital formation and therefore, orienting education towards the creation of new goods, public services and high priority projects such as energy development and housing; and
- Orienting school towards a change of out look of the schools, discouraging the popular notion that education is a ladder on which ambition climbs to privilege, arousing in the students hatred of graft, poverty, ignorance and suffering, committing them to a struggle against those evils and most of all, giving them the knowledge and skills with which to fight the battle of life.

All these point to one fact that since the decolonization process in Nigeria, its inherited educational system that has served over the years, the interest of the metropolis, should have been redirected and fine-tuned to suit the goals and aspiration of Nigeria's development. An aberration of this plight was instead seen, and a perpetuation of the dominance of the human capital exploited in the realm of metropolitan tutelage. This has adversely affected the implementation of human resource development, when reasoned in the premise of relevance and functionality of the education received by Nigerian citizenry.

Thus, in all its ramifications, the main function of the formal system of education in its present vantage point, does not argue favourable for the implementation of human resource development and planning in Nigeria. An appeal to the integration of education to the rest of the sectors of the economy is the only validity to functional re-adjustment away from the stereotyped curricula, teaching-learning techniques and orientation of the present dysfunctional education.

Meier (1976, 1984), Meier and Rauch (2000), Jhingan (2002), Todaro and

Smith (2004), had posited that part of the problem of formation of human capital implementation have rested on most developing countries where the bulk of them still imitate the educational system of the west; instead of concentrating their development programmes on methods of informal education and on the objective of functional education; suited for the environment it is to serve. The idea about this suppository is that it is likely going to be less time-consuming, less costly and more directly related to manpower requirement, as, is entailing in a formal like education. Implementing this will likely prove viably effective in improving the economic quality of human capital. For instance the petty traders in Igbo setting like Onitsha, only need non-formal skills to enable them improve on their various skills. They have over time shaped the production future of economy.

When this is applied to Nigeria at the level of implementation, it is expected that priority be given to technical and vocational school to create capacities for charting the future of Nigerian high and intermediate manpower. The Nigerian education system should thus aim at providing a balance between general education, pre-vocational preparation and vocational education and training to all categories of the work force. This therefore, calls for a synthesis and a re-examination between liberal or consumptive education on one premise and vocational education on the other.

Another worrying aspect of the implementation as observed by Yesufu (1969), Yesufu (2000), is that the teaching of science merely is not sufficient to be referred to as an end in itself, rather, it should be articulated to the development of indigenous technology. This should be provided in the form of education and

training, functionally designed for the needs of social and economic change. Perceiving the observed phenomenon from Yesufu, this can only be guaranteed through an established manpower institute that will ensure that a continuous review and researches are carried and conducted on human resources potentials and viability. This then explains why it is necessary for any policy on human capital formation to be highly an integral part of any economic planning. Then, this can only conform with the observation raised by Aboyade (1976), UNESCO (1987), that there are glaring evidences of the eminence of a poor policy alignment between the educational system and the development process, reflecting a substantial waste of the human resource capacity. To implement the formation of human capital succinctly, the Nigerian educational system must be in consonant with the policy set out in the development plan. Therefore, the necessary machinery will have to be set up to monitor the development plans as well as facilitate the growth and structure of human resource development for economic transformation.

Moreover, at the level of implementation of human capital formation, education becomes a necessary tool for development but not a sufficient condition for effecting economic change. This is because, if you develop human capital and fail to provide jobs for such skills to be utilized and absorbed in the production process, then the bulk of human resources will remain idle and wasted. It is only within the availability of jobs that the enormous human capital developed can be put to use. Therefore, it is quite fundamental to stress that complementary development conducive to the effective use of education resources and manpower be put in place as to ensure Nigeria's smooth transformation of its enormous resources.

Thus far, for a functional implementation of human capital, both human resource planners and economic planners collectively must plan to adjust educational output to manpower requirement such that, it meets up the needs of Nigerian economy. The three tiers of education - primary, secondary and tertiary must be considered in a strict sense as to redirection of their goals and tailoring their needs to the aspiration of the economic development of Nigeria.

### 2.5 HUMAN RESOURCE DEVELOPMENT STRATEGIES

A manifestation of slow growth in knowledge and acquisition of skills have constituted especially severe restraint to progress of most societies. Strategically, the economic quality of the population lend heavily on human capital, but again, this could be left at the lowest ebb when there is little knowledge of what natural resources are available; the alternative production techniques that are feasible, the necessary skills, the existing market condition opportunities and the institutions that might be created to favour economizing effect and economic rationality. A strategy to improve the quality of the human factor becomes essential as investment in physical capital (Meier, 1976, 1984, Dornbusch et al 2004).

A good strategy to move out of this cocoon of sterile human factor in Nigeria, for instance, is to advance in knowledge and diffuse new ideas and objectives that are necessary to remove economic backwardness and instill the human abilities and motivations that are more favourable to economic transformation. Though Myint (1954), Meier (1976, 1984), Meier and Rauch (2000), Meier and Stiglitz, 2001), observed this and further stressed, that investment in material capital, could

indirectly achieve some lessening of the economic backwardness of the human resources, the direct and more decisive means is through investment in human beings.

Schultz (1962, 1994)), while stressing a paramount strategy of human resource development of many societies, emphasized that the growth in the quality of human resources should be given much weight in the areas of strategy as compared to material resources that have been over-stressed often time.

He reasoned that the capabilities of the people should be raised through investment in human resources so as to curtail adverse low output and extraordinary rigidity of economic organization in the society. Out of this, is to invest more on the development of human capital towards correcting the imbalance between the stock of human and non-human capital. To complement Schultz's view, Horvath (1958), Todaro and Smith (2003), observation was self-explanatory, as they stated that through planning experience, it is knowledge and certainly not investment resources that the most important scarce factor in underdeveloped countries with otherwise favourable social climate. Indeed, to make this laudable observation plausible, human resource strategy should include investment by society in education, investment by employers in training both on-the-job training and in-service training and investment by individuals in time and money in their own development, management development seminars, workshops and conferences; and part-time adult and non-formal education classes.

However, it is more illustrative to justify the strategies in the following premises:

# 2.5.1 Strategic Areas Of Choice In Human Resource Development

Most crucial areas of choice that confront all nations irrespective of their level of development as exposed by Platt (1961), Meier and Rauch (2000) UNECA (1990), UNDP (2003, 2004) are often viewed from the following perspectives:

- 1. In all levels of formal education, the emphasis on quality versus quantity;
- In secondary and higher education, the stressing of science and technology versus law, arts, and humanities;
- In skill development, the reliance on pre-employment formal training versus in-service training;
- 4. In building incentives, the conscious manipulation of wage and salary structure versus dependence on market forces; and
- In the general rationale of human resource development, consideration of the needs and desires of the individual versus the needs and desires of the state.

Thus, Harbison and Myers (1964), Lebergatt (1994), stressed that the choice in this direction is between quantity and quality in educational development, which may be conducted, in varied dimensions. They posited that in some countries, it is necessary to choose between primary education for all and high quality secondary and university education for a smaller number of potential leaders. Therefore, there is always a choice between educating fewer students with better-qualified teachers and larger numbers with unqualified teachers; and consequently there is a choice between a good and costly curriculum and a poor and relatively cheaper one.

However, political and social pressures call for a stress on quality, as rapid transformation of the economy makes it necessary to stress for quality of high-level manpower, a euphoria that informed this thesis.

Whatever strategy is adopted for human resources, the choice between science and technology and the law, arts, and humanities in secondary and higher education has been quite difficult as the case of Nigeria. This is because; there are acute shortages of scientific and engineering human capital as well as pervasive shortages of good teachers, managers, administrators, and social scientists. More interestingly, as reasoned Harbison and Myers (1964), Lebergatt (1994), a country needs its artists, writers, musicians, jurists, historians, and custodians of culture despite the emphasis laid on science and technology. Even then, this depends on the values and ideals of the country. This also depends on choice of either expensive or cheap education, a wish to undertake.

In some countries, social and political pressures tend to emphasize the relevance of liberal and non-scientific type of education to such economies. Even then, the stress for economic transformation demands higher concentration on science and technological manpower. However, in developing technical skills, a nation may choose to root training on formal education and as well encourage employing institutions and labour organizations to chart and groom relevant manpower either on-the-job training or in-service training.

As argued by Platt (1961), Harbison and Myers (1964), Aminu (1992), training and retraining practically, is a perpetual lifetime process of human development. Therefore, in all ramifications, employing institutions cannot shy the

responsibility of involving in some training for her personnel. They all concord that the role of schools, with references to secondary schooling, is largely to produce mass educated persons who could be readily trainable. Though they cautioned that some training ought to be improvised prior to employment by schools as well as through various kinds of Sandwich, extension and part-time in-service programmes for those already absorbed and duly employed. However, it must be noted that training in certain vocations such as the army involves on-the-job training.

A viable strategy could be emphasized for pre-employment of subprofessional and professional training in higher education. Yet, this needs a perpetual training and retraining, which should be conducted by joint effects of employers, about unions and educational institutions. Developing human resources at the higher level demands rational choices, as this is inherent in the technical process and construe technical in nature.

Kerr et al (1961), Harbison and Myers (1964), Todaro (1981, 1989), Ojo et al (1986), are all in agreement that a functional strategy of human resources development must be considered at the level of making crucial choices between the interests of the individual and the interests of the nation in all phases of human resource development. Thus, the major goal of human resource strategy must be that of the enhancement and improvement of human freedom, quality and dignity, and the worth of man and his labour. This is premised on the fact that man has some central role in helping to develop the type of economy that can provide decent living conditions and standards as well as protection and guaranteeing of his fundamental freedom. Therefore, any assertion that an individual exists

fundamentally to serve the state has to consider some concessions to the interests of the individuals if the country hopes to be transformed. This conforms to the observation raised by Harbison and Myers (1964), World Bank (1993), that in all societies, there have to be some compromise and blending of the interests of the state and the individual if development is to take place. But certainly, this blend varies with economic, social, political and ideological character of each country.

An essential element of human resource development strategy is based on the achievement of equilibrium in effective choice between policy alternatives. The nature and character of this equilibrium hinges on the goals of the development of a country, and which cannot ignore the role of its leadership. Failure to achieve equilibrium, will mean producing the wrong type of high level manpower and which to Harbison and Myers (1964), Todaro (1989), is affirmed to invest in the wrong type of education and thereby allowing a continuation of the wrong type of incentive and loosely emphasizing the wrong kind of training.

Thus far, despite good strategies of human resource development many countries may advance, no country achieves an absolute equilibrium. There are constellations of many factors that often affect this equilibrium and these are mostly demand and supply in nature as earlier exposed. Strategies for human resource development will have to be determined by the individual choice and which must be aligned with the interest of the society. The needs and aspirations of both the individual and the society must be considered collectively such that conflicts does not emerge to undermine the human development efforts.

## 2.5.2 Phases And Character Of Strategies Of Human Resource Development

In most societies, the first phase of, and topmost priority objective of human resource development strategy is the replacement of foreigners with local nationals in the occupied positions in both public and private sectors. Since it is obvious that an increase in production of primary industries, which is of economic relevance and the expansion, and provision of education to the people is primarily aimed at training local manpower to supply needed human labour locally and consequently replace expatriate quota. This has pre-occupied the position of human resource planners over the years in most societies.

In harmony of this, Ashby et al (1960), Harbison and Myers (1964), Yesufu (2000), are in agreement that the only logical strategy in this phase of replacement of expatriate personnel is to concentrate on a schedule of localization of manpower. This call for replacement, which was needed rapidly, then, saw to crash programmes that were initiated in the 1960s and 1970s in Nigeria. Rapid expansion of both secondary education and higher education were manifestations of this replacement needs in Nigeria. To sustain this, quality is stressed rather than mass training. Emphasis was then placed on employing institutions to develop skills through on-the-job training, as formal vocational training in secondary schools were considered so costly and inefficient for immediate practical benefits to be derived by the society. Moreover, the acute shortage of high-level manpower in all categories of the labour force prompted the Nigerian government to ration opportunities for higher education and consequent upon which the national service scheme was prescribed in 1973, to cater for strategic occupations.

The second phase of human resource strategy is premised on economic relevance saddled with the construction of the industrial base and cognizance of the shortages emanating from all categories of technical and professional personnel, and the dominance of the existing ones by foreign personnel. This necessitates expansion and reform of secondary education, placing more emphasis on the teaching of mathematics and sciences and even free schooling for qualified and interested persons.

Apparently, Lerner (1962), Simmons (1974), and Harbison and Myers (1964), UNDP (2003, 2004), World Bank (2000), all stressed that there is the need for expansion of education of sub-professionals, technicians and professionals and the introduction of basic changes in higher education to meet up with the development dynamics of the society. Affirming further, they emphasized high quality education in science and technology and warned for a curtailment in the arts and humanities based courses. In doing this, a comprehensive strategy for training and developing broad base human resources both in private and public sectors of the economy is necessary and fundamental. To do this effectively, demands increased remunerations, wages and incentives for skilled manpower like teachers, engineers, scientists and technicians.

The third phase of human resource development strategy is premised on the re-orientation and reform of higher education. Emphasis here is geared at actualizing manpower training at the scientific and technical faculties towards improving the quality of instruction in the various fields of science and technology. Todaro (1989), and NERC (1980), Schultz (1993, 1994), posited that in the rapidly

expanding world of education, in addition to emphasizing human development at high level in the universities, stress should as well be made in developing such through research institutes. This will inevitably lead to adoption of modern science and technology that are tailored to meet the needs and aspirations of the nation's industrial development. Even then, this strategy as espoused by Harbison and Myers, needs well-equipped and trained teachers with technologies of pedagogy. They argued in favour of tailoring vocational training and adult education to the specific needs of private and public employing institutions.

The fourth phase as tenable in the more developed societies, is the stress for secondary education to be universally available as a human right and higher education should be availed within the reach of all who qualify for it (Platt, 1961, Haribison and Myers 1964, Stier 1993, Persson and Guido, 1991). However, higher education and specific reference to graduate studies, seems to favour an omnivorous demand for scientific and technical manpower for most societies. Therefore, high quality education at the postgraduate level becomes increasingly fundamental. Despite this, there is a critical desire for widely educated individuals to take up major tasks of leading the society in all phases of human and economic development. To make all phases of strategies fundamental, if universal primary education is achieved, then a fundamental base is established for attention to be geared towards improving quality in secondary education and the consequent for which there will be expansion of higher education through junior colleges, higher technical institutions like colleges of education, polytechnics etc. and the universities.

In view of the dynamic changes perpetuating the occupational structure of most economies, adult education and mid-career training and retraining should be regarded as essential instruments for providing flexibility to the labour force (The New York Times, Western Edition, 1963, Dore 1978). New York Times affirms deducible that this mid-career training was just as necessary for highly educated manpower, as recognized by the Massachusetts Institute of Technology, which established a centre where practicing engineers and professors of engineering were to train and be retrained to catch up with new scientific progress.

Thus far, the phases of choices made in the human resource development strategies have some bearing on the levels of development in each economy. However, it may not be a feasible thing to subsume that most countries will adapt to the same phases adumbrated above, as the articulation of goals and strategies for development are bound to differ along with interests sustaining and pursuing it.

### 2.5.3 The Plight Of The Elites And Human Resource Strategies

Kerr et al (1961), characterized the plight of the elites in human resource development strategies into four types, and they include:

- The dynastic or traditional elites;
- ii) The rising middle-class elites;
- iii) The revolutionary intellectuals particularly the communists; and
- iv) The new nationalist leaders.

It must be noted from the onset of this analysis that this characterization does not in itself reflect the reality of any particular nation but a feasible application

in many countries. This is why; there is a blend of several types in most societies, even though some countries have more accurate reflection of one type than others.

A society characterized by a dynastic elite is constrained by some form of dogmatism, as its objective is to contain and project the traditional economy. The primary goal of such a society is not that of modernization but a protection of the virtues of the society. In this framework, human resource strategy can only guarantee the development of a selected few for secondary and higher education and therefore emphasized law and humanities as avenues to attain position of prestige. To perpetuate this, Lerner (1962), Adedeji and Bamidele (2003), argued that fees are generally charged for secondary and higher education thereby restraining access to the children of the under privileged classes. Medical education as stressed by Lerner, is considered desirable with prestige value attached to it to the chagrin of scientific and technical education. A wind of change through conscious pressures to transform the economy can considerably reform the status quo ante of the dynastic elite.

Moreover, the middle-class, advocates mass public education, which should be based and spurred out of the needs of the larger society and its cherished values and ethics. In this type of society, as opined Lerner (1962), Harbison and Myers (1964), education is considered highly as a right for every humans rather than being titled as a functional oriented training system for an economy. They argued that for higher education, students were free to pursue their private interests and careers as may be influenced by their personal goals in relation to the needs of the nation. Hence, education is prima facie for vertical mobility, and this, helps to develop the

political and economic sophistication required for transforming the labour force and the production process. To make the middle-class society effective, Killan (1962), Anzaku (1991), observed that they required many forms of talents as well as specialization through investment in human resources. Thus, high-level manpower in this set of reasoning requires greater conscious human resource development planning as part of the planning process.

Interestingly, the revolutionary intellectuals are more predisposed to ideological struggles anchored on communist perspective. They, therefore, lend on this to possess a clear strategy for the development of human resources. This clear perception is with the promise that man is developed for his service to the state, and not to be educated for his own sake. In this light, they tailored education to be functional and specialized; and relate the bulk of it to employment. Even where these are lacking, evening or correspondence courses are organized for employed worker to meet up with mid-career training. Indeed, scientific and technical education is given top preferences more than any form of education.

For instance, Lerner (1962) advanced some reasoning in favour of the Russians science that it has become mainly an instrument of state power and which formed part of their "Grand Design" for world domination that has rooted deeply part of their political religion. This is something that we ought to comprehend for the Russians, but for the Chinese, there is a political mystique of science associated with human resource development and its strategy. Their human resource development strategy has been premised on the fact that nothing is impossible for man once he has the weapons of science. Therefore, the high enrolment rates in

science and technical disciplines in higher education in most communist countries is a reflection of this emphasis. This average is nearly 46 percent, depending on the level of human resource development (Harbison and Myers, 1964). Notably, in communist societies, the broad base education in the humanities and social sciences is given little attention as Leninism - Marxism dominates the non-technical part of the curricula. Therefore, intensive specialization and dogmatism could constitute a constraint in the process of flexing and adapting to increasing needs of science and technological disciplines in this epoch. Indeed, Revolutionary intellectuals have helped in shaping human resource development in many countries; as even within the framework of ideological struggle, many countries were induced and motivated to invest divergently in human resources, the key that unlocks the door to modernization. Both qualitative and quantitative programmes of education expansion require attention. Thus, the supply and demand for education in all levels - particularly, reference to higher education, must be gauged by the availability of all qualified persons who seek admission as well as by the quality of instruction given; and the effectiveness of preparation for available opportunities for employment. Thus, some balance in investment in all forms of human resource development must be made to avoid wastes, under-employment and permeation of unemployment in the economy.

### 2.6 A GLOBAL PERSPECTIVE OF HUMAN RESOURCE DEVELOPMENT

Every serious commentator on the human resource development will believe, for instance, that the destiny of many societies is now being shaped in their classrooms.

This, according to Dore (1978), Todaro and Smith (2003), is no mere rhetoric as it is education that shaped and determines the level of prosperity, welfare and security of the people.

For instance, during the early birth of independence in Africa, manpower planners were shouldered with the responsibilities of fanning out from the foundations and aid-giving agencies to devise the strategies to amass the human capital necessary to carry on the process of transformation of their economies (Dore, 1978) Meier and Stiglitz (2001). This was reasoned from the fact that physical capital was no longer an adequate instrument to create the necessary impetus for self-sustained development. Notably, capital given to Europe under the Marshall plan and that given to Japan to restore its devastated industries were proven productive primarily, in view of the countries possession of relevant human capabilities to make such capital functionally productive. It is also clear that similar investment in Indonesia and Burma that lacked engineers, managers and technicians, failed to yield the same results. All these facts are complementary to the early economic arguments raised by Adam Smith, where he stressed the importance of complementary human factors in the production process and in which case investment in human resources was emphasized and amplified.

Todaro (1989), had argued with respect to all societies, developed and developing that even if domestic savings and foreign finance are mobilized to generate new investment in physical capital goods; it requires the relevant stock of human capital through investment in education and training, to really decide the nature of production and what is to be produced and consequently, the level of development anticipated. This, he frowns that in almost all facets of any society, material and financial assets are passive agents in the process of production, it is only the human agent that can initiate, manage and spearhead production. Therefore, institutional changes are necessary to maximize the potentials of physical and human investment. Such changes should include diverse activities with reforms in corporate tax, credit, land tenure, banking structures, the creation and strengthening of an independent, honest, reliable and efficient administrative service and the restructuring of educational and training programmes to make them more appropriate to the needs of the developing societies.

In the place of African economies, the notion that they are skill constrained is seemingly appealing which could be bolstered by some thoughts of Galbraith (1965) and by some considerations of present educational conditions in Africa (Lowe et al, 1973). Thus, Galbraith (1965) in Lowe et al (1973), OECD (2002), stressed that the African countries are strongly interested in human resource development through investment in education. This is premised on the fact that education is the only source and weapon under which development can be viably designed and attained. However, the lack of trained, and educated manpower capable of performing the tasks of government and running increasingly complex and sophisticated modern

economy in most societies has permeated the prevailing underdevelopment syndrome of most economies. Even where educated and trained manpower are available; and are not properly placed and utilized, development cannot be initiated nor guaranteed. A way out for education and training to improve the individual and develop the society is for education to encourage in each citizen three things; an enquiring mind; and ability to learn from others and a basic confidence in his own position as a free and equal member of society (Castle, 1972, Todaro and Smith, 2003). Basically, education must counteract the temptation of intellectual arrogance and built in skills that are ready to carry positively each society forward.

Thus, International Commission on the Development of Education published in 1972 and 1978 had argued in favour of this supposition that since education is a sub-system of a society, it necessarily reflects the main features of that society. The human resource development of a country in this sense must be a reflection of the character of the formal and non-formal educational set up of each society. In this sense, each society is bound to develop at a separate stage from the other owing to the level of investment it could embark on training and education of its labour force. Examples from Japan, Britain, United States of America, Sweden, Russia, China, Canada, France, Germany, India, Cuba and Tanzania are glaring with their diversified and divergent specialization of human labour and their relatively positive effects on their levels of development. Japan is unique in this case, as its major pride today rests heavily on the development of appropriate training and provision of functional and relevant education to its citizens as well as the rightful placement of human labour in jobs. Relevant education and development of human

skills is an epitome to this dramatic realization of Japan's dream of development; a country that is not aptly endowed with natural raw material resources but lends itself heavily in developing appropriate human capabilities and its utilization.

But whatever Japan or other nations globally, no nation can ever rise above the mental status of its citizens. The development of any society is in line with the human element that comprises it, and decides the direction of its growth and development. Complementing this, Thompson (1983), World Bank (1993, 1995), posit that human resource development must involve mobilization of the capacity of all sub-groups within the population of a nation to contribute to their own development through self-help within a framework of national unity and equity and popular participation. This attempt is best carried out within the guise of a country's development planning. If this is practiced and implemented under development planning, skills development can be properly guided and explored to the advantage of the economy. However, these scenarios have been left loose in many countries, a euphoria that informed the underdevelopment outfit of many economies, resulting from lack of appropriate training and labour utilization as well as provision of job opportunities and labour placements in such jobs. This fact varies from one country to the other, even though the situation is worse in some, like the Third World countries. All the same, investing in human beings is the best thing to do to a nation; since the human agent is the most decisive factor in propelling and championing the course of development in any society.

### 2.7 **SUMMARY**

A recast on the review so far will reveal so many interconnections on issues on the material under investigation. And this is best appreciated along with the sequence of the review. A glimpse at the conceptual framework tends to reveal certain fundamental issues. That foremost as one aspires to acquire more education will mean to provide the individual the opportunity to make rational decision about his future that is influenced by economic benefits. This explains the relationship between human capital and the society it purports to serve. An exposition of this from the classical economist tend to position human capital as most crucial aspect of investment when compared to other forms of capital within the economy, that was earlier considered most tangible in generating future income. With the expansion of research by a number of scholars such as Schultz, Liedholm, Meier and Harbison, an inroad into the place of human capital in development effort was unveiled. This is because, their findings amongst others reveal that human capital constituting the objective of development, and other resources are perceived passive. It is revealed that the society develops at the expense of the human talent and not on the platform of financial and material capital. The decision to advance the later capital forward is made by the former. Yet, the analysis made established one fact that there is absence of the linkage between material resource development and investment in human resource that have grossly affected general investment paradigm.

A clue into the philosophical premises of investment paradigm in human resources in Nigeria, tend to portray the structure of investment in human capital to

lurk on the strength of the education system to yield the requisite benefit to investors in the system. This portends traditional, colonial and neo-colonial education systems that were practiced in the country. The review identify a major lapse with all forms of education we had along with their philosophies, to have been that of inability to address the problems of modern development; and this could not afford the economy the required opportunities to advance and be transformed. Of course, the structure of their dysfunctionalism and inability to detach away from colonial appendage has greeted this poverty of philosophy of Nigerian education and nation building.

Aside from delving into the philosophies of human capital development in Nigeria, the aspects of its formation are equally unique and reviewed. This aspect of the review takes one aback into the classical analysis and the trend of analysis to present time. A contrastive analysis was made to ascertain the degree of relationships between human capital formation and other tangible resources. Even where divergent views were expressed between smith and Marshall; Marshall later endorsed this relevance of human skills to development as earlier expressed by Smith. Picking succinct analysis from other scholars, they could not lend prestige to economic theories from ancient intellectual pedigree displayed by Smith and Marshall and others, to the neglect of the mystery of the concept of human capital formation but tried to fathom the critical role of human resources in development. And this, they made the formation of human capital an object of investment and a programme for research rather than mystery. Thus, they revealed that human capital in all contemporary setting has critical role in contributing to the overall

growth and development of the society.

An insight into the Nigerian approach and the environment of human resource as well as the status and problems of human capital creation tend to reveal dwarfism in efforts that have yielded minimal results in terms of development of economic infrastructure. This was implied by one fact, that the economic, social and political consideration in human capital creation, must prevail in such a manner as to guarantee work for all, and opportunities for all workers, irrespective of educational background to acquire and advance more skills; if sustained and improved transformation of the production process of the economy is to take place. A lot more of the problems enumerated in areas of providing guidelines and priorities in expansion and training of manpower could be averted, if care is made to creating enabling environment to enhance the status and quality of human resources in the Nigerian economy. The review also revealed poor implementation strategy as major obstacle that has hampered the prospects of human resources development in Nigeria. It felt that the only way out is to redirect the goals of all educational systems at all levels towards meeting the needs and aspirations of economic development of Nigeria.

Indeed, the strategies of human resource development were revealed most relevant in the areas of knowledge and diffusion of new ideas and objectives that could aid the removal of economic backwardness through instillation of human abilities and motivations as the most favourable forms of advancing transformation. This is therefore, feasible through identification of areas of choice of critical skills development, phases and character of strategies of human capital development and

the elitist plight strategies of human resource development. Once these are identified, the premises of the bottlenecks could be unveiled and appropriate strategies could be developed to overcome it.

However, a contrastive analysis from the review on global perspective, tend to affirm this fact, that, human capital has played prominent role in advancing many economies industrially and technologically.

### **CHAPTER THREE**

## INVESTMENT IN HUMAN RESOURCES FOR THE TRANSFORMATION OF NIGERIAN ECONOMY

### 3.1 INTRODUCTION

This chapter centres on issues and structure of investment in human resources as they relate to transforming the Nigerian economy. This span from the renaissance of investment in human resources, sources of investment in human resource in Nigeria, patterns of investment in human resources in Nigeria, human resource development and utilization in Nigeria, human resource development efforts in Nigeria, and investment in human resources and economic transformation in Nigeria.

Attempts are made in this chapter to dialectically expose and analyze the inherent connection between investment in human capital and the transformation of the Nigerian economy. Some quantitative data are also availed and used for analysis as to simplify the grasp of the focus and articulation of the material and substance under investigation.

# 3.2 THE RENAISSANCE OF INVESTMENT IN HUMAN RESOURCES IN NIGERIA

Investment in human resources in Nigeria began in 1843, when the different missionaries from European countries started with funding of schools introduced by these groups (Adesua, 1988, Fafunwa, 1974, Yesufu, 2000). In the forefront of this, were the Wesleyan Methodist, the Anglican Christian Missionary Society (C.M.S.),

the American Baptist and the Roman Catholic Missions. According to Fafunwa (1974), Yesufu (2000), each of these missions had their own funded and managed schools. To manage the schools successfully, all the investment funds were provided by them and with some assistance from merchants and immigrant businessmen; and which continued up to 1882.

Clearly, human resource development from this ambit, was not considered as an exclusive responsibility of the metropolitan capital to pursue; as no efforts was made in the direction of funding during the years 1843 and 1882. Put succinctly, priority was not accorded to the development of human potentials through investment in their education.

However, it is necessary to argue that the missions were operating under the guise and influence of the centre, dictated by the merchants. Since, from the standpoint of their religions introduction in Nigeria, it could be deduced dialectically that these merchants were merely interested in acquiring economic benefits from the country; and therefore, sank money into educating the natives to staff the private capitalist firms and to man their raw materials business. As a way of engendering exploitation and perpetuating domination, only a few citizens were considered in the development of their skills and ensuring of acquisition of knowledge only relevant for this sake. Basically, as espoused by Rodney (1972), the development of human skills by the missions and the centers was essentially designed to promote the most rational use of material and social resources to the advantage of the metropolis.

Metropolitan interest in education became only manifest in 1882 with the enactment of the 1882 education ordinance which made provision for colonial government to run schools and finance them and subsequently to avail grants-in-aids to private schools. Despite this ordinance of 1899 - 1901, voluntary agencies still spent more on education than the colonial government (Abimiku, 1988). Alaezi (1990) confirmed this that the colonialists ruled that school proprietors should fund their schools. This resulted in inadequate funding of schools and an aberration of responsibility of investment in human resources by the colonialist.

Lamenting further, Coleman (1960) Yesufu (2000), UNECA (1990), unesco (1999), stated that between 1918 and 1919, the educational expenditure fluctuated between 1% and 4.3% of the sum annual budget. This figure only witnessed some dramatic changes after the Second World War when the country was championing the cause of her purported independence. But it has to be on record that least between 1843 and 1882, £200 was granted by the colonial government to each of the three missions that established and ran schools then. Other sources of financing education were heavily depended on the church members and school fees. For instance, the C.M.S. total expenditure in education in 1882 was £1.655. 5s. 3d including a government unconditional grant of £200 (Taiwo, 1980). Similarly, Taiwo's findings revealed that the Wesleyan Methodist Society (W.M.S) who ran six elementary schools and had pupils enrolment of 512 at the end of 1881, spent £321.8s.11<sup>1</sup>/<sub>2</sub>p, from school fees and a government grant-in-aid of £200 inclusive. These schools had 101 free scholars and 73 fee payers (Taiwo, 1980, Yahaya, 1992).

From 1889 - 1906, Taiwo (1980), posited that assisted schools were financed from school fees, government grants, church collections, donations, bequests, sometimes mission grants, and sometimes a special contribution from the local community cutting across religious barriers. He noted that sometimes, the contribution took the form of labour, like for instance, the building of a school structure. In the case of an industrial school for department, they made little money from sales of products or produce. The non-assisted schools have to depend largely on local resources, whose requirements were tied to annual church budgets. Moreover, the missions from special donations and funds from overseas often supported such schools.

By 1887, government grant to schools was at £600 per annum and with increase in enrolments, this figure rose to £944.6s. In 1889 and further increased to £1, 562 in 1900. Thus, the enrolment increased from 2, 561 in 27 schools in 1889 to 4, 176 in 44 schools in 1900 (Spary, 1967).

Colonial administration in Nigeria renewed its interest in education in 1902, and Henry Carr in the General Report manifested this for the year 1902, on the schools in the colony of Lagos; as he observed:

If public education is to make any progress commensurate with the general advancement of the colony, it will be necessary for the government and the board of education to firmly make up their minds as to what objects the schools are to sub serve and as to the best means of attaining those objects. A really suitable and efficient system of education - which ought for this country to be both literary and manual - cannot be provided under a voluntary system. It is to the government and not to the people themselves that we should under existing circumstances look for the perfecting of what is nothing less than a political instrument of the highest value (General Report, 1902:4).

This initiative by the government in investing in education was aimed at inducing people to increase participation in productive activity. Since for an economy to transform, its citizens must acquire necessary and relevant education so as to increase the economic progress of such a country. This is because, for development to move, people must think for themselves, take correct and concrete decisions as well as make rational choice in line with their perceived independent judgement. Education is essential as a tool for quickening popular intelligence and raising the culture of the nation in the realm of transformed development.

This relevance of education manifested in increased government concern as there was increase in number of schools from 32 in 1906 to 61 in 1909. Enrolment in government schools also increased from 639 in 1905 to 4,571 in 1909 and further to 5,682 in 1912. More so, the assisted schools increased from 20 in 1905 to 90 in 1912. There was also a corresponding increase in enrolments in all schools of 1,366 in 15,426 in 1912 (Taiwo, 1980, Yahaya, 1992).

Indeed, government interest in investment in human resources was manifested by its increased financial involvement in the provision of necessary infrastructure to both schools and grant-aided schools. For instance, in 1905, expenditure of government schools was £2,506.7s.2d, and for which government paid £1,747.11s; and yet, grants earmarked for assisted schools in the same year were £2,490.15s.7d. But, by 1912, expenditure estimated for education stood at £36,000 (Imperial Education Conference Papers, 1913).

With subsequent reviews on the manpower needs of Nigeria and the needs of the individual citizen by 1913, the amount invested in education by the government stood at £30,915, a reflection of 1.16% of the domestic revenue generated (Lugard 1919). From 1914 up to 1928, investment in education saw a series of reviews and transformation and the result for which by 1929, the actual government expenditure on education in the year 1929-30 rose to £54,650 and out of this, £391 was earmarked as grants-in-aids. More specific, in 1929, £99,530 was spent as grants-in-aids (Abimiku, 1988, Taiwo, 1980, Adesina, 1988).

With the development of Yaba College in 1932, aimed at developing intermediate manpower, increased cost to funding education in Nigeria was given a boost. For instance, the cost of the college building alone, erected by Messrs Greene and Company was rated at £4,000 for equipment from the Sir Alfred Jones bequest (Taiwo, 1980).

Aside from some of this paltry assistance given with respect to funding and grants-in-aids to schools, the colonialists had no clear policy on investment in human resources for the good of the citizens and the country. Practically, their interest in developing human skills was merely for subordination, exploitation, the creation of mental confusion and the development of underdevelopment (Rodney, 1972).

The colonial policy in education for Nigerians manifested in 1922's Phelpsstokes report, and this was further amplified in 1925's memorandum of education for the British colonies. The report had policies that spearheaded the development of human capital in the colonies. For instance, policies emanating from the report, favoured the adoption of education to suit local needs, cater for equal opportunities for both sexes and stressing technical and vocational training. To amplify this, education sector in the economy started having it's impart felt through sharing from revenue allocation.

Despite the emergence of colonial policy in education through Phelps-stokes report in 1925, between 1843 and 1951, the bulk of financial commitment to funding of education were made by voluntary agencies. Government only operated a few schools and financed it with paltry assistance to private schools through grants-in-aids. However, in 1952, a total of £9.7 million was expended on education.

This figure according to Abimiku (1988) rose to £41.7 million in 1962. At this scenario, government commitment to investment paradigm, in education for the development of the head, heart and hand became more glaring and pronounced. The fact has to be stressed that the amount so invested came from both public and private investors in education. But with sporadic increase in schools enrolment by 1955, government concern and interest in funding education as well as developing requisite manpower for developing the economy motivated increased expenditure to the sector.

For example, from 1952 to 1962, government investible funds in education increased from £6.2 million to £31.1 million. Education thence, has been placed amongst the topmost priorities in the national development plans.

From the first Neo-colonial plan 1962-68, for instance, education was rated fifth by accounts of government expenditure earmarked to its funding. It represents an investment of 10.3% on education of the total public investment for the period.

Even in the Second National Development Plan 1970-74, education had more funding as it was rated second in the priority order after the transport sector. At least, during the planned period, 13.55% of total investment in the country was given to education. This merely explains the relevance attached to education and its perceived role, as possessing the power for effecting change and development.

However, the taking over of most voluntary agencies schools in the 1970s by the government, saw to increased financial burden on the part of government in funding education. This was amplified and anchored in the Third National Development Plan 1975-1980, where the federal government earmarked £300 million for capital expenditure for primary education, =N=966.741 million for capital expenditure for some 800 secondary schools and ran and control universities solely. Since the take over of schools in Nigeria, government has been the sole financier of education. This wholesome burning of responsibility of funding education metamorphosed to an increase in capital expenditure in the Second National Development Plan of =N=254.579 million to =N=2.988 billion in the Third National Development Plan.

In the Fourth National Development Plan, a staggering amount of =N=4.4 billion was allocated to education. The emphasis was on high level manpower development as university education took the lion share of 56.8% of the total allocation to education. It was also feasible that 16% of the education budget was allocated to intermediate technical education to develop middle level manpower. Within this period, some universities of Agriculture, Science and Technology were

established, increasing federal universities from 13 in the third Plan to 26 in the Fourth Plan.

With the exception of the rolling Plan anchored on structural Adjustment programme (SAP), the investment funds for education from 1985 to date have been exclusively based on annual budgets or plans. It is also evidenced that the Fourth Plan was jettisoned in 1981 and unplanned expenditure were replaced generally for almost all sectors. For instance, the importation of rice was not on the planned document but was given topmost priority within the peak of implementation of the plan 1981-83. Education, which had an earlier priority, was not boosted as there were more proliferation of schools at all levels and little was done in the direction of investment. The result for which effects, is the ongoing crisis in the educational sector with poor funding and low quality of the output. There is a shift in placing education as crucial sector that serve as a palliative to catalyze development of other sectors and thus transform the economy with critical skills developed from the sector; rather emphasis is placed in other social service sector like Defence that has less dividend to the economy. Externalities derived from investment in education in the long run far out weight any social sector that competes for resources for development.

A harmonization of the birth and growth of investment in education in Nigeria so far espoused, reflects the early neglect of developing human skills by the colonialist. However, this made them to pay very little attention to the education of the citizenry. Even where attention was given, it was grants-in-aids. What informed this euphoria of investment in human beings at this slow pace by the colonialist was

their complete lack of interest in developing the local human capabilities and hence the implication they foresaw of this relevance; and the danger it may pose on their hidden agenda. Therefore, the education they provided, lack basic functionality and relevance to the needs of the people and that of the Nigerian society. It was an education that essentially guides the tenets of underdevelopment and undermines the process of transformation. This clearly distinguishes colonial education and neocolonial education, even though the later still had its basic philosophy and methodology tied to the former. A departure from this implies some ray of hope for development of relevant and functional manpower skills required to transform the Nigerian economy.

### 3.3 THE SOURCES OF INVESTMENT IN HUMAN RESOURCES IN NIGERIA

In Nigeria, those involved in decision making for the production of human capital through educational services are in three groups. They include the public sector, private sector and the rest of the world (Akangbou, 1985). From these groupings, the public sector consist of the federal, state and local government; and considered most relevant in the characters of investors in Nigerian human resource development, as the bulk of expenditure and day to day policy formation and implementation lend heavily on them.

For the private sector, the character and the nature of investment involve self-sponsors, parents, guardians, and socio-cultural and economic groups. Stressing, the socio-cultural and economic groups emanate from such bodies as

community and voluntary associations, tribal associations, companies, philanthropists, et cetera.

Sources of investment resources in education from foreign investors are glaring with a host of agencies like the United Nations Education, Scientific and Cultural organization (UNESCO), German Academic Exchange Services (D.A.D.), the Ford and Carnegie Foundation, the Canadian International Development Agency (C.I.D.A) (Callaway and Musone 1968, Akangbou, 1987), the Commonwealth Scholarships Scheme, the Bureau for External Aid Programme for various countries, the European Economic Community (EEC) Scholarship Schemes, the United Nations Development Programme (UNDP), et cetera.

The rate at which each of these characters contribute to human resource investment ties more heavily on the ideology, philosophy, interest and inertia committed to developing the appropriate human skills through formal schooling and training. This is not applicable to Nigeria alone, but in a host of other countries where public expenditure exerts heavier burden on the provision of investment resources in education. The government and extra-government bodies shoulder this. Take for instance, prior to public funding of education in Nigeria, it benefited from foreign aid that summed up to 7% of her educational expenditure prior to 1962 neo-colonial plan. This rate of 7% declined to 2% in the present day Nigeria. The decline, observed Akangbou (1987), Yesufu (2000), started from 1970s when Nigeria's oil wealth gave the impression that such aids were no longer so desirable.

Certainly, what characterized the nature and character of human resource development in the past has lent heavily on the ability of both the public and private

sector to perceive the much-needed functional and relevant education. The idea of pursuing this relevance came when expansion of new ideas saw the development of new skills and technology. Nigeria had to follow suit and hence saw the application of human capital to its development process as the most valuable asset in transforming all other resources in the economy.

From the foregoing premises, the nature of investment in Nigeria is based on two socio-political and economic structures. These include firstly, the pre-colonial and colonial epochs where investment resources for education were sourced from missionaries and immigrant business merchants and later heralded bilateral and multinational interests in education. This was encouraged by grants-in-aids. However, by 1960, public or government interest in human resource development was renewed, and this was manifested in Ashby Report of 1960, which improved and increased the portfolio investment in education. Emphasis began to be given to high-level manpower at colleges of education and polytechnics. Even private bodies and individuals increased their participation with the growing concern by everybody in the right to education and work.

It is glaring from our analysis that the characters of investors in human resources development are many and yet, they have not been able to effect the required transformation of requisite skills; and the development of the right knowledge and vocations, have neither been adequate to carry the nation forward.

For instance, the state of technology and the structure of underdevelopment have left much to be questioned, whether the human capital so far developed have been relevant for development. Worst still, even the highly skilled manpower, are

still engrossed with what to do in terms of utilization of their skills; this is glaring, where an engineer is often seen administering programmes instead of performing the art of execution at the site of the project. Often, highly skilled doctors and professors are seen to be doing some other odd jobs instead of focusing and promoting their specialized skills, thus, leaving house officers and younger academics to perform the bulk of the tasks of these professions.

These scenarios have crippled the efforts of investors in developing human resources over time, as there is gross under-utilization of human potentials. Bureau for External Aids in education for instance, in Nigeria, over the years, where many Nigerians were trained abroad at foreign expense has reneged its interest and there is scarcely such an award coming up so frequently as it were some years back. Obviously, this is adduced to nothing more than lack of utilization of human capabilities. There is no investor that undertakes investment at the expense of a waste. The ultimate of investment is to reap economic benefits. In terms of human resources, the benefit is the utilization of human capabilities in transforming the production process, which will inevitably transform the economy. This in essence, has been highly misplaced in Nigeria. Little interest has been paid to this, and this has also denounced largely the various interests in investment in education. To renounce this interest, will mean to effectively utilize the human skills after its development, the philosophy of the foreign interest notwithstanding albeit, this can be the only way to encourage investors and thus promote human resources development in Nigeria for its transformation.

### 3.4 PATTERNS OF INVESTMENT IN HUMAN RESOURCES IN NIGERIA

The analysis of this thesis cannot be complete without its focus on the patterns of investment in Nigerian education at different epochs of the country's development. But the central focus lend on the period 1970-2003; reflecting different policy periods and administrative regimes – both military and civilian; dialectical treatment of this and other periods notwithstanding.

Investment decisions in human resource development are both from internal and external sources. These are tied to private and public sectors of both the internal and external economics as espoused in 3.3. Notably, the public sector takes the bulk of the burden of sourcing finances for education and with varied contributions made by individuals. However, Akangbou (1987), noted that by 1960, 7% of the total investment made on education was sourced from foreign bodies, and this declined to as low as 2% by 1970. Reasons were generally attributed to the purported oil boom for the decline in foreign assistance to finance education in Nigeria, as the country was subsumed as emerging into an affluent economy with huge revenue accruing to it from oil wealth.

One fact ought to be stressed that it is government that determines the role education has to play in championing economic development. This has made it imperative for the larger burden of investment in human resources to be borne by it. For example, between 1928-1952, public funds were made to education and equally, grants-in-aids were availed through this process to voluntary agencies schools. To clarify this, data on total expenditure and grants-in-aids during the period is availed herewith:

Table I: Public Investment in Education in Nigeria, 1928-52

Years	Total Expenditure (£)	Grants-in-Aid (£)
1928-29	228,624	80,047
1938-39	269,152	108,263
1942-43	352,896	186,864
1943-44	481,226	296,948
1944-45	485,113	288,281
1945-46	615,663	393,759
1946-47	745,850	529,264
1947-48	1,260,121	992,180
1948-49	1,961,761	1,305,058
1949-50	2,308,530	1,557,746
1950-51	2,412,239	1,780,032
1951-52	2,925,145	1,986,980

**Note:** All transactions within this time frame were in pounds sterling.

### Source: Compiled from;

- 1. Federal Ministry of Education; and Office of Planning and Budget.
- 2. Taiwo, C.O. (1980). The Nigerian Education system: past; present and future. Lagos: Nelson Pitman Limited, p. 109.

As from 1952, there was gross shortage of qualified manpower and lack of funds to champion the course of improvement and expansion in the Nigerian education industry. Even where the quest for more schools was quite pronounced in certain areas, little could be done to motivate such interests in view of these constraints of manpower and funding. Within these periods, the provision of qualified personnel to man the educational system and other sectors of the economy has remained more problematic.

With time, as from 1952 to 1960, there was provision of laws for establishing "Local Education Authorities" and "Local Education Committee" on the initiative of either a Director of Education or, a Local Authority (Taiwo, 1980, Aluezi, 1990). This new initiative paved way for increased local participation in the administration of education and the sharing of the financial burden. To make this practicable, in some areas, local education committees helped in planning and implementing building projects as well as in raising ad hoc rates. This scenario improved with time as financial assistance through rates improved and increased the level of funding by the public as well as strengthened the financial provision for education.

However, the quality of manpower developed within the education system, depends on the quality of education provided - and which depends largely on the curriculum - content, methodology, and the interaction of theory and practice, which in turn depended on the teachers (Taiwo, 1980, Alaezi, 1990). In all these, the teacher is the decisive factor on the nature and mechanism of producing quality manpower relevant to move the economy forward.

To make the philosophy of Nigerian education realizable as stated in 2.3.3 of this thesis, and to advance the plight of the nation's development, greater investment in human resources is needed to champion this course. This implies that the government who takes the bulk of burden for financing education has to increase more expenditure on this sector. Not only aims and philosophy for education that decide the level of investment in human capital; the political ideology in Vogue, the state of health of the economy and the demand approach to educational opportunities all add to enforce the factors that determine the rate of investment in human resources. The level of participation of each investor in human capital too is rooted on these premises. All these, affirms to Akangbou (1987), position that education does not operate in a vacuum, since development within the various sectors of the economy lend heavily on the role human capital, plays in the course of national development. Hence, development in all its ramifications of a nation's advancement ties to education, the main instrument of human resources development. In this light, it can be aptly deduced that the rate of growth and development in an economy has much to be desired with the rate of investment in education; and consequently, increase in the development of human skills and manpower growth.

In making the arguments above more explicit, data on aggregate National Income, public investment in education and schools enrolment in Nigeria between 1962-2003 is presented herewith.

TABLE 2: Aggregate National Income, Public Investment In Education And Schools Enrolment In Nigeria 1962-2003

Years	Aggregate National Income at GDP (=N=Bn)	Public Investment in Education (N=Bn)	Schools Enrolmen All Levels of Educ.
1962	,2,630,800*	, 95.700	3,071,226
1963	142,531,000*	19.16	3,152,403
1964	154,968,000*	28.57	3,102,284
1965	374,890,000*	39.640	3,172,074
1966	214,246,000*	50.983	3,291,808
1967	379,301,000*	30.010	1,799,465
1968	222,691,000*	37.156	1,601,456
1969	251,690,000*	30.80	2,483,212
1970	383.8*	5.3	3,886,442
1971	1,092.0+	8.6	4,308,243
1972	1.863Bn+	28.6	4,143,313
1973	1.718	26.7	5,218,885
1974	14.260	196.9	6,050,087

Years	Aggregate National Income at GDP (=N=Bn)	Public Investment in Education (N=Bn)	Schools Enrolment All Levels of Educ.
1975	8.258	850.0	6,686,724
1976	9.701	1,051.2	9,300,297
1977	11.695	499.1	10,853,740
1978	12.337	826.6	13,006,466
1979	12.691	667.1	14,422,080
1980	23.695	1,238.5	16,188,642
1981	11.323	1,001.4	15,980,961
1982	10.930	1,116.6	17,197,915
1983	11.628	967.4	19,768,356
1984	10.000	376.2	18,525,356
1985	9.774	1,17.06	19,947,888
1986	16.773	432.2	16,144,803
1987	17.500	337.4	13,825,000
1988	24.3	583.13	15,709,495
1989	30.1	1,314.367	16,234,955
1990	39.7	1,458.48	16,668,252

Aggregate National Income at GDP (=N=Bn)	Public Investment in Education (N=Bn)	Schools Enrolment All Levels of Educ.
38.7	1,787.6	17,094,378
52.04	2,392.9	17,640,911
111.61	7,999.1	21,672,994
69.20	10,283.8	22,642,276
111.45	12,816.4	23,761,221
121.22	15,351.7	24,813,567
188.08	6,841.2	24,970,314
246.34	23,668.1	25,454,308
249.00	27,713.5	27,313,322
677.51	56,568.5	27,920,616
894.20	62,567.1	28,640,911
989.80	68,114.3	28,714,311
997.06	79.435	28,911,640
	38.7 52.04 111.61 69.20 111.45 121.22 188.08 246.34 249.00 677.51 894.20 989.80	Income at GDP (=N=Bn) in Education (N=Bn)  38.7

Note: \* Represent s Data from 1962 - 1970 which are in millions of pounds while, + Represents Data from 1971 - 72 which are in Billions of pounds, when Nigeria was using pounds sterling as a means of payment and National Currency, 1973 - 2003 are in Billions of Naira. The ratio of education fluctuated in millions and Billions within these years.

### Source: Compiled from;

- C.B.N. Annual Report and Statement of Accounts, Various Issues 1970s, 1980s, 1990s,
   2004.
- 2. C.B.N. Economic and Financial Reviews, Various Issues 1970s, 1980s, 1990s, 2004.
- Development of Education 1984-86, National Report of education in Nigeria, Lagos: Federal Ministry of Education.
- 4. Federal Office of Statistics, Annual Abstract of Statistics, 1991,2001&2003.
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- Federal Ministry of Education (2004). Education Sector Status Report. Abuja:
   UNESCO/Japan Trust Fund project 552/H01R/1010,pp.94-235.
- Taiwo, C.O. (1980). The Nigerian Educational System. Lagos: Thomas Nelson (Nig.) Ltd,
   pp. 133, 228

From table II, it is glaring that the government has made some positive efforts to improve the human capital base through the funding of education. The data sprang from various administrative epochs by different leaders and this explains the various concerns given to the funding of education through the yearly budgetary allocation to it.

An x-ray of the data exhibits some fluctuations in the enrolment and investment pattern in education. There is no steady increase or decrease, as the consistency of the figures depends on the goals and policies in vogue by a particular regime. Generally, the trend element tends to be more upward as manifested in the data.

However, taking the dialectics of data available presented in the above, it explains the obvious fact that between 1962 to 1982, prior to the implementation of the 6-3-3-4, there were more secondary grammar and commercial school education in the light of schools established and intake into these schools as revealed by the Federal office of Statistics (1991) and National Report of Education in Nigeria (1984–86). The universities for instance, rose from five in 1968 to twenty three in 1983,. There are also increases in polytechnics and colleges of education. All these increases affirm the political exigency based on social demand for manpower development and training. Notably, post secondary education far off shot the Ashby's projection of a growth rate of 10% per annum for about ten years. For instance, between 1975 and 1980, there was a sharp increase in enrolment figures, which foreshadows the earlier projection by Ashby. Funding generally has remained lopsided, as there are sharp fluctuations in most of the time going by the

data above. This is largely explained by the neglect of the early plans that could not take into cognizance of increasing population growth and the demand for education with its consequence cost implications through funding. There was inadequate school mapping to cope with growing school population, which translates to a neglect of developing the expected quality manpower to cater for the needs of the economy in terms of development.

Most apathetic, is the increase in higher education that has left much to be desired as put tacitly by Pandit (1984, 1985), Yoloye (1984), UNESCO Reports (1987), Chete and Adeoye (2003), Yesufu (2000), that this has undaunted epileptic in resolving the manpower needs for the Nigerian economy. This they argued, have still left unsolved the problem of the shortage of critical manpower skills in the area of technical, scientific and professional disciplines as a result of inadequate funding to cope with higher education programmes. Unemployment and employment of educated and uneducated citizens have largely increased, as they observed.

Going by this, one can affirm that there has been mere explosion and proliferation of higher education quantitatively without taken adequate care of the needs and aspirations of trainees and that of the society as well as funding this level of education. The resultant effect is the surging escalation of graduate unemployment and loosely wastage of critical human resources that were developed but cannot be absorbed into the productive sectors of the economy.

It is perhaps more perturbing to witness increases in funding and yet this has been considered inadequate to develop the required human capital, provide learning materials and facilities, provide necessary infrastructure and school plant, to fruitfully produce positive values both in short and long runs that can effect the challenges of transforming the Nigerian economy. All these problems emanate largely from the nation's leadership and also depend on the nature of investment accorded, and with the character of priorities given the future of education as well as the people to be educated. Education becomes functional and a transforming process if it is relevantly and rightly directed. When people are developed appropriately, they will be placed in the right vocations and skills that will enable them push the economy forward. What is required is the quality of skills developed and not the insurmountable expansion as the case of Nigeria. Even if investment were to increase, this should be tilted towards developing human capital qualitatively and skillfully.

Akangbou (1987), Yahaya (1992), argued cogently that even as there is upward trend in educational investment t, the industry appeared to have more problems than it could absorb as there is dearth of data on what resources are available; the prevailing quality of education, and the quantity of schools including enrolment and drop-outs and or wastages. In substantiation, the industry seemed to accommodate irrelevancies in programmes that have got not much to do with the development of appropriate skills and human capabilities. This fact is buttressed by the evidences of many products of the industry that are unable to cope with the realities of life and the use of the education they acquired to earn and make a

meaningful living. A classic example of this, is the surging and increasing number of unemployed; as the education they received aided them to acquire certificates rather than building and developing skills that will have practical relevance to taking up opportunities of available jobs, and facing the challenges of putting their knowledge acquired in use. Indeed, emphasis has been placed on the development of the head and heart without taking into cognizance that its application is quite functional with the use of the hand. This defect in the hand and perpetuating the plight and craze for certification induced Dore (1978) to ascribe such a system to be loosely operating under a devanquification treatment; and thus, making it a circumstantial non seguitur and rendering the individual a morbid specialist. One fact with Dore's perception is that in most developing economies, the application of the knowledge and skills so acquired have often been jettisoned at the expense of accumulating certificates; and which have hindered the transformation process of various sectors of the economies. He lamented that despite the huge investment made by much respective Third World government this have not yielded much positive results in transforming their economies.

Thus, the thrust of this dialectics is premised on the affirmative that as much funds are sunk to education, it should be made more relevant in developing the head, heart and the hand and in which case, the use of human capabilities will be more functional and the desired transformation could be guaranteed. To curtail unemployment; underemployment and wastages of labour, education must be made more relevant to the needs of the individual and that of the society and more investment resources are required to undertake this task.

Perhaps this will be more illuminating to further avail data on recurrent, capital and total expenditure on education and with their percentages on aggregate expenditure between 1970-2003. This is shown in the table below.

Table 3: Trends in Investment in Education in Nigeria 1970-2003

Year 1	Recurrent Expenditure on Education (N m, Bn) 2	Capital Expenditure on Education (№ m, Bn) 3	Total Expenditure on Education (№ m, Bn) 4	Aggregate National Expenditure (₩ m, Bn) 5`	% of 2 on 4	% of 3 on 4	% of 4 on 8
					6	,	
1970	0.28 *	0.3	0.5	838.3	40.00	60.00	0.6
1971	0.44	0.4	0.8	1092.4	50.00	50.00	0.07
1972	0.07	0.21	0.28	1.863	25.00	75.00	15.03
1973	0.10	0.16	0.26	1.718	38.46	61.54	15.13
1974	0.62	0.134	0.196	14.260	31.63	68.37	1.37
1975	0.219	0.631	0.850	8.258	25.76	74.24	10.29
1976	0.522	0.529	1.051	9.701	49.67	50.33	10.83
1977	0.242	0.257	0.499	11.695	48.50	51.50	4.27
1978	0.394	0.432	0.826	2.337	47.70	52.30	6.70 5.26
1979 1980	0.360 0.509	0.307 0.729	0.667 1.238	12.691 23.695	53.97 41.11	46.03 58.89	5.26
1980	0.713	0.729	1.238	11.323	71.23	28.77	3.22 8.84
1982	0.646	0.470	1.116	10.930	57.89	42.11	10.21
1983	0.621	0.346	0.967	11.628	64.22	35.78	8.32
1984	0.272	0.104	0.376	10.000	72.34	27.66	3.76
1985	0.699	0.177	0.876	9.774	78.79	220.21	8.96
1986	0.652	0.442	1.094	16.773	59.60	40.40	6.52
1987	0.514	0.139	0.653	17.5	78.71	21.29	3.73
1988	0.802	0.283	1.084	24.3	73.99	26.01	4.46
1989	1.719	0.222	1.941	30.1	88.56	11.44	6.45
1990	1.962	0.332	2.294	39.7	85.53	14.47	5.78
1991	1.265	0.289	1.554	38.8	81.40	18.6	4.01
1992	1.676	0.384	2.392	52.036	70.07	16.05	4.59
1993	6.435	1.563	7.999	111.616	80.45	19.54	7.17
1994	7.878	2.405	10.283	69.2000	76.61	23.39	14.86
1995	9.421	3.307	12.816	111.457	73.51	25.80	11.50
1996	11.667	3.275	15.351	121.221	76.0	21.33	12.66
1997	12.985	3.808	16.793	188.089	77.3	22.67	8.93
1998	13.928	12.793	23.668	246.342	58.85	54.05	9.61
1999	23.047	8.516	27.713	249.000	83.16	30.73	11.13
2000	39.034	10.529	56.568	677.051	69.00	18.61	8.36
2001	42.110	12.610	62.567	894.20	67.30	20.15	6.99
2002	35.973	32.191	69.114	989.80	52.74	47.26	6.88
2003	64.755	14.680	79.435	997.06	81.52	18.48	7.97

Note: \* 1970 was in millions while 1971 - 2003 was in billions, which explains (m, Bn).

## Source: Compiled from;

1.C.B.N. annual reports and Statements of Accounts, various Issues -

- 1970s, 1980s, 1990s, 2004.
- 2.C.B.N. Economic and Financial Reviews, various issues 1970s, 1980s, 1990s, 2004.
- Federal Government of Nigeria: Approved Budget Estimates, various issues 1970s, 1980s, 1990s, 2004.
- Federal Ministry of Education (2004). Education sector status report.
   Abuja: UNESCO/Japan Trust Fund project, 552/Ho1R/1010,pp.94-235.
- The Nigerian Economist, Vol. 4, No.8, November 1991, Lagos: Sahel Publishing Co. Ltd.

Both recurrent and capital budgets in education are needed to sustain the Industry in terms of human and material resources so as to advance the course of human development. Going by the data as shown in column 8, where the percentage of expenditure on education is derived from aggregate expenditure, the average appeals that expenditure in education takes less than 10% of the aggregate national income. It was only during 1975 to 1976 when universal primary education was introduced into the fulcrum of the nation's educational development that the percentage rate rose above 10%. Also at the implementation of the 6-3-3-4 system of education in 1982, the expenditure pattern witnessed a rise. In fact, even where the figures rose to billions of naira as from 1987, the percentage share of education in estimated national income still remained low.

Taking a cursory insight into the trend of investment thus far, does explain that the total allocation to education from 1970 – 1973, had a relative increase in the expenditure to education from the aggregate national expenditure. The increase of 0.6% to 15.13% during this period was due to the oil boom and the plan for reconstruct, and rehabilitation and reconciles the economy as amplified in the second national plan. There were also fewer educational institutions to cope with. But within 1974 to 1980, there was a decline along with the proliferation of both all levels of education. For instance, there was proliferation of Universal Primary Education, expansion of secondary, polytechnic, colleges of education and establishment of additional universities, which all demanded funding, while resource flow were also on the decline with recessions as a result of decline in oil revenue.

Between 1981-1983, there was an increase in expenditure with fluctuations between 8.84% and 8.32%. This is explained by the political exigency of democratic dispensation when the then government decided to fulfill its campaign promises by opening up many educational institutions, which forced them to raise expenditure to meet up with the new demands and challenges of the institutions.

Severe austere measures of 1983 saw to a decline of 3.76% in 1984 and the belt tightening of the 1985 policies saw to a rise of 8.96%; and subsequently the introduction of structural adjustment programme in 1986 saw to a colossal decline in educational expenditure 1986 - 2003 and beyond. The situation continued to deteriorate till date It can also be argued that the bulk of expenditure on education is largely estimated to cater for recurrent cost. A colossal glimpse between 1981 and 1991 exhibits this as little attention was given to provision of capital cost - a factor responsible for the provision of necessary infrastructure to create enabling environment for learning. Capital grant was given precedence only between 1970 and 1980, where it had a leading budgetary allocation. One fact lies clear as the expenditure on recurrent cost is on the increase that of capital cost witnessed sharp decrease. Take for instance, while recurrent cost increased from 74% in 1988 to 88.6% in 1989, the capital cost decreased from 26% to 11.4% within the same period. Going by the data, there appear to have been a shift from provision of funding to procure learning materials for quality learning to that of wanton recruitment of personnel. One wonders whether such personnel can operate in the absence of the required infrastructure and learning equipments and facilities that are quite needed to develop the right skills and knowledge. In a world where knowledge and skills are married to realities of practice and work, funding such a programme seeks some balance in the budgetary allocation to both recurrent and capital expenditure. The lopsided allocation has aggravated the existing crisis in the educational arsenal. Funding must be made relevant to the exigency of the demands and needs of education to tap the required manpower needed to transform the national economy.

Despite the efforts so far, funding of education is still inadequate, when analyzed alongside defence and agriculture. A glaring example is shown in the data on aggregate expenditure, defence, agriculture and education between 1972-2001, availed below:

Table4: Aggregate Expenditure, Defence, Agriculture and Educational Expenditure in Nigeria's Fiscal Budgets 1972-2001.

Fiscal Year	Aggregate Expenditure (_ Billion)	Expenditur e on Defence (_ Billion)	% Defence on aggregate	Expenditur e on Agric. (_ Billion)	% Agric on aggregate	Expenditur e on Educ. (_ Billion)	% Educ. On aggregate
1972	1.836	0.370	19.86	0.061	3.27	0.286	15.35
1973	1.718	0.420	24.45	0.080	4.66	0.267	15.54
1974	14.260	0.533	3.74	0.134	0.94	0.196	1.27
1975	8.258	1.67	20.22	0.149	1.80	0.850	10.29
1976	9.701	1.037	10.69	0.001	0.01	1.051	10.83
1977	11.695	0.696	5.95	0.156	1.33	0.499	4.27
1978	12.337	1.305	10.58	0.146	1.18	0.826	6.70
1979	12.691	1.122	8.84	0.120	0.95	0.667	5.26
1980	23.695	0.989	4.17	0.468	1.98	1.238	5.26
1981	11.323	1.319	11.65	0.446	3.94	1.001	8.84
1982	10.930	1.111	10.17	0.179	1.64	1.116	10.21
1983	11.628	1.180	10.15	0.472	4.06	0.967	8.32
1984	10.000	0.928	9.23	0.285	2.85	0.376	3.76
1985 1986	9.774 16.773	1.144 0.907	11.71 5.41	0.176 0.412	1.80 2.46	0.876 1.094	8.96 6.52
1980	17.5	0.907	4.62	0.412	2.40	0.653	3.73
1988	224.3	1.270	5.23	0.743	3.06	1.084	3.73 4.46
1989	30.1	1.740	5.78	0.743	1.29	1.94	6.45
1990	39.7	0.818	2.06	0.459	1.16	2.294	5.78
1991	13085.4	581.0	4.44	551.2	4.21	289.1	2.21
1992	15975.9	981.3	6.14	763.0	4.77	384.1	2.40
1993	18600.0	1546.3	8.31	1820.0	9.78	1563.0	8.40
1994	31000.0	2826.5	9.11	2800.1	9.03	2405.7	7.76
1995	44559.0	3688.1	8.27	4691.7	10.52	3307.4	7.42
1996	48000.0	3927.0	8.18	3892.8	8.11	3215.8	6.69
1997	115990.0	4943.5	4.26	6247.4	5.38	3808.0	3.28
1998	184719.5	7943.5	4.30	8816.6	4.77	12793.0	6.92
1999	195813.4	3797.7	3.76	6912.6	3.53	8516.6	4.34
2000	218397.0	6444.0	2.95	8803.2	4.03	10529.2	4.82
2001	285131.2	9148.7	3.20	10231.3	3.58	10722.3	3.76

Source: Compiled from;

 C.B.N. Annual Report and Statement of Accounts, various Issues -1970s, 1980s, 1990s, 2004.

- C.B.N. Financial and Economic Review, various Issues 1970s,
   1980s, 1990s, 2004..
- Federal Republic of Nigeria: Approved budget Estimates, various Issues - 1970s, 1980s, 1990s, 2004.
- 4. Federal Office of Statistics, Annual Abstract of Statistics, 1991,2001&2004.
- Nigerian Newsweek, Abuja: Jamilo Nigerian Limited, 5th December
   1988, p.14.
- The Nigerian Economist, Vol. 3, No.1, 1990. Lagos: Sahel Publishing
   Co. Ltd., p. 37.

From the table, there are clear indications as to the lopsidedness of the expenditure pattern with the widening gaps between defence, agriculture and education. The expenditure on these three sectors suggests unevenness. This fact is manifested on expenditure to defence between 1972-2001 where the bulk of aggregate expenditure is devoted to and this sector merely supports the productive sectors, and which in effect renders it practically unproductive. From the figures 1972-2001, defence has 6.96% derived from the aggregate expenditure while productive sectors like agriculture had 1.94%, education, the main sustenance of other sectors in terms of manpower development and training and its provision to other sectors for utilization had only 6.21% of aggregate expenditure during the period.

A deliberate attempt however, has been made in avoiding the inclusion of data between 1962-1972, as these were critical years in Nigeria's history, as there was turmoil of distortion in view of political agenda and civil strife. One expects that from indigenisation policy of 1972, through the Second National Development Plan, there should have been resurgence and a rethinking of how to move the country forward through training and development of relevant manpower to take over the state of affairs of the country. Yet, little attention was given and the chunk of the resources was largely devoted to defence as if the nation was still staggering with ravages of war. The data presented, revealed the paucity of budgetary and sect oral planning in Nigeria, where the most needed area relevant to transform the national economy is given paltry attention. To traverse the structure, education has to be given adequate attention, as the secret of development of most economies

including the so-called industrialized nations, hinges heavily on human development and training.

Part of the explanation of this lopsidedness in the agriculture pattern in all sectors has lent to the inability of decision makers to relate required resources (inputs) directly to the specific objectives (outputs) that they intend to achieve (Akangbou, 1985, Yahaya 1992, Yesufu, 2000). Rather, expenditure is largely earmarked and designed for administrative purposes; purported safeguard of appropriate against malfeasance; and loosely aimed at efficiency in carrying out specific task. Therefore, the current budgetary allocation in Nigeria has been beclouded with irrelevancies and characterized with poverty of planning; and by its present state cannot substantially assist in deciding rationally resource allocation to most critical areas of competing needs to the people. This informs the poverty nature of planning of the economy and the lack of priority given to sectors that have more viable externalities to the Nigerian economy. It is expected that externalities that are derivable from education are higher than any other sector.

It is a rational fact that all sectors depend on all categories of manpower - highly skilled, intermediate, semi-skilled and unskilled to man and service the production process. If less performance is given to such a sector as compared to education and defence in the table above, it largely shows how the prospects of the economy has been toyed with and relegated to the doldrums. It only takes educated, knowledgeable and skilled personnel to operate a modern sophisticated weapon and armory but not the objects themselves. Innovations in such weapons

can only be guaranteed with sustained training and development of the skills of the personnel.

The result of this loose and large attention given to defence has grossly contributed to the bulk of budget deficit the country has experienced over the years. For education, agriculture et cetra to have precedence, expenditure to unproductive and mere service sectors without externalities have to be curtailed and attention should be geared towards developing human potentials to fasten the process of transformation in all sphere of the nation's economy.

#### 3.5 HUMAN RESOURCE DEVELOPMENT AND UTILIZATION IN NIGERIA.

The transformation of a modern economy through science and technology rests heavily on the development of people and the planning of human activity (Gareth, 1982, Gills, 1987). Hagen (1986), Yahaya (1992), Umo (2001, 2002), ILO (2000, 2001), argued in this favour that even where capital, natural resources, internal and international trade are relevant factors in sustaining economic growth and development; the human factor is more important in this process. This informs many nations to have tailored their development towards first, improving the quality of mankind through the development of human skills. The application of these skills and its proper utilization can guarantee the economic, political and social transformation of the national economy.

Harbison (1964), Walker (1980), Cohn (1979), Todaro and Smith (2003), Jhingan (2003), observed favourably in the scope of human capital; and affirmed that the only way and weapon to move an economy forward is the utilization of

acquired knowledge, skills and ability of all the individuals. They were favourably disposed to the fact that the acquisition and utilization of such talents is sustained by maintaining the potential labour force through education and training; the cost notwithstanding. The ultimate of such a talent so acquired creates new initiation and fortune for the individual; and consequent upon which the society can benefit.

The development of human resources and its utilization is amplified in Streeten (1972), Anderson and Bowman (1977), Arrow (1991), Summers (1992), Rmier (1990), Yahaya (1992), works as they both emphasized that the efficiency of a national economy depends on the use of capabilities of the whole population. Streeten (1992) and Sachs and Wamer observed that even the pre-eminent industrial position in the world had nothing to depend on except the use of the brains of its people. Therefore, human development has become anchored with national interest and concern as this has been realized as the main tool of development. Impliedly, it is a common knowledge today that the key in economic transformation lies in man's head; and this quality has to be developed, planned and put into proper use before development can take shape. Therefore, the slow growth of knowledge and the lack of requisite manpower have contributed to underdevelopment of the economy. Mogbodile (1986), Akpa and Agba (1990), Ozigi (1990), Yoloye (1980), Ali (2000), all confirm the proper utilization of human labour as the key to transformation of all sectors of the Nigerian economy. They, all argued favourably that without a sound and qualitative human labour, the nation: cannot move forward and neither can it put any initiative into use and practice.

Thus, the economic quality of a nation could remain stagnated in the face of one having little knowledge of the available resources endowment of the nation as well as the alternative productive techniques that are feasible like the necessary skills, the existing market conditions and opportunities and the requisite institutions that might be created to favour the efficient utilization of such skills to contain economic rationality. An improvement in the quality and proper use of human capital can guarantee the prudent use and management of physical capital. Human capital development can therefore advance the course of improving human skills, knowledge and diffusion of new ideas, ready to cause economic growth and development in an economy.

#### 3.5.1 Human Resource Utilization

Ascertaining the degree and nature of relationship between human capital development and investment, Gareth (1982), NERC (1980), Yahaya (1992), Adcamu (2002), findings, revealed a positive relationship in this premise. In the light of Gareth (1982), Adamu (2002 and Dornbusch et al (2004), observation, investment in human capital has the ultimate result of elevating the level of national productivity. This can be attained through increased supply of investment resources to education to ensure improvement in the well being of the individual and that of the nation. Acquiring more education creates avenue for the individual to have additional benefits to his lifetime earnings above his contemporaries who have less education; as such an educated individual is prone to perform more and learn more

quickly on the job. His talents are best utilized and could easily be trained on the job and termed in specific routines to achieve results.

Since the more educated labour force have more capacity to perform with high initiative, investment in education is quite needed to acquire superior knowledge, skills and enhanced capacity to act meaningfully and positively in all round development of a nation's economy. Explicitly, the more education one acquires, the higher the propensity of the labour to perform and achieve results. The utilization of such a skill is best guaranteed following the preceded argument; and this was confirmed by Akangbou (1987), Aminu (1992), Yahaya (1992), that the level of educational attainment of individuals do determine their quality, and utilization in the labour market; and which consequently shapes efficiency and ensures productivity in the economic spectrum.

Utilization of human labour is indispensable in a situation where a nation aspires for rapid economic transformation in all fronts including scientific and technological development. Fafunwa (1964) and Yesufu (2000) compliment this perception when they revealed in their findings that for excellent programmes to succeed in an economy, people must be educated to handle modern conveniences effectively. This is not in isolation of effective utilization of the individual skills appropriately in championing the course of the country's development.

Thus, for an economy such as Nigeria to experience circumstantial economic growth and development, it has to effectively combine and co-ordinate through sound education - its physical, financial and human resources. It is the human utilization that can make the former-physical and financial resources to function for

the good of the society. In complimenting this, Gowon (1994), Balough (1964), Vaizey (1973), Edding (1966), Haveman and Wolfe (1984), Meier and Stiglitz (2001), in their varied perceptions, advanced that the human agent with sound education holds more promise and has more relevance to champion the course of development. This is in view of the promise for which an educated man, who utilizes his talents adequately, can redirect the efficient allocation of all resources and as well put them into proper utilization. Therefore, the efficiency of the utilization of human capital is best defined by the level of investment accorded to education and the quality stressed in the human agent in the process of developing such a skill. Human beings by their very nature are the best judge of their level of productivity and utilization. Yet, it is arguable that when good incentives are attached to ones labour, his labour can be best put into use, and the anticipated output will be more. Human resource utilization therefore, has to be properly developed firstly and then rewarded appropriately if the capabilities of the individuals are to be fully exploited and utilized in the production process.

The Nigerian scenario has not witnessed the full implementation of human capabilities, which has culminated into the large-scale unemployment, underemployment, and wastage of labour. This situation has left large number of graduates from secondary and tertiary levels to roam the streets as unemployed. Even where some are employed, they seldom have assigned job to perform on and are left perpetually underemployed which merely reflect wastage of human potentials and talents, since their inertia and initiatives cannot be put to use. This scenario destroys initiatives and weakens the development of highly skilled

manpower where job employment is not certain after having gone through training rigorously for so long. Beckman (1985) and Jhingan (2003) revealed this, when they exposed and affirmed that education is the major basis for recruitment and promotion of people in all sectors of the economy. He argued that schools serve as key institutions for socializing wage labour. Yet, only a minority of the school leavers is actually absorbed into formal employment on leaving school. Indeed this is a dangerous trend, where majority of graduates spend years in the reserve army of unemployed, part-employed or temporarily employed, or more or less marginally self-employed peddling occasional goods and services. This is glaring with mass youths like the Almajiris in the North and Area boys in the South and with many apprentices in workshops and shops and particularly the turn out of graduates from all levels of education that are rarely absorbed in the industries nor the public sectors.

Part of the problem for which human potentials are not put into proper utilization lend on constraints in the job market where all brands of discrimination subsist in favour of people from less developed areas or even from the more advanced business sector. What characterized this phenomenon, sadly, has been the inability of the job market to satisfy the existing enormous labour as the supply of human capital outweigh the supply. This makes the supply of most categories of labour to outweigh the demand, and therefore, the efficient utilization of reserved army of labour cannot be championed. Unless industries are created along the public services to absorb the growing labour force, the utilization of labour for the

good of transforming the Nigerian society will continue to remain low. This scenario calls for an examination of the use of human capabilities.

### 3.5.2 Policy Approach To The Use Of Human Capabilities

Allocation of human capital into various productive activities in an economy stems from the variety of jobs available and how individual talents could be placed amongst competing jobs. Therefore, the placement of human capabilities has to be based on employment opportunities, which are inherently imbued as a function of the overall rate of growth of the economy, of the branch distribution of investment and of the chosen techniques (Blaug, 1986). Hence, Amin (1970), Meier and Rauch (2000), posited that for a good policy approach to the use of human capital requires an appropriate distribution of the work force, both among the various branches of economic activity and within each branch, in line to specific skill level in keeping with the techniques utilized. It is therefore necessary that the development of human capital should encapsulate the appropriate allocation of the work force as to ensure the full utilization of the human skills and talents. The ability of the individual workforce to perform functionally in a given task rests heavily on how appropriately he is being placed.

Indeed, Inanga (1985), Yahaya (1990), Aminu (1992), Adedeji and Bamidele (2003), admit this assertion of the appropriate allocation of the work force as the basis for which an educational system could plan how to develop human skills and knowledge through all forms of appropriate training relevant to the workforce; and which in effect could be harnessed to fit in the productive sectors of the economy.

Sustaining this, demands ensuring that the mechanism of the labour market and the limits of variations in the reward system of the labour force should be placed in relative terms with different skills level. Since varying the demand for these skills will also entail ensuring a proper distribution of the workforce.

In later development, Amin (1977), Todaro and Smith (2003) posited that part of the reason why policies of human resource utilization have not been so fruitful has been attributed to the nature and philosophy of education system that has been in practice. For instance, the education of the bourgeois elite is still largely traditional, based on humanities and scientific knowledge; and yet, it retains wholesomely its basic feature, a utopia philosophy of rote learning without having to offer solutions to the development of appropriate skills relevant to transform the Nigerian economy. Even with the gradual spread of basic education, it only stresses general education for citizenship, anchored with some elements of elementary scientific and technical knowledge that prepares individuals for eventual skills work. In support of this, Amin (1977), Onimode (1983), Streeten (1972), Pray and Sets'abi (1988), Meier and Stiglitz (2001) posited that the educational system and policy on human resource development in most peripheral economies tend to become so generalized on the secondary level, such that the length of acquiring formal education is on the increase, the 6-3-3-4 system of education in Nigeria captures this analysis. Therefore, with such a scenario, it becomes even more difficult for majority of the citizens to be appropriately trained and be absorbed in the labour market. Amin (1977), Onimode (1983), Jhingan (2003), put this more succinctly that for a growing population such as that of Nigeria, education has become

dysfunctional as a kind of super flums luxury. This could be juxtaposed to human resource development to inference that the educational system has not been able to produce appropriate and requisite manpower that can guide and propel the ship of economic development. This is because, even in the face of acute lack of skilled and trained manpower which has been blamed on education and training, there is still high rate of unemployment in the country that permeates and beclouded the Nigeria society.

It is pertinent to note from the perspective analyzed that most economies are desperately in need of skilled manpower and yet, unemployment is rife in view of the fact that the existing manpower already developed lacked the precise knowledge to put in the production process to advance the economy forward. This is largely created by lack of adjustment between educational system and perspective plans of economic development, which are, all instruments responsible for human resource development. Without mincing words, Sachs (1969), Sacks and Warner (1999), observed that the scarcity of skilled workers and technicians set a limit to the rate of growth of particular industries and of course to the expansion of the employment of unskilled labour. This is why vocational and technical training have to be emphasized alongside general education. Therefore, policies regarding the use of human capabilities should emphasize employment creation as the rate of unemployment in Nigeria appeared rife. Planning of human resource must necessarily relate to employment opportunities within the national economy.

Consequent upon this, is the utilization of the human skill that needs to be engaged in a job. This is because, when one procures a job, it becomes direct

means for the individual to participate in the production of economic good and hence, inevitably contribute to the economic transformation of the society. The inability of many job seekers to be employed spells partly from wrong kind of training they undergo like the case of vocational schools. Ogunsheye (1969), Haveman and Wolfe (1984), Yahaya (1992), Adedeji and Bamidele (2003) adumbrate this analysis in the light of university graduates, where they argued that the humanities and social sciences appeared to have produced more graduates than the labour market can absorb at the existing wage rates. In all ramifications, education is powerless in terms of promoting employment in the absence of good complementary economic policies. From this premise planners in Nigeria have had loose attitude in setting specific employment policies and neither have they any specific employment objectives. Since even the existing ones were not fully applied and have not also meet the needs of the economy. Rather, they contain themselves with the presumption that enough jobs will be thrown up and hence; economic function should have been the overwhelming guiding principle in the approach for human resource development. Feasibly, the task of education should be seen in imparting the right skill, knowledge and attitude and capabilities that will promote adaptability in the area of readiness to accept change, rationality by way of critical insight and analysis into a phenomenon, enterprise through initiative and innovations for improvement. If this is the plight of education for human resource development and training, then the use of human capabilities will have to centre on addressing the needs of the economy.

Human resource developers and economic planners ought to take challenge of considering the needs of the economy alongside their main policy thrust of development. Critical areas of needs of the economy must be considered; as the distribution network of the labour force in various segments of the economy have to be the central concern of the manpower developers and economic planners, if under-employment and unemployment are to be curtailed and gradually eliminated in the society. In harmonizing all these, one could easily infer on Yesufu (1969, 2001), Anzaku (1991), that relating job creation to human capital development must have a prime place in the policy thrust and objectives of Nigeria's economic development.

Thus, the prosperity of an economic plan in this framework has to measure productivity and work as the basic philosophy. This is more fruitful than basing a plan on growth rate that is largely illusionary where the aspects of human efforts to put the policy thrust into practice is often ignored. However, employment opportunities in an under-developed economy (Dobraka, 1963), are a function of the overall rate of growth of the economy, which are a consequent of the branch distribution of investment and appropriate choice of policies and techniques. Lending on this appropriate techniques and policies is the human resource development paradigm that has not been properly titled to take care of employment opportunities in the Nigerian economy. Employment opportunities must therefore be planned taking into cognisance, the provision and training of required skilled labour. Thus, the provision of basic education should be in affirmative with limited facilities for further education and training; and limited employment opportunities availed in

the economy. It is evidenced from the foregoing analysis that the number of graduates of all levels of education increases along with growth in the pool of unemployed in Nigeria. This fact is not only common to Nigeria but to many developing economies. For example, the O.A.U. "Strategy for the Economic Development of Africa" adopted in Monrovia in July, 1979 and "Lagos plan of Action" adopted at the Economic Summit of O.A.U., resolved that in order to achieve self-sustained, internally self-generating socio-economic development;

The need is to realign development priorities to emphasize the development of man-human resource-both as the object of development; as the supplier and consumer of skills as well as the terminal products and services of all the development effort (Prah and Sets'abi, 1988:5).

Thus, a viable policy approach to the use of human capabilities (Prah and Sets'abi, 1988:5-6) and Yesufu (2000) should include:

- Training, as the instrument for the development of an employee, is but one aspect of manpower utilization. Effective training cannot be realized in the abstract, isolated from the problems of productivity and result-orientation. It cannot be separated from the official duty to provide good planning, organizing, coordinating and reporting;
- ii) Anticipating in advance the type and the quality of manpower required to carry out government function is as essential as anticipating the needs for money;
- iii) Ascertaining that the managers are developed to their full potential is a responsibility of organizations;

iv) Failing to provide training for the employees is frequently a failure of organizations to recognize the benefits of training and that, training must be systematized, sustained and regular.

To a large extent this policy approach has been ignored in the annals of human resource development and utilization in Nigeria. The fact is that even where such a provision is in existence, it has not been re-enforced to function in order to address both demand and supply side human capital to Nigeria economy. Any policy that has to achieve results must be thrived, sustained and perpetuated along with the goals of development of the country and its needs. Policies for human resource utilization must be amplified along this path.

## 3.5.3 Paradigm Of Human Resource Capabilities Approach

Structurally, the development of human capabilities should not lend itself as an objective with a defined end-point but as a process continuing without end (The Committee for Development planning (CDP) Report, 1988) UNDP 1996, 1997, 1998). Therefore, the approach should centre on the overall development, which puts the well being of people first, which regards human capabilities simultaneously as both the means and the end s of social and economic policy. The approach of this nature may not necessarily construe poignant programme but should contain ingredients, which distinguish it from commodity centred approaches to development. Emphasis may be placed on local resource mobilization as a way of allowing people to develop their capabilities and participate as agent of constructive change.

It can be argued from this standpoint that in Nigeria for instance, the activity of government is highly centralized and authoritarian. Herculean to mention for instance, is the underdeveloped legal framework, which has worsen people's fear and distrust to government. This fact has made even the commonest citizens in all parts of the country to see government officials with disdain and not as being persuasive but coercive agents (CDP, 1988, UNDP, 2004). A scenario such as this soars relationship between the state and the vast majority of people and consequent for which mobilization of human resource for development is stultified. Thus, a strategy that gives precedence to the development of human capabilities requires decentralized administration to the local level and administration at that level of official who enjoy the confidence and support of the great majority of the population. The task beyond this paradigm is to organize the required manpower that will be ready and willing to participate in the economic transformation effectively.

Far from the need to coordinate the human resources so that they can participate in development, opportunities to participate appear and end in it. Yet, participation has a number of instrumental values, which make it attractive to a process of human development. CDP (1988), Prah and Sets'abi (1988), argued that participation in representative community-based organizations can help to identify local priorities, determine which needs are essential or basic and which are of secondary importance, and define the content of development programmes and projects so that they reflect local needs, aspirations and demands precisely and appropriately. They affirmed that participation in functional organizations like service

cooperatives, land reform committees, irrigation societies, women's groups, et cetera, can be used to defray cost of public services and investment projects in human capital by shifting responsibility from central and local government where costs tend to be relatively high to the grass-roots organizations where costs can be low. To make it practicable, beneficiaries of an investment project could be trained on how to man it and thence be persuaded to contribute their labour voluntarily to help defray construction costs. For instance, some public service like clinics, nursery schools, day care can be organized, staffed and run by local group rather than by relatively high paid civil servants brought in from a different set up. Following this trend appropriately, can flourish participation where the human capabilities both skilled and unskilled are harnessed and used to contribute to the development of the economy.

Like Prah and Sets'abi (1988), CDP (1988), Beckman (1985) World Bank (1995), UNDP (1996, 1997, 2002, 2004) observed, the value of participation and human resource development are not limited to the economic sphere. It equally extends to multifaceted spheres of life. For example, a political dimension to human resource development is informed by one premise, people must be educated and have required information about issues facing the economy, before all groups can participate effectively in the political process.

Thus far, human resource development has intrinsic value, as to a large extent; the development of human capabilities in many respects has increasingly been accorded as a right to which all citizens of a country are entitled. This right in many societies includes the ability to read and write, access to basic health care

and freedom from starvation. Moreover, certain aspects of human development are akin to consumption goods in the sense that they are sources of satisfaction. To reenforce this satisfaction, requires education and thereafter employment, which provides direct satisfaction by giving an individual the sense of being engaged in something worthwhile. Education also provides the individual the perception to live in a clean and healthy environment as a source of aesthetic pleasure that guarantees sustainable development for the human agent. A healthy person continuously can almost be guaranteed of his labour in the production process perpetually. His initiatives and innovations can be exploited once he is well and can be availed to perform on the job.

Indeed, investment in human resources can increase the productive capacity of an economy and consequently, raise the level of material prosperity of such a country. To perpetuate this, several ways are adopted. The first premise is that expenditure on human resources can raise the physical, mental and cognitive skills of the population through education and training. The second premise is that public policy which focuses on human development can assists in the efficient deployment and full utilization of knowledge and skills; it can increase entrepreneurial and managerial capabilities, and it can transform theoretical knowledge into applied technology through research and development programmes. The other premise is that public policy can establish an institutional framework, which enhances incentives, removes impediments to resource mobility and resource mobilization and increases participation in decision-making, which in turn can help to improve economic efficiency.

An aspect of the paradigm of human resource development which needs to be stressed is that education and training, health services, water supply and sanitation, food security and nutrition policies; all are complementary to re-enforce quality to education system. For instance, a programme of school meals, intended to improve the nutrition of young people, often leads to reduced school drop-out rates and hence to an increase in the quality of the education system.

Thus, the paradigm of human resource capabilities centred on the overall development of the human agent and his well being in harnessing the production process in the national economy. All that needs to keep the human agent function are tied to this; and has to be exploited for the good of all.

#### 3.6 HUMAN RESOURCE DEVELOPMENT EFFORTS IN NIGERIA

Human resource development effort in almost all societies encompasses investment by the society in education, investment by employers in training, and investment by individuals in time and money in their own development (Becker 1964; Ukeje 1966; Ige and Onah 1986), Chete and Adeoye (2003), Jhinga (2003), UNDP (1999, 2000, 2001). Collective effort in this direction is necessary and is all geared towards acquiring and increasing the number of manpower who should have the necessary education, skills and experience that are critical to be put into use to transform creative and productive resources.

To affect this succinctly, the National Economic Council (1959) made provisions on how the development of manpower should be channeled. It argued that manpower efforts should be proceeded through formal education in schools,

technical training centres, colleges, polytechnics, universities and other institutions of higher learning, on-the-job-training, in-service programmes of formal training, management development seminars and part-time adult education classes. This premise was foreshadowed by lack of right caliber of manpower to operate government machinery, economy, diplomatic services and others: coupled with inadequate supply of these human resources, motivated the Nigerian state to device more concrete means of salvaging the situation. A commission on post-school certificate and high education in April 1959 also revisited this. The commission through the assistance of Professor Harbison was charged with the responsibility of preparing suitable manpower needs for the country. The revelations from their report placed education at the apex of relevance to development. This decision was re-enforced by government action in sourcing finances both internally and externally. It hence made the Federal Government to consider education as an integral part of its planning.

The Ashby's Commission Report in 1960 observed this effort and amplified that the duty of various governments to involve themselves directly in economic development of their societies was not widely reckoned as they largely ignored the development of human capital that could actively aid participation and procession of economic development. This gap in the understanding of the relevance of human capital in economic transformation transcends in the later years for Third World Countries (Dike, 1977; Tobias, 1977; Eze, 1983, King and Hill, 1999, Jhinga, 2003). Indeed, human resource development effort is rooted on how to develop the indigenous based technology towards meeting the environmental needs of the

economy. This particular effort is re-echoed in the national development plans and annual budgetary estimates between 1962-2003. Take for instance, the Fourth National Development Plan (1981) where it is amplified that Nigeria's development planning efforts have been laying increasing emphasis on human resources development, taking into cognisance the vital role of human labour in the development process. The plan stressed further that the main thrust of policy in the development plans have been among other things, to increase the nation's stock of trained manpower through the expansion of existing educational and training facilities; and the establishment of new ones.

Despite these lofty efforts, it becomes imperative to note the dysfunctional nature of the educational system, beclouded with inadequate planning and the consequent for which the development process in Nigeria has been slowed. A plan without adequate provision of investment in the requisite manpower to champion the course of national development will eventually be difficult to realize its philosophy and objective. This is because, all other resource endowments planned and projected on the plan lend on human resources for them to be put into proper use. In effect, they are passive factors. It is the human intellect, other words the brainpower that decides and directs the process of production and thus move the society forward.

Indeed, manpower constitute the critical resources upon which a society's economic fortune and future largely depends on (Hughes, 1976). This fact is broadly utilized in the spectrum of planning. This, therefore imply that it is the human agent that can effectively and efficiently organize its raw material resources

of relevant skills by the nation, who have to advance the way forward of development. Thus, efforts of human resources development have to redress the needs of the Nigerian economy. The educational system in vogue must provide the needed and necessary infrastructure in skills and technical know-how to man and tap the required natural resources that can transform the national economy. For instance, the technical know-how can be actualized through a well-articulated and organized vocational training programme, provided by the educational system. This has been sadly inadequate in Nigeria; as less emphasis has been placed on quality and the economy has not provided the enabling infrastructure and environment to develop the required skilled manpower to make invention and innovation practicable.

It is a glaring fact that there have been efforts to improve the manpower development of the country as evidenced in table II. Going by the data, various regimes from 1962 to 1992 have made their efforts manifested both positively and negatively in funding of the educational sector. This was preceded with increases in enrolment within the time span. To buttress this argument further, data is availed herewith on structural enrolment in various institutions in Nigeria between 1970-1990.

**TABLE 5: Structural Enrolment In Nigerian Schools, 1970-1990** 

Year	No. Of Primary Schools	Student Enrolment	No. Of Secondary & Comm. Schools	Students Enrolment	No. Of Tech. & Voc. Schs.	Student Enrol.	No. Of Poly- tech.& Univer sities	Students Enrolment
1970	14905	3515827	1,155	310,054	66	13,645	9	15,231
1971	15324	3897539	1,234	363,313	71	15,884	9	15,501
1972	14538	4391197	1,219	400,803	64	15,953	10	17,013
1973	13300	4746808	1,320	493,159	70	18,776	13	19,400
1974	13300	4813124	1,136	490,334	72	24,415	13	19,400
1975	21223	4970488	1,558	705,516	78	25,947	17	22,010
1976	2985	8386400	1,560	826,209	84	32,010	22	43,561
1977	34310	10105000	1,928	998,967	91	36,723	24	46,614
1978	34339	10832313	2,249	1223200	103	43,088	30	70,001
1979	37469	11457772	2,259	1159401	103	29,829	37	78,991
1980	35875	12206291	2,908	1557877	120	35,777	33	90,355
1981	36683	14026819	4,334	2226124	120	41,097	36	105010
1982	37611	14964143	4,400	2301051	120	41,186	39	162800
1983	37888	15308384	4,501	2421333	123	42,006	39	162800
1984	38211	14383477	4,600	2611201	123	42,092	41	250010
1985	35281	13025287	4,600	2801010	129	44,241	42	250600
1986	35433	12914870	4,521	2847326	128	47,724	43	270015
1987	34266	11540178	4,801	3135090	132	50,020	46	302601
1988	33796	12690798	5,010	3105253	132	53,205	52	325816
1989	34904	12721087	5,000	3401020	134	58,335	52	250140
1990	35433	13607249	6001	2901,993	50	72,525	60	248,379
1991	35446	13776854	5860	3123,277	50	85,574	64	303,28
1992	36610	14805937	6009	3600,620	54	92,600	64	334,77
1993	37812	15911888	5959	4032,083	57	92,600	72	358,99
1994	38000	16835600	6074	4451,329	57	93,969	75	378,04

1995	39677	17994620	6429	4844,991	58	95,502	78	444,518
1996	41660	19794082	6429	4680,339	58	97,890	88	481,394
1997	43951	21161852	6470	4923,717	61	100,337	80	498,761
1998	45621	22473886	6490	5071,428	61	102,845	90	514,696
1999	47902	23709949	6596	5274,285	61	105,416	91	539,680
2000	48860	24895446	6596	5381,012	61	107,311	91	548,991
2001	48860	249982778	6603	5519,732	61	108,413	94	569,413
2002	49008	251131433	6609	5694,189	61	109,340	101	632,720
2003	49013	254157211	6702	6101,399	61	111,819	109	694,131

# **Source:** Compiled from;

- Federal Ministry of Education (1986). Development of Education
   1984-1986. National Report of Nigeria.
- 2. Federal Office of Statistics, Annual Abstract of Statistics, 1991.
- Ige, C.S. and Onah, F.E. (eds.) (1986). Production Problems in the Nigerian Economy. Jos: Jos University Press Limited.

From the data above, it is glaring that secondary, grammar and commercial type of education had precedence over the others in terms of number and school's enrolment. It is also necessary to note for instance that vocational and technical education had some attention with a fairly spread enrolment. The number of Polytechnics and Universities for example was at slow growth during the 1970s and started increasing as from 1980s, and enrolment of students too within the period rose high. Some years a back in the 1970s like by 1960, only two universities, University College Ibadan and University of Nigeria Nsukka were in existence with Yaba College of Technology and Ibadan Polytechnic all training intermediate manpower to service industries. But by 1970, the number rose to six and later grew to thirteen by 1976 and twenty-three by 1983.

A close glimpse at the Ashby's documents, reveal that the proliferation of universities and other post secondary institutions after 1976, far offshoot the commission's projection. Rather it was an admixture of social demand approach and manpower requirements approach that overlooked other essential ingredients of implementing a good manpower plan. For example, the basic needs and requirements of development of an economy ought to have been taken into consideration in order to forestall the admixture purported to have affected the main prospects of manpower planning in Nigeria. Evidence abound that actual enrolment in tertiary institutions rose over 50,000 in 1979 as against 10,000 projected by Ashby, implying an over 500% increase (Eze, 1983; Inanga, 1985; Akangbou, 1985, Yoloye, 1980). From our data in the table, the universities and polytechnics enrolment alone in 1979, accounted for 78,991, while technical and vocational

schools including colleges of education, in the same year had 29,829 students enrolment, this added to give 108,820 students enrolled in tertiary institutions during the said period. Going by Ashby's projection and the data availed; the increase is over 1000% as compared to 10,000 projections when juxtaposed to 108,820 enrolments in 1979. Arguably, Ashby's projection based on Harbison's rule of thumb is largely criticized for having no scientific basis of arriving at the recommended figures (Akangbou, 1985). An outcome from such a projection inferred that more universities should be established to train required skilled manpower for various sectors of the economy, if economic growth and transformation were to be attained. But admittedly, there is dearth of data on national income and other statistics relevant for such an exercise. One crucial role of the commission that cannot be undermined is the initiation and establishment of National Manpower Board, responsible for data collection on various aspects of the national manpower, situations and a perpetual review of manpower needs relevant to the country's development. This however, amplified the formulation of effective human resource development through various institutions in the country over the years.

# 3.7 INVESTMENT IN HUMAN RESOURCES AND ECONOMIC TRANSFORMATION IN NIGERIA

Far from early colonial experience, developing the potentials of Nigerians was not seen as an instrument for stimulating development. Investment was only generally made to specific forms of education. Certainly, by 1935, colonial office memorandum saw this positive relationship existing between education and

economic development of a society and made efforts towards increasing funding and expansion of schools. This positive terms motivated economic planners thereafter to integrate education as an integral part of national economic investment. This role, paved way for the Ashby Commission of 1959. Series of conferences by UNESCO, UNDP, World Bank, ILO, also manifested the role of education in transforming the society. The findings of these conferences reveal the importance of education to economic development, which cannot be ignored.

Therefore, educational policy should be geared towards the needs of the society, as the existing policies have been unable to do so. Investment in all forms of education is necessary, as it will add to enhancing economic development. In compliance to this role, Inanga (1985), Eze (1983), Akangbou (1985), Yahaya (1992), Aminu (1992), Yesufu (2000), posit that the Nigerian economy has to oblige to UNESCO recommendation and increase her revenue allocation to education in the country from 25% to 30%. This is premised on the fact that policies and resources directed to fund education have had mismatch and the results have been quite evasive.

The relevance of human capital contribution to economic transformation is clearly stated by Todaro (1989), Todaro and Smith (2003) as they stressed the passive nature of capital and natural resources in the process of production; and inferenced that it is only the human labour that is an active agent in the production process. He therefore, emphasized the need for most societies to pay more attention to the development of human resources or else its transformation process will continue to remain dwarfed. Indeed, investment in human beings is a

necessarily strong parameter to ascertain the direction of economic development in Nigeria. Perhaps what construe a cog in the wheel of progress in Nigeria could largely be adduced to intangible human quality. Education has to unveil this cog. For instance, Chief Essien of Calabar in 1939 in Anzaku (1988) appraised this relevance of education to national development. He affirms thus, without education, it will be impossible for a nation to get to its destination; and which purportedly is the main tool of economic and political independence for Nigeria's development. Education, whether formal and informal, are necessary instruments for effecting change in the economic well being of any society. Thus, educating a profoundly large target population will mean, more promise of transforming the economic structure of a country. Apparently, this holds complimentary to Ala's (1987) perception that no nation can rise above the mentality of its citizens. The emphasis here is that the quality of a nation depends and lends more on the quality of the citizens composing it. Thus, the mental elevation of the citizens implies the economic transformation of that society. Ignoring the expansion of mental elevation in this framework tantamount to withholding development.

Put more bluntly, if a nation expects to be ignorant and free, and yet, gets itself transformed; it expects what never was and never will be. As the worth of a nation both in the short and long runs lend heavily on the development of the human resources comprising it. Postponement of the development of the human potentials by any society dwarfs the prospect of the economy. Thus, education ought to be universal so as to achieve and actualize the ideals of its impact in transforming the factor inputs of production. In support of this, Akpa (1987),

Coombs and Ahmed (1984), Curle (1963), Crosby (1986), Bundy (1976), Anzaku (1988), Gowon (1994), Todaro and Smith 2003, Meier and Rauch (2000), Jhingan (2003), Adamu (2003), Dornbusch et al (2004), all found that education is basically a necessary tool that could enable and assist individual citizens understand the why, how and what of government formulated policies, programmes and strategies that have direct effect on the economic well-being of the individual and that of the society. Education (Anzaku, 1988) is needed for the citizen to understand the path and acknowledge the processes of development. Education should afford the individual the privilege to know what is good and wrong and thus make effective decision (Buchanan, 1975, Dobb, 1960, Dvey 1992, Jhingan, 2003, Simon and Teal, 1998) on the path they prefer to follow. Education removes the blink of ignorance and enhances the individual capacity to think, reason and make informed rational decision on his actions and roles in national development. Thus, education in its all ramification enhances the mobilization (Flude and Parroth, 1979, Foster, 1969, Faure, 1973, Lewis, 1965, Ncube, 1999, Appleton and Teal, 1998) for participation in all sphere of activities, in the society. People can link the world of work with practice only with the acceptance of education as an instrument of change (Nyerere, 1967). The school system must be structured such as to accommodate this change element (Remeir, 1975, Schultz, 1992, 1994), if education is to be made relevant to the needs of the society as well as meet the developmental goals of the economy. Thus, great flexibility and adaptability of formal and non-formal education is crucially needed to develop the needed human skills and knowledge. Imperatively, education is the main umpire of human resource development

mobilization and utilization. It is the life wire and engine of growth and development.

The currents of development are saliently imbued in education in which the holocaust has to be unlocked. Therefore, education unlocks the key to economic development.

Education unequivocally improves the stock of human knowledge and skills. Harbison and Myers (1969), Barro and Lee (1993), Barro (1999), Lucas (1998), reveal this, when they made investigation on the strategies of human resource development at a global scale and their finding indicate that there is very high correlation between enrolment in secondary and tertiary institutions and G.N.P. per capita, which they considered a very important index in determining the level of a country's development. They grouped 75 countries for the international comparisons into four levels of development, and then prescribed educational strategies appropriate for each level. At the lowest level where Nigeria is located, their recommendation stressed on the expansion of secondary and primary school enrolments and subsequently tertiary. From there, the regrouping of the world into four made Nigeria to be inevitably positioned in the lowest level and which prompted policies to be directed at expanding the educational system to meet up with the development process of the economy.

Thus far, the contribution of education in transforming the national economy cannot be precisely measured in quantitative terms, as there are no clear correlation between the level of educational attainment and the rate of productivity (Blakemore and Cooksey, 1981, Barro and Lee 1993, Barro, 1999). Education is expected to function alongside the transmission of social reproduction of resources, yet this has

been hampered by imbalance in the provision of education between productive sectors and service sectors, and as complimented by Williamson (1979), there is perpetuation of vertical inequalities and irrelevant curriculum. This irrelevant curriculum makes education to be functionally defective at the level of application to economic production. This wrong form of education (Ajayi and Nwuzor, 1989), makes human labour wasteful and impacts negative effects on development. Wastage in human resources is sadly adduced to poor quality of education and consequent for which high rate of dropouts and unpalatable figure of failures (Ajayi and Nwuzor, 1989) aside from poor demand side of the economy. The implication of such wastage is what resources that could have been judiciously used and invested in other scarce resources, are unprofitably wasted in such irrelevant skills. This is largely blamed on the inappropriate policies and programmes that are not planned in terms of achieving greater development targets and goals.

Yet, it is permissible that education is the key to development if it is relevantly developed. Quality education can develop qualitative labour that can use their senses to manipulate the process of production. For instance, functional education can confer on the individual the ability to understand, interpret and follow instruction, inculcate positive values and attitudes to idealized work ethics as well as appreciate the dignity of labour and its relevance to transforming the character of development. Education is the main instruments used in transforming the human agent to foster the process of production. Therefore, investment in education is the hallmark of planning and allocation of scarce resources in any country striving to develop. Yet, this has not been given adequate attention in terms of policy thrust and resource

flow to finance educational programmes for sustainable development. The training of the individual is an assurance of purported acceleration of growth and development. This training can spearhead development only on the premise that it is relevantly tilted towards solving the problem of the individual and that of the society.

The infusion of the idea of education in an economy necessitates acquisition of knowledge and skills for conditioning the exploitation of other factors of production. Paradoxically, education has been seen structurally as a strong parameter that cold upgrade the productive level as well as eliminate poverty in any society. Sweden, Israel, Russia, Japan, United States of America, Britain, France, Germany and China have used this as their major weapon to advancing their ideas through technological inventions and innovations; and thus their societies were brought into the spectrum of economic development. Education is indeed power, and used to attain any possible aspiration by both the individual and the society. Acquisition of education, both formal and informal helps in analyzing, synthesizing and judging the philosophical exposition and paradigm of government's efforts in the sphere of economic development.

This unique role of education and its power in the development process was echoed in the revised National Policy on Education (1989). In it, affirmation is made that all other agencies will operate in concert with education to achieve the objectives, since education is the greatest force that can be used to bring about redress. Education is also seen as the greatest investment that the nation can make for the quick development of its income, political, sociological and human

resources. Investment in education from this standpoint has a significance way of promoting technological innovation and the productivity capacity in the economic growth of a nation. Take for instance, formal education in general, could stimulate economic growth and development by liberating the minds and imbibing in the individual new ideas from which generations upon generations can continue to benefit and renew. Acquiring new skills implies making a break through in new innovations and ideas, which can promote new production and enhance economic growth and development. This new skills is a sine qua non to new technology which can guarantee invention and transfer of technology to foster economic growth and development; the problems and limits of transfer of technology notwithstanding.

The analyses thus far on the panacea of education can only be fruitful and practicable if adequate incentives are given to encourage the active labour force to engage in viable productive activities that are much needed to promote economic transformation. The potential labour force in training, equally needs good enabling environment to allow it develop fully and well flourished which has been adequate in Nigeria. It is only then, that the entire analysis so far made on the impact of education and human capital in economic transformation will be made feasible and relevant in Nigeria.

## 3.8 CHANGING ECONOMIC PARADIGM AND IMPACT OF HUMAN RESOURCE DEVELOPMENT.

Current studies have revealed that economic returns on investment in human resources have exceeded returns on alternative kinds of investment; and moreso, that developing economies obtained higher returns than the more advanced ones (Meier and Rauch, 2000, Todaro and Smith, 2003). This is because the role of human capital is indeed one of facilitating the adoption of technology from abroad and creation of appropriate domestic technologies rather than entering on its own as a factor of production (Meier and Rauch 2000, Thirwall, 2003, Dornbusch, et al, 2004). Therefore, a changing paradigm in economic transformation demands a catch-up as a significant element in development process, as countries with higher education tend to close the technology gap faster than others and therefore had significant impact of human capital in their development process.

Indeed, the transition towards a common growth rate and transformation process set by countries with higher education may involve long term investment on human resource but lead to stochastic technological innovations that promote new transformation paths in the economy. In industrialized economies, the raw labour is less important than the skills and talents of workers that are used in production process (Dornbusch, et al, 2004). The economy's stock of such skills is increased by investment in human capital through schooling, on-the-job training, and other means in the same way that physical investment leads to increased physical capital. Part of this changing paradigm is that investments in health also do constitute major contributor to human capital impact on the economy. As for instance, in

terms of extreme poverty, the critical investment in health can be providing workers with enough calories to enable them to bring in the harvest and also to keep people longer at school. (Dornbusch, et al, 2004, Thirlwall, 2003, Jhingan, 2003, Tadoro and Smith, 2003).

The income share of human capital is large in advanced economies (Meier and Stiglitz, 2001, Dornbusch, et al, 2004, Sachs and Warner, 1999). Mankiw, Romer and Weil (1992), Sachs and Warner (1999), Dornburch, et al, 2004) findings reveal that the production function is consistent with factor shares of one-third each for physical capital, raw labour and human capital. They observed that differential growth in these three factors can explain about 80 percent of the variation in GDP per capita across a wide sample of countries; thereby emphasizing the critical role of factor accumulation in the growth and development process. Although possession of rich natural resources should contribute to a higher standard of living, some empirical evidence suggests that countries with more natural resources on average do worse (Sachs and Warner, 1999). It is a apparent that high investment in human capital does lead to high income. Therefore, there is evidence that there exist a strong relationship between human capital and output (Barro, and Lee, 1993, Dorbusch, et al, 2004). Any change in a major factor of production will affect output. Nonetheless, over great sweeps of history, the two important factors are capital accumulation (human and physical) and technological process.

Lessons from the Asian Tigers of Hongkong, Singapore, South Korea and Taiwan suggest they saved and invested, put more people to work and concentrated on investment in education in order to raise human capital. Thus,

each of these countries greatly increased its human capital by investing highly in education and thus moving educational attainment to levels close to those of the leading industrialized nations (Dornbursch, et al, 2004, Meier and Stiglitz, 2001).

Realizing this critical role of education in human resource development and its impact in the transformation of Nigerian economy, the Nigerian government has promoted the proliferation of private universities to produce more highly skilled manpower. It is expected that the private universities, the States and federal universities will produce more critical skilled professionals that will raise the output of the Nigerian economy.

One important observation is that as the outputs of the universities are increasing, there must also be improvement in technologies and competition that will absorb them into the production process, or else, the unemployment rate will be increased. For the level of output of the economy to rise, will mean utilizing these critical skills to promote the development process, especially bridging the "catch-up gap" (Dornbusch, et al, 2004) in technological process. The experience of the transformation of the economies of the Asian Tigers has been premised on this. They were able to address both increasing levels of highly skilled manpower and their absorption into economic production. This situation relates education to employment and thus promotes innovation and technological progress towards economic development of the country. Unemployment and wastages are impliedly addressed through the process and not left loose as the experience, Nigerian economy is passing through with the proliferation of universities.

Adopting to this wind of changing economic paradigm, will certainly elevate

Nigeria to the road of transformation and thence, economic progress and prosperity.

## 3.9 **SUMMARY**

The chapter so far traced the genesis and issues involved in the development of human resources in Nigerian economy. It delved into the fundamentals that saw the plight of investment in human resources. A cursory from the various sources of investment tends to reveal the dynamics of early investments in human capital to have hinged on the missions. This was a not enough then, some merchant and metropolitan capitalist also came to their assistance in order to successfully manage the schools.

During this period of the missions, no efforts were made by the colonial government to fund education and this sector was therefore accorded no priority. The development of human potentials was largely ignored. Even the missions that provided the education, had to develop the requisite human labour in tune to the influence of the merchants dictated from the metropolitan centres. An insight into the political economy of the missions and the merchant's plight merely re-enforces their basic economic interest in the country's resources rather than devoting resources to exploring and developing the skills of Nigerians. This made them to educate and develop the skills of only few Nigerians.

However, colonial interest in education also followed the same pattern like the missions and the grants-in-aid and which only made little assistance to be granted to schools. The crux of the annals of colonial investment has to do with their inability to meet the needs of the citizens and the country at large. In fact even neo-colonial education from the analysis do not offer any solution healthier than the colonial type. This is because, the education they provided lacked the basic functionalism and devoid of relevance to the needs and aspirations of the nations economy. Thus, both the colonial and neo-colonial education could not simply had their investment aimed at developing local human potentials and skills that could transform the economy.

The analysis did x-ray the character of investors in human resources and categorized them into three groups; consisting of the public sector, private sector and the socio-cultural and economic groups. They cut across a variety of agencies and bodies. The review clearly identifies the level of contribution of these characters to be tied closely to ideology, philosophy, interest and inertia committed to the development of relevant and needy human capital in the society.

In spite of numerous investors in human resources development, their efforts have been unable to effect reasonable development of requisite skills that could advance the country forward. With all these organs, and with the structure of the economy still left underdeveloped, the status of human capital in development process is still left fettered. This underdevelopment syndrome has been greeted with inappropriate utilization and under-utilization of human skills in the development process. The inappropriate utilization and under-utilization have crippled efforts of

investors in developing human resources in Nigeria.

A further insight into the analysis exposes the patterns of investment in human resources under various historical epochs of Nigeria's development. Variations in investment within these systems are glaring most especially with the colonial and neo-colonial administration. A glance at the colonial investment to education shows very low commitment this was largely in the forms of grants-in-aid. Interestingly, there has been increased funding which extended from 1962 to 1990, and yet; this was not able to develop the required human capital and sustain the overall development of school infrastructure, learning facilities and materials. There appears lopsidedness in allocation, which aggravates the existing crisis in the education arsenal. Therefore, investment must be made relevant to the exigency of the demands and needs of education to tap the required manpower needed to develop the Nigerian economy.

Indeed, the development and utilization of human capital lend on the acquisition of knowledge, skills and ability of all individuals; and which is sustained by maintaining potential labour force through education and training. It is deducible that acquiring more education mean creating avenue for the individual to have additional benefits to his life time earnings; and which in effect, enhance the performance of such manpower in the production process. Argued from the analysis, the affirmation that the more educated one is, the more one can adjust his skills in the production process. This is premised on the fact that an educated man who utilizes his talents adequately can redirect the efficient allocation of all resources and consequently put them into appropriate use.

Yet, the changing economic paradigm as it relates to the impact of human resolve development, has placed much premium to human labour in catalyzing the proceeds of change and economic development in all economies. A deduction from the analysis tend to reveal reasonable efforts by Nigerian state in developing human resources, even though this has been strangulated with inadequacies and inconsistencies in policy thrust to address the needs of the economy as well as general loose interest, in refinements of highly skilled labour that are needed to transform the economy.

### **CHAPTER FOUR**

# INVESTMENT IN UNIVERSITY EDUCATION AND THE DEVELOPMENT OF HUMAN RESOURCES FOR NIGERIA'S TRANSFORMATION

#### 4.1 INTRODUCTION

The high investment devoted to the development of university education in Nigeria over the years as far as 1960s (Ojo, 1985, Aminu, 1992, Wey, 1992); justify the need for university education to develop human capabilities at the high level manpower. This fact is also buttressed by the premise that some proportion of public funds have been allocated to education, with university education taken a lead for which reason explains the relevance attached to the training and development of high level manpower.

This aforementioned explains the background for this chapter and the thesis therein.

## 4.2 THE PHILOSOPHY OF UNIVERSITY EDUCATION

For an appreciation of the need for high-level manpower, it is perhaps quite necessary to expose the philosophy of the educational system responsible for its development. The philosophy in vogue is that of university education that has general application both locally and universally. For instance, in marking the opening of new building at the permanent site of the University of Ibadan, in 1952, Air Marshal Tedder, Chancellor of Cambridge University then, at his guest speech has this to say about the philosophy of university education:

A university is both local and universal, and the emphasis should be on both. Knowledge should know no frontiers, may it provide inspiration, guidance and strength to Nigeria, and may it ever move forward to a higher and yet higher position of honour and respect among the universities of the world (Fafunwa, 1974:149).

Indeed, a university should possess universal frontiers where knowledge is explored in all fronts. Factually, the philosophy of university education is wholesomely premised on the exploration and acquisition of knowledge and the search for and protection of higher truth. This is the basis for which a university operates. Therefore, it should be noted that a university should not be judged only to serve the society to which it is cited and belonged, but should guarantee their future and freedom to advance the cause of their development.

To materialize this search for higher knowledge, it is expected that the university philosophy for a nation should be anchored on:

- Education to produce the requisite manpower endowed with appropriate knowledge, skills and understanding to meet the present and future social needs of the people;
- ii) Becoming the training ground for patriotic and fair-minded men and women of intelligence, of good character, and with some understanding of the purpose of human life and the observance of the rules of conduct, which must be followed achieving this purpose;
- iii) Developing into strong centres for the promotion of scholarship, research and public service (Aminu, 1986, 1992).

University education ought to root its philosophy towards resolving the nations problems and demonstrates the inertia to develop the country. To effect this, both the academic and social activities in the university must reflect the attributes of the community or society it purports to serve. Actualizing this entails training appropriate manpower with the right knowledge and skills; distributed fairly and proportionally in all sectors of the economy.

One fact from this perspective remains clear, that the philosophy for which Nigerian universities were first developed and modeled ought to change in spite of the fact that universities are universally seen as a self-perpetuating centres of pursuing academic excellence, exploring frontiers of knowledge, the quest for higher truth through continuous research and the preservation of such facts in its logic and consequently cherishing academic freedom and excellence. Yet, the principle of managing the universities is universally the same with its philosophy slightly at variance to cater for the environmental needs for which a university is established. Thus, the philosophy of the university in any society is to inform, to up-hold and encourage standard of excellence, to enlarge areas of freedom by continual revelation of vistas of truth; universities should consider their efforts as part of the dialectics of growth of their societies in a transforming world.

The perspectives exposed thus far, affirmed with Aminu (1986, 1992), observation that a university system should have the frontier to improve upon itself, a capacity to imbibe and absorb change, always aiming higher, university should divorce itself from individual manipulation to attain higher objectives; and be able to have a suitable period of survival. A university should divorce itself from individual

manipulation such that individual opinion and specialization are respected; to allow one works best, as they appreciate the direction of their actions and decisions, to cap it all, the philosophy of university education is to develop high-level manpower to meet up the developmental needs of the Nigerian society. Aside from the development of high level manpower resources, a university education in the light of the Head of State of Nigeria, General Obasanjo in September 18, 1976 saw it as an instrument which should serve as a vehicle for the promotion of national consciousness, unity, understanding and peace (Aminu 1986, 1992, Wey, 1992).

What largely abuses the fulfillment of this philosophy of university education in Nigeria is the Nigerian approach to education. Largely, where universities are mishandled, they become instrument of self-destruction of society rather than building. In most societies, it is preconceived often to see universities as a model community in efficiency and probity (Aminu, 1986, 1989, 1992). Education has been debased to real ticket job and other material requisition. Fundamentally, university education is seen as a ladder for climbing most conveniently the elite class, to improve one's standard of living and loosely to have a fair share of national cake and wielding consequently power. This merely negates the ideas and philosophies for which universities are ought to perpetuate, that is, exploring and expanding new horizon of knowledge and the search for higher truth and its preservation; to advance the cause of inventions and innovations necessary to transform the nation's economy. Our wholesome adoption of western universities philosophies beclouded our plight in fine-tuning a modeled philosophy that could shape the cause of our development from dualistic model to that of a pragmatic approach.

However, this philosophy of expanding the frontiers of knowledge should reflect the changing needs of the society. As aptly observed by Udo-Aka (1983), that knowledge is always changing as the society changes. What should be stressed in university education is the ability to acquire current knowledge and relevant skills; and the application of such knowledge. The idea of acquiring knowledge for today's job has predominated the Nigerian universities philosophy and has largely negated this philosophy of combining knowledge with the ability to apply it in concrete situations; and which consequently queries the basis of universities methods of teaching. Rather than train and equip students with philosophy of knowledge and work, attempts are made to prevent the general impressionist certification urge of the individual. However, a university philosophy seeks to recognize and protect the dignity of man in all ramifications.

What is required in the basic philosophy of Nigerian university education is to take the student in question with a good basic education and give him intensive training in the basic academic discipline relevant to the practical realities of the world of work and the needs of the economy. Thus, the emphasis should be on giving sound knowledge to the students and exposure to the application of such knowledge. Such application, as perceived, is expected to vary from one discipline to another and one situation to another. But what is more crucial is the possession of the basic sound knowledge in the discipline.

In theory, the design of the Nigerian university programmes lend heavily on this philosophy. It is necessary to stress that the philosophy of university education should aim at developing individual potential, the general powers of the mind and consequently contribute to the generation of knowledge and the transmission of culture (Robbins Report, 1963, Pratt, 1971, Williams and Blackstone, 1983, Ashworth, 1983, Wagner, 1982, Lockwood and Davies, 1985). The ambit of this knowledge generation and culture transmission demands focus on economically useful skills for industrial production as well as serve the commercial purposes. Therefore, university education ought to be provided to individuals with relevant skills and knowledge related to move, directly to the decisions that will face them in their life-long professions (Shattock and Rigby, 1983, Shattock, 1983, Committee of Vice-Chancellors and Principals, 1984, Wey, 1992, Yahaya, 1992). University education must work together to transcend and match output to high level personnel with industrial needs (Lockwood and Davies, 1985). Universities must however, reflect the attributes of local communities and their philosophies (Salter, 1983, Doyle and Lynch, 1979 and Lockwood and Davies, 1985, Yesufu, 2000). Thus, a university ought to import the factors of production like labour - the personnel and the raw materials - the students; and transform these through the activities of teaching and research; and consequently export graduates and knowledge (Lockwood, 1985, Yesufu, 2000). It is fundamental to an understanding of the philosophy of university education to appreciate its rooting to stem from the nature of its activities. This philosophy is no exception to its activities in the areas of teaching, research and other related functions in the community. Yet, the uniqueness of the universities stem and is derivable from the nature of teaching and research activities that manifest the philosophy of university education everywhere.

In this sense of research, the university education must aim at evaluating the society for self-renewal; which is the basis for continual search for knowledge. Indeed, the advancement of the horizon of knowledge is the central theme of university education philosophy. Thus, the principal philosophy of university education is the extension of civilization with the rediscovering of man's highest creative achievements; with the need of every generation to question and challenge what has been created, and with the excitement of new discovery. In support of this position, Aminu (1986), Wagner (1978), Meier and Rauch (2000) observed that university education is an instrument for changing and advancing the nature into a modern man, and as posits by Ciroma (1983), is to save the recipient from any form of hard work. The thrust of philosophy is largely anchored on the development of brainpower and the continual sustenance of such knowledge to meet up with the challenges of a dynamic society. Aminu (1989:8-18, 54) affirms this dynamics of university philosophy when he asserts inter alia:

Universities are centres of competent thought, lofty behaviour and places where genius blooms best. Universities expand the frontiers of knowledge and advance civilization. They are venues for transmitting culture and values; for training the inheritors of the society to manage the future.

It is perturbing to note that these ideals of universities philosophies are rarely achieved in Nigeria, as most recipients of university education tend to believe that it is only meant to develop the manpower potentials of individuals and not to serve mankind. The firm believes is that university education is to merely provide one with a job, which construes the thinking of such an education as a commodity. Aminu

(1986, 1992, Wey, 1992), blamed lack of this adherence of university philosophy to civilizing mission to ill-digested foreign doctrines and philosophies, which could have probably been not functional elsewhere, but come to stay and occupy the vacuum in the mind of the Nigerian recipients. Thus, such adulterated philosophies divorce one from his background and the realities on ground for him to fathom a divorce from the foreign philosophy in Nigeria to reality. This is because often time one ponders on why after nearly four and half decades of Nigeria decolonizing process from the erstwhile colonialist, and with the proliferation of universities in Nigeria, the country has not been able to achieve anything better. Since it is also believed and affirmed largely that universities are centres for promoting excellence and expanding the frontiers of knowledge, and which constitute the basis for research and cultural transmission, one expects to have seen a far more enviable development structures than what we are witnessing today in Nigeria after 58 years of university education (1948-2006).

Thus far, the philosophy of university education is primarily premised on the expansion of the boundaries of knowledge. This is an essential element that guarantees the search for higher truth and its defence in the university system. This can at best be harmonized by the amplification of the philosophy in the National Policy on Education where it inferred that teaching and research functions play an important role in ensuring high level manpower development for the transformation of the national economy; and it stressed emphatically that "universities are one of the best means for developing national consciousness" (National Policy on Education, Revised, 1989:22). To actualize the expansion of the boundaries of

knowledge, a university ought, as expressed in National Policy on Education (1989) and NUC (1989) minimum academic standards for education, to pursue certain basic philosophies of teaching, research; the dissemination of existing and new information; the pursuit of service to the community; and being a storehouse of knowledge.

From all the affirmatives on the philosophy of university education and its role in developing high-level manpower for utilization in the national economy, the impact has not been largely felt. This is largely adduced to stereotyped philosophy that negate to marry the world of theory to practice and the inability to fine-tune a philosophy that is based in our environmental needs. This has created a large vacuum in the dispensation of knowledge and skills in the absorptive capacity of the industrial set up of the economy. One expects that high level manpower development ought to be developed to meet up with the industrial needs of the economy but yet there is abysmal utilization of university graduates as identified by Aminu (1986, 1989, 1992, Chete and Adeoye, 2003, World Bank, 1988, 1998, 1999). This sadly informed the inappropriateness of training received and the stereotyped doctrines imbibed in the system that adduces the vacuum between the national objective and the application of learning experiences. The application of learning experiences functionally guarantees the implementation of the philosophies thus far exposed about university education. One factor that must be responsible for this vacuum could largely be adduced to the inability of the industrial sector to absorb university graduates, as the industrial capacity to contain most needed manpower at the high level tend to be low.

Thus far, the philosophy of university education tend to portray one thing, the protection and preservation of the dignity of man, through the use of his labour vide knowledge and skills. Any departure from this standpoint will render university education meaningless.

### 4.3 THE DEVELOPMENT OF UNIVERSITY EDUCATION IN NIGERIA

Universities are amongst the oldest continuing institutions as they have evolved in nature and form over centuries (Lockwood, 1985, Kerr, 1979). It is common to see the influences of older universities in other countries in newer universities (Cobban, 1975, Drive, 1971, Adedeji and Bamidele, 2003). The exploding and evolving pattern reflects the professional training of the older universities (Drive, 1971, Hutton, 1960, Livingstone, 1974). Hence, an analysis in the nature and development of university should stress the evolutionary dimensions which stems from the fact that history of all universities has a strong influence upon any individual university globally (Lockwood, 1985, Rice, 1970, Simpson, 1972, Kerr, 1963, Sloman, 1964, Fielden and Lockwood, 1973).

Kerr (1963), Sloman (1964) Baldwin (1970), Meier and Stiglitz (2001); observed that the development of university is anchored on the object of pursuing teaching, research and public service activities, and which makes its existence and relevance in serving multi-purposely. An understanding of the development of the university should have a reflection of its political, economic and socio-cultural models. Therefore, university should be seen as an institution, which possesses characteristics that differentiates it from complex bureaucratic institutions. The

development of universities from the Nigerian and African perspective was succinctly exhumed on the premise that neither the Yaba College nor the training received from overseas universities has been able to resolve the crisis of development. Questions were asked as to the extent to which Nigerian and African Youths could continue to depend upon Oxford, Cambridge, Harvard, Yale, Sorbonne, Berlin, and Heidelberg for intellectual growth (Adesina, 1988, Adedeji and Bamidele, 2003). Such questions affirms one thing that those universities were mirrors of reflection of their particular societal needs and therefore does not reflect the Nigerian and African needs. This gives rise to the thinking of a Nigerian and an African university. The dream was that with even a paltry resource, invested in university education, the continent would have a ray of hope and a reflection of light (Azikiwe, 1960). This has posed along-nursed dream and an ambition to expand higher educational facilities in Africa.

The development of university education however, preceded the tradition for which Nigerians will have to go overseas, like for instance, the Fourah Bay College at Sierra-Leone, the United Kingdom and the United States to acquire higher education (Ojo, 1985). Ojo argued for instance that in 1904, there were 10 Nigerians undertaking degree courses at Fourah Bay College and correspondingly in 1945, 150 Nigerian students were pursuing first degree in the United Kingdom with 45 of them studying medicine and 35 studying law (Report of the Commission on Higher Education in the Colonies, 1945). It is glaring even from the white paper on the establishment of a university in 1960, in Western Nigeria that, a university based on

the environment needs is necessary to carry the country forward. This brings us to the relevance of tracing the development of university education in Nigeria.

## 4.3.1 The Genesis Of University Education In Nigeria

Higher education in Nigeria had its rooting from Yaba College as far back as 1932 (Adesina, 1977, 1988), which later metamorphosed the thinking of a university education. Argued Adesina (1988), Aminu (1992), Wey (1992), that it was reasoned inadventedly with disagreement on the status the college could be accorded; as the institution structurally has no claim to the status of a university nor its equivalent.

Glaringly, when the college was established, Mr. E.R.J. Hassey, the colonial Director of Education then, stated succinctly on unmistakable terms that the purpose of the college was to produce 'assistants' who could relieve colonial administrators of manual tasks (Adesina, 1988). Therefore, admissions were dictated by number of vacancies in government establishment other than subjecting it to qualified candidates. For instance, Adesina observed, that the first year saw to only 18 students admitted. The number rose by 1940 to 30 students, by between 1944-1948, it rose to 36 and the overall enrolment per session then had its limits at 95 (Fafunwa, 1974, Adesina, 1988, Okafor, 1971, Yesufu,2000).

During this period, there were limited places and constrained to agriculture, forestry, medical studies, survey, veterinary science and teacher training. The average course enrolment was at the neighbourhood of 5 to 6 students per session; despite the fact that the duration of the course corresponded with the present years in universities as students were equally made to possess good school certificate

before admission were made feasible. Students then had to remain for a period of say six and half years for medical course, veterinary science six years, agriculture, surveying, forestry and teacher training were four years respectively; and this comparatively subsumes the same period like the current degree programmes.

Fafunwa, 1974, Adesina et al 1983, Adesina, 1988, Aminu, 1992, Yesufu,2000). With time, students of Yaba College had resentment for the system as they were unduly spending so many years for just a diploma programme. More so, that with so long a training, they were not qualified to take external examinations to earn them a degree as compared to Fourah Bay and Achimota College that were admitted into the external examinations of universities of Durham and London (Okafor, 1971, Adesina, 1977, 1988, Fafunwa, 1974). The return of their contemporaries with the same entry qualifications and have acquired higher certificates like degree, spent the same period, created further resentment to Yaba products. More so, that their diploma was not accredited to any foreign university, created a resentment of purported inferiority complex that may be adduced to their credentials by overseas graduates. To worsen this, between 1932-1948, there was no full time principal, except the acting one that oversees the school on behalf of Director of Education, which shows a non-challant attitude towards the school by the colonial administration. Surreptitiously, the Director of Education hardly takes independent decisions on the school without referring to the Chief Secretary to the government. Even where the physical facilities were available and underutilized, the output of the college, failed to supply the manpower needs of the country; and with

its closing all access to post-secondary education (Ajayi and Tamuno, 1973, Adesina, 1988, Fafunwa, 1974, Thakur and Aminu, 1981, Wey 1992, CBN, 2000).

From the affirmatives thus far, Yaba College was indeed more of an ad-hoc staff training school than institution far from this, suffered the effects of Second World War as its campus and medical school were acquired by the army for war purposes and consequent upon which students were dispersed (Fafunwa, 1974). With this ensued crisis of war, the moves were initiated for the absorption of the college and its students into the university College Ibadan, and this was accepted in 1947, and effected in January 1948, some fifteen years after its existence. To make this more practicable, some commissions were set up, the Elliot Commission and Asquith Commission.

### 4.3.2 The Elliot And Asquith Commissions And University Development

With the concomitant problems emanating from Yaba College and other colleges in West Africa, the British Government announced in the House of Commons on June 15, 1943, the setting up of Elliot's Commission (Adesina, 1988, Ikechukwuemeka, 1979, Nzimiro, 1975) to report on the organization and facilities of the existing centres of higher education in British West Africa and to make recommendations regarding future university development in that area (Report of the Commission on Higher Education in West Africa, 1945). Considering this same problem in the whole of British colonies, Asquith Commission was set up in the same year in August, 1943, to examine the principles which should guide the promotion of higher education, learning and research and the development of

universities in the colonies, and to explore means whereby universities and other appropriate bodies in the United Kingdom may be able to cooperate with institutions of higher education in the colonies in order to give effect to these principles (Report of the Commission of Higher Education in the Colonies, 1945, Wey, 1992).

The Elliot Commission, had its members, comprising of fourteen men and women drawn from the British Colonial Office and Universities and included three West Africans who all, have some experience in theory and practice in African education (Nzimiro, 1975, Fafunwa, 1974, adesina, 1988, Pritchett, 2001). The Commission spent three months in gathering data from the whole of West Africa. They collected the data through memoranda from the peoples of these territories, colonial administrators and individuals who had direct link with higher education in the territories. Having collated the data, two reports became feasible and were submitted. These were majority report, comprising nine members that recommended the setting up of university colleges in Nigeria and Ghana and stressed the reorganization of Fourah Bay college at Sierra Leone; and a minority report comprising five members, who did not favour the establishment of three university colleges and argued that there were not enough students to warrant the creation of three university colleges by the metropolis. The minority report instead, recommended the establishment of only one university, which should be titled West African University College and insisted in its situation at Ibadan in Nigeria (Fafunwa, 1974, Adesina, 1988, Ojo, 1985, Aminu, 1992).

The Elliot Commission, observed Fafunwa (1974), stressed that the University College in Nigeria should form the nucleus of the facilities of Arts and

science, schools of agriculture, forestry, veterinary science, medicine, dentistry, engineering, survey and a department of teacher training to serve West Africa. The University College in Ghana should have faculties of arts and social sciences and an institute of education to specialize in educational research and teacher-training to serve the whole of West Africa; while the Fourah Bay College in Sierra Leone was to have arts and science up to intermediate level and courses in teacher-training and this was to serve Sierra Leone and Gambia.

Contrasting from the presentation of the majority and minority reports, the later had greater appeal in the Colonial Office, and yet the most disturbing aspect was on the polarity of the former that had wider acceptability in West Africa. Yet, the minority report was officially adopted. This scenario, was greeted with heated debate amongst parties such that the Chairman of the Commission, Sir Walter Elliot, had to challenge openly the Secretary of State's decision and had to pay personal visit to Ghana to demonstrate his support for their dissent; as the cocoa farmers there were so aggrieved by the whole arrangements, such that they promised to foot the cost of establishing the college if the colonial office insisted otherwise. This scenario was greeted by a later action of the Secretary of state, who had to send a delegation led by William Hamilton Fyfe, December 1946, eighteen months after the submission of Elliot's Commission reports, to West Africa to make more detailed recommendations (Fafunwa, 1974, Yesufu, 2000).

The delegation endorsed the majority report and submitted its report in January 1947, and in March of the same year, the secretary approved the establishment of two university colleges in West Africa situated in Nigeria and

Ghana. This saw to establishment of University of Ibadan in January 1948. Thereafter, there was wholesome adoption of London and Cambridge Universities models in West Africa, in spite of their strengths and weaknesses. The Inter-University Council that kept an imperial eye on the curriculum, employment of personnel and standardization of academic certificates further strengthened this.

However, the Asquith Commission submitted its report and recommended that universities should be established in the colonies to avert the influx of West Africans into Britain for the purpose of university education. Indeed, the report affirmed.

That we look on the establishment of universities as an inescapable Corollary for any policy, which aims at the achievement of colonial self-government. We believe that there can be more welcome proof of the sincerity of this policy than the provision at an early date of facilities for university education in the colonies (Adesina, 1988:16).

This position merely informs the relevance attached to the development of human capabilities in any society. But whether this stress was wholesale application of rooting a university still deserves a question as the Asquith Commission opted for university colleges rather than full universities. This stultifies the premise where the curriculum and the structure of the degree were to be determined from the metropolitan universities, despite their institutional arrangements environment wise. The Commission recommended affiliation of the university colleges to foster parent universities to perform the functions of teaching and research. This idea was nurtured from the British universities style as newer universities have to depend on older ones for their growth and development and to later justify their autonomy.

Despite all these, Asquith Commission did not differ from Elliot's Commission as it also recommended inter-university Council for higher education to safeguard the standards of the new university colleges through recruitment of personnel.

Thus far, recommendations of Elliot and Asquith Commissions saw to the foundation of university education in Nigeria in January 1948, with the establishment of University College Ibadan, and its first students of 104 enrolled, had to be transferred from Yaba College. The University College, Ibadan was first an affiliate of University of London and had to prepare students for the London degree between 1948 and 1962 (Ojo, 1985). The college gained her autonomy by 1962 and was thereafter named University of Ibadan. However, during 1948 to 1959, the university metamorphosed in various phases of development and expansion to reach maturity and independence. For instance, students enrolment rose from initial Yaba figure of 104 in 1948 to 949 in 1959; as the graduate output also rose from 35 in 1953 to 141 in 1959 (Ojo, 1985).

Ojo (1985) emphasized that prior to the end of nineteen fifties, the inadequacy of university college Ibadan as the only source of university education in Nigeria became largely accepted. And this made many Nigerians to become critical of the structural development in the college, particularly where only few students enrolment were largely British (Okafor, 1973, Yesufu, 1973, 2000). World Bank also made a critique of these feasible weaknesses in 1954 (Ojo, 1985); and they emphasized the need for Nigeria to produce more graduates and diversify courses. Largely, the approach to the attainment of Nigeria's purported flag independence in the late 1950's glaringly foresaw the need to replace expatriate civil servants with

high-level manpower from within Nigerians to propel and maintain the administration of both the public and private sectors of the economy. This necessitate the setting up of Ashby Commission to x-ray these problems and further recommend the expansion of university education in Nigeria as to meet the larger demand by both public and private sectors.

## 4.3.3 The Ashby Commission And University Development

From the foregoing background of Elliot and Asquith Commissions reports, another commission was initiated in April 1959, under the Chairmanship of Sir Eric Ashby. The commission, which is commonly referred to as Ashby Commission, was appointed by the Federal Government to conduct an investigation into Nigeria's needs in the field of post-secondary school certificate and higher education over twenty years, 1960-80 (Ashby et al, 1960, Ojo, 1985). The Commission consisted of eight members including three Nigerians, three British and two American educators; whose experiences and intellectual resources were to be pooled and harnessed together to bring out a workable document for the survival and sustenance of Nigeria's education system.

In carrying out the Commission's activities, they had to collect oral and written evidence from various sources like the public service commissions, voluntary agencies, premiers, governors, employers of labour and few selected individuals (Fafunwa, 1974). Aside from this, the Commission reviewed the pre- and the post secondary educational facilities in Nigeria between the primary and secondary education; and between secondary and tertiary education. It went further to

ascertain the quality of personnel available to man the educational system and the demand management of school placement each year. All these, noted the Commission, frustrated the foundations for rooting higher education in Nigeria (Ashby, 1960). The Commission explored the question of sixth formers and university placement with regrets that only 553 pupils enrolled in 22 schools in the country. The only supplement to this was the private candidates who have to write the Ordinary and Advanced General Certificate of Education. Emphasis thus, was only placed on literary education in the country's educational system. Technical and vocational education and even some professional disciplines like agriculture and veterinary and allied courses were largely ignored. Aside from this, the commission also observed the precarious situation of educational imbalance between the North and South of Nigeria (Ashby, 1960, Biobaku, 1963, Aminu, 1992, Yesufu,2000).

In order for the Commission to come out with viable recommendations and projections of the high-level manpower needs for the country, professor Frederick Harbison of Princeton University, U.S.A., was commissioned concurrently then, to survey the Nigeria's manpower needs for the period 1960-70. Harbison was not only meant to look at the manpower needs but to also see to the educational implications of developing such human resources as this relates to economic growth and its acceleration. This was informed by the fact of the observation raised by Harbison that it takes a long period of time to develop high-level manpower to man technology and production process in any economy. High-level manpower, subscribes Harbison, are developed in two folds; senior and intermediate. He estimated 31,200 personnel needed in Nigeria in the senior category for a period of

ten years 1960-70; and proffered that 20,000 of these numbers should possess university education or its equivalent with an outturn of 2,000 graduates annually (Ashby, 1960, Fafunwa, 1974, Ike, 1976, Ojo, 1985, Aminu, 1992). Thus, Harbison estimated that only 300 first degrees were graduates from overseas universities. This saw to a shortage of about 1,000 graduates annually (National Manpower Board 1963, 64 and Ojo, 1977, Yahaya, 1992).

Inferring from Harbison, Ashby Commission recommended for Nigeria the establishment of viable organizational arrangements for the purpose of evaluating manpower needs and formulating and planning programmes for perpetual effective human resource development and utilization in Nigeria. The Commission adopted this as a critical central point in determining Nigeria's development, as capital and high-level manpower were both relevant (Ashby, 1960). Argued Ojo (1977, 1985), that this relevance of manpower necessitates planning for human resource development, which constitutes an integral and indispensable part of general planning for economic development. This is the basis under which the Ashby's Commission report was premised; and this also precluded its conception of Nigeria in 1980s; the Harbison's estimate of the limited capacity in regard to Nigeria's educational system (Okafor, 1971, Fafunwa, 1974, Nzimiro, 1975, Akangbu 1985, World Bank, 1995).

The Ashby's Commission made a number of recommendations on all levels of education and in this analysis; we state specifically that of university education, which include;

- The Federal Government should give support to the development of the new university of Nigeria, planned in 1955 and opened a few weeks before the publication of the Ashby Report in 1960;
- A university should be established in the North using the old site of the Nigerian College in Zaria as its base;
- A university should be established in Lagos with day and evening degree courses in business, commerce and economics;
- University college, Ibadan, should move away from its conservative position,
   widen its curriculum and develop into a full university;
- 5. All universities in Nigeria should be national in outlook and general policy;
- 6. There should be wider diversity and greater flexibility in university education;
- 7. All the universities should have B.A. (Education) degree courses;
- 8. Courses in engineering, medicine, law, commerce, agriculture, etc should be offered:
- The new Nigerian universities should be independent of one another and each should confer its own degrees;
- 10. A national universities commission should be set up to have undisputed control over the affairs of the universities, particularly in terms of finance, staff and courses (Ashby, 1960, Okafor, 1971, Fafunwa, 1974, Adesina, 1988, Aminu, 1992).

In realizing the objectives of these proposals, the Commission estimated the cost of running the academic programmes in these universities at the mercy of =N=15 million to =N=20 million between 1960 and 1970. They recommended

external aid to be canvassed by the Federal Government to meet up with the cost, as they argued that estimated capital cost will reach =N=75 million and correspondingly the recurrent expenditure (Adesina, 1988, Fafunwa, 1974).

From the Commission's report, it is glaring that it recommended the establishment of three universities to be situated at Enugu, Lagos and Zaria in addition to University College Ibadan and University of Nigeria, Nsukka (Ojo, 1985). Their expectations was that the new university at Enugu should grow out of Nigeria College of Arts, science and Technology (NCAST) Enugu Campus, while that of Zaria should grow out of Zaria Campus of NCAST and that of Ibadan Campus of the NCAST be merged with the University College, Ibadan Campus (Ojo, 1977, 1985). With disagreement of one member of the Commission, Dr. Sanya Onabamiro, a Minister of Education in the then Western Region, who informed the Commission of the Western Government's plan to establish a Regional University. This was justified by number of students with 2,639 private students, and 312 government scholars (White paper on the Establishment of a University in Western Nigeria, 1960). This necessitated the recommendations of four Universities as the Ibadan Campus of NCAST was then to be upgraded to a full fledge university; situated at a temporary site in the first instance, and later moved to its permanent site, University of Ife. Meanwhile, the Enugu Campus of NCAST was merged with the University of Nigeria, Nsukka.

Following the arguments closely, the government at the recommendations of the Commissions reports agreed to set up five universities at Ibadan, Ife, Lagos, Nsukka and Zaria. This acceptance of five universities provoked the thinking of Fafunwa (1974:156) to observe that:

The Federal Government's decision was one of the boldest ever to be taken by a developing country in terms of men, money and materials.

This boldness propelled the later thoughts of university education, as a viable instrument, in championing the course of national development. However, Ashby report recommended universities enrolment of 7,500 students by 1970, yet the anticipation of the Federal Government target was 10,000. For instance, enrolment for the five universities by 1966 was 8,800 students. If there were no civil war, the enrolment target would have been more than that even two years later by 1968. However, by 1971-2 academic years, university enrolment was 18,000 and this rose over 25,000 by 1975 (Okafor, 1971, Fafunwa, 1974, Thakur and Aminu, 1981, Aminu, 1992).

One fact must be stressed that the report of the Ashby Commission generated awareness by identifying educational gaps, deficiencies and manpower shortages, and which impact have promoted the development and growth of university education in Nigeria. For instance, up to 1958, there was only one non-autonomous university college at Ibadan. This number increased to five independent universities by 1962 and had more expansion to 13 autonomous universities by 1977. Today, there are 33 universities including conventional Federal and State Universities and Universities of Technology.

Thus far, it is worthy of note along the expansion, the remarkable growth in student's enrolment and graduate output from Nigerian universities during the

period of gestation of university education in Nigeria. For example, the student intake grew from 300 in 1960 to 3,564 in 1974. This did not stop there, in the Third National Development plan, 1975, the plan projected that in 1979/80 sessions, Nigerian Universities ought to enroll 53,000 students and graduate 7,363 first-degree outputs.

The number of personnel both academic and non-academic expanded along with increased students enrolment in the universities. One glaring significance in the expansion of staff is that of academic where indigenous academics grew to replace the foreign staff. For instance, 1948/49 session, out of the 54 members of staff, only six were Africans and the rest, 48 were whites. But with time, training and continual efforts in investment in university education, large number of Nigerian academics were produced and phased out the dominant white personnel. This again confirms the recommendation of Ashby that Nigerians should be trained to later take over the affairs of the universities, and the recruitment of expatriate should be gradually phased out.

For historical purpose, it should be noted that even where university college, Ibadan was established in January 1948 as an affiliate of University of London in Nigeria, its full autonomy was only feasible by December, 1962. University of Nigeria Nsukka in this sense became the first University with full autonomy in 1960; Ahmadu Bello University also had autonomy earlier in September 1962. This was followed by University of Ife and University of Lagos. Following this sequence of growth, Nsukka is rated the oldest University, followed by Ahmadu Bello University

and correspondingly University of Ife, University of Lagos, University of Ibadan and University of Benin, which was established in 1970.

With endorsement of the Federal Government of the larger aspects of the Ashby's report, the National Manpower Board and the National Universities Commission were established in 1962.

#### 4.3.4 The National Universities Commission (NUC)

Following the recommendation of the Ashby Commission Report of 1960. The NUC was set up in 1962. At its inception, it operated as an administrative department, in the cabinet office with the first commission comprising twelve non-academic members appointed at personal capacities and chaired by late Alhaji Muhammadu Tukur, the Emir of Yauri (NUC, 1990, 1994). Sir Eric Ashby was retained honorary to the commission.

The first assignment of the commission was saddled on the preparation of a quinquennial programme for the development of university education, which was streamlined in this fashion because; it was only empowered to act at advisory capacity. More so, its location within the bureaucratic set up of the cabinet office unease its ability to rent the services of relevant and qualified personnel to man the technical problems of university management. Far from this, the NUC was bestowed with the power to draw up the planning parameters for the universities (Aminu, 1986, 1992).

During the non-statutory operation of the NUC, it was required to function at the following terms of reference:

- i) To inquire into and advice the government on the financial needs both recurrent and capital expenditure of university education in Nigeria.
- ii) To assist in consultation with the universities and other bodies concerned in planning the balanced and coordinated development of the universities in order to ensure that they are fully adequate to the national needs.
- iii) To receive annually a block grant from the Federal Government and to allocate it to universities with such conditions attached as the commission may think advisable.
- iv) To act as an agency for channeling all external aid to the universities throughout the federation.
- v) To take into account, in advising the Federal Government, such grants as may be made to the universities by regional governments, persons and institutions both at home and abroad.
- vi) To collate, analyze and publish information relating to universities' finance and university education both in Nigeria and abroad.
- vii) To make, either by it or through committees, such other investigations relating to higher education, as the commission may consider necessary and for the purpose of such investigations, to seeking or receiving federal grants.
- viii) To make such other recommendations to the federal government or to universities relating to higher education as the commission may consider being in the national interest (Ajayi, 1983:11-12, Yesufu, 2000).

Despite the flambouyant plight for the NUC, it had turbulent problems in its initial attempt to coordinate and organize the development of university education in

Nigeria. For instance, as an administrative unit, it had no power to enforce its expertise advise to regionally established universities and neither had it the luxury of regulating the academic programmes to maintain standards across board and consequently avoid duplication. Worst still has been its inability to exert influence over capital and recurrent cost as they affect the development of the universities which lend heavily on federal grants as well as foreign aid.

The ease of these problem manifested in 1967 with the creation of twelve states in place of the Regional Governments, which empowered NUC with more control over resources affecting university management as the federal government was then saddled with more task of funding all universities. It was this instance of the federal government shouldering the bulk of finances for university education that enabled the centralization of funding to the commission.

However, it is worthy of note that there was an interim NUC between 1968-1974 and this had modifications of membership made up of four, firstly and later, five academic appointees, representing varying academic and professional disciplines under the Chairmanship of Chief F.R.A. Williams (NUC, 1994). This reconstitution did not in any way improved the structure of coordination and organization of the commission, for it still acted on the advisory level with slight difference to access on increased level of funding by the federal government.

Obviously, the statutory NUC came into being in 1974 with the enactment of Decree No. 1 of that year. This was reconstituted and given a proper backing with legal instrument to carry out its functions to the later. To ensure its status, a board was appointed on the 25<sup>th</sup> April 1975 and inaugurated on 10<sup>th</sup> July 1975 under the

Chairmanship of Chief S.O. Adebo (NUC, 1994). From this standpoint, objectives were set for the commission to enable it function; and these include:

- a) to advice the Head of the Federal Government, through the Ministry, on the creation of new universities and other degree granting institutions in Nigeria;
- b) to prepare after consultations with all the state government, the National Manpower Board and such other bodies as it considers appropriate, periodic master-plans for the balanced and coordinated development of universities in Nigeria and such plans shall include:
  - The general programmes to be pursued by the universities in order to ensure that they are fully adequate in meeting national needs and objectives;
  - ii) Recommendations for the establishment and location of new universities as and when considered necessary; and
  - iii) Recommendations for the establishment of new faculties or postgraduates institutions in existing universities or the approval or disapproval to establish such faculties or institutions.
- To make such other investigations relating to higher education that the commission may consider necessary in the national interests;
- d) To make such recommendations to the federal government and state governments or to the universities relating to higher education as the commission may consider being in the national interests,
- e) To inquire into and advise the Federal Government on the financial needs, both recurrent and capital of university education in Nigeria; and study the

financial needs of university research and to ensure that adequate provision is made for this in the universities;

- f) To receive block grants from the Federal Government and to allocate them to universities in accordance with such formula as may be laid down by the Federal Executive Council;
- g) To take into account, in advising the Federal Government on university finances such grants as may be made to the universities by State Governments and by persons and institutions in and outside Nigeria;
- To collate, analyze and publish information relating to university education in Nigeria, and from other sources where such information is relevant to discharge of its functions under this act;
- To undertake periodic reviews of the terms and conditions of service of personnel engaged in the universities and to make recommendations thereon to the Federal Government where appropriate.

And technology and establishment department of the Federal Civil Service Commission was added to the membership. This new initiative as added to the commission's functions, was emphasized in the Decree with a leverage of the commission aside from performing other functions was to ensure minimum standards through accreditation of degree programmes and other academic awards with reviews from time to time; given the fact that approval shall be sought from the President and Commander-in-Chief of the Armed Forces, through the Minister of Education.

Subsequent Amendment of Decree No. 9 of 1993 for education (National Minimum Standards and Establishment of Institutions) clearly amended Decree No. 16 of 1985 and repealed Decree No. 19 of 1984 on the private universities (Abolition and Prohibition) allowed all the three tiers of government to establish higher institutions including universities. It also permitted company incorporation in Nigeria, and even individuals or associations of individuals, who are citizens of this country that satisfy the criteria for establishing a university to run it. These applications for a university should procedurally be channeled through the NUC to the Minister of Education. However, the NUC Amendment Decree No. 10 of 1993 amended the Decree No.1 of 1974 (the Principal Act) and equally amended Decree No. 49 of 1988 (the Subsidiary Act). The new arrangement, reconstitutes the membership of the commission to make up of 21 as against the earlier 33 in 1988.

Interestingly, universities miscellaneous provisions Decree No. 11 of 1993 has taken precedence over all other individual university laws. This has universal application to

- Recommend to the visitor of a university that a visitation be made to such university as and when it considers it necessary;
- Act as the agency for channeling all external aid to the universities in Nigeria;
   and
- Carry out such other activities as are conducive to the discharge of its functions under its Act (NUC, 1994:1-2).

To make these objectives realizable, the statutory NUC has an Executive Secretary that formulates and executes policies of the commission. The Executive Secretary is to ensure the smooth running of the commission on day-to-day basis.

In simplifying the functions of the commission further, the Federal Government promulgated Decree No. 16 of 1985 to lay down minimum academic standards for all universities and to ensure harmonious academic programmes and the commission was also empowered to enforce minimum standards. This standardization is further maintained through the holding of regular discussions by the commission with various professional bodies, the outcome for which is the insurance of streamlining these standards with minimal conflict.

The NUC Amendment Decree No. 49 of 1988 however, amplified the expansion of the membership of the commission to include new academic disciplines like Architecture, Creative Arts, Education, Earth and Mineral Sciences, Legal Sciences, Management Sciences, and Pharmaceutical Science. Representatives of public interests were also increased. For instance, new Ministries of science in all universities owned and controlled by the Nigerian government as the decree synchronizes major provisions in the various university laws and thus making them procedurally uniform. Such issues include the composition of council, procedure for appointment of Vice-Chancellors of universities and the Deputy Vice-Chancellors. The Decree empowered the council of each university to determine the number of Deputy Vice-Chancellors required by each university. It has also revised the status quo ante of the tenure of Vice-Chancellor from the initial practice of serving for four years in the first instance and a

possible second term of three years; as it is now four years in the first instance and a re-appointment where feasible for another four years. Presently, what is tenable is a one term of five years. The Decree dwelled generally on the welfare of personnel working in a university setting particularly with attention focused on appointment and retiring of staff and review of conditions attached to them. Though the implementations of these parameters are already in place, they are tacitly faulty.

Indeed, the NUC has been saddled with the coordination, planning, organization and the management of the development of high-level manpower through funding and setting of standards for the academic programmes in the various disciplines in the entire Nigerian university system. This is further x-rayed in 4.4 below.

#### 4.4 Patterns Of Investment In University Education

It is highly adduced that the British Government mostly provided the initial source of funding of Nigeria's premier university. As 10 to 15 per cent of teachers, were sponsored by international organizations- bilateral agencies and foreign government (Sajo, et al 1992, Todaro and Smith, 2003). However, the trend element in investment in university education can be more appreciated with an insight in the constitutional provisions in Nigeria in the early development of this form of education. This was based on a concurrent item in the constitution as both the federal, regional and state governments had to legislate on university like for instance, University of Nigeria, Nsukka (1960), Ahmadu Bello university, Zaria

(1962), University of Ife (1962) and University of Benin (1970) (Omoregie, 1993); all came into being through various regional constitutional legislations.

However, by 1972 with the amendment of constitutional provisions in university education, the federal government made it as its exclusive responsibility to invest in university education. Despite this exgratia largesse by the Federal government to funding university education, states were still vested with some powers to run the universities. Yet, for obvious reasons, the federal government between 1973 and 1975 took over the affairs of the university education wholesomely and made investment in this education as an integral part of its economic planning through provisions for it in the development plans annual budgets.

This wholesome control of university coupled with high demand for university education, metamorphosed the establishment of seven more universities by 1975 and thus increased the total to thirteen. This efforts did not stop here, as subsequent 1979 constitution empowered states to establish and run universities which saw to the emergence of ten states universities and the federal government sprang up twelve more to sum the number to thirty-five. The increase in university number saw to increased funding and students enrolment (Aminu, 1983, 1986, 1989, 1992; Omoregie, 1993, Babalola, 1993). The abolition of tuition fees and pegging of boarding and lodging charges and consequent attenuation of government grants in 1977/78 and 1978/79 fiscal years (Aminu, 1986), further compounded the problem with even more, the lean financial resources dwindled university appropriations (Omoregie, 1993).

With Decree No.1 of 1974, empowering NUC to recommend various standards, norms and legal constraints on allocation, distribution and utilization of resources in Nigerian universities, investment policies and decisions were made divergent and much more relevant to manpower needs of the country. Under this scenario, a university was expected to react to external scrutiny and possible cut in allocation through marginal adjustment on its investible funds (Babalola, 1993), since huge amounts of both public and private funds have been devoted to the development of university education in Nigeria over the years right from the early sixties (Ojo, 1985, World Bank 1995, UNDP, 1996, 1997). This fact adumbrates the premise that despite the considerable proportion of public capital and recurrent expenditure invested in education, a sizeable proportion has all along been devoted to the development of university education to champion the course of training high-level manpower.

For instance, in the second National Development plan (1970), =N=277.78 million was earmarked as capital expenditure on education at all levels by both the federal and state governments and out of which university education alone had =N=82.036 million accounting for 30% of the funds voted for education. In this spectrum, university education was considered of much relevance as the plight to rehabilitate, reconstruct and reconcile the economy from the ravages of civil war was quite glaring with the use of high-level manpower. At that time, from the planned document, it was espoused that this category of manpower was not adequate to cause a positive shift in the economy and the only way out was to invest properly in university education. This encouragement saw to the expansion of

university education where the number rose from six in the second plan to thirteen in the Third plan. Thus, during the Third National Development plan (1975), the proportion of aggregate capital expenditure on the educational sector which goes to the universities has to drop with increased commitment to primary and secondary education.

In the light of the plan, =N=2,464 billion was earmarked as capital expenditure on education, out of which =N=251.9 million representing 10.10% was invested on university education. During the same period, =N=201.0 million representing 8.1% of the plan aggregate capital expenditure on education was voted to student financing and this is implicated on the fact that this vote is still considered for university education, since student financing lend on undergraduate and postgraduate scholarship awards and undergraduate loan scheme awards. In this framework, one can aptly deduce that the vote for university education is still relatively high.

Thus far, it does not require much shrewdness to appreciate the extent of public expenditure voted to university education and the general response on student enrolment in various universities. This extent is feasible with data availed on funding and enrolment in university education between 1970-2003 as shown below:

TABLE 6: Public Expenditure In Nigerian Universities Education And Enrolment 1970-2003

Academic Year	Total Allocation	T. (-1	
	( <del>N</del> m)	Total Enrolment	Allocation  student ( <del>N)</del>
1970/71	30,09	14,406	2,060
1971/72	56.10	17,093	3,282
1972/73	68.20	20,889	3,743
1973/74	78.20	24,498	4,800
1974/75	111.50	27,025	4,126
1975/76	187.37	32,286	4,874
1976/77	199.7	46,499	5,005
1977/78	279.05	47,670	3,784
1978/79	393.97	49,903	3,709
1979/80	308.01	60,907	3,820
1980/81	436.1	77,791	5,869
1981/82	684.0	90,751	7,679
1982/83	554.3	104,774	5,679
1983/84	514.5	116,822	4,937
1984/85	481.0	126,285	4,314
1985/86	488.1	133,783	4,259
1986/87	537.9	146,799	3,273

1987/88	424.3	155,092	3,443
1988/89	600.0	165,142	3,964
1989/90	575.0	176,702	4,452
1990/91	584.2	182,913	3194
1991/92	631.0	196,372	2213
1992/93	732.0	198,432	3689
1993/94	842.0	227,999	3693
1994/95	891.1	236,261	3772
1995/96	965.2	253,121	3813
1996/97	987.2	277,500	3557
1997/98	1131.3	302,569	3739
1998/99	1234.6	308,713	3999
1999/2000	1353.3	312,344	4333
2000/2001	1472.8	381,722	3858
2001/2002	1892.1	412,309	4589
2002/2003	2718.3	431,996	6292

# **Source: Compiled from;**

- 1. ASUU (1992) Negotiating Document, p.48.
- Federal Ministry of Education (2004), Education sector status Report, Abuja:
   UNESCO/JAPAN Trust Project 552/HOIR/1010, pp. 94-235
- CBN, Annual Report and Statement of Accounts, various issues 1970s,
   1980s, 1990s, 2004...

- 4 Jilli, D.D. (1987). University Finances: The Search for Alternative Sources of Revenue in Nigeria. *Unpublished MPA Thesis*, University of Jos, pp. 77-78.
- 5. Kuna, M.J. (1993). A State Intervention and University Autonomy: The Case of the National Universities Commission. 8<sup>th</sup> General assembly of Social Science Council of Nigeria (SSCN) on University governance in Nigeria, University of Jos, pp.20-23.
- 6. NUC, Annual Report, various issues- 1970s, 1980s, 1990s, 2004.

From the table, it appears that expenditure voted by the federal government on the funding of university education has been on the increase since 1970. This exponential rate in the increase of universities investments were also glaring since the establishment of university college, Ibadan in 1948 (Aminu, 1983, 1986, Broschade, 2001). From the table, between 1970 and 2003, there was general increase in university funding and expansion in school enrolment concurrently, which affirms Aminu's position.

As from 1975/76 session, there was a swift increase in funding from =N=111.50 million in 1974/75 to =N=187.37 in 1975/76 session. This increase amounted to =N=75.87 million almost rating the same as early investment resources of between 1970/71 to 1973/74 academic years. So many reasons could be attributed to this increase. For instance, there was also increase in number of universities from six to thirteen. All these mean increased enrolment and expansion of necessary infrastructure and provision of necessary infrastructure and provision of equipment and facilities to meet up the needs of the universities. However, as the demand for university education pushes up enrolment figures, available funds to universities declined as seen in table VI above.

While government directs NUC to study the financial needs of universities and make appropriate recommendations to it, there appeared to be no correlation between such studies and universities needs. For instance, the criteria for grant allocations depend on student enrolment and the calculation of staff-student ratios. All other costs are calculated on this basis.

With dwindling oil revenue in the 1980s, there was phenomenal change in the pattern of investment in universities education. However, this sharp deterioration started from about 1976/77 sessions owing to the increased commitments of the federal government take over of all universities, which heralded the perpetuation of poor funding to university education under the guise of absorptive shocks of no funds and establishment of newer universities. Even with pretensions measures like economic stabilization Act of 1981, people were forced to believe that there were only lean financial resources availed for investment in all sectors of the Nigerian economy; and the university education was largely affected by this decision. Yet, millions of naira were sunk into rice importation and all brands of importation and over invoicing of items, all to hasten the accumulation process of the bureaucrats and the lumpen bourgeoisie, a scenario that helped in starving university education of funds, the bed rock of the nations development. This explains partly reasons for the dwindling of financial resources to education sector; and as exposed earlier in the Second and Third National Development Plans, university education took the lion share of education expenditure.

Table VI shows the total allocation of universities from the year 1970/ to 2002/2003. In this table, there was accelerated increase in government grants from =N=30.09 million in 1970/71 to =N=2718.3 million in 2002/2003 sessions. Like Aminu (1986, 1992, Borishade, 2003) observed, that even within this increased period of funding, there was a whopping shortfall from =N=3.8 million in 1971/72 to over =N=24 million by 1977/78. This is stressed by the fact that even where the local income of universities internally generated dropped from =N=10.4 million in

1976/77 to =N=4.7 million in 1977/78 emanating from the abolition of tuition fees and pegging of boarding and lodging charges.

It must be appreciated from the analysis that inflation and introduction of new programmes; and establishment of new universities all pushed the cost of running universities upward. As such the real investment in university education is low as what seems to be witnessed all these years has been the nominal investment. This scenario was visited by Academic Staff Union of Universities (ASUU) in 1992 to arrest the problem of poor funding and stop the system from collapsing. Within this period, Nigerian university system was at the verge of temporary resource unavailability (Babalola, 1993, Balami, 2002). Babalola adduced reasons for the lean financial resources availed to universities largely from that of the pattern of student subsidy that has made excess demand for university as social demand which have led to over expansion.

It can as well be argued that educational budget has reached absolute fiscal ceiling considering the increasing intersectoral competition for the available public resources as evidenced in the case of education, defence and agriculture in chapter three of this thesis. Indeed, external financial aid has ceased to flow on the guise that university education has had large investment in Nigeria at the expense of the other forms of education. Largely responsible for these lean resources has been the low attendant rate of growth of the economy that could not withstand heavy subsidy to university education. A factor that cannot be ignored from the dialectics is the surging effects of rising inflationary trend within the period under search. This trend was insurmountable during the Udogi salary review of 1974, which hiked the total

expenditure for instance from =N=78.2 million in 1973/74 to =N=111.5 million during the 1974/75 session in Nigerian universities. These figures represent 45% increase over the previous year. Indeed, there was a significant increase in 1981/82-session recurrent expenditure in view of Cooky's commission recommendation for the adoption of university salary structure. This increase amounted to 34.8 per cent. More so, the increase in the number of universities by 1982/83 sessions saw to increased funding. For instance, the new universities of technology at Akure, Bauchi, Owerri, Yola, Abeokuta, Minna and Markudi all increased the recurrent expenditure. But beyond 1983/84 sessions, the increase in university recurrent expenditure has remained within the region of 11 per cent.

Part of the problem emanating from poor funding rests heavily on the fact that a university is almost an autonomous institution whose function rests on construction of all supporting units like road network, residential houses, offices, students hostels, water and electricity supplies, health services centres, workshops for maintenance of equipment and vehicles and provision of primary and secondary schools as part of staff welfare largesse, etc. Basically, these items need high financial resources to sustain and for the development of needed infrastructure for quality manpower development at this level. But for obvious reasons, influential members of the society have starved the universities of funds, and placed more premiums on their interests since their children are often sent abroad for university education. Aside from this, there is emerging trend of misapplying resources, by both university administrators and the Federal Ministry of Education as evidenced in the current sack of Minister of Education in March 2005. Expansion of access and

proliferation of courses all depends on funding, but this has been neglected as a result of these interests that are impliedly defined in the system. This calls for a concern as most of these high echelons of the society thrive in building new havens of hope for their future at the expenses of the Nigerian University, its growth and development. For instance, whose interest was as broadcasted by President Olusegun Obasanjo in March, 2005 of =N=55 million scam going to serve? What are its implications and impact in the university system? Even where some legislatures, the Ministers, Ministry officials, NUC and a university administrator were involved, whose interests were they serving? These are series of questions, complications and implications one may ponder on the investment paradigm in university education and the attendant transformation of Nigerian economy.

It is clear that even where funds are available, they are being siphoned into private pockets, thus, leaving the system with meager resources to fathom with. A scenario that has had negative consequences in the system such as academic staff attrition, poor access to university education, lack of trust by donors and supporters, students attrition to overseas universities. These consequences were resulted from the deliberate actions of policy makers in order to contain with phenomenal crisis to ease transfer of funds into private hands. The quality of manpower is also affected with fewer resources earmarked for university education. This has negative implication in transforming the national economy.

The increase in enrolment between the years 1970 to 2003 tend to inform the analysis that funding has to increase as facilities are bound to be expanded along. However, this increase suddenly has implication for cost on per student investment.

As enrolment increases, the cost per student appeared less since it is most likely that some basic infrastructure facilities that are in existence would have reduced the overhead costs, over stretching of facilities notwithstanding. Generally, the maintenance of fewer students is usually more costly and with increased enrolment, cost tends to be reduced for student head.

Thus far, universities investments from 1970 to 2003 have not been adequate and this has had negative effects on matching funding and student's enrolment. This precarious situation still persists in the university system till date.

### 4.4.1 The state of investment in university education

Investment in university education had its smooth footing all along up to 1974. During this period, 1948 to 1974, university education was largely funded by the federal government and the regional (1960-67) as well as states (1967-74) governments respectively. For instance, federal government was largely responsible for 100 percent funding in universities of Lagos and Ibadan; while in Nsukka, Zaria, Ife and Benin, it borne only 70 percent as the regional and states governments had to carry the burden of 30 percent (Sajo, 1992, NUC, 1992, Aminu, 1992, Balami, 2002).

The scenario that explains this smoothness lend heavily to the fact that during the period 1948 to 1974, there was high premium attached to university education by the Nigerian society. This high premium is informed by the premise that universities and educationists then dictated the criterion of resource allocation into the system by appealing to the socio-economic importance of university

education to overall national development. This makes resources to be unquestionably allocated to university education. The fact still holds that during the first decade of university education, and with all resource availability, enrolment into the premier university was still below 300 (Babalola, 1993). Deducing from this, during 1973/74 session, even where the number of universities increased to six with the establishment of University of Benin in 1970; and an enrolment of 25,900 students competing for the available resources, the University of Ibadan still had a surplus of =N=844,901. This far, explains that during 1948 to 1974, the university system was insulated from all forms of obnoxious scrutiny and arbitrary criticisms. The strong reliance was on how to optimize the use of resources to achieve quality production of high-level manpower for nation building.

The problem within the early university education was predicated on how to use the excess resources and not cost control and revenue generation strategies as the prevailing circumstance. Idle rates for instance, as observed Babalola (1993), was used on staff development and training abroad. More so, owing to the very modest rate of enrolment and expansion at this point, resources were considered adequate as the overall expansion rose moderately to reflect a gradual increase in average cost per student, which consequently had an upward drift in average cost per teacher as earlier shown in table VI.

Beyond 1974, the demand for the university financial resources was more than the supply. This situation was greeted with sudden expansion in 1974/75 session with the establishment of seven more universities and thus, bringing the number to thirteen. Within this ambit, the system found itself hard hit by a sharp rise

in the demand for university education and the consequent need for expansion. The fact still holds that it was university education that needed expansion during this period, primary and secondary education as well as other tertiary institutions; all needed expansion with the birth of universal primary education in 1975 and the introduction of the new National Policy on Education in 1977. Resources were forced to be rationed to other levels of education as per the increasing demand and thus, the ensuing dwindling or shortfall in university funding. It is also glaring that other sectors for the Nigerian economy too had to directly compete with education sector for the available resources. This shifts the analysis away from the institutional university arrangement, from that of finding what to do with idle votes or surplus to that of resorting to finding ways of attracting and extracting adequate resources from the common pool of the federal government. The attention of this saw to the introduction of "crisis bargaining" in the university system where each university now has the tendency to bargain for and acquire more funds as much as possible in anticipation of further dwindling. Such a crisis has greeted the differential in funds allocation in Nigerian universities over the years; as allocation are largely based on number of students, personnel, age of institution and infrastructure to maintain and develop (Sajo, 1992, Abdulrahman, 1997).

Sadly from the foregoing analysis is that, the crises that engulf the structural expansion of university education has had some large effects on the quality of high level manpower that has to be produced in the economy. This is because, the production of quality personnel to man Nigeria industries and public service lend

heavily on availability of resources to universities to acquire and hire necessary equipment, facilities and personnel for a good output.

Part of the explanation to the crisis bargaining was ensued during 1977 when the federal government abolished tuition fees that accounted for more than 10 percent of the university budget (Taiwo, 1993). Even within this terrain, there was still oil boom and funding was still blooming from the federal government. But the consequent effects of several policies as stated herein saw to the setting up of Ogundeko Committee in 1978 by NUC to look into financial management in the Nigerian Universities. The Committee discovered in her findings that the universities were under funded, as some of their physical facilities were inadequate. Thus, they proffered that government cannot continue to fund everything in the university as the resources are not just available. They stressed that government should strive to meet the most vital needs of universities and equally encouraged universities to seek alternative sources of funding (Oduleye, 1985, Adesola, 2002).

Following Ogundeko Committee Report closely was the emergent changes of the 1980 and 1981. For instance, there were large gains from petroleum oil that aided the federal government to improve funding in universities. Even during 1979 and 1981, real NUC grants per university at 1980 prices increased from =N=25.39 million to =N=88.52 million and the real grants per student increased from =N=5,736 to =N=7,155 as shown in table VII below. Data from a cross section of the table also confirms that there was improvement in university funding. Data on NUC grants in real and nominal values to federal universities excluding states universities and Nigerian Defence Academy 1979-1993 are presented herewith:

Table 7: NUC Grants in Real and Nominal Values to Federal Universities
1979-2003

## **Real Values are At 1980 Prices**

Year	Total Grants ( <del>N</del> m)	1	Grants Per University ( <del>N</del> m)		Grants Per Student ( <del>N</del> _)	
	Nominal	Real	Nominal	Real	Nominal	Real
1979	295	330	22.69	25.39	5,126	5,786
1980	427	427	32.85	32.85	5,745	5,745
1981	672	616	42.00	38.52	7,802	7,155
1982	538	483	29.89	26.82	5,510	4,945
1983	499	383	24.95	19.17	4,791	3,681
1984	465	305	29.06	19.07	4,170	2,737
1985	473	298	29.56	18.62	4,291	2,703
1986	525	338	32.81	21.11	4,351	2,800
1987	512	220	25.60	11.00	4,155	1,786
1988	526	183	26.30	9.14	4,046	1,407
1989	603	139	30.15	6.97	4,344	1,004
1990	667	144	31.74	6.83	4,368	940

Real Values	are /	Δt 1	980	Prices
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1991	656	125	29.82	5.68	3,905	743
1992	1,195	157	54.32	7.15	6,467	852
1993	3,746	429	170.27	19.50	18,430	2,111
1994	3892	431	173.81	21.91	19,312	3,113
1995	3918	438	178.35	22,87	19,821	3,241
1996	4125	441	181,14	25.61	21,734	3,569
1997	3234	452	183.31	27.83	22,458	3,715
1998	4531	471	191.98	27.98	24,781	3,713
1999	4,792	492	201.34	30.15	25,116	4,001
2000	5189	511	219.17	33.78	27,811	4,123
2001	5538	545	221.08	38.04	29,002	4,129
2002	5817	612	238.75	41.09	32,016	4,228
2003	6720	618	239.75	42.03	32,987	4,229

## Source: Compiled from;

- 1. CBN, Annual Reports and Statement of Accounts. various issues-1970s, 1980s, 1990s, 2004.
- 2. NUC, Annual Report, various issues- 1970s, 1980s, 1990s, 2004.
- 3. NUC (1987), 25 Years of Centralized University Education. Lagos: Academy Press Ltd.
- 4. NUC (1992), 30 Years of Centralized University Education in Nigeria.

Lagos: Academy Press Ltd.

To have major grasp of issues in the table, it is perhaps necessary to state that in 1982, there was distortion in oil pricing that saw to the decline in the oil prices. This period also witnessed the eruption of debt crisis in the Third World. Thus university funding from thence was plummeted. The data presented on the table shows that university funding was on the decline. For example, the real NUC grants per university declined from N38.52 million in 1981 to N5.68 million in 1991 at an average annual rate of 16.6 percent; and more so, the real NUC grants per student decreased from N7, 155 to N743 during this same period.

Going by the data in table vii, the deterioration in university funding coupled by the rising cost of university education accentuated the under funding by universities. This notwithstanding, the various other estimates of under funding in the university education. This is even traceable to the Longe Commission in 1990 that estimated the training cost per student at N7, 000 and yet, NUC could only provide nominal grant of =N=4,368, representing a substantial percentage of 62.4 of the requirements recommended. Indeed as far back as 1983, UNESCO's estimate of the cost per student was put at =N=30,000 which far exceeded the NUC nominal grant of =N=4,791, and even then the real grant is still lower at =N=3,681.

Considering the lean resources availed to universities, in 1992, both the federal government and the ASUU concorded that a total sum of =N=3.54 billion is required for both recurrent and capital expenditure for the smooth running of universities. In 1992 alone, it required =N=1.20 billion for a successful academic year. With this phenomenal problem of under funding in the universities, there was

emergence of endowments and commercial ventures by many universities to augment the NUC grant.

The scenario that greeted ASUU strike was informed by this decline and dwindling resources availed to universities, as universities were perceived grossly under funded. The result of the subsequent protracted industrial action saw to improvement in university funding. For instance, during the first strike of 1992, NUC was forced to make a supplementary allocation of N432 million to federal universities, and subsequent 1993, the real NUC grants per university increased by 173 percent to =N=19.50 million; while NUC grants per student also increased by 148 percent to =N=2,111 as indicated in table VII.

Despite the increased allocation by NUC grants in 1993, the real grant for university appeared half of what was obtained in 1981, as real allocation per student was less than one-third as shown in table VII. Even where the data shows some improvement in university funding, this has not been adequate to allow universities run successfully her programmes. The surging galloping inflation often time, overtakes the budgetary plans such that planned expenditure do not meet up with the real values in terms of portfolio investment in universities projects and programmes. Certainly, the only way out in ensuring adequate funding of universities is to encourage sustained interests by public and private sectors in universities development and growth.

However, it must be stressed from the foregoing that a phenomenal of under funding that adversely affects both the quality and quantity of manpower development at this level must be tackled. This is because, where resources are

lacking, it becomes difficult to purchase relevant learning facilities and creation of enabling environment to contain and guarantee good learning which affects the quality of manpower produced by the system. This also has effects on programmes and personnel to champion this course of human development in the universities as resources may be so lean to ease of hiring such skilled manpower that will administer the academic programmes; and to rent equipment and other relevant facilities that will guarantee quality training and learning. One clear manifestation of under funding is that when manpower is developed and cannot be absorbed into the productive life of the economy, it implies retarding the development of the national resource endowments. Under funding affects the development of the quality of manpower, and thus, has negative externalities in terms of transforming the productive sectors of the economy. Since Nigerian economy thrives on the demand side with less output from the supply side, one can aptly state that this is blamed on manpower and its contribution to the transformation process, which can best be appreciated with the level of increase of local by produced goods in the economy. The take-off of technological products and emerging goods can be inferred on what is being contributed by highly skilled manpower in an economy, which is absent in Nigeria. Moreover, all these have not yielded the desired result and impact, which are characterized by under funding and low quality of the products of the university system.

It is imperative to affirm that the desired transformation of the economy can be appreciated through the contribution of high-level manpower to the development of various productive aspects of the economy. The quality of modern indigenous technology and the existence of industrial goods are epitome to the externalities derived from high-level manpower. The increased investment, savings and consumption are feasible through quality of contributions made by skilled labour.

This under funding palaver is perhaps more explicit with availing data on actual grants to federal universities on recurrent and capital grants between 1970 and 1990.

TABLE 8: NUC Recommended And Actual Grants (Recurrent/Capital) Provided To

Federal Universities 1970-1990

Year	NUC Recommended Recurrent Grants ( <del>N</del> m)	Actual Recurrent Grants ( <del>N</del> m)	% Short-fall	NUC Recommended Capital Grants ( <del>N</del> m)	Actual Capital Grants ( <del>N</del> m)	% Short-fall
1970/71 1971/72 1972/73 1973/74 1974/75 1975/76 1976/77 1977/78 1978/79 1979/80 1980/81 1981/82 1982/83 1983/84 1984/85 1985/86 1986/87 1987/88	19.57 22.00 32.55 41.30 86.31 143.84 170.93 190.02 208.74 218.33 298.84 317.01 579.62 634.37 466.02 604.61 656.92 734.10	19.57 20.00 31.00 41.30 59.31 137.00 153.00 185.00 158.91 200.00 196.83 288.00 381.25 428.89 421.89 446.02 453.14 411.14	- 4.76 - 31.28 4.75 10.48 7.04 23.87 8.39 33.69 9.15 34.22 32.34 9.46 35.79 31.02 43.99	32.00 29.00 21.10 29.89 49.89 214.00 130.00 203.00 326.00 150.00 500.00 450.99 602.00 439.92 798.19 394.96 304.46 352.41	22.00 29.00 21.10 49.89 49.89 106.83 103.00 120.00 115.00 335.00 191.60 171.00 36.49 40.16 45.58 51.00 54.00	50.08 17.82 49.26 63.19 23.33 33.00 57.51 71.59 91.71 94.91 88.45 82.24 84.68
1988/89	626.94	472.02	31.29	358.00	61.00	84.67
1989/90	714.15	498.18	30.25	413.10	63.67	84.58
1990/91	718.91	501.13	30.29	592.14	74.45	87.45
1990/92 1990/93 1990/94	811.13 750.23 761.38	476.03 512.14 520.23	41.31 31.74 31.67 32.34	612.53 713.39 752.49	75.18 78.64 181.41	87.73 88.97 75.90
1990/95	773.19	523.13	31.38	760.13	183.41	75.87
1990/96	774.03	531.09	32.17	763.14	185.03	62.65
1990/97	792.43	539.51	31.34	765.92	188.39	62.34
1990/98	798.41	548.15	32.30	771.24	188.79	62.56
1990/99	814.93	551.68	34.70	783.58	309.99	60.44
1990/2000	831.18	542.74	24.58	786/61	391.73	50.20
2000/2001	917.32	691.87	24.58	816.09	492.74	39.62
2001/2002	982.17	719.38	26.76	843.85	494.05	41.36
2002/2003	1018.11	912.14	10.41	897.45	598.05	33.36.

### Source: Compiled from;

 Goubadia, A.I. (1981). "Financing Higher Education in Nigeria." A paper presented at the Seminar on the Structure and Organization of Higher Education in Nigeria, held at the National Institute for Policy and Strategic Studies, Kuru, January.

- 2. Jilli, D.D. (1987). University Finance: The Search for Alternative Sources of Revenue in Nigeria. *Unpublished MPA Thesis*, University of Jos, p.81.
- 3. NUC, Annual Report, various Issues- 1970s, 1980s, 1990s, 2004.

From the table, when recurrent actual grants are compared to capital actual grants, it can be aptly deduced that more grants were allocated to recurrent expenditure. Even a corollary and tacit glimpse at the percentages, indicated a higher shortfall in the capital grant than the recurrent grant. For instance, the shortfall of recurrent grant is within the rage of 4.75% to 43.99% while capital grant has a range of shortfall from 17.82% to 94.91%.

Exhuming the dialectics informs one of the pathetic structure of capital grant between 1983/84 to 1989/90 sessions that is supposed to take care of construction and maintenance of buildings, purchase of equipment, construction of roads, hostels, classrooms and laboratories, etc, where this is lean, the university can hardly expand by way of increased enrolment and even the improvement of the quality of teaching. It is expected that the learning facilities and equipment which are essential parameters in determining the nature and quality of output of the university system must be available before the required manpower can be developed. Notably, the recurrent costs include teacher's salaries and allowances, the teaching costs (embracing teaching support, research, other academic cost and administrative support cost), student textbooks and stationery; while capital costs include teaching facilities, staff houses and boarding facilities. All these had shortfalls that fluctuated between 17.82% and 94.91% during 1975/76-1989/90 sessions The implication is that, the quality of manpower produced all depends on the affirmative stated which translates to its level of contribution to the Nigerian economy.

From the table, the percentage of the shortfall in both recurrent and capital grants became more glaring as from 1980. For instance, the shortfall in capital grant started rising as from 1981 when the Economic Stabilization Act of Shagari regime was instituted. The result for which saw to a down turn in investment portfolio in many sectors of the economy. Resources that were to be allocated to the universities were shifted to other sectors. This explanation is not enough as the political exigency and interest of the state in university funding also attributed largely to this increasing shortfall. Where the state has high premium for developing high skilled manpower, attention is bond to be more centred on financing the education that is to develop such manpower. Without adequate investment in university education, it becomes impossible to chart and groom the future skills and breed relevant skilled manpower to cause the development of the nations technology and champion its path to development. This is feasible explanation that links manpower to economic transformation of the Nigerian economy.

In table viii, the actual capital grants appeared not to have direct relationship with NUC estimates. This scenario became manifest during the 1981/82 session with the establishment of new Federal Universities of Technology. Taking into cognizance the capital-intensive nature of universities, one considers the increasing shortfall during 1981/82 to 1989/90 sessions as apathetic. This is because, even the conventional universities in existence earlier than universities of technology, were unable to expand and complete the projects already started. Indeed, many universities in the second generation like that of University of Jos had to resort to multi-campus locational pattern as a result of lean capital grant, granted to it, since

the erstwhile resources were purportedly mismanaged and channeled into a few hands. A revisit to complete the uncompleted project will mean variating the cost to meet the present rate of inflation. But the fact still holds for the case of University of Jos, which had to abandon most of her projects at the preliminary stages and halfway.

Largely attributable to the shortfall in financial resources to universities were the withdrawal of state governments in 1975/76 from funding of federal universities, as some of the universities, Zaria, Nsukka, Ife and Benin were initially owned by states and regional governments and bore part the cost then up to 30%. Aside from state withdrawal, universities were encouraged to generate funds internally to boost her recurrent income. Such sources of internal income generation include, fees, rents on university property, sales of services, interest on bank deposits, income from consultancies services, grants from multilateral and Bilateral agencies, foundations and Research grants and other sources. This form of revenue, supplements the federal government grants but it has to be pointed out that it is still grossly inadequate as a supplement.

From table viii, it is clear that grants generally appeared to be on the increase and yet, the shortfalls have increased at a spiral rate. Even where government have increased commitment to university education, priorities are not accorded to its funding. This has heralded many universities to seek for alternative sources of funding in order to meet the desired quality of products to be produced in the system.

Perhaps one may sum this portion of the analysis by making inferences to the general laxity of the society towards investing in university education. It is logical to argue that as the demand for university education rises, it is reasonable to unveil the premises that hinder resource flow to university education. Even where there is financial squeeze, university education should be linked to national development. It is only then that more sustained interest by the public can promote the demand for increased funding and hence the development of high-skilled manpower that is quite needed for the transformation process in the Nigerian economy. Public funding must therefore be encouraged as well as other sources of funding has to be sought if university education is to survive, and the right human labour is to be tapped and utilized for the good of the Nigerian and Nigeria.

The large problem of investment in university education rests with the unruly role of the state that proclaim universities as mere departments in the civil service. This proclamation has enabled it fostered its interest by way of controlling the flow of grants, monitoring physical development, appointing qualified administrators, standardizing curricular, and indeed, the stultification of the structural arrangements to suit the parameters set by the most dominant interests of the state. This has largely determined and guided the investment pattern in achieving University' output in Nigeria.

# 4.5 THE NATURE AND STRUCTURE OF HUMAN RESOURCE DEVELOPMENT IN NIGERIAN UNIVERSITIES

The nature and structure of human resource development at the inception of university education in Nigeria merely reflects an Oxbridge tradition (Izevbaye, 1990). The university tradition then, like that of Ibadan, perpetuated unconventional disciplines and romanced with "the university medieval role of love of learning" (Akikugbe, 1983:58). This indeed affected the general pattern of human resource development, as the Oxbridge discipline could not reflect the needs, the traditions, and the social and intellectual heritage of Nigerian society.

Both scholars in Nigeria who graduated from British and American universities were nurtured in classical traditions and therefore, were conservatives, cautious elites and ill-equipped for pioneering the development of divergent manpower needed for the country's development. This is not to say that such scholars were not brilliant but that the colonial university education could not bequest a functional tradition that they themselves have not got (Dike, 1983, Adesola, 2002). The perceptions of the metropolitan interests in university education was certainly at variance with Nigeria's views, even though there was imposition of these alien ideas on contemporary Nigeria.

Despite the initial Oxbridge and alien tradition of university education, the main thrust still holds in:

the development of high level, indigenous manpower; and the acceleration of the development of the country in general" (Omoregie, 1993).

Since the alien tradition had bad dream, universities were assumed the picture of companies that have gone liquidation and hence those who are expected to teach, research and perform public service by way of developing high-level manpower, have become consultants and non-challant towards effecting the ideals for which a university stands for. This aberration of responsibility is rooted in the colonial inherited culture of education that Nigerian has to be alienated from if academic quality and transformed human resource is to be tenable. Indeed, the scenario only breeds a gigantic mass of mediocre graduates who are unable to increase appropriation adequately in solving the basic problems of the economy. This saw to grave dilemma on part of Nigerian government and the public who have to resort to finding ways of transforming the system and thus, to support the development of high quality university programmes based on the country's indigenous environmental needs. Thus, the crisis of decision between high quality graduates and mass mediocre graduates permeated in government policy. This was however, largely determined by the amount of funds available to execute academic and research programmes.

As this crisis of decision perpetuated, the Nigerian government took advantage of it and appointed Ashby Commission in line with the already existing interests in many quotas on seeking solutions to the evolution of a university system designed to cope with the problems of development in Nigeria. One central focus of this commission was to estimate the high-level manpower needs of the country covering the period 1960-80. Based on Harbison estimates, the commission

recommended as a first objective, the production of not less than 7,500 university graduates before 1970 and 10,000 by 1980 (Dike, 1983, Balami 2002, Adesola 2002). This enrolment target of 7,500 students in Nigerian universities was aptly rejected by the federal government and was replaced with a target of 10,000. Also, it was required that 75 percent of enrolled undergraduates should be in the area of pure and applied sciences. To sustain this rate of increased enrolment, Ashby recommended the creation of two more universities in addition to Nsukka and Ibadan. In response to this, three more universities were established at Zaria, Ife and Lagos; which further affirmed the quantitative attainment of targeted enrolment set for 1970. Indeed this target was even met earlier by 1965 and by 1970, the figure had rose over 14,000 students in Nigerian universities as shown in table IX below, despite the national crisis that saw to the closure of Nsukka for three years.

We must appreciate one premise that the importance attached to the contribution of universities to the development of manpower resources is quite unique and beyond this, universities are seen as vehicles and centres for promoting excellence towards sustained national development. High-level manpower should unparallel the mind from underdevelopment and build in the attributes of serving the nation and leading the people in the production process. University education enhances manpower development and this is not to subdue rat-race pursuits of jobs but to fit into jobs that can help individual live and transform the economy. Any divorce from this, will mean that illiteracy at best is preferred to our western-oriented reckoning in skills development; since it could be subsumed a nationalistic rejection of western colonialism and all its attributes. Certainly, if one appreciates the virtues

and values of university education through quality development of ones skills, ones freedom, comfort, influence and unlimited opportunities for advancement of the self and the society is guaranteed. The realization of the importance of university education as a means of personal and group advancement and the need for high-level manpower to champion the course of national development (Anzaku, 1993) saw to the imbibing of the nature and structure of human resource development in Nigerian universities. The data in table IX below x-rayed the structure of universities enrolment in various disciplines between 1962-2003 in Nigeria.

TABLE 9: Total Enrolment In Various Disciplines By Faculties In Nigerian Universities, 1962-2003

Year         Forestry         Sciences         Technology           1962/63         -         1255         -         -         707         -         224         384         212         764           1963/64         -         1262         -         -         936         -         384         444         435         1538           1964/65         -         2236         -         -         1078         -         591         541         514         1747           1966/67         -         1789         779         440         1632         -         872         817         783         1772           1966/67         -         1789         779         440         1632         -         872         817         783         1772           1967/68         -         1615         796         358         1154         -         525         879         479         1252           1986/69         511         1907         1010         438         1354         -         665         1022         609         1049           1969/70         406         2059         1295         488         1594         -	Field of Study	Administration	Arts	Education	Law	Natural	Environmen	Agricultur	Veterinary	Medicine	Pharmacy	Engineering	Social	Unspecifi	Total
Year  1962/63 - 1255 707 - 224 384 414 425 1538 1538 1634 1963/64 - 1262 936 - 384 444 44 455 1538 1538 1638 164/65 - 2236 1078 - 591 541 514 1747 1965/66 - 1725 731 366 1370 - 668 662 660 1527 1966/67 - 1789 779 440 1632 - 872 817 783 1772 1967/68 - 1615 796 358 1154 - 525 879 479 1252 1967/68 - 1615 796 358 1154 - 525 879 479 1252 1968/69 511 1907 1010 438 1354 - 685 1022 609 1049 1969/70 406 2059 1295 488 1594 - 744 1221 675 1243 1970/71 702 2800 1916 712 2512 - 1172 1729 1302 1623 1971/72 1008 3148 2224 910 2913 - 1297 2155 1594 1844 1972/73 1008 3148 2224 910 2913 - 1297 2155 1594 1844 1972/73 1087 3530 2998 1003 3465 - 2000 2598 2264 1944 1973/74 1269 3744 3612 1092 4022 - 1669 2803 2702 2315 1974/75 1475 4741 4543 1176 4148 - 1865 3496 2803 2702 2315 1976/77 2058 5578 5839 1615 4853 - 2147 4195 3249 3053 1976/77 2058 5578 5839 1615 4853 - 2147 4195 3249 3053 1976/77 2058 5578 5839 1615 4853 - 2147 4195 3249 3053 1976/77 2058 5576 7895 1781 6641 1007 2397 642 4656 1221 3761 6378 1977/78 2433 7768 8406 2032 6649 1125 2269 475 4839 785 3169 7430 1978/78 2433 7768 8406 2032 6649 1125 2269 475 4839 785 3169 7430 1978/79 1335 7260 8528 1642 7633 1517 2177 587 5060 833 3439 9095 1978/980 2593 9933 10578 3197 8659 1786 2497 533 5868 1014 3995 9822 1980/81 3963 11774 13574 4365 11538 2916 3396 735 7300 1528 4929 11207 1981/82 4666 18823 23245 6678 1898 6776 791 8659 1786 2497 533 5868 1014 3995 9822 1980/81 3963 11774 13574 4365 11538 2916 3396 735 7300 1528 4929 11207 1981/82 6162 13887 15370 4767 13261 5322 2369 475 4839 785 3169 7430 1982/83 5259 14113 20554 4935 16473 4310 4712 763 7988 1732 6911 16024 1983/85 7941 17966 2216 6041 18169 5896 5078 932 9867 2065 9221 20943 1983/86 795 16028 21891 5852 17768 4951 4935 1021 10445 2573 9899 21376 1986/87 9951 19031 22690 27455 8738 20895 8871 7713 1987 12138 3516 11479 26581 1986/87 9951 1993/8 2089 14031 22680 27455 8738 20895 8871 7713 1987 12138 3516 11479 26581 1986/87 9951 19938 7894 8091 1531 10445 2573 9899 21376 1986/87 9951 19938 8951 1934 228						Sciences	tal Design	e &	Medicine		& Nursing	&	Sciences	ed	
1962/63								Forestry		Sciences		Technology			
1963/64         -         1262         -         -         936         -         384         444         435         1538           1964/65         -         2236         -         -         1078         -         591         541         514         1747           1965/66         -         1725         731         366         1370         -         668         662         660         1527           1966/67         -         1789         779         440         1632         -         872         817         783         1772           1966/68         -         1615         796         358         1154         -         525         879         479         1252           1968/69         511         1907         1010         438         1354         -         685         1022         609         1049           1989/70         406         2059         1295         488         1594         -         744         1221         675         1243           1970/71         702         2800         1916         712         2512         -         1172         1729         1302         1623	Year														
1964/65         -         2236         -         -         1078         -         591         541         514         1747           1965/66         -         1725         731         366         1370         -         668         662         660         1527           1966/67         -         1789         779         440         1632         -         872         817         783         1772           1967/68         -         1615         796         358         1154         -         625         879         479         1252           1968/69         511         1907         1010         438         1354         -         685         1022         609         1049           1969/70         406         2059         1295         488         1594         -         744         1221         675         1243           1970/71         702         2800         1916         712         2512         -         1172         1729         1302         1623           1971/72         1008         3148         2224         910         2913         -         2900         2598         2264         1944		-		-	-		-						-	35	3681
1965/66         -         1725         731         366         1370         -         668         662         660         1527           1966/67         -         1789         779         440         1632         -         872         817         783         1772           1968/69         511         1907         1010         438         1354         -         685         1022         609         1049           1968/69         511         1907         1010         438         1354         -         685         1022         609         1049           1989/70         406         2059         1295         488         1594         -         744         1221         675         1243           1970/71         702         2800         1916         712         2512         -         1172         1729         1302         1623           1971/72         1008         3148         2224         910         2913         -         1297         2155         1594         1844           1972/73         1087         3744         3612         1092         4022         -         1669         2803         272         2315 <td></td> <td>-</td> <td></td> <td>-</td> <td>-</td> <td></td> <td>-</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>102</td> <td>5106</td>		-		-	-		-							102	5106
1966/67       -       1789       779       440       1632       -       872       817       783       1772         1967/68       -       1615       796       358       1154       -       525       879       479       1252         1968/69       511       1907       1010       438       1354       -       685       1022       609       1049         1969/70       406       2059       1295       488       1594       -       744       1221       675       1243         1970/71       702       2800       1916       712       2512       -       1172       1729       1302       1623         1971/72       1008       3148       2224       910       2913       -       2000       2598       2264       1944         1972/73       1087       3530       2998       1003       3465       -       2000       2598       2264       1944         1973/74       1269       3744       3612       1092       4022       -       1669       2803       2702       2315         1974/75       1475       4741       4533       1176       4183       -		-		-	-		-							-	6707
1967/88         -         1615         796         358         1154         -         525         879         479         1252           1968/69         511         1907         1010         438         1354         -         685         1022         609         1049           1968/70         406         2059         1295         488         1594         -         744         1221         675         1243           1970/71         702         2800         1916         712         2512         -         1172         1729         1302         1623           1971/72         1008         3148         2224         910         2913         -         1297         2155         1594         1844           1972/73         1087         3530         2998         1003         3465         -         2000         2598         2264         1944           1973/74         1269         3744         3612         1092         4022         -         1669         2803         2702         2315           1974/75         1757         5578         5839         1615         4853         -         2147         4195         3249		-					-							-	7709
1968/69         511         1907         1010         438         1354         -         685         1022         609         1049           1969/70         406         2059         1295         488         1594         -         744         1221         675         1243           1970/71         702         2800         1916         712         2512         -         1172         1729         1302         1623           1971/72         1008         3148         2224         910         2913         -         1297         2155         1594         1844           1972/73         1087         3530         2998         1003         3465         -         2000         2598         2264         1944           1973/74         1269         3744         3612         1092         4022         -         1669         2803         2702         2315           1974/75         1475         4741         4543         1176         4148         -         1865         3496         2852         2152           1975/76         1757         5578         5839         1615         4853         -         2147         4195         22152 <td></td> <td>-</td> <td></td> <td></td> <td></td> <td></td> <td>-</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>4</td> <td>8888</td>		-					-							4	8888
1969/70         406         2059         1295         488         1594         -         744         1221         675         1243           1970/71         702         2800         1916         712         2512         -         1172         1729         1302         1623           1971/72         1008         3148         2224         910         2913         -         1297         2155         1594         1844           1972/73         1087         3530         2998         1003         3465         -         2000         2598         2264         1944           1973/74         1269         3744         3612         1092         4022         -         1669         2803         2702         2315           1974/75         1475         4741         4543         1176         4148         -         1865         3496         2852         2152           1975/76         1757         5578         5839         1615         4853         -         2147         4195         3249         3053           1976/77         2058         5576         7895         1781         6541         1007         2397         642         465							-							-	7058
1970/71         702         2800         1916         712         2512         -         1172         1729         1302         1623           1971/72         1008         3148         2224         910         2913         -         1297         2155         1594         1844           1972/73         1087         3530         2998         1003         3465         -         2000         2598         2264         1944           1973/74         1269         3744         3612         1092         4022         -         1669         2803         2702         2315           1974/75         1475         4741         4543         1176         4148         -         1865         3496         2852         2152           1976/76         1757         5578         5839         1615         4853         -         2147         4195         3249         3053           1976/77         2058         5576         7895         1781         6541         1007         2397         642         4656         1221         3761         5378           1977/78         2433         7768         8406         2032         6649         1125							-							-	8588
1971/72       1008       3148       2224       910       2913       -       1297       2155       1594       1844         1972/73       1087       3530       2998       1003       3465       -       2000       2598       2264       1944         1973/74       1269       3744       3612       1092       4022       -       1669       2803       2702       2315         1976/75       1475       4741       4543       1176       4148       -       1865       3496       2852       2152         1975/76       1757       5578       5839       1615       4853       -       2147       4195       3249       3053         1976/77       2058       5576       7895       1781       6541       1007       2397       642       4656       1221       3761       5378         1977/78       2433       7768       8406       2032       6649       1125       2269       475       4839       785       3169       7430         1978/80       2593       9933       10578       3197       8659       1786       2497       533       5868       1014       3995       9822 <td></td> <td></td> <td>2059</td> <td>1295</td> <td>488</td> <td></td> <td>-</td> <td>744</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>-</td> <td>9695</td>			2059	1295	488		-	744						-	9695
1972/73       1087       3530       2998       1003       3465       -       2000       2598       2264       1944         1973/74       1269       3744       3612       1092       4022       -       1669       2803       2702       2315         1974/75       1475       4741       4543       1176       4148       -       1865       3496       2852       2152         1975/76       1757       5578       5839       1615       4853       -       2147       4195       3249       3053         1976/77       2058       5576       7895       1781       6541       1007       2397       642       4656       1221       3761       5378         1977/78       2433       7768       8406       2032       6649       1125       2269       475       4839       785       3169       7430         1978/79       1335       7260       8528       1642       7633       1517       2177       587       5060       833       3439       9095         1979/80       2593       9933       10578       3197       8659       1786       2497       533       5868       1014	1970/71	702	2800	1916	712		-							-	14468
1973/74       1269       3744       3612       1092       4022       -       1669       2803       2702       2315         1974/75       1475       4741       4543       1176       4148       -       1865       3496       2852       2152         1975/76       1757       5578       5839       1615       4853       -       2147       4195       3249       3053         1976/77       2058       5576       7895       1781       6541       1007       2397       642       4656       1221       3761       5378         1977/78       2433       7768       8406       2032       6649       1125       2269       475       4839       785       3169       7430         1978/79       1335       7260       8528       1642       7633       1517       2177       587       5060       833       3439       9095         1979/80       2593       9933       10578       3197       8659       1786       2497       533       5868       1014       3995       9822         1981/82       6162       13887       15370       4767       13261       3322       3662       739	1971/72	1008	3148	2224		2913	-	1297		2155		1594		-	17093
1974/75       1475       4741       4543       1176       4148       -       1865       3496       2852       2152         1975/76       1757       5578       5839       1615       4853       -       2147       4195       3249       3053         1976/77       2058       5576       7895       1781       6541       1007       2397       642       4656       1221       3761       5378         1977/78       2433       7768       8406       2032       6649       1125       2269       475       4839       785       3169       7430         1978/79       1335       7260       8528       1642       7633       1517       2177       587       5060       833       3439       9095         1979/80       2593       9933       10578       3197       8659       1786       2497       533       5868       1014       3995       9822         1980/81       3963       11774       13574       4365       11538       2916       3396       735       7300       1528       4929       11207         1981/82       6162       13887       15370       4767       13261       332			3530				-							-	20889
1975/76         1757         5578         5839         1615         4853         -         2147         4195         3249         3053           1976/77         2058         5576         7895         1781         6541         1007         2397         642         4656         1221         3761         5378           1977/78         2433         7768         8406         2032         6649         1125         2269         475         4839         785         3169         7430           1978/79         1335         7260         8528         1642         7633         1517         2177         587         5060         833         3439         9095           1979/80         2593         9933         10578         3197         8659         1786         2497         533         5868         1014         3995         9822           1980/81         3963         11774         13574         4365         11538         2916         3396         735         7300         1528         4929         11207           1981/82         6162         13887         15370         4767         13261         3322         3622         739         7881 <td< td=""><td></td><td></td><td></td><td></td><td></td><td>4022</td><td>-</td><td></td><td></td><td></td><td></td><td></td><td></td><td>270</td><td>24498</td></td<>						4022	-							270	24498
1976/77       2058       5576       7895       1781       6541       1007       2397       642       4656       1221       3761       5378         1977/78       2433       7768       8406       2032       6649       1125       2269       475       4839       785       3169       7430         1978/79       1335       7260       8528       1642       7633       1517       2177       587       5060       833       3439       9095         1979/80       2593       9933       10578       3197       8659       1786       2497       533       5868       1014       3995       9822         1980/81       3963       11774       13574       4365       11538       2916       3396       735       7300       1528       4929       11207         1981/82       6162       13887       15370       4767       13261       3322       3622       739       7881       1636       5326       13990         1982/83       5259       14113       20554       4935       16473       4310       4712       763       7988       1732       6911       16024         1983/84       6759							-							577	27025
1977/78       2433       7768       8406       2032       6649       1125       2269       475       4839       785       3169       7430         1978/79       1335       7260       8528       1642       7633       1517       2177       587       5060       833       3439       9095         1979/80       2593       9933       10578       3197       8659       1786       2497       533       5868       1014       3995       9822         1980/81       3963       11774       13574       4365       11538       2916       3396       735       7300       1528       4929       11207         1981/82       6162       13887       15370       4767       13261       3322       3622       739       7881       1636       5326       13990         1982/83       5259       14113       20554       4935       16473       4310       4712       763       7988       1732       6911       16024         1983/84       6759       16028       21891       5852       17768       4951       4935       791       8659       1847       7615       17726         1984/85       7941	1975/76	1757	5578	5839	1615	4853	-	2147		4195			3053	-	32286
1978/79       1335       7260       8528       1642       7633       1517       2177       587       5060       833       3439       9095         1979/80       2593       9933       10578       3197       8659       1786       2497       533       5868       1014       3995       9822         1980/81       3963       11774       13574       4365       11538       2916       3396       735       7300       1528       4929       11207         1981/82       6162       13887       15370       4767       13261       3322       3622       739       7881       1636       5326       13990         1982/83       5259       14113       20554       4935       16473       4310       4712       763       7988       1732       6911       16024         1983/84       6759       16028       21891       5852       17768       4951       4935       791       8659       1847       7615       17726         1984/85       7941       17956       22176       6041       18169       5896       5078       932       9867       2065       9221       20943         1985/86       8066<	1976/77	2058	5576	7895	1781	6541	1007	2397	642	4656	1221	3761	5378	585	46499
1979/80         2593         9933         10578         3197         8659         1786         2497         533         5868         1014         3995         9822           1980/81         3963         11774         13574         4365         11538         2916         3396         735         7300         1528         4929         11207           1981/82         6162         13887         15370         4767         13261         3322         3622         739         7881         1636         5326         13990           1982/83         5259         14113         20554         4935         16473         4310         4712         763         7988         1732         6911         16024           1983/84         6759         16028         21891         5852         17768         4951         4935         791         8659         1847         7615         17726           1984/85         7941         17956         22176         6041         18169         5896         5078         932         9867         2065         9221         20943           1985/86         8066         18823         23245         6678         18987         6737	1977/78	2433	7768	8406	2032	6649	1125	2269	475	4839	785	3169	7430	3110	47670
1980/81       3963       11774       13574       4365       11538       2916       3396       735       7300       1528       4929       11207         1981/82       6162       13887       15370       4767       13261       3322       3622       739       7881       1636       5326       13990         1982/83       5259       14113       20554       4935       16473       4310       4712       763       7988       1732       6911       16024         1983/84       6759       16028       21891       5852       17768       4951       4935       791       8659       1847       7615       17726         1984/85       7941       17956       22176       6041       18169       5896       5078       932       9867       2065       9221       20943         1985/86       8066       18823       23245       6678       18987       6737       5943       1021       10445       2573       9899       21376         1986/87       9578       19791       25786       7692       19938       7594       6809       1531       11068       2984       10750       22150         1987/88	1978/79	1335	7260	8528	1642	7633	1517	2177	587	5060	833	3439	9095	597	49903
1981/82         6162         13887         15370         4767         13261         3322         3622         739         7881         1636         5326         13990           1982/83         5259         14113         20554         4935         16473         4310         4712         763         7988         1732         6911         16024           1983/84         6759         16028         21891         5852         17768         4951         4935         791         8659         1847         7615         17726           1984/85         7941         17956         22176         6041         18169         5896         5078         932         9867         2065         9221         20943           1985/86         8066         18823         23245         6678         18987         6737         5943         1021         10445         2573         9899         21376           1986/87         9578         19791         25786         7692         19938         7594         6809         1531         11068         2984         10750         22150           1987/88         10931         22690         27435         8738         20895         8871	1979/80	2593	9933	10578	3197	8659	1786	2497	533	5868	1014	3995	9822	432	60907
1982/83       5259       14113       20554       4935       16473       4310       4712       763       7988       1732       6911       16024         1983/84       6759       16028       21891       5852       17768       4951       4935       791       8659       1847       7615       17726         1984/85       7941       17956       22176       6041       18169       5896       5078       932       9867       2065       9221       20943         1985/86       8066       18823       23245       6678       18987       6737       5943       1021       10445       2573       9899       21376         1986/87       9578       19791       25786       7692       19938       7594       6809       1531       11068       2984       10750       22150         1987/88       10931       22690       27435       8738       20895       8871       7713       1987       12138       3516       11479       26591         1988/89       11032       22894       27536       9097       20987       9055       8018       2060       12252       3610       11901       26700         1989/90	1980/81	3963	11774	13574	4365	11538	2916	3396	735	7300	1528	4929	11207	566	77791
1983/84       6759       16028       21891       5852       17768       4951       4935       791       8659       1847       7615       17726         1984/85       7941       17956       22176       6041       18169       5896       5078       932       9867       2065       9221       20943         1985/86       8066       18823       23245       6678       18987       6737       5943       1021       10445       2573       9899       21376         1986/87       9578       19791       25786       7692       19938       7594       6809       1531       11068       2984       10750       22150         1987/88       10931       22690       27435       8738       20895       8871       7713       1987       12138       3516       11479       26591         1988/89       11032       22894       27536       9097       20987       9055       8018       2060       12252       3610       11901       26700         1989/90       12438       22300       28156       9126       20435       10063       8747       3109       13790       4518       12819       28377	1981/82	6162	13887	15370	4767	13261	3322	3622	739	7881	1636	5326	13990	288	90751
1984/85       7941       17956       22176       6041       18169       5896       5078       932       9867       2065       9221       20943         1985/86       8066       18823       23245       6678       18987       6737       5943       1021       10445       2573       9899       21376         1986/87       9578       19791       25786       7692       19938       7594       6809       1531       11068       2984       10750       22150         1987/88       10931       22690       27435       8738       20895       8871       7713       1987       12138       3516       11479       26591         1988/89       11032       22894       27536       9097       20987       9055       8018       2060       12252       3610       11901       26700         1989/90       12438       22300       28156       9126       20435       10063       8747       3109       13790       4518       12819       28377	1982/83	5259	14113	20554	4935	16473	4310	4712	763	7988	1732	6911	16024	-	104774
1985/86       8066       18823       23245       6678       18987       6737       5943       1021       10445       2573       9899       21376         1986/87       9578       19791       25786       7692       19938       7594       6809       1531       11068       2984       10750       22150         1987/88       10931       22690       27435       8738       20895       8871       7713       1987       12138       3516       11479       26591         1988/89       11032       22894       27536       9097       20987       9055       8018       2060       12252       3610       11901       26700         1989/90       12438       22300       28156       9126       20435       10063       8747       3109       13790       4518       12819       28377	1983/84	6759	16028	21891	5852	17768	4951	4935	791	8659	1847	7615	17726	-	116822
1986/87     9578     19791     25786     7692     19938     7594     6809     1531     11068     2984     10750     22150       1987/88     10931     22690     27435     8738     20895     8871     7713     1987     12138     3516     11479     26591       1988/89     11032     22894     27536     9097     20987     9055     8018     2060     12252     3610     11901     26700       1989/90     12438     22300     28156     9126     20435     10063     8747     3109     13790     4518     12819     28377	1984/85	7941	17956	22176	6041	18169	5896	5078	932	9867	2065	9221	20943	-	126285
1987/88     10931     22690     27435     8738     20895     8871     7713     1987     12138     3516     11479     26591       1988/89     11032     22894     27536     9097     20987     9055     8018     2060     12252     3610     11901     26700       1989/90     12438     22300     28156     9126     20435     10063     8747     3109     13790     4518     12819     28377		8066		23245	6678	18987	6737	5943	1021	10445	2573	9899	21376	-	133788
1988/89     11032     22894     27536     9097     20987     9055     8018     2060     12252     3610     11901     26700       1989/90     12438     22300     28156     9126     20435     10063     8747     3109     13790     4518     12819     28377		9578	19791	25786		19938	7594	6809	1531	11068	2984	10750		-	146799
1988/89     11032     22894     27536     9097     20987     9055     8018     2060     12252     3610     11901     26700       1989/90     12438     22300     28156     9126     20435     10063     8747     3109     13790     4518     12819     28377	1987/88	10931	22690	27435	8738	20895	8871	7713	1987	12138	3516	11479		-	155092
1989/90 12438 22300 28156 9126 20435 10063 8747 3109 13790 4518 12819 28377				27536	9097	20987	9055	8018	2060	12252	3610	11901	26700	-	165142
00000	1989/90	12438	22300	28156	9126	20435	10063	8747	3109	13790	4518	12819	28377	-	176702
						30019	5559	1023	1561		2781			_	156565
1991/92 10556 <sup>21483</sup> 26704 8247 34489 6630 <sup>11089</sup> 1685 15139 4153 6630 23948			21483					11089						-	183502

1992/93	11612		29374	9071	37938	7293		1854	16653	4568	7293	26343	-	187828
1993/94	12674	23631	31012	9765	41504	7763	12198	2084	17118	5003	22080	24163	-	227999
1994/95	11790	22646	30544	10516	41823	7885	12170	2558	18304	5420	23767	25164	-	236261
1995/96	13210	22981	30133	11524	47728	9548	12765	2742	19962	5786	27108	28077	-	253121
1996/97	16305	21976	29940	11169	54307	9506	14925	2159	22067	4964	31904	34101	18261	277500
1997/98	20603	22477	30722	12389	57368	10784	20340	2318	22563	5450	35808	36946	21179	302569
1998/99	21610	25188	31413	12915	59200	11520	21251	2470	22817	5919	37439	38892	21580	313707
1999/2000	21890	26182	31720	13119	61115	11981	21750	2560	22980	5930	38150	39500	22130	320846
2000/2001	22250	27520	31818	13315	61994	12215	22251	2720	23182	5982	38970	41437	22598	326742
2001/2002	227102	27911	31890	13780	62850	12970	22350	2815	23520	6114	39150	42970	23470	333829
2002/2003	23115	28920	32060	13991	65470	13415	22670	2920	23690	6231	39473	43890	23713	340498
		29400					23130							

## Source: Compiled from;

- Adesina, S. (1988). The Development of Modern Education in Nigeria: Ibadan: Heineman Educational Books (Nig.) Ltd.,
   pp. 176-179.
- 2. CBN, Annual Report and Statement of Accounts, Various Issues- 1970s, 1980s, 1990s, 2004.
- 3. NUC, Annual Report, Various Issues- 1970s, 1980s, 1990s, 2004.
- 4. NUC (1983). Twenty years of University Education in Nigeria. Lagos: Academy Press Ltd., pp. 86-87.
- 5. Report of the Committee on the Sixth Form and University Entry in Nigeria (1988). Lagos:NUC.
- 6. Statistics of Education in Nigeria for the Years 1961-1970. Lagos: Federal Ministry of Information, 1973 Returns from the Universities.

The data from the table largely exhibit characteristics phenomena of distribution pattern of enrolment into faculties and various disciplines. From the table, from 1962 to 1965, there was no enrolment into Administration, Law and Environmental Design. The scenario proceeded with administration up to 1968 and Environmental Design up to 1976. Law was lumped up with Social Sciences from 1962/63 to 1964/65. Clearly, from 1962 to 1976, data on Veterinary Medicine was merged to Agriculture and Forestry. while that of Pharmacy and Nursing was merged to Medicine and Health Sciences. In 1964/65, Education was merged to Arts.

From the table, one can aptly deduce that the purported science and arts ratio of 60:40 is not tenable as the figures largely favoured arts and humanities at the chargrin of sciences. For instance, in comparing enrolment into Arts, Education and Medical and Health Sciences within the period under investigation, it can be dialectically inferred that the former had precedence over the later. Reasons are largely blamed on the colonial type university policy inherited, that heavily favours underdevelopment of human skills that ill-equipped the people for development; and hence, the emphasis on disciplines such as administration, arts and law that are mostly irrelevant in tackling the problems of the country's development. Whatever may be the case, both arts and sciences disciplines are supposed to be harnessed together to move the process of production forward; but science notwithstanding is the prime mover and constitutes the basis of technological foundation. Since the colonialist and subsequent government did not have any plan for the technological take-off of the country, science was de-emphasized and demystified in the

university system, and hence, the stress in Arts and Humanities. This premise was greeted by a consequence of deliberate policy, pursued vigorously by the colonialist; and even the hangover of these were extended and amplified by neo-colonial university policies. This precarious situation is fundamental in all universities to date as the science and arts ratio policies are still not favourably disposed in admission criteria. But this unevenness in the various disciplines as demonstrated in Nigerian universities under the period under investigation, merely reflect the unevenness of economic exploitation and the different rates at which different policies were earmarked to perpetuate the hegemony of underdevelopment by policy arbitrageurs in the Nigerian economy.

This fact unfolds the mystique of human resource development in Nigeria.

The lopsidedness in enrolment can also be premised on the inadequacies of qualified academics to teach such relevant courses domestically. Besides, there were not enough learning materials and teaching facilities to cope with the development of such skills. The relevant curricular to meet the needs of such courses were also absent. Clearer policies on the development of different segments of human resources to meet the country's manpower requirements were not properly put in place. Mass production of manpower was emphasized without looking at the priority needs of the economy. All these add up to explain some of the major reasons responsible for the lopsided enrolment into the various disciplines of arts and humanities on one hand and science and technology on the other.

A further dialectics of this informs one of a premise, that as one analyses the development of human resources at the university level in various disciplines, and

affirms such contribution in quantitative terms, the more it shrinks into insignificance; taking the particular instance of the direct contribution of Arts and Humanities to national development. It must be noted that there was an over emphasis on Arts and Humanities. A large number of universities enrolment are of these categories. If Nigeria ought to forge ahead, majority of indigenous university graduates have to acquire more scientific knowledge to equip them to take up challenges in technological development. Opportunities must therefore be availed to more science-oriented disciplines in our universities. For instance, there is evidence from table ix that Arts and Humanities based disciplines are on the increase. A deliberate policy must be made to address this imbalance away from being perpetuated to foster underdevelopment of certain much-needed disciplines. This is not enough; good educational facilities can also enhance the promotion of science-based disciplines, as the lack of it has also largely contributed to low enrolment in the disciplines.

Yet, a glance at the table still indicates by way of analysis that 3,681 students enrolled in various disciplines during the 1962/63 academic years, in the areas of Arts, Natural Sciences, Social Sciences, Agriculture and Forestry, Medicine and Engineering. From the data, it is glaring that Arts and Humanities had the lion share of the enrolment list. This confirms the analysis thus far on colonial and neo-colonial education. Even a further exposition from the data shows that the figure of 1962/63 rose to 104,774 in 1982/83 and moved steeply to 176,702 in 1989/90 with increased enrolment into additional disciplines that include Administration, Education, Law, Environmental Design, Veterinary Medicine and Pharmacy, in addition to the

disciplines that existed in the 1962/63 academic year. Admitting from this perspective, largely, of all the years, Arts and Humanities disciplines carry the chunk of the enrolment. This disparity can be deduced from faulty policy implementation and promotion of elitist interest at the expense of general public development goals that would benefit all and sundry. Adherences to policy guidelines can largely demystify manpower training of Arts and Humanities based disciplines.

Thus far, this analysis has exposed the inter-connection between colonial policy interest and neo-colonial policy interest. The inherent relationship between Arts and Humanities based disciplines and science based disciplines with their contributions to national development are exhumed and analyzed within the framework of facts espoused thus far. The thrust of the argument and the analysis lend on the mis-match between policy goals as enunciated in national plans and its implementation at the broader perspective.

# 4.6 THE UTILISATION OF HUMAN RESOURCES OF NIGERIAN UNIVERSITIES OUTPUT

In the light of Ashby et al (1960) and Harbison (1962, 1965, 1967, 1969), Nigeria required about 31,000 people in the senior category of high-level manpower in the ten-year period, 1960-70. They were of the opinion that of this number, 20,000 should possess University education or its equivalent. Based on this, they projected expected annual out-turn of graduates at 2,000 during the decade 1960-70.

This figure was to be broken down as follows in respect of disciplines, 8,500 graduates teachers; 5,000 engineers of all kinds; 1,200 agricultural, forestry and fishery specialists, 860 veterinarians; 2,000 doctors; 500 scientists; and 2,000 in other positions (National Manpower Board 1963, 1974, Lewis, 1973, Ojo, 1977, 1985, Borishade, 2003)). Despite the proliferation of output as expected above, prior to Ashby's Report of 1960, less than 300 first degree graduates were turned out of Nigerian institutions while about 800 were expected to graduate from overseas universities. Sadly, there was a shortage of about 1,000 graduates a year (Ojo, 1977, 1985, Adesola 2002, Balami, 2002).

A further insight into the projections raised above, informs one fact, that Harbison's projections of minimum high-level manpower targets proved grossly inaccurate in view of the poor statistical information his intuitions was based. A manpower survey by Ministry of Labour in 1961 apparently revealed that the estimates were too low relative to the needs of the Nigerian economy (Ojo, 1985). Yet another survey undertaken by the National Manpower Board (1963, 1974) revealed that by 1963, the actual employment figures in most circumstances, exceeded the targets set for 1970.

For instance, between 1953 and 1962, the University College, Ibadan was the only major source of Nigeria's locally trained high level skilled manpower. This college produced its first graduates totally 35 in 1953 and this figure rose to 241 graduates in 1962 (Harbison, 1970, 1973, Lewis, 1973, Ojo, 1985). Worthy of mention is the Zaria branch of the Nigeria college of Arts, Science and Technology which later formed the nucleus of the ABU, in 1962, graduated 27 students with 25

of them graduating in engineering (Ojo, 1985, Adesola, 2002). Closely to this, was the University of Nigeria, Nsukka, joined Ibadan and Zaria in producing the early first-degree graduates. A further exposition of this is made in the data availed in table 10 below.

**TABLE10:** Graduates Out-Turn Of Nigerian Universities By Disciplines 1963-64.

S/No		1963					1964				
	Faculty	University of Ibadan	University of Nigeria Nsukka (UNN)	Ahmadu Bello Univer- sity (ABU)	Total	UI	UNN	ABU	Tota		
1	Admin.	-	-	-	-	-	15	-	15		
2	Agriculture	24	-	-	24	28	8	-	36		
3	Arts	108	118	25	241	197	89	34	320		
4	Education	-	-	-	-	-	72	-	72		
5	Engineering	-	-	33	33	-	-	34	34		
6	Law	-	-	-	-	-	-	-	-		
7	Medicine	39	-	-	39	50	_	-	50		
8	Pure Science	61	5	-	66	99	15	-	114		
9	Social Science	40	27	-	67	54	52	-	106		
Total	All Faculties	272	150	58	480	428	251	68	747		

Source: Compiled from;

Federal Ministry of Education. Statistics of Education in Nigeria, 1963, 1964. Lagos: Federal Ministry of Education.

Table 10 indicates that the three institutions made a turn out of 480 graduates in 1963 and 747 graduates in 1964. Their major area of specialization was in Arts, which had 50 and 43 percent output in 1963 and 1964 respectively. It should be stressed that within the early university education in Nigeria, Ibadan, Zaria and Nsukka were the only universities that produced graduates up to 1964. Others followed in 1965. To make this analysis more explicit, data on all Nigerian universities on yearly output of graduates with first degree 1965-2003 is availed herewith:

TABLE 11: Yearly Output of First Degree Graduates in all Nigerian
Universities 1965-2003

Faculty	Admin	Agric Fores & Vet Sci	Arts	Educ	Eng.& EnvDe s-ign	Law	Med.	PureSci	SocSc i	Pharm	Total all Facu
1965	100	89	306	120	50	44	44	154	182	-	1089
1966	137	77	413	104	74	73	52	198	20618	18	1352
1967	73	57	325	46	60	57	77	158	146	35	1034
1968	80	67	290	37	64	61	74	151	120	16	960
1969	89	107	271	47	123	70	80	185	176	22	1370
1970	99	156	443	106	173	81	78	268	293	29	1726
1971	187	181	625	196	235	145	98	262	435	57	2621
1972	191	289	648	324	307	175	178	528	445	80	3165
1973	153	246	576	367	307	171	238	470	550	126	3204
1974	158	279	577	428	333	183	206	619	568	9	3444
1975	178	310	671	450	362	291	316	1638	1587	105	5908
1976	297	726	692	461	365	395	723	1652	1591	115	7017
1977	299	831	715	650	378	415	865	1692	1670	121	7636
1978	310	840	810	769	381	550	977	1695	1699	124	815
1979	350	1335	950	890	367	549	1268	1688	1840	319	9556
1980	340	1350	992	1965	568	870	1315	1715	1961	510	1158
1981	345	1351	1982	2511	791	1115	1795	2115	2169	691	1482
1982	459	1370	2560	2973	1015	1119	1891	2675	2891	711	1766
1983	570	1398	2590	3358	1235	2110	2115	3715	3151	952	2115
1984	600	1450	2950	3789	1650	2516	2192	4116	3972	979	2421
1985	815	1515	3150	4110	1989	2992	2291	4250	4511	992	2661
1986	1390	1570	3350	4519	2250	3165	2510	4650	4892	1115	2941
1987	1325	2598	3631	4919	2560	3712	2600	4811	5251	1311	3271
1988	1319	4615	3979	5611	3119	4115	2675	5111	5711	1321	3757
1989	1415	4620	4511	5910	3611	4360	3110	5611	6311	1916	4097
1990	1389	4635	5357	6997	4118	4617	3650	6719	6592	1712	4580
1991	1450	4639	5380	6980	4219	4710	3680	6811	6834	1813	4651
1992	1898	808	2416	4215	1397	330	718	2047	3087	174	1920
1993	1250	834	2431	4230	1398	321	722	2053	3021	295	1655
1994	1483	1997	5818	8962	2847	867	1422	5271	5243	353	3457
1995	2118	2211	6637	10887	3845	1314	1851	6041	5843	374	4112
1996	2607	2268	6396	9995	4091	1585	2142	6747	6781	364	4297

1997	2170	2271	6438	10531	4251	1659	2249	6952	6921	349	43791
1998	328	186	637	591	814	142	502	692	1433	312	5325
1999	2458	2130	6530	10540	4259	1662	2270	6961	6925	380	44115
2000	2471	2320	6317	10551	4272	1678	2281	6988	6957	382	44217
2001	2900	2390	6522	11150	4310	1713	2418	7153	7113	415	46084
2002	2913	2411	6913	12101	4397	1800	2520	7350	7120	419	47944
2003	3250	2950	7100	12213	4432	1810	2531	7353	7125	423	49187
Faculty Total	12668	32026	43464	51657	26485	33951	31418	57046	58920	12090	360725
TOTAL	3.5	8.8	12.4	14.3	7.3	9.4	8.7	15.8	16.2	3.6	100
Faculty %											

## **Source:** Compiled from;

- 1. CBN, Annual Report and Statement of Accounts, Various Issues-1970s, 1980s, 1990s, 2004.
- Federal Ministry of Education, Statistics of Education in Nigeria,
   Various Issues- 1970s, 1980s, 1990s, 2004.
- 3. NUC, Annual Review, Various Issues. 1970s, 1980s, 1990s, 2004.

Going by table11, graduates out-turn in Nigerian universities rose from 1,089 in 1965 to 45,806 in 1990. This increase has far-reaching implications when 1,089 outputs in 1965 are compared to 45,806 in 1990. The percentage increase stood at 4206.24% over the period. From the table, the output of the universities indicated some bias towards the Arts and Humanities. Well over 55.8% of the output were from the Faculties of Administration, Arts, Education, Law and Social Sciences with only 44.2% from the Faculties of Agriculture, Engineering, Medicine, Pure Science and Pharmacy. This spread in the output between scientific and non-scientific disciplines appeals to the reverse of policy recommendations by various commissions and government objectives on the output of graduates.

For instance, even in the African perspective, the Addis Ababa Conference of African States of 1961, recommended that 60% of all graduates from African Universities should specialize in disciplines that are of scientific in nature, character and orientation as the remaining 40% were earmarked for humanities with 31% and social science with 9%. This perspective has largely been abused as even glaring in this data and which has seen to the endemic problems of underdevelopment of Nigerian economies. And even the saturation of labour market with many liberal artists and humanists. With the less industrial set of Nigerian economy, most of universities output are not absorbed in the industries and neither in the public and private sectors. Even where they are absorbed, the enabling environment to utilize such skills is hardly prevalent. There is increasing turn over of university graduates without corresponding industries and job markets to absorb them into their production process. The industries are also operating under capacity utilization;

that has been widely acclaimed due to its inability to expand and employ critical skills to man and expand further. A scenario such as this adversely affects the utilization of the output of the universities system. To make this functional, policies of critical manpower development must match available jobs, industrial expansion to skills available and to be developed. There has been absence of job matching to manpower development in the economy. Doing this will imply making critical skills developed to be utilized which is the center of the transformation process we hope to attain in Nigerian economy.

However, the National Development Plans and the National Manpower Board made more clarifications on this ratio of science and non-science based disciplines; as they affirmed that the desirable ratio of enrolment in science and technology to Arts and the Humanities has to be kept under regular review by the authorities. The Manpower Board (1963) thought that it is perhaps more rational for a fixed 50:50 ratios for Science and Arts and humanities based disciplines. Yet, it is more acceptable to adopt the 60:40 ratios in the face of acute shortages indicated in the managerial and administrative categories of high level manpower (Second National Development Plans, 1970:316). A firm policy framework has been established long before now in support of 60:40 ratios between the output of graduates in the scientific and non-scientific disciplines. Perhaps the only objective pointer to the attainment of this, is the fact that within the period under investigation, there was a trend towards an increase in the proportions of the output of graduates in pure science and engineering whereas the proportion of Arts and Humanities graduates which ought to decline according to the policy, rather witnessed larger increase

without matching them to capacity utilization of Nigerian productive sectors. This manifested in the 55.8% in favour of Arts as science had only 44.2%. There is a disparity of 11.6% in favour of Arts. The application of the policy has remained unsolved in addressing the needs of the education sector and that of the economy.

Inherent in this dialectics is the output of post-graduate programmes that its manifestations are glaring and loosely stressed as the focus of this thesis lends heavily to first-degree graduates output. But this basic principle of development must be understood, that highly developed skills lend on the foundation of the first degree that is an essential ingredient in spurring further skill development in human potentials. The first degree an individual acquires, determines largely the kind of manpower the population hopes to get in an economy.

However, the National policy on Education (1989) affirms that universities and other levels of the education system should pay greater attention to the development of scientific orientation. To this end, the ratio of science to liberal Arts students and consequently graduates was fixed at 60:40 as echoed in the Third National Development plan period. The policy dryly emphasized that there is no stringent rigidities in concording to this, as the ratio will continue to be reviewed in line with the manpower needs of Nigeria.

The lack of adoption of this ratio to the manifestations of labour wastage in many economies and have made the human resource development (Lewis, 1982, Kapur, 1972, Ojo, 1985, Kuwa 1993, Ncube 1999, Yesufu 2000, Adamu 2002, Meier and Rauch 2000, Jhingan 2003) at the university level unresponsive to the needs of the economy. Indeed, the development of technology and

expansion of industries rest heavily on the utilization of critical skills. And this, determines the rate at which a country can progress.

Indeed, it can be deduced that this need for appropriate utilization of university products gave birth to the 1984-nurtured rationalization of university education. This idea was to provide the basis for removing duplication of similar courses within and between universities and provide modalities for phasing out where necessary programmes that are neither attractive to students, nor to the Nigerian economy. Perceiving from this process, university education and its output appeal to the creation of gainful employment, with the expansion of industries to create labour market to meet the demands of university graduates. This perhaps informs the scaling down enrolments to produce output at a balance of 60:40 in favour of science-based courses for the anticipated absorption of such skills to transform the Nigerian economy. And yet, this has not been predicable as the data indicates 44.2:55.8 ratios in favour of Arts and Humanities as against science.

A possible premise of utilizing university output appropriately in the labour market from the dialectics thus far is to overhaul the traditional disciplines along their objectives towards meeting work oriented programmes of self-reliance and self-generated employment. University academic programmes should be tailored to respond to specific and peculiar needs of our industries.

The argument still rests heavily with the conception of knowledge and science, which became more eminence in utilizing university output. This affirms one fact that equates knowledge and science for the acquisition of information for the prediction and control of behaviour as well as ossifying simple technical

operations in laboratories and industry. To perpetuate this, knowledge and science are reduced to free acquisition of technical skills that could ensure and guarantee not only a better control of society but also for the production of goods and services. This makes universities today not as institutions concerned with encouraging neither the advancement of learning in all its branches nor the acquisition of a higher and liberal education; but affirms at vocational institutions that spoon-feed industries and bureaucracies.

This dialectics is sharply appreciated by the perception of Bernal (1965) in the political economy of science and society, which informs the dismissal of a postcolony in the structure of human resource development. The euphoria of this is that science was not addressed in relation to society and was less diffused and emphasized by most societies; which is adduced to the fundamental role of imperialism in the under-development of science in post colonial societies and could not just be dispensed at ease. This role of imperialists tantamount to accepting the roles and objectives of social science disciplines as enunciated in the minimum academic standards (NUC, 1989), which crave for improving students understanding of the Nigerian society; developing their critical judgment, raising their level of creativity and self-reliance; creating an atmosphere for desirable behavioural changes in consonance with national objective such as hard work, priority, commitment, patriotism and disciplines; so that the end products would serve as bureaucrats, control agents and defenders of these national objectives. This wholesome application of standards and utilization of output was also

promoted in the goals of education in a faculty of education as stated by NUC (1989:1) as follows:

- i) respect for the work and dignity of the individual;
- ii) faith in man's ability to make rational decisions;
- iii) moral and spiritual values in inter-personal and human relations;
- iv) respect for the dignity and promotion of the emotional, physical and psychological health of all children;
- v) shared responsibility for the common good of society;
- vi) the inculcation of national consciousness and national unity;
- vii) the inculcation of the right type of values and attitudes for the survival of the individual and the Nigerian society;
- viii) the training of the mind in the understanding of the world around; and
- ix) the acquisition of appropriate skills, abilities and competence both mental and physical as equipment for the individual to live in and contribute to the development of his society.

All these goals of university faculties were to re-enforce the use of human resources of university output given by the fact that the education so acquired would meet up the demand of the Nigerian industries for the labour market and that of the needs of the society. From this analysis, it is clear that the manpower we produced even at university level, not only in arts and humanities, but other disciplines lumped up together, still holds more premise with its mechanistic robot outfit; and which structurally defies the ethics of development.

Hence, to even talk about the emphasis in science to reflect the utilization of labour and its absorptive capacity in the population, regresses with poverty of logic in the analysis of utilizing skills of the labour of university products. One is therefore, prone to ask the question whether we are merely producing scientists for the sake of it as an educational venture or we are involved in a strategy of human resources development with its broader goals of economic and political modernization. Indeed one presumes that we should be aiming at encompassing economic, educational, cultural, social and political development geared towards contributing positively in building national identity and integrity. Therefore, the approved 60:40 ratio of training scientists should constitute the basis for promoting institutional framework for transforming the Nigerian technological base; and this ought to be encouraged in all fronts. This is because, science disciplines are the bedrock of technological development and this guarantees in the long run, the ultimate basis for national growth and maturity with attendant contribution to human welfare, health and progress in all spheres of the society's development efforts.

Thus far, we may infer that human resources development with its broader goals of social, political and economic transformation must involve broad strategy of training of scientists, amidst other disciplines. This premise ought to emphasize the fact that training in science, need to be thorough and of reliance to guarantee graduates employment opportunities; and an enabling environment that could afford them to be creative, inventive, innovative and seek self-employment. The thrust of this dialectics does not necessarily negates the role of other non-science disciplines in promoting nation building but the argument is that one, the science disciplines,

supersedes in terms of setting the pace of development as this constitutes the main base, and holds more promise for technological take-off of Nigeria. Indeed, even the human agent of the non-scientific discipline is required in harnessing all other resource endowments to facilitate good policies and decisions taking before any scientific invention and innovation could take place and perpetuated. Therefore, both scientific and liberal Arts disciplines must be developed at ratios that can guarantee the exploitation of the right human potentials needed to transform the Nigerian economy.

#### 4.7 **SUMMARY**

An insight into the analysis of University funding and the development of high level skilled manpower tend to establish a linkage between the two.

Fundamental in the analysis is the philosophy of University education that is geared towards expanding the frontiers of knowledge and the development of appropriate skills to cope with the country's development. However, the philosophy has not been properly articulated to meet the country's development objective and needs.

Far in the analysis in the development of University education, is the objective of pursuing teaching, research and public service activities that are all antidote to knowledge and skills development. Tracing the root of this development from the long nursed dream and concurrent growth of University education, the funding has been very low and this has affected the development of University system. At the inception of University education, there were limited courses and low

enrolment, but gradually this increased with real output and later eroded with nominal output.

A critical assessment of Elliot, Asquith and Ashby Commissions along with NUC, tend to portray the University system as formidable; and that, it could move the country away from its present doldrums, and yet, this has achieved very little in that direction.

A contrast from the patterns of investment reveal some lopsidedness and shortfall in both capital and recurrent expenditure that had major implication for the output of the University system. Indeed, the nature and structure of human resources development in the Nigerian Universities tend to favour arts and humanities rather than sciences and technological disciplines. This phenomenon has affected the general pattern of labour utilization and the development of necessary economic infrastructure for Nigeria's development.

#### **CHAPTER FIVE**

### DATA ANALYSES, INTERPRETATION AND DISCUSSION

#### 5.1 DATA PRESENTATION

Human resources development and planning has a multi-dimensional approach to its treatment and this encapsulates all areas of investment in human development. From the analysis made in chapters one to four, the data presented herewith provided a framework to probe into a deeper understanding of the dynamics of investment in education and the transformation of Nigerian economy.

We consider data on gross domestic product, the capital expenditure on education, recurrent expenditure on education, gross physical capital formation, labour force employed and high level manpower produced at the university between 1970 – 2003.

The data is presented below in table 12.

TABLE 12: Data on GDP, Education Expenditure, Gross Capital Formation, Employed Labour Force and Universities Output (1970-2003).

YEAR	GDP	CEED	REED	GCF	LFE	HLMU
1970	5205.1	3.0	3.2	3413.1	624860	1726
1971	6570.7	40.0	44.0	4219.8	669732	2621
1972	7208.3	21.0	7.0	4320.7	717827	3165
1973	10990.7	16.0	10.0	6131.8	769375	3204
1974	18298.3	134.0	62.0	7289.7	824625	3444
1975	20957.0	631.0	219.0	5019.8	883842	5908
1976	26656.3	529.0	522.0	8107.3	9473113	7017
1977	31520.3	500.0	238.6	9420.6	1015339	7636
1978	24540.1	301.4	268.2	9386.3	1083367	8155
1979	41947.7	533.2	368.9	9094.5	1155953	9556
1980	49632.3	952.6	597.2	10841.2	1233401	11586
1981	50456.1	440.9	543.7	12215.0	1098808	14829
1982	51653.4	488.4	646.7	10922.0	1040571	17664
1983	56312.9	346.6	620.8	8135.0	985421	21154
1984	62414.2	144.9	716.3	5417.0	933193	24214
1985	70633.2	180.7	669.5	5573.0	883734	26615
1986	71859.6	442.0	652.8	7323.0	1083705	29411
1987	108183.0	139.1	574.4	10661.1	1172569	32718
1988	142618.0	281.8	802.3	12383.7	1268719	37576
1989	220200.0	221.9	1719.9	18414.1	1372754	40975
1990	271908.0	331.7	1962.6	30626.8	1485320	45806
1991	316670.0	289.1	1265.1	35423.9	1607116	46516
1992	536305.1	384.1	1676.3	58640.3	1738899	19204
1993	688136.1	1563.0	6436.1	80948.1	1881489	16555
1994	904004.7	2405.7	7878.1	85021.9	2035772	34577
1995	1934831.0	3307.4	9421.3	114476.3	2202705	41121
1996	2703809.0	3215.8	12136.0	172105.7	2383327	42976
1997	2801972.6	3808.0	12136.0	205553.2	2578759	43791
1998	2721178.4	12793.0	13928.3	192984.4	2790217	5325
1999	3313563.1	85516.6	23047.2	175735.8	3019015	44115
2000	4727522.6	23342.6	44225.5	268894.5	3266574	42217
2001	5374334.8	19860.0	39884.6	371897.9	3534433	46084
2002	7232243.6	9215.0	100240.2	438114.9	3824257	47944
2003	6061700.0	14680.0	64755.9	429230.0	4137846	49187

**Source**: Compiled from;

- 1. CBN (2004). Statistical Bulletin, Vol. 15 Dec., pp. 216-227.
- 2. Federal Ministry of Education (2004). Education Sector Status Report,

Abuja: UNESCO/Japan Trust Fund Project 552/H01R/1010, pp. 94-235.

#### 5.2 **MODEL SPECIFICATION**

Going by the theoretical framework and analyses so far in chapters one through four, it reveals a strong linkage between investment in human resources and the transformation of the Nigerian economy. This exposition is not enough to draw our conclusions of the findings of this study; Since, it was based on theoretical analysis and inferred largely on dialectical process and the use of simple percentages for the data presented.

In order to strengthen our analysis and findings, we apply a statistical tool of econometrics based on augmented Solow model – using Cointegration analysis and Granger causality test. The adoption of Cointegration analysis is to establish that other data on dependent and explanatory variables are characteristics of the data for determining the relationship under investigation. The Cointegrated relationship form the basis of the time series counterpart to regression relationship in the values expressed in terms of short and long run trends for the parameters under study. Granger causality test is used to infer on assessing whether single equation estimates of the equilibrium errors appear to be stationary.

Moreover, our primary area of concern in this research (employed labour force and High level manpower at the Universities), is correlated with Capital and Recurrent expenditure in education as they relate to Gross capital formation and growth in real gross domestic product. This trend is necessary because, expenditure in education is very crucial in determining the level of skills employed in the production process. Professional skills, sub-professionals and semi – skilled workers developed at the Universities, Colleges of Education and Polytechnics, and

Secondary and Primary Schools are all essential components of educational expenditure. This has bearing on increasing the output of the Nigerian economy. Consequently, this lead to increase in physical capital formation and growth in RGDP. A number of other macroeconomic variables do affect the growth in RGDP too.

Indeed, our model is specified on the basis of this stated relation, that is, real gross domestic product all depend on the explanatory variables of capital and recurrent expenditure on education, Gross capital formation, labour force employed and high level manpower produced at the universities. A simple augmented Solow model equation is developed to validate this relationship in Nigerian economy.

We specify this model as follow

**RGDP** = 
$$\alpha_0$$
 +  $\alpha_1$  CEED +  $\alpha_2$  REED +  $\alpha_3$  GCF +  $\alpha_4$  LFE +  $\alpha_5$  HLMU + U

Where =  $\alpha_1$ ,  $\alpha_2$ ,  $\alpha_3$ ,  $\alpha_4$ ,  $\alpha_5 > 0$  are our apriori expectations.

U = the error term.

RGDP = Real gross domestic product

CEED = Capital expenditure on education

REED = Recurrent expenditure on education

GCF = Gross capital formation

LFE = Labour force employed

HLMU = High level manpower produced at Universities.

### 5.3 MODEL ESTIMATION AND DISCUSSION OF RESULTS

We proceed with empirical search with respect to the impact of investment in human resources on the transformation of Nigerian economy, between 1970 – 2003 using Cointegration and Granger causality test to determine the relationship between human resource development and economic transformation. We applied the percentage growth rate of all the parameters to conduct unit root tests to determine the stationarity of the variables and in search of Cointegrating vectors, using Augmented Dickey-Fuller (ADF) test. The results of the unit root tests are presented in table 13 as follows:

**TABLE 13: Results of Unit Root Tests.** 

Variables	ADF Lags	ADF-test Statistics with constant but no linear trend		Order of Integration
RDGP	12	-4.2825	-1.7829	3
CEED	12	-2.7349	-2.4997	3
REED	12	-1.7030	-1.6087	3
GCF	12	-0.8065	-2.6032	3
LFE	12	-0.6430	-4.4630	3
HLMU	12	0.5910	0.4199	3

Source: Computed

From the above table, the results reveal that all the variables are stationary in their third differences, implying that these variables are Cointegrated. Therefore, the ADF test statistic of each is greater in absolute value than the 95 percent critical value. These parameters can easily affect the long run determination of Nigeria's real GDP and subsequently its economic transformation.

From the unit root test, using Bierens' Cointegration test, all our variables were unit root with drift. As a result of this, the number of Cointegration vectors was found to be zero. Cointegration test was run by the programme by making R to be equal to 1 and on this basis, we arrive at the following standardized vectors as follow.

**TABLE 14: Cointegrating Vectors.** 

Variables	Standardized Vectors
Ln RGDP	0.3373
Ln CEED	0.7418
Ln REED	-0.1080
Ln GCF	0.1121
Ln LFE	0.8592
Ln HLMU	1.0000

Source: Computed.

From table 14, the result shows that the components of each of our explanatory variables have demonstrated positive relationship with RGDP except for REED. High-level manpower, outp0ut of the university (HLMU) has been revealed to have the highest level of contribution to RGDP and by implication has significant impact on the transformation process of the economy.

Indeed, given that real gross domestic product, capital expenditure on education, recurrent capital expenditure on education, gross capital formation, labour force employed and high-level manpower produced at universities are stationary, we adopted the Johansen procedure for multivariate Cointegration test which regards all the variables as endogenous. The test was conducted on the premise of linear deterministic trend in the data series. The result is presented in table 15 below.

**TABLE 15: Cointegration Test.** 

Но	Ĕigen Value	Likelihood Ratio (Trace Test)	5 Percent ratio	Hypothesized number of CE(s)
r< = 1	26.4064	39.3500	0.34490	At most 1
r < = 2	11.0245	74.4150	0.1812	At most 1
r < = 3	40.3408	31.5697	0.55580	At most 1
r < = 4	19.7374	55.9484	2.1812	At most 1
r < = 5	41.6716	74.0518	5.4782	At most 1
r < = 6	34.9055	56.2318	71.2924	At most 1

SOURCE: computed.

ECM = 0.0680R2 = 0.95DW = 1.84F. Value = 129.16 From table 15, the result of the Cointegration test shows that there are at least six Cointegrating equations (r = 6). Premised on the likelihood ratio (Trace) test, the result of Cointegration vector based on time series, made the equations to be estimated in third differences of the variables with the highest order lags being 3.

The long-run adjustment dynamics is specified by the error correction mechanism (ECM). The auto-regressive distributed lag technique was used with the highest order of lags being 3. The likelihood ratio (Trace test) was conducted using the Eigen value as shown in table 15. The values (r = 6) used the criterion of maximum R-bar squared. The result from the Eigen values from the error correction mechanism show that the coefficient of determination ( $R^2$ ) is 0.95, which indicates that about 80 percent of the variations in real GDP growth rate is as a result of the five variables taken collectively. All the variables are positively responsive to the variations and are stationery to confirm the ECM that these variables are cointegrated.

Thus, the coefficient of ECM (0.0680) is positively signed at 5 percent level of significance. Therefore, ECM is able to correct any deviations from the long-run equilibrium relationship between real GDP growth rate and the explanatory variables. The Eigen value and Trace test results at 5 percent level of significance, which are positively included and validated the hypothesis that investment in human resources does contribute to the transformation of the Nigerian Economy.

From the regression results obtained from our estimated equation, it shows that the model is quite predictable and the explanatory variables account for 95 percent of the variations real GDP. This is judged by the value of the Coefficient

of determination (R<sup>2</sup>). The results indicate no serial auto-correlation problems as evidenced in the value of Durbin-Watson statistics (1.84).

The estimated equation based on ordinary least square result is presented in table 16 below.

TABLE 16: Estimated results of the impact of human resources on the transformation of Nigerian economy

	Deper	ndent Variable	- RGDP	
Explanatory	Coefficients	T. Value	P. Value	Other Results
variables				(SE)
Constant	4.7525	1.241	0.2147	3.83107
Ln CEED	0.0874	0.562	0.5739	0.1554
Ln REED	0.4452	2.389	0.0169	0.2073
Ln GCF	0.8225	5.894	0.0	0.1395
Ln LFE	0.2757	1.690	0.2429	0.2358
Ln HLMU	0.0073	0.037	0.9707	0.1998

Source: Computed.

ECM = 0.0680

 $R^2 = 0.95$ 

Adjusted  $R^2 = 0.95$ 

D.W. Stat = 1.84

F Statistic 129.16

SE of regression 0

It is glaring from the table that the signs of the Coefficients of all the estimated regressors are consistent with our apriori expectations of having the predictive positive signs. Indeed, almost all the explanatory variables are statistically significant at 5 percent level.

Our variable of interest in this thesis, is human resources. The result shows the existence of a positive relationship between the transformation of Nigerian economy and investment in human resources. It is a clear manifestation that education is the prime mover of economic development and growth. Moreover, the t-values for CEED, (0.562), REED (2.389), GCF (5.894), LFE (1.690) and HLMU (0.037) have further validated the results at 5 percent level of significance. The F – value of 129.16 at 5 percent level further suggests a strong linear relationship between the regressors and regressand. Thus, the results clearly validate the thesis that investment in human resources has significant impact in the transformation of the Nigerian economy.

We proceed further to explore the relationship between economic transformation and the labour force employed. Certainly, there is existence of some causality between these two parameters. Indeed, whereas economic transformation is expected to generate more employed labour force, growth in employed labour force may promote greater economic transformation. To establish this causality, we conducted the analysis using data for 1970 – 2003. Granger causality test was conducted and test was conclusive at 5 percent level of significance. The results alternated between bi-causality, no causality and monocausality which relied on the log length allowed. The results show an association

between economic transformation and employed labour force. The result is presented in table 17 below

TABLE 17: Results of Granger Causality Test (One Lag)

Null hypothesis	Observation	F-Statistics	P-Value
RGDP does not	34	129.16	0.9000
cause LFE			
LFE does not	34	90.5	0.7222
cause RDGP			

Source: Computed.

To further establish this causality we went on to estimate a vector autoregression (VAR) model of economic growth and employed labour force. The results are presented on table 18.

**TABLE 18: Vector Autoregression Estimates.** 

	LFE	RGDP
LFE	0.4792	- 0.5136
	(3.7267)	(0.6342)
	(-0.2459)	(0.6804)
RGDP	- 0.8176	0.5045
	(7.6617)	(- 4.5014)
	(- 0.0551)	(0.0353)
	- 0.5136	0.5045
	0.0680	-4.4483
R2	0.4045	0.1239
Adj R2	0.4046	0.1241
Log-Likehood	-1.7829	-1.7831
Akaike AK	-1.2489	-1.2492
Schwarz SBC	-0.9793	-0.9795
Hannon – Q HQC	-1.1568	-1.1571

Source: Computed.

The VAR Coefficients confirms the variation in RGDP around its long run trend in terms of the labour force employed in the productive sectors of the economy. The results reveal an elaborate long run variation that justifies the foundation of the application of the Engel and Granger approach in the analysis so far. And since our single equation estimates of our results were stationary, Granger causality test has been found reasonable as internally consistent with these variables that are Cointegrated.

Going by our analysis so far, the results show that investment in human resources in the form of education and training at all levels of education can lead to economic transformation and growth in view of its impact on the productivity of the employed labour force. The impact will be felt more if the right type of education and training are given to promote the development of human resources of the Nigerian economy. This can be possible through the utilization of the appropriate skills, knowledge and capabilities of people in the productive capacity of the Nigerian economy, which can sustain the attainment of economic transformation.

Increased access by individuals and private sectors to investment in human capital as evidenced by private universities, secondary and primary schools in addition to public investments in Nigeria will ultimately lead to creating a sustained macroeconomic policies and stability for the country.

More resources through increased expenditure on social and economic infrastructure, will enhance efficiency of labour and increased productivity of the employed labour force which has externalities for transforming the economy. The results also confirm one fact, that high level manpower produced at the universities

have high advantage in terms of promoting higher levels of productivity and increased income and output that enhance economic transformation. An educated highly skilled and knowledgeable work force can act as agent of technological change. Since technological change depends on skills, knowledge and capabilities of workers, this can be gotten from educated manpower.

Evidences are abound with the government efforts especially after the colonial era, there are expansions of educational institutions, infrastructure, and programmes to address the yearning gaps between human capital and economic development. Despite this, both capital and recurrent expenditure on education have had down and upward fluctuations with short falls in meeting up the needs of the sector. As this scenario persist, the sector is unable to fulfill its obligation in terms of developing its required manpower at all levels to service the economy. Indeed, more financial resources that are needed for this sector, is to produce the needed manpower mix such as highly skilled, manpower as output of university subprofessionals as output of colleges of education and polytechnics, and semi-skilled as product of secondary and primary school. The absence of this, will create a mismatch between the manpower needs of the country and those produced and their absorption into life procedure life of the economy.

Therefore, the rising graduate unemployment is a clear reflection of the in sensitivity of human resource developers to the needs of the labour market and the economy. There is high labour (skilled and unskilled) wastage in the country as a result of skill gaps that continued to affect job creation and low industrial absorptive capacity of the graduate output from these institutions. Accesses to schooling have

also affected the output of the educational sector. As many qualified persons are unable to access education because of admission policies and also attributory to poor economic background of the family an individual comes from

Thus, the decline in the quality of education along with other factors highlighted so far can create low marginal returns to education as this has allowed room for high unemployment to exist amidst poor absorption of its graduates in the industries. The quality ought to be improved for investment in cognitive and psychomotor skills have to be promoted to create needed externalities for Nigeria's economic transformation.

However, the result of this study shows that investment in human resources have a positive impact on Nigeria economic transformation and growth. This impact is strong and statistically significant as revealed in this study.

### **CHAPTER SIX**

# SUMMARY OF FINDINGS, POLICY IMPLICATIONS AND CONCLUSION

### 6.1. INTRODUCTION

This thesis centres on investment in human resources for the transformation of Nigerian economy with focus on the Nigerian Universities. It's scope-covered issues relating to overall human resources development within the ambit of education; and focused its main thrust on high-level manpower developed within the University system.

The study sprang from 1970 to 2003. This period was considered long enough to observe the trend elements in changes in the level of output in the system. For a twenty four years study period, most variables of interest would have undergone changes with the socio-economic dynamics of the system; and particularly the dynamics of human resource development that permeates specialization through new and newer skills acquisition that have direct externalities on economic transformation of Nigerian economy.

In this chapter, summary of major findings from the research are made alongside policy implication and options, contribution to knowledge and conclusion.

#### 6.2 SUMMARY OF MAJOR FINDINGS

It is not plausible to make abysmal deduction without inferring on the substance of this dissertation. An insight into the thesis and the analysis made thus far, revealed a number of findings; that exposed the interconnections between the

material science of human resources development and the transformation of the Nigerian economy.

Fundamentally, it is revealed from the analysis that investment in education will enhance the development of requisite manpower; which in effect has the impetus and externalities of transforming the Nigerian economy. This is based on the fact that if adequate investment is made in education, appropriate human capital will be developed for appropriate utilization in the development process in Nigeria. Certainly, this has not been the case as revealed in this study as there has been inadequate resource allocation to all levels of education.

This starkling revelation affirms our findings that the issue was not just funding but lack of basic functional policy and interest in the development of appropriate human capital that can transform the Nigerian economy to an appreciation condition. Successive governments and policies have not placed much premium on the values of education and the development of human capital for Nigeria's transformation; and as such did not bother to provide adequate funding to run the system. The much hues and cries of no funds as exposed in this analysis so far were mere fallacies on the part of government, as this was rather due to its lack of much interest in human resources development, which informs its low investment in the sector.

Funding did not stop at general education alone, it is also revealed from the analysis that there is gross under funding of university education that is responsible for high-level manpower, which is infacilitating relevant to the process of transforming the Nigerian economy. This scenario has far reaching implications for

the transformation process of the Nigerian economy, more especially in the areas of creating opportunities and enabling environment for innovations, inventiveness and productivity that will all promote science and technology; a bedrock and springboard for spear heading industrialization in Nigeria. Affirming from the findings, it is only through adequate investment in human capital that a good industrial policy for development can be appreciated and materialized. The entire prospects of production process, hinge on the human capital phenomenon for the development of scientific and technical knowledge and skills that serve as requirement for transforming the Nigerian economy. All these have not been adequately tackled in view of the under investment and lack of sufficient interest and attention given to the development of such critical skills by the government. In essence, the formation and utilization of human capital in the development process in Nigeria during the period under study has been loosely attended to.

From the revelations in this study, there were attempts by various development efforts to integrate human resources in the development of the abundant national resources towards transforming the Nigerian economy. This is premised on the fact that human capital has been revealed as the most critical and decisive instrument for effecting change and championing the course of development as all other factors and resource endowments can be explored, tapped, developed and planned for the purposes of advancing the economy through it. All the development plans from 1962 to the present time did stress this but with loose ends as revealed in this thesis. This is because, even where human capital was emphasized, the required attention was not given to bridge the acute supply of

critical skills along with the demand. Therefore, all the development plans had problems of execution due to dearth of adequately trained and developed critical manpower in professional, technological and managerial disciplines.

Indeed, human skills do contribute to the production of all workers and this cut across all levels of skills development as revealed in this thesis, that once the intellectual knowledge and Skills of the population are raised, through quality education and training, it can easily stimulate the development of essential technologies that can enhance Nigeria's economic progress. Far from this, is the raison d'etre for the amplification of the place of human resources in the transformation of the Nigerian economy.

The findings more so, revealed absence of comprehensive national policy on human resources development and which has engendered inappropriate placement of skills that had consequences for the utilization of critical skills. What existed were the isolated training and human resources development policies, which were formulated and established only to meet incidental institutional, sectoral and corporate manpower needs and interests; rather than for the overall development of the Nigerian economy. There has been persistence of lack of basic integrated national policy on human resources development and utilization in Nigeria, which has far reaching implications for the country's transformation. More over, the study revealed absence of good policies to have affected the imbalance in educational development that have affected enrolment at all the educational levels, low transition rates, shortages and wastage's of critical skills and the preponderance of output in arts and humanities as against scientific and technological centered

disciplines at the Universities. The policy framework that ought to correct and direct appropriate human resources development and utilization have not been fully implemented; and loosely formulated in line to the needs and aspirations of the economy and which heralded manpower wastage's through unemployment and under – utilization of these resources.

Inherent in our revelations, is the status of relationship between human capital and economic development. It is explicit that the success and performance of the Nigerian economy placed more premium on the level of ones education, acquired knowledge and critical skills and capabilities developed through formal education, more especially at the Universities; and which are all directed and oriented towards productivity in the economy.

Placed closely to other sectors, the investment paradigm to education has left much to be desired. For it had been revealed low when compared to defence and agriculture and all these relied on the former for their performance and productivity. Yet, more premiums are given to these sectors that depend on manpower resources from education sector. Expenditure of any sector should relate to its externalities to the overall development of the economy. This calls for expenditure in education to be related to national goals, which will ultimately have economies of scale to macro-economic output of the Nigerian economy. Education in this thesis has been able to establish a linkage between the economy and the development of the productive capacity that its output could lead to increased per capital income of the economy. This means that more resources have to be

allocated and invested in the sector, if adequate and direct benefits from education and the economy are to be realized.

The analysis so far clearly revealed the impact of human resources to the overall development process of Nigeria more especially as specialized education of highly skilled professional and critical manpower are more directly connected to economic development. Efficient strategies and corporate management of resources are sustained and guaranteed through organized highly skilled human capital.

In the analysis, the policies of all successive epochs and regimes in Nigeria have not adequately taken care of the development needs of the economy. The basic philosophies and policies merely addressed dysfunctional and eclectic education that was rusty and cranky; and all it succeeded in doing was to sway the Nigeria's path to development. This, notwithstanding, the objectives and philosophies only had nominal impact in the economy. This is because the objective of proliferation of tertiary education across the nation that demands the development of appropriate human resources to meet the needs of the growing production sector of the Nigerian economy were not functionally implemented. As such this implies that the policies and objectives have not adequately addressed the needs, aspirations and yearnings of the nation's economy.

Put succinctly, as revealed so far, human resources of a nation can contribute its development through the liberation of the mind and creation of mental curiosity and alertness in the individual as well as contemplate reasoning for purposes of development. It transcends to helping in developing the inert abilities,

potentials, talents and skills such that the application of these, can expedite the process of development. Thus, human capital when well developed and utilized as revealed in this thesis can enable the individual and the society to overcome poverty through the process of employment and productive activity that guarantee the creation of incomes and its sustenance. This perspective enables the individual and the society to progress. Manifesting this fact, is the sporadic progress in development in most societies today that had placed much relevance to the development of human capital. These findings are consistent with the enormous world civilization and progress today that had relied heavily on the relevance accorded to the development of human capital of the members of their society at all levels. Since human capital development is seen as a basic framework for national development, it provides an avenue with the basic and complex information systems for interpretations and utilization, as the main instrument for peddling the society's progress.

As revealed further in the thesis, proper and appropriate utilization of human skills through relevant employment opportunities can serve as opening for cultivating economies of scale and having externalities to all facets of the national economy. Thus far, all the facets of the national economy have relied on human resources development and utilization for their transformation towards improving the output; and this has an unending panacea. Thus, as exposed in this study, human capital accounts for a significant proportion of both the explained and the unexplained part of economic transformation in the Nigerian economy.

### 6.3. POLICY IMPLICATIONS AND OPTIONS

An interesting aspect of this research is the revelations so far, that have linked concretely functional and dynamic development to the creation of human capital and its utilization. This process has engendered along with the revelations, a need to formulate and recommend viable policy framework that will spur further development and utilization of human resources in the Nigerian economy. This understanding made the following policies and recommendations plausible towards effecting the needed change in human resources development output.

In this premise, it is glaring from all facets of the economy that the task of human resources development for national transformation has become so complex and enormous in the realm of policy formulation. This task has become complex at the level of accommodation of all aspects of economic life of the nation and the finetuning of the linkages and externalities of human capital. For instance, it is not enough for the nation to merely develop human resources. A good policy mix and thrust will demand the development, management and utilization of such resources. Therefore, the efforts in policy thrust must incorporate appropriate utilization of the human capital in the productive life of the economy. This calls for critical examination of both the demand and supply sides of human capital in line to the needs and aspirations of the Nigerian economy.

While stressing policies on the process of manpower, it is also necessary to itemize the complexities that ought to be tackled from the private sector. This demands redefining roles in manpower development. These roles include clearly defined provisions for on-the-job-training, in-plant training, mid-career training -—all

to update the skills, knowledge and capabilities of employees with changes in new techniques of production; establishment of foundation in the Universities; sponsoring of particular management development programmes in higher institutions of learning and offering of generous grants to Universities and colleges of technology to expand frontiers of knowledge and research. In the past and at present, the private sector has failed in this; and this can be improved if deliberate policy is formulated and enforced to allow in future, for corporate bodies to appreciate the need for training and educating their manpower for enhanced productivity. In essence, government should make corporate organizations to accept human capital formation as a social responsibility, as part of their contribution to the stock of wealth in the Nigerian economy.

To curb unemployment, under-employment, wastages and under-utilization menace of human resources, the policies and actions of the government must address productivity and industrialization. It is the fervent conviction of the researcher that once industrialization ensued, sustained increased productivity will emerge and subsequently, efficient manpower utilization can be realized; and which consequently can eliminate the human resources wastage in the economy. Therefore, both corporate bodies and the government must develop specific human resources policies that not only reflect the state of the art, but to cater for peculiar problems of industrial and public sectors management in Nigeria.

Ignorance of the larger part of the public on the place of human capital in the development process when compared to tangible capital has down played development efforts in Nigeria. Therefore, a clearly stated policy on the mobilization

process through all forms of training and education for the people must proceed with urgency. People need to appreciate the virtues of the society and the values of their contribution in the production of an economic good and service. This is not far from the laissez – faire philosophy of human resources development that has resulted in no special orientation of manpower to development goals of Nigeria. For the developmental needs and goals to be attained, deliberate programmes for retraining is necessary for highly skilled manpower; and which have to be peculiar to absorption into available jobs in industries and the public sector. These skills to be so developed must be available for exploring, exploiting, developing, training and retraining of manpower to serve the requirements and needs of the Nigerian economy.

Any policy on human capital must be supportive of economic development since not every human resource policy propagates this. Indeed, the nature and structure of human capital development must be provided in tune to development goals and policies. Therefore, the type of education provided, how it is provided, to whom it is provided and by whom it is provided, are all important premises in any attempt to address human resources development and utilization in spearheading national development. But this requires some specialization of highly skilled manpower; and this, in essence, needs careful human resources design, development, organization, coordination and planning with adequate resources invested and committed for this purpose.

Moreover, any policy on human resources that has premium for development in Nigeria, must strike a balance between available critical manpower and

categories of new employment and opportunities available, and to be created. Training and education will have to be directed to the development and utilization of human capital in existing and emerging newer jobs. To achieve this, it demands, massive coercive power of the state machinery in developing, recruiting and utilizing critical skills for purposes of transforming the national economy. Investment in human resources in the Nigerian future should be made in response to the needs of the economy that can enable it carry out its development programmes.

Human Resources Development and in the realm of capital and natural resources which are seen as passive agents of development and modernization, we emphasis human labour as the active agents in development, as they alone are capable of accumulating capital, exploiting natural resources and building political and social organizations. It becomes imperative for more emphasis to be placed in developing, training and retraining human capital in Nigeria. Therefore, high priority must be accorded to human resources development with emphasis on education and training of manpower for all sectors of the Nigerian economy. As the country prepares itself for accomplishing its tasks in the twenty-first century, the government should no longer remain ambivalent about developing appropriate human resources for it to attain a sustained development effort. The so-called visioning and reform process can only be attained if the development of appropriate human capital to move the entire process forward is placed at the centre and is considered fundamental.

From our analysis, the shortages of appropriate skills and knowledge implied a limiting factor to economic development and this ought to be bridged through

careful design and planning of University education, the powerhouse of high-level skill formation. Already, it is clearly manifested in our analysis on the lopsidedness of critical skills development between arts and science related disciplines. A high rate of arts and humanities output imply a shortage of science output that have far reaching implication on the technological development and take- off of the nation. The current 6o: 40 ratios in favour of sciences have to be enforced in Programmes and policies of the Universities to address this imbalance. The root of the problem must be first tackled at the level of University access to various qualified candidates to pursue first degree programmes; the centralization of admissions with a number of so many unnecessary caveats of criteria do affect the policy framework in terms of developing required critical manpower for the economy. Even if these criteria were to be set aside, the issue of under funding would have still be left to fathom. Therefore, for the shortage of critical skill to be tackled, any deliberate policy must first of all think of funding adequately the University system so as to create enabling environment for developing appropriate and relevant manpower. It is then that the idea of subjecting the skills development of arts and science disciplines at prorata and preferential basis can have meaning and will be fruitful. The thesis canvasses for the government to own up its full responsibility in funding University education, as this is the only surest source under which it can guarantee the advancement of Nigerian society under brainpower.

Indeed, once, all these policies thrust, are studied carefully, and implemented, the aim is to have high premium on the labour of every average Nigerian where the rights and dignity of the worker are protected by well defined

established laws other than the ones existing and new job opportunities are to be created. This will allow room for human labour to have new models on how to organize the modern sector, a bridgehead zone of modernization, which ought to be transformed and constructed. The larger question for onward research is, who would not want visa into the bridgehead zone, when the alternative is so starkly different? This, calls for further researches on the contribution of human capital at various levels of its formation to the nations economy. More researches are recommended in the area of critical manpower development and utilization in Nigerian economy. This thesis has only addressed a part and not the whole. Thus, the University system must propagate ideology and ideals of homogenizing human capital with less class divisiveness as practiced in Japan. The state must assume full responsibility of having Universities as primary function of serving the country's manpower needs for all sectors; more especially in determining career opportunities for the output. Thus, the Nigerian Universities must have new system of designing integrated pyramid of manpower needs that have bearing on economic development and growth, other education levels notwithstanding. The system having imported so many models over the years should begin to think firstly; of breaking continuity from dysfunctional education and ideals it inherited and imbibed through colonial and neo-colonial education in the past. New initiative and innovation in conformity with the environmental and technological needs should proceed in the new agenda for educational development for the construction and transformation of the Nigerian economy.

### 6.4 CONTRIBUTION TO KNOWLEDGE

From the revelation of findings emanating from this dissertation, it is appropriate to state its contribution to the frontiers of knowledge through:

- The research has established a linkage between investment in human resources and the transformation of the Nigerian economy. This has provided a framework and springboard to facilitate appropriate planning, development and utilization of all levels of human resources that serve as agents of development in the Nigerian economy.
- 2. It has situated the efforts of government policies to address human resources development, design, organization, planning and utilization in the development process and the recommendation thereof can facilitate good and appropriate policy implementation that can remove those bottlenecks and as well promote research.
- 3. The reasons of inadequate funding, which have affected the growth of the output of universities, have been identified, and this will promote investment programmes in universities education by all stakeholders towards achieving greater and improved quality output of the system, as well as facilitate planning of human resources and research.
- 4. The findings availed opportunity for an outlay of externalities that is derivable from the highly skilled manpower that can serve all sectors of the Nigerian economy and facilitate more studies.
- 5. The study has x-rayed relevant examples from countries that have employed human resources as the main thrust for transformation, which Nigeria, can

learn and research from such experiences to improve in its current drive in developing appropriate human resources, to direct its course of development.

6. The study has stimulated the basis for research and formulating of human capital policies and models that can be directed at developing relevant technologies and supportive enabling environment that can champion economic development in Nigeria.

## 6.5 CONCLUSION

A recast into the work so far, makes one affirms a fundamental fact which is premised on the ground that, of all the tangible assets, the intangible human asset has remained the most crucial in determining the pace of development of any economy. This fact, as revealed in this thesis has seen to its relevance to every facets of the economic life of Nigeria.

It is not enough to admit the revelations of the path of human labour's contribution to development; as the study believes that this could make meaning in Nigeria if only we begin to break firstly, continuity with dysfunctional education we inherited; and thus, create enabling environment through the development of appropriate and relevant human resources needed for the country's transformation.

The study revealed that more achievement in terms of development of human resources could be made, if adequate sound policies are formulated and implemented. In the light of this, the study recommends that the government should formulate a functional policy of human resources development and utilization that

will meet up with the development needs of Nigeria's economy. To sum it, this must transcend across all categories of human resources developed to promote Nigeria's growth and development.

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