THE IMPACT OF PUBLIC EXPENDITURE ON HUMAN CAPITAL DEVELOPMENT IN KANO STATE (1990 – 2009)

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DECLARATION

I hereby declare that this thesis titled, "THE IMPACT OF PUBLIC EXPENDITURE ON HUMAN CAPITAL DEVELOPMENT IN KANO STATE (1990 – 2009)" is original and a product of my research findings. All materials used have been duly acknowledged accordingly by way of references at the end of the thesis.

…….. …….

Adamu, Sanusi Date

CERTIFICATION

This thesis titled, "THE IMPACT OF PUBLIC EXPENDITURE ON HUMAN CAPITAL DEVELOPMENT IN KANO STATE (1990-2009)" written by Adamu, Sanusi meets the regulations governing the award of the degree of Master of Science (M.Sc) in Economics, Ahmadu Bello University, Zaria and is approved for its contribution to knowledge and literary presentation.

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DEDICATION

This work is dedicated to my late loving Mother Maryam Salihu, my wives Ruqayya A. Lawan and Safiya Garba and my twelve children, among them was late Salihu who did not live long enough to witness the end of the programme, for the sacrifice they made in withstanding the hardship associated with this programme.

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ABSTRACT

The study has provided both descriptive and empirical analysis of the impact of public expenditure on human capital development in Kano state in the last twenty years. For that purpose recurrent and capital expenditure on education services together with pupils and students gender enrolment, number of teachers/tutors employed, and schools buildings were used as proxies for number of graduates generated in the state as the basis of human capital. The available data were basically secondary in nature. The study made use of both qualitative and quantitative method of analysis. The results of the study showed that there was insufficient funding and inappropriate expenditure in education service and that was why accessibility to western education was limited, school buildings were inadequate and not in good shape, equity in providing education is neglected and therefore secondary school leaving examination has never been appreciative the result of which is shortage of modern manpower among the indigenes of the state. Public expenditure is statistically significant in building human capital in the state implying that there is need to increase budgetary allocation to education and ensure its proper utilization, careful study of the type of graduates available paves way for sense of direction, involvement of volunteers from the community to supplement government efforts is necessary and lastly the public schools to incorporate children from all and different classes of income earners.

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ACRONYMS

3Rs	Reading, Writing and Arithmetic
ABU	Ahmadu Bello University
ADF	Augmented Dickey Fuller
ASCON	Administrative Staff College of Nigeria
BUK	Bayero University Kano
CBN	Central Bank of Nigeria
CDM	Center for Management Development
COE	College of Education
CSER	Center for Social and Economic Research
DFID	Department For International Development
EFA	Education For All
ETF	Education Trust Fund
FTI	Fast Track Initiative (EFA)
GCE	General Certificate of Education
GDP	Gross Domestic Product
GNP	Gross National Product
HCD	Human Capital Development
HCDI	Human Capital Development Index
HIPC	Highly Indebted Poor Countries
HND	Higher National Diploma
ICT	Information and Communication Technology
IITA	International Institute for Tropical Agriculture
KERD	Kano Education Resource Department
KSSB	Kano State Scholarship Board
KUST	Kano University of Science and Technology
LDCs	Less Developed Countries
LGEA	Local Government Education Authority
M&E	Monitoring and Evaluation
MAKIA	Malam Aminu Kano International Airport
MDGs	Millennium Development Goals
MOE	Ministry of Education
NBS	National Bureau of Statistics
NCE	National Certificate for Education
NCEMA	National Centre Economic for Economics, Management and Administration
ND	National Diploma
NEC	Nigerian Economic Society
NECO	National Examination Council
NICs	Newly Industrialised Countries

NIM	Nigerian Institute for Management
NMB	National Manpower Board
NPC	National Population Commission
OLS	Ordinary Least Square
OND	Ordinary National Diploma
R&D	Research and Development
SSA	Sub-Sahara Africa
SSCE	Senior Secondary School Examination
UBE	Universal Basic Education
UBEC	Universal Basic Education Committee
UN	United Nations Organization
UNDP	United Nations Development Project
UNESCO	United Nation Education Scientific and Cultural Organization
UNICEF	United Nations International Children and Education Fund
UPE	Universal Primary Education
USAID	United States Agency for International Development
WAEC	West African Examination Council
WAISER	West African Institute for Social and Economic Research

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CHAPTER ONE
GENERAL INTRODUCTION

1.1 Background to the Study

Public expenditure facilitates the attainment of full or high-level of employment and capital utilization at stable prices, a good balance of international payments performance, and a satisfactory rate of growth in per capita income over a period of time. Public expenditure is used for allocation, stabilization and redistribution of economic resources objective, Anyanwu, (1997). The distribution function involves adjustment of the distribution of income and wealth to ensure conformance with what society considers a fair and just state of distribution. This helps to bridge the income and wealth gap between the rich and the poor. It therefore helps the course of development. This must be done because careless public expenditure austerity can lead to prolonged recession and can place a disproportionately heavy burden on the poor (World Bank, 1998). As a result of that the measurement aspects of public expenditure matter as much as the overall macroeconomic balance.

Public expenditure, apart from being an essential tool for macroeconomic stability, controlling the inflation rate, the growth of the public debt and level of economic activity in general, it also affects adjustment and growth by influencing the rates of consumption, savings, and investment in both physical and human capital. Anyanwu (1997), saw the role of public expenditure in terms of benefits and costs.

> "The benefits and costs may be real or pecuniary. The real benefits …are the benefits derived by final consumers of the public expenditure. They reflect an addition to the community's welfare, to be balanced against the real cost of resource withdrawal from other uses. Pecuniary benefit and costs come about because of changes in relative prices which occur as the economy adjusts itself to the provision of the public service and the pattern of demand changes".

Public expenditure issues have risen to the top of the agenda of Kano state because it is seen as absorption of resources by the public sector. The public sector is defined to include Federal, State and the Local Governments.

On the other hand, education guarantees the avenue for national stability, security, unity, and prosperity which is only one but vital aspect of capital formation. In the third world economies, public expenditure is the most important channel through which the development of human resources is achieved.

The importance of mental and physical efforts put towards an economic activity cannot be over emphasized, more especially in Kano State in the modern Nigeria, in which the State being the most populous and possessing a vast and fertile agricultural land and many mineral resources can only maintain its position as it continues to develop its human capital. Inappropriate and inadequate human capital formation will erode the potentials of Kano State to compete in Nigeria and worldwide. To every economy, under-education of various kinds is a serious barrier to development and this poses the need to continuously increase spending of

educational funds in the private and public sectors. Among the recent adverse features of the Kano State economy is shaky productive and technological bases. Apart from being heavily dependent on Federal allocation as the source of the State government's revenue, there is increasing serious neglect of agricultural modernization and expansion, moreover there is slow pace of substituting non indigenous manpower in the effort of the State government in checking unemployment among the State indigenes.

With this scenario, there is increasing need in making effort towards improving literacy rate, skill acquisition and increasing level of mass education and in addition to scientific and technical specialists for the State. The magnitude of the problem is serious because education of any kind is very expensive and delays its payoff. Basic formal education requires a large investment in school buildings, teacher training, and curriculum revision that will result in very small visible change in the level of education after 5 to 10 years, and even less payoff in general with regards to greater productivity. In view of this and with urgent increasing demand for manpower, the opportunity cost of such expenditures always seems high; nevertheless, it is essential to make them as the gain will be enormous to economic development for several generations.

There are some growth models that identified education as a key to economic growth and the testimony of which was what ushered ancient Kano as the centre of commerce and learning more than five hundred years ago where Islam and the Islamic system of education has been interwoven

with the people's way of life and became their source of human capital formation and development. Evidence to this was found before the coming of Europeans as it produced great scholars, teachers, administrators, judges, artists, technocrats, warriors, and revolutionaries, Jibril (2009). It is worthy to mention that at that time, the financial burden of providing human capital rested less with the government. The introduction of western education to the present day Kano has made formal education to grow rapidly from a narrow base, especially, since the State was created. The expansion has been mainly in the areas of primary and secondary education. School enrolment has increased at faster rate and the rapid growth puts significant pressure on education services with increasing expenditure that consumes a large proportion of public resources.

Unfortunately, the expansion in the school enrolment has been accompanied by qualitative deterioration partly because the supply of trained teachers is less than the untrained in primary and secondary schools. The number of unqualified and under-qualified teachers is very high (Kano State government, 2008). Also, the drop-out rates among pupils have remained high especially at primary level in rural areas and among girls. In Kano State and Nigeria in general, formal education has been regarded as a step towards urban wage employment and for social status. According to Federal Ministry of Education (1999), education to the citizenry is to make them 'acquire skills and knowledge that would prepare them for the world of work'. However, wage employment has never been available on scale large enough to absorb but a small fraction of those of them that come to the labour market.

Clearly, human capital formation in State with a significant percentage of its population are children and youth together with the attitude of leaving the expenditure of educating the people in the hands of government will definitely amount to greater responsibility at exorbitant cost and the failure of which could lead to a fall in quality, quantity and efficiency of the labour force.

1.2 STATEMENT OF THE PROBLEM

Human capital development in Kano State has remained unsatisfactory for the last few decades. The implication is that there has been low productivity. The reason behind this unsatisfactory performance has been linked to public expenditure. For instance, there is usually a lot of talk on Information and Communication Technology (ICT) which requires an excellent culture of the application of required expertise in the harnessing of the features of installed software for the benefit and transformation of an organization. IT diffusion depends on skills to operate the system. Beyond the usage and marketing of computer hardware and software and other information technology materials, Kano State currently lacks the mass indigenous capabilities to participate in both local and international production and manufacturing of IT components, including software development. Other aspect of utmost concern is the acute shortage of medical personnel, legal practitioners, qualified financial analysts and school teachers. The extent to this problem is so high that one begins to question the impact of public expenditure in the State.

Kano State government was appalled at its educational backwardness and its reputation for academic pursuit that the State government had launched the State's Educational Development Trust aimed at filling the gaps in the

administration programme. The State government had adopted a dual philosophy of education, by looking on it as both a consumer good (a means of enriching an individual's knowledge and developing his full personality) and a capital good (preparing people to undertake specific tasks in the society essential for the transformation of their environment). Schools expanded rapidly. However, quality was sacrificed in the process. There have been daunting challenges. In the consideration of the anti-poverty programmes, premium is expected to be placed on labour-intensive projects and those that enhance productivity and hence the earning capacity of the poor. What is here considered most strategic to stimulate growth and aid poverty alleviation is the investment in human capital. When such a programme is effectively integrated with the overall development policy, the poor are mobilized into the country's development process and their economic condition improves. Nevertheless, economic conditions in Kano State have deteriorating rather than improving.

Investment in human capital means here, improvement in education and training, health and nutrition. All these reinforce each other and collectively influence the pace of growth process; and could help to break the vicious circle of poverty. There are, therefore, strong complementarities between growth, poverty reduction and human capital. In the seamless web of interrelations among the components of human capital, education plays the central role. Emphasis is, therefore, laid here on the educational component of human capital. Education covers all schooling, both formal and informal, and may well be considered in terms of both investment and consumption. The impact of education extends beyond the traditional production sector into the household. Its impact on the economy is felt through lower fertility

rates, health improvement and more household production. Education facilitates the entry into and enhances productivity in the modern wage sector. Farmers as well as the self-employed in the urban sector are now thought of as capable of contributing more to the growth of an economy if they have more education. The role of training outside school is equally important. Like education, it improves the skills, enhances the employability, earning capacity and productivity of a country's work force.

Investment in human capital, especially education, would make the impact of poverty alleviation with growth strategy, more effective in two areas: stimulating the trickle-down effects of growth on poverty and shaping poverty-employment relations in an economy. The impact of education is not just limited to the level of economic growth; there is increasing awareness of its effect on distribution and social equity. The trickle-down effects are all about the latter, namely, sharing equitably the benefits of a growth process. The possibility of these effects trickling down to the poor depends in a large measure on their access to education. Improved access of the poor to education opens them to wider economic opportunities and enhances their capacity to take advantage of such opportunities. As the poor become better educated, they can absorb new information faster and apply unfamiliar inputs and new process more effectively (Choski, 1995: 50). The trickle-down effects, no doubt, are processes that take time, but increased investment in human capital causes it to speed up.

Exclusion from gainful employment is a basic problem of the poor, in particular the less educated and those without schooling. It has been found in Nigeria, for instance, that these groups are not only displaced by the more

educated ones in formal sector employment, they also increasingly stand the risk of being dumped, even in the informal sector activities (Oladeji, 1994). The poor are featured with lack of assets as well as income; but they do not have labour time whose quality can be improved through education and training. For the high-level manpower graduating from tertiary institutions there is still excess demand as evident by high vacancy rates for professional and technical staff in the State. This has necessitated importation of staff from abroad and other States of Nigeria.

1.3 RESEARCH QUESTIONS

This research study will attempt to answer the following questions:

a) Did the formal education sector in the state receive adequate financial support from the government?
b) What is the male/female students' ratio and student/teacher ratio Kano State?
c) What rate of secondary school students possesses the minimum requirement for admission into higher institutions over the years?
d) How many of graduates are produced in the State through government sponsorship over the years?
e) What efforts are government and private sectors making to improve formal education in the State?
f) Has the government spending yielded tangible impact on human capital development in Kano State?
g) What problems are militating against human capital formation in Kano State?

1.4 OBJECTIVES OF THE STUDY

The broad objective of this research work is to empirically analyze the impact of Kano state government expenditure on human capital. The specific objectives of the study, however, are:

i. To provide a profile of public expenditure on educational services.

ii. To identify problems militating against human capital development in Kano state.

iii. To investigate the impact of government expenditure on human capital development.

iv. To proffer policy recommendations.

1.5 RESEARCH HYPOTHESIS

Given the research objectives and questions, the following hypothesis was tested:

Null hypothesis:

There is no positive relationship between Public Expenditure on Education and Human Capital Development in Kano State.

$$\beta_0 \neq 0$$

Alternative hypothesis:

There is positive relationship between Public Expenditure on Education and Human Capital Development in Kano State.

$$\beta_1 = 0$$

1.6 JUSTIFICATION OF THE STUDY

It is generally believed that investment in human capital through education substantially increases productivity and economic growth (World Bank 1990; Okojie, 1995; Odusola, 1998). An attestation to this can be seen from the so called 'East Asia Miracle' where rapid economic growth was facilitated by increasing availability of highly skilled domestic engineers and workers who possess productive use of foreign knowledge and imported capital. Hamada and Honda, (1995) carried out a study that revealed a resultant rapid growth as a product of huge investment in human capital through the on-job-training from where workers acquire specific skills that enabled them adapt more easily and quickly to imported technology.

Similarly, government see investment in human capital as a way of improving the economy not only of the State but to the country as a whole by committing much of its earned income from the federation account and other internal sources to the funding of education, health and other social services. This was confirmed from the summary works of many writers that physical capital becomes productive, if the country possesses efficient human capital, which is the product of education, health and other social services investment.

In essence, invention and innovation, which are the catalysts of change from static and traditional society, require chain of doses of strategic human capital that could be realized through rigorous investment in human capital as being articulated in proper human capital planning (Jhingan, 2000). Thus, rich nations invest heavily in education because they have the resources to do so and the poorer countries also struggle to invest in human resource

development in order to catch up. Against this background, a scenario could be established that an essential prerequisite for sustained economic development of Kano State is adequate rates of growth in human capital development to some sufficient and sustainable levels.

1.7 SCOPE AND LIMITATIONS OF THE STUDY

The study covers the period of twenty years (1990 – 2009) only. The period, 1990 – 2009, was chosen for this work primarily due to availability of data for analysis. The study is confined to Kano State government alone especially with respect to fiscal budgetary allocation and its expenditures as to its effects on educational development in generating, maintaining and developing human capital development for Kano State economy. Some required data were not available to the researcher.

1.8 ORGANISATION OF THE STUDY

The study was organized into five chapters. Chapter one comprises the introductory aspect of the study which include background to the study, statement of the problem, objective, justification and the scope and limitation to the study. Chapter two will contain the review of the existing literature (both theoretical and empirical studies). Chapter three has focused on the research methodology which will include model specification, estimation techniques and source of data. Chapter four was developed to presentation and analysis of the findings based on the statistical techniques that will be employed in the study. Lastly, chapter five contains the thesis summary, conclusion and recommendation of the study.

CHAPTER TWO

LITERATURE REVIEW

2.1 Definition of Terms

2.1.1 Formal Education:

A formal education program is the process of training and developing people in knowledge, skills, mind and character in a structured and certified program. Education in the largest sense is any act or experience that has a formative effect on the mind, character or physical ability of an individual. In its technical sense, education is the process by which society deliberately transmits its accumulated knowledge, skills and values from one generation to another.

2.1.2 Relevant Education

In this context relevant education is the kind of education that equips every citizen, no matter where he or she was born or where he or she lives, to participate fully in national development, the kind of education that enables the citizen realize that in all things – contract negotiations and implementation, allocation of development projects, use and care of state facilities – the national interest is paramount and always comes first. Relevant education is the kind that inculcates in the citizen that the practice of indiscriminate littering does not only destroy the environment, but also causes diseases that lead to loss of man hours, impacts negatively on production and ultimately results in depreciation in the nation's quality of life.

2.1.3 Human Capital

This represents knowledge, skills and ability that make it possible for people to do their jobs. It also rallies around recruiting, supporting and investing in people using a variety of means including education, training, coaching, mentoring, internship, organizational development and human resource management. Strengthening the human capital development is an important goal and it is believed that State will remain effective and keep their edge only as long as they have competent and committed individuals working for them (H.C.D.I., 2007). The most important twin's components of human capital are education and health. They are the most important factors that influence the efficiency of labour.

2.1.4 Economic Growth

This is defined as the steady process by which the productive capacity of an economy increases overtime.

2.1.5 Public Expenditure

Public expenditure refers to expenses accrued to government for its maintenance, sustaining the society and the economy at large likewise for helping other countries, (Bhatia, 1982). Anyanwucha (1998) explained public expenditure as the financing of government activities. It deals with the finance operation of the government, the financial development of the State and the corresponding activities of the government. Black (2003) emphasized that it is spending by government at any level. "Government expenditure consists of spending on real goods and services purchased from outside suppliers; spending on employment in state services such as

administration, defense and education; spending on transfer payments to pensioners, the unemployed and disabled; spending on subsidies and grants to industries; and payment of debt interest".

In Nigeria, public expenditure is shared among the three tiers of government; the Federal government deposits tax receipts and revenues from the sale of oil into the federation account which is then shared among Federal, State and Local Governments according to a formula (World Bank 2007). This funding formula, for instance, shared the 2005 revenues as 46%, 36% and 18% of the total federation account to the three tiers of government respectively as mentioned above. In respect to that, the tiers of government are expected to spend those resources accordingly to respond to the responsibilities assigned to each tier by the federal constitution.

2.2 THEORETICAL LITERATURE

Human capital represents mental effort by workers which results from investment through education and training. Classical Economists such as Adam Smith quoted in Eltis (1984) and Marshall (1930) commented on the role that human capital development could play in economic growth of a nation. They believed that through education human capital needs in the areas of construction and heavy industries can be provided. Also, technical supervisors, managerial and administrative personnel, statisticians, Economist, secretaries and so on can only be provided through education and training. For instance, Adam Smith included a country's stock of fixed capital that is acquired and useful abilities of all the inhabitants or members of the society as part of what make an economy to grow. He equally

maintained that the acquisition of talents and skills by an individual through education study or apprenticeship is a fortune not only to himself but also to the society to which he belongs. In addition, Marshall (1930) sees human capital as vital factor engaged in production of goods and services to satisfy human wants. He argued further that the most valuable of all capital is that which is invested in human beings.

In his view to show the dual function of human capital development, Marx quoted in Jhingan (2000) explained that higher education was an avenue through which human capital was sourced and developed that later translates to influence taste for goods and services, style of life and purchasing power. The more the development of human capital, the wider the market and this leads to expansion of production of goods and services. As quoted in Jhingan (2000), Keynes understood it to have led to expansion of production which would bring about employment of school graduates who earned income for more consumption and savings. The savings generated more capital accumulation and investment which finally increases national income.

Improvement in the quality of human capital is essential as advances in knowledge and diffusion of idea and objectives are necessary to remove economic backwardness Meier (1984). Also, if there is an under-investment in human capital, the rate at which additional physical capital can be productively utilised will be limited since the needed labour for effective use of material capital is short. This is a proof that human capital plays a significant role in the functioning of an economy whether it has relatively

low or high level of income. This can suggests that economic expansion leads to a rising need of human capital development.

In recognition of the vital role human capital development plays in the economic growth of Nigeria, Taire as cited in Yahaya and Akinyele (1992), identified various institutions and agencies apart from formal institutions that carried out training for the purpose of human capital development and the growth of Nigerian economy. These institutions and agencies include the West African Institute for Social and Economic Research (WAISER), established in 1950, Centre for Management Development (CDM), founded in 1973, National Centre for Economic, Management and Administration (NCEMA) which was established in May 1986, the Administrative Staff College of Nigeria (ASCON) initiated in 1973, the Nigerian Institute for Management (NIM), founded in 1961, the National Manpower Board (NMB) established in 1962, and many others.

World Bank's 1995 assessment of 192 countries indicated that human capital on the average accounted for 64 percent of the total wealth while physical and natural capital accounted for 16 and 20 percent respectively.
Todaro (1998) argued that human capital development is seen as a means for better access to high income earning. He also related it to fertility rate, agriculture and rural development, migration poverty alleviation and reduction in rate of inequality. To African Development Bank (1998), human capital development is described as an essential means for sustained growth and poverty reduction and as an end itself. For a country to be

developed every citizen needs to be developed (well educated); therefore quality education is necessary.

According to Todaro (2006), studies on education and economic progress have been surrounded by two fundamental economic processes. On one hand, is interaction that exists between the demand influenced by economic motives and the supply influenced by political motive in determining how much educational facilities are available, who gets the opportunities to them and the kind of instructions provided. And on the other hand, are the critical differences that exist between social and private benefits together with costs of different levels of education and the resultant effects of these differentials for educational investment strategy. However, the demand for formal education in Nigeria can be said to be a derived demand for high wage employment opportunities in the modern sector. This is so because access to such jobs is a function of individual education, Todaro (2006: 381).

With this therefore, the amount of schooling demanded that is sufficient to qualify an individual for modern sector jobs seems to be a function of combined influence of four basic variables. These variables as explained by the human capital approach are:

I. The wage or income differentials
II. The probability of success in securing the needed modern sector employment
III. The direct private cost of education
IV. The indirect or the opportunity costs of education.

Nevertheless, there are some non-economic and important variables to that effect which include gender, social status, education of parents, cultural and traditions and the size of the family. In an effort to give insight to quality of education, the approach concentrates more on the earlier mentioned variables to the demand and supply of quality education for employment opportunities.

Horvath (1958) as cited by Meier (1984) holds the view that, the necessity of due attention to human capital came out from the experience of attempts to accumulate physical capital at a rapid rate in poor countries. It became clear that successive and successful use of physical capital itself is dependent upon human capital. If there is shortage in human capital investment, the rate at which marginal physical capital can be productively utilised will be limited because technical, professional, and administrative people are needed to make effective use of material capital. In many newly developing economies, the absorptive capacity for physical capital has proved to be low because the extension of human capabilities has failed to keep pace with accumulation of physical capital. Human capital (knowledge) is the most important scarce factor in underdeveloped countries with otherwise favourable social climate.

Investment in human capital depends upon the cost nature of acquiring the skills and the outcome that are expected from the investment. Most often than not, families do influence these variables. A well-to-do family, for instance, lowers the cost of human capital acquisition for their offspring by supplementing their education and training costs. Moreover, wealthier and

better educated parents can shape and influence the tastes and preferences of their children by inculcating in them a good affection towards education and aspiration to perform well in school. This can be interpreted into higher rate of return on knowledge and skills relative to that of children from less advantaged and down trodden families. Thus, parents and guardians play an essential role in creating and establishing foundation for their children by inspiring them to acquire substantial stocks of human capital. Essentially, it is human capital that has value to labour markets.

Becker introduced the main distinction between "general" human capital as that which is valued by potential employers and "firm-specific" human capital that involves skills and knowledge that have productive value in only one particular company. By this distinction, he believed that formal education generates the "general" human capital alone while on-the-job training mostly results to both types.

To comprehend and clearly assess investment in human capital by employees and employers, one must pay attention to the different incentives involved. In all cases, according to Becker, employers did not like to provide general skills because employees can use them in other firms. Inversely, employees are less predisposed to invest in firm specific human capital without substantial job security or reimbursement. These issues lie at the heart of many contemporary analyses of employment relations.

In explaining the impetus to economic growth for an "achieving society", Robertson (1973) showed that the drive for success must particularly be strong among the entrepreneurs whose efforts were to be enforced by three sources of continually increasing productivity which assured a "churning and throbbing" economy. The first push was to persuade that investment in human capital- in education- paid big dividends. Government must be at the forefront to educate the masses, also private fund and public support should gain ground steadily. Secondly, there must be increasing size of market in the economy to lead to economies of scale in manufacturing that plays a significant role in productivity changes. Lastly and more excitingly the economy in its short runs period to manifest technological change in manufacturing.

2.3 ELEMENTS OF HUMAN CAPITAL DEVELOPMENT

a. The allocation of resources in financing education embodies consumption on one hand and investment on the other hand simultaneously. For this, there is a sort of competition between this consumption component and other consumption alternatives likewise, the investment component competes with investment alternative forms of capital accumulation. The consumption and capital formation aspect of education expenditure could be viewed as current and future consumptions. The current consumption could be the delights or joy of attending school while the future consumption is formation of skills and ability to the labour in the future, and this is the major element and more often than not forms the durable consumer good and hence investment.

b. The benefits to be derived from expenditure on education has gestation period which undoubtedly longer enough than any other form of capital formation. The time-consuming aspect of education entails that it takes not less than ten years for its output to be produced. In Nigeria, for instance, where qualified teachers are in short supply, very longer spans must be allowed for if teacher-training is taken into consideration. For this, it is necessary that education should be clearly expressed in the long-term development perspective plan.
c. Education asset has a relatively long useful life. An educated generation takes a very longer period to vanish as compared to any other form of capital formation investment because the generation generates other generations in the field of education outlays.

Some high-performing countries have combined rapid economic and social progress and now have high-performing economies examples are: Republic of Korea, Malaysia, Mauritius (World Bank, 2004). They achieved social progress early in their development processes, when national incomes were still low – suggesting a certain sequence for investments. In other high-achieving countries economic growth has been slower and less consistent. Nevertheless, all these high performers show that with the right government priorities and policies high social development is possible, even without a thriving economy.

This suggests that for countries to become high achievers investments in education and health need to be the highest priority. In countries where growth has been historically low, such investments can provide the

foundation for stimulating growth; in countries which are already growing, further investment in human capital development can lead to these countries embracing a growth path characterized by increasingly sophisticated technology, high value-added processes and rapidly rising standards of living.

Developing countries face three main challenges in achieving education goals, (UNDP, 2003a):

i. Limited resources. Relative to rich countries, developing countries spend much less per student and as a proportion of GNP at all levels of education.
ii. Inequity. When spending is low, rich people often capture a much larger share of it –so poor people do not benefit as much.
iii. Inefficiency. Inefficient spending means that a high share of recurrent spending goes on teacher salaries, leaving little for learning materials, and low-quality teaching means that students do not learn as much as they could.

2.4 THEORETICAL FRAMEWORK

This research work is underpinned to the endogenous growth theory of human capital approach. This is an economic theory that holds the view that economic growth and development come from within the system as an uninterrupted outcome of internal process. More particularly, the theory reveals that the augmentation of a nation's human capital will bring about economic growth by means of the development of new forms of innovations in technology together with efficient and effective means of production. In economics, endogenous growth theory otherwise known as new growth theory was developed as a response to criticism of the neo-classical growth model. The new growth theory believes that policy measures can have an

impact on the long run growth rate of an economy. For instance, subsidies (government expenditures) on research and development (R&D) or education have the possibilities of increasing the growth rate in some endogenous growth models by increasing the incentive to innovate.

Some Economists argued that improvement in productivity can be linked to a faster pace of innovation and extra investment in human capital. The theorists stress the need for government and private sector institutions and markets which nurture innovation and provide incentives for individuals to be inventive. Therefore, an important determinant of economic growth is knowledge.

Endogenous growth theory predicts positive externalities and spillover effects from development of a high value-added knowledge economy which is able to develop and maintain a competitive advantage in growth industries in the global economy.

The theory is based upon the following pillars:

a. The rate of technical progress should not be taken as fixed in a growth model; appropriate government policies can permanently raise a country's growth rate particularly if they lead to a higher level of competition in markets and a higher rate of innovation.
b. There are potential increasing returns from higher levels of capital investment.
c. There is emphasis for private investment in R&D as it is the central role as a source for technical progress.

d. Protection of property rights and patents can provide the incentive to engage in R&D.
e. Investment in human capital (education and training of the work force) is an essential ingredient of growth.

The basis of human capital lies in the theories of Theodore Schultz, an agriculturalist where in early 1960s produce the idea that it is the way of explaining the advantages of investing in education to improve agricultural output. The logical next step was to expand this linkage between better education and improved productivity as a benefit for the economy as a whole. Schultz demonstrated that the yield on human capital in the US economy was larger than that based on physical capital such as new plant and machinery. Becker built on the idea, explaining that expenditure on education, training and medical care could all be considered as investment in human capital.

> "They are called human capital, because people cannot be separated from their knowledge, skills, health or values in the way they can be separated from their financial and physical assets."

The conventional neoclassical growth theory as modeled by Solow (1956), as cited in Odusola (1998), holds the view that economic growth is a result of the accumulation of physical capital and an expansion of the labour force, in conjunction with an 'exogenous' factor, technological progress, that makes physical capital and labour more productive. The exogeneity factor that increases productiveness has been questioned. What increases productivity is not an exogenous factor, but an "endogenous" one, which is

assumed to be related to the knowledge and behavior of the people responsible for the accumulation of the physical capital. Thus, human capital becomes an endogenous part of the growth process.

This development leads to the augmented Solow model as often formulated in a Cobb-Douglas production function. By incorporating human capital into the growth process, the production function is written thus:

$$Y_{(t)} = K_{(t)} + H_{(t)} + ß(t_{(t)}\, l_{(t)})^{\alpha + ß}$$

Where:

Y is output, K is physical capital, H is stock of human capital, l is labour force and t is level of technology. Both ($t_{(t)}$ $l_{(t)}$) represent the number of effective units of labour and is expected to grow at the rate of n+g (as defined below). We assume $\alpha+ß < t$, which implies that there is a decreasing return to capital. The model further assumes that a constant fraction of output y is invested. Defining y as the level of output per effective unit of labour, y = Y/AL, k as the stock of physical capital per effective unit of labour, k = K/AL, and h as the stock of human capital per effective unit of labour, h = H/AL. let s_k be the function of income invested in physical capital and s_h the fraction invested in human capital (physical and human) over time is determined by:

$$k_m = s_k y_t + (n + g + \delta)k_{(t)}$$

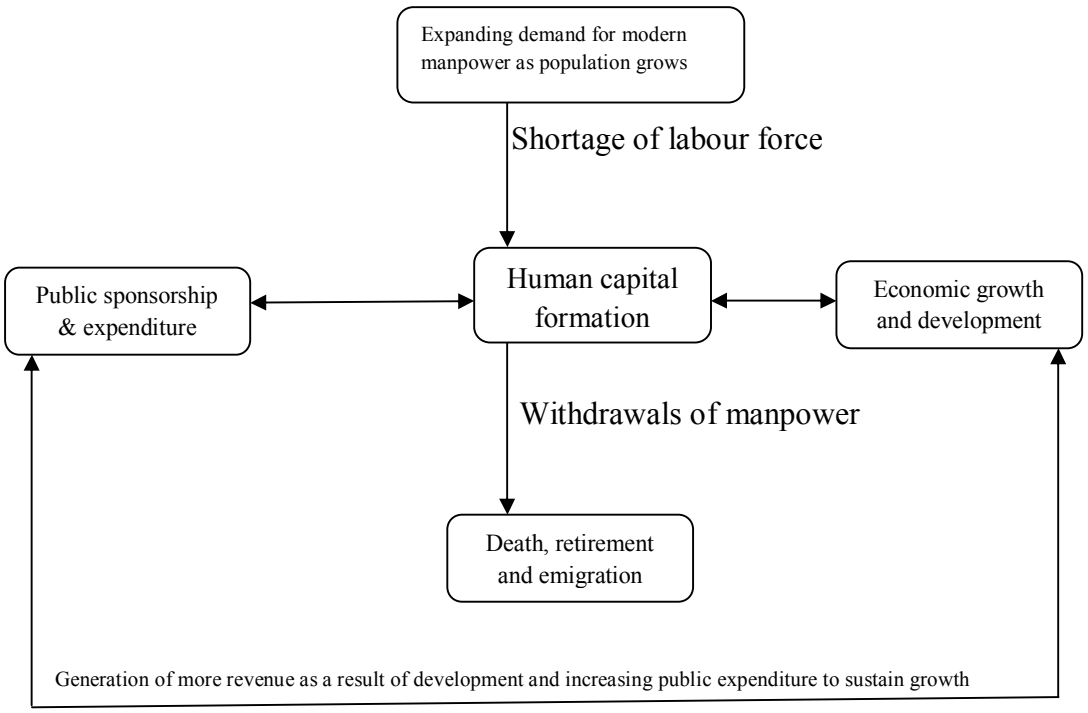
$$h_m = s_h y_t + (n + g + \delta)h_{(t)}$$

Where: y, k and h are as previously defined, n is the growth rate of the working population, g reflects the advancement of knowledge and δ is the depreciation rate. It is further assumed that the same production function applies to human capital, physical capital and consumption, i.e. one unit of

consumption can be transformed costlessly into either one unit of physical capital or one unit of human capital.

In a nutshell, the model is indicating that the variation in income per capita depends on population growth, physical capital and human capital investment. It is further assumed that g and δ are constant across countries. By specification, for any given rate of human capital accumulation, higher physical accumulation or lower population growth leads to a higher level of income and thus a higher level of human capital. By implication, there is a reverse causation between human capital formation and per capita income. In the literature, they often are treated as inseparable. That means human capital formation plays a decisive and active role in social and economic transformation, while at the same time it becomes the ultimate beneficiary of this development, Odusola (1998).

Fig. 2.1: Human Capital and Economic Growth



Source: Author 2012

> "It is human resources that develop the nation, and the nation's development in turn develops human resources, the process of both is analogous to spinning wheel which is continuously spinning just as long as there is growth in the population and the development", Salleh (1992) as cited by Odusola (1998).

The correlation between human resource development and economic growth appears to run both ways (Oketch, 2006) as depicted in the chart above. It is necessary for human resources to grow if development is to proceed in the productive sectors. The productive sectors in turn have to grow and diversify in order to permit more opportunities for human resources to develop and to employ the enhanced flow of skills and talents that are formed. In Kano State or Nigeria at large and as in Less Developing Countries (LDCs), until recently, it was the government that paves way for the type, nature, rate and the sophistication of human capital development for the economy. In addition to that, there is expanding need of new and existing human capital in the economy, because death, retirement and emigration are constantly creating vacuum in the stock of human capital. The history of economic development during the last century, demonstrates clearly that no country has been able to break out of the mode of underdevelopment characterized by small scale agriculture and low level manufacturing activity without substantially widening and raising its human capital base. No country has been able to adopt a development pattern featured by consistently high rates of economic growth without making a substantial investment in the human capital of its population. However, not all countries who have invested in human capital have succeeded in attaining high rate of growth and

development. Human capital investment is thus necessary but not a sufficient condition for growth and development.

2.4 EMPIRICAL LITERATURE

Until recently, Economists virtually ignored the effects of fiscal policies on macroeconomic variables. Recent attempts have, however, been made to investigate the extent to which government activities affect economic growth. For instance, studies by Aschauer (1989) and Munnell (1990) indicated that government investments are positively related to growth. Other studies such as Evans and Karas (1994), on the other hand obtained a mixed result. The adoption of the ordinary least square reveals a positive relationship between government spending and economic growth. However, when a two-stage least squares techniques were used, a positive relationship could not be established in most cases, especially for capital expenditure. Hemmina (1991), using VAR model also revealed that the effect of government spending on economic growth were small but generally significant and positive. Much of these studies were from developed countries with little information or emphasis on developing countries like Nigeria.

Resulting from dearth of empirical studies on this issue in Africa, Amin (1998) examines the effect of public investment expenditures on growth of Cameroon's economic activities. Using an aggregate production function, he discovered a positive relationship between the two, even though the relationship could not be statistically established.

In a research conducted to see the extent of demand for schooling, economic development and human capital generation in Nigeria, Lincove (2009) pointed out that Universal Primary Education (UPE) was provided in order to take the advantage of human capital in developing countries whereby the policy was targeted to 2015 as one of the United Nations (UN) Millennium Development Goals (MDGs). By the time, when economic and political swingling facing Nigeria became tense, it led governments to devolve the cost of education to local communities and parents. This was manifested through increases in tuition fees and other school charges which resulted in reduced enrolments and increase gender gaps because economic hardships influenced parents to their scarce resources in sons before daughters. The research, further examined the relative influence of gender, school costs, family wealth, and other factors on access to primary school in the country. The research came up with the fact that household wealth had a strong direct effect on primary school attendance with greater income elasticity for girls than boys. It found that girl's attendance was a function of opportunity costs generated by providing child care for younger siblings and living on family farm. The research recommended policies that could increase household resources (i.e. poverty alleviation, positive and effective income distribution channel, and reduced inflation) to complement free primary education to ensure proper human capital development for the country.

In a cross-country research by Anderson (2008), an empirical analysis was conducted to see the relationship between social capital and student mathematics and language achievement and the probability of promotion, using data generated from year four classrooms in public schools in four Latin American cities. The paper defined capital goods as goods whose

value is measured by the extent to which it produces other goods, whereby social capital was defined as the investment in relationships, active connections and/or social networks that results in increased productivity. Whereby physical capital was taken to denote physical objects and human capital as well as properties of individuals, social capital is synonymous to mechanisms through which knowledge can be transferred from one person to another that consist of a set of social interaction assets such as shared norms and values, trust, honesty, mutual understanding, tolerance, cooperation, collaboration and reciprocity that enable people to work with each other. In an economy where these prevail costs of business and social interactions are less and the transmission of knowledge from one person to another or from one generation to another is facilitated. Social capital (which includes physical and human capital) was viewed as an intangible asset that belongs to a community rather than personal. The studies came up with the result that social capital among teachers in a school, between teachers and students, and among the students in a classroom had great influence to learning atmosphere and goal achievement and probability of promotion. Moreover, social capital among the students is vital, at least, as much as the teachers' social capital. Children learn from each other and the networks allowing and facilitating that to happen can be very important. The result also yielded a proposition that the pressure on teachers to achieve results on reading and mathematics scores has tended to push teachers to "teach to the test". Finally, his result included the fact that spending time in creating social capital within classroom environment is associated with higher language and mathematics test score.

Bj□rkland and Kjellstr□m (2002), used the data generated from Sweden for 1968, 1981 and 1991 to approximate the marginal internal rate of return to education within the auspices of economic impact, educational economics and human capital. Their mincer equation was a tool of estimation that related the logarithm of hourly earnings to years of schooling, years of work experience and years of work squared. The tool was mostly used in estimations of relationships in labour economics and whenever the approach was used the data was said to be mincered. The study therefore examined how well the schooling coefficient in standard mincer equations influences the marginal internal rate of return to education. Three cases were identified from the study though misleading. Firstly, the decline in return to schooling from 1968 to 1981 was mainly concentrated to college education whereas the return to high school education was stable. Secondly, the rate of return is sensitive to the assumption made about the length of working life or the retirement decision. Thirdly, both the schooling coefficient and the internal rate of return gave misleading information about the value of adult education. By comparing the present value of life time earnings between youth and adult education, the study found large differences in favour of youth education, even though the schooling coefficient and the internal rate of return were the same.

In a work to assess the empirical relationship between education and economic growth in Nigeria, Isah (2006) has established a positive and significant relationship between education expenditure and economic growth. Nevertheless, the research has identified that in Nigeria capital expenditure that is meant to facilitate the sector is given second hand attention and priority as per annual allocation from national budget unlike

their recurrent expenditure which "mainly cover personnel cost and other day to day overhead" that is given top priority; therefore, the federal government is facing the challenge of doubling efforts to increase and sustain capital 'vote'. For Nigerian to promote rapid growth of industrial transformation, the research suggested that public expenditure must grow in actual terms.

In Africa, Uganda suffered from political turmoil and economic mismanagement from early 1970s until the mid 1980s. Many skilled workers fled the country, leading to a rapid deterioration of human capital and managerial skills. Industries were nationalised and placed under state control. Rampant inefficiency led to the collapse of the economy, and agricultural output fell woefully because of insecurity and war in rural areas. Using district-level data for 1992, 1995 and 1999 a study by Fan and Zhang (2008) estimated the effects of different types of government expenditure on agricultural growth and rural poverty in the country. The results reveal that government spending on agricultural research and extension improved agricultural production remarkably. This type of expenditure had the largest measured return to growth in agricultural production and improved poverty reduction. Another thing that reduced poverty was the increased spending on rural roads, feeder roads construction and the high grade road, even though the former had more impact than the latter in reducing poverty. It is pertinent to notice that the study ranked education's effect after agricultural research and extension and roads while government spending on health did not show a large impact on growth in agricultural productivity or reduction in rural poverty. The research concluded that the results of these efforts made the

Ugandan economy to outperform most other countries in Sub-Saharan Africa (SSA).

The result of the works of Banji and Barclay (2004) stated by proposing that the emergence of system of innovation in Africa was conditioned by, on one hand, the historically generated institutions and the persistent pattern of human capital formation on the other hand. These factors determine the development path of the region. The research provided the evidence of dynamic and non-dynamic systems of innovation. The latter describing the African condition. The undertaking combines the strands of literature on institutions and their persistence in shaping development with evolutionary theory and system of innovation. Evidence is presented on the colonial origins of skewed schooling enrolment, at variance with the industrialisation objectives of modern economics. Employing simple statistical tests, the persistence of human capital (school enrolment) reflects in the significant correlation among the three levels of school enrolments and correlation of enrolment in 1970 with per capita income in 2000, a periodicity of some three decades. This outcome is consistent with the literature of countries at early stages of development. Path-dependency is partially proved even though the study did not attempt to investigate all variables making up the system of innovation. It was believed that this is the first tentative attempt to explore long run development in Africa within the system of innovation frame work.

A research conducted in the United States by Long (2010) has shown the extent to which rate of return to labour was directly related to the human capital. The research estimates the alterations in the effect of education

attainment and college quality on three cohorts of students observed during the 1970, 1980, and 1990s. It was found that educational attainment and college quality raise earnings and the degree of these effects have increased over the period of the study. The research stressed that over the period of 35 years, the remarkable changes in the education of the U.S population, there is increasing effects of education attainment on voter registration as well as increasing effects of college quality on delaying marriage and child bearing, particularly for males. Finally, in summary there is, in general, a positive effect for an additional year of education on earnings.

The research conducted by Marshall (2009) in Guatemala was built upon the failure of the students in developing countries to reach even the minimum proficiency level in what is known as the 3Rs (Reading, Writing and Arithmetic). The size of these basic skills gaps among the populace of developing countries and the developed is disturbing and has potentially serious implications for equity and overall development of the less developed countries in particular and the world economy in general. There is general agreement that many schools are failing to provide an adequate learning environment yet articulating an effective policy response to this problem is yet to come by, hence remains a challenge. The reason for this failure on the part of policy makers is that while there is ongoing effort to expand access into primary and secondary education in the developing countries on the other hand, attention on the issue of school quality was traded off. The paper stressed that "but even when policy makers are confused on improving skills in basic education, the empirical evidence they have available to guide their actions is restricted". The research used detailed data on schools, teachers and classrooms to explain student

achievement growth in rural areas of Guatemala. Other variables which were not used in other researchers such as number of school days, teacher content knowledge and pedagogical method were included and identified as "robust predictors of achievement". However, the paper commend PRONADE community schools in their efforts of developing human capital in the country, nevertheless, the gain is largely offset by lower teacher capacity which highlights the challenge of improving school quality in poor, rural areas.

The research of Moock et. al. (2003) conducted in Vietnam to the extent to which education and human capital built in man influences ones earnings especially in transition economy has revealed that on average the estimates of rate of return are relatively low. It showed also that private rate of return to primary and university education averaged 13 and 11%, but only 4% to 5% at secondary and vocational levels respectively. It stressed that returns to higher education are higher for females (12%) than for males (10%) during the period of the study. Studies on the benefits education in Vietnam motivated the economy to have gone through the process of reunification, rebuilding and presently realignment of the economy towards a more market-oriented approach; the capitalism. This transition which the economy is passing through necessitates a change in the education system of the command economy to the needs of a market economy. This is because education is an important determinant of earnings in market economies as put forward by the research. The higher one's level of education, the higher that person's start salary and the steeper the rise in earnings during the early working life. Therefore, the research is seen as to establish a benchmark for future work especially in the Vietnamese economy.

Zafiris (2003) conducted a research in Thailand to look in to such variables that included child labour, education, human capital and labour standards. The paper observed the broad pattern, trends and features of child labour in Thailand which is a fast growing economy among the Newly Industrialised Countries (NICs). The paper noticed that the attitude of depriving children the right to go to school and involving same to child labour are in consonant to the income of the family. The cost benefit simulations suggest that private considerations make children withdraw from school and join labour market earlier than is socially desirable. It was pointed out that subsidies alone will not reduce child labour and increase education by much. This is because the econometric results suggested that the "education and child labour response of such incentives is small, albeit statistically significant". Therefore public support to basic education should continue along with policies that enhance growth and reduce poverty. In addition, those children that remain at work will benefit from a combination of a more rigorous enforcement of regulations against exploitative forms of child labour and private partnership in awareness campaigns coupled with greater participation of local organisations, communities, unions and so on must not be overlooked.

In an effort to establish a well meaningful and workable human development in the United States, it was found that some policies adopted in schools, led to grade repetition among school students especially of age 15. It was the effect of this grade repetition that Corman (2003) set his investigation. He identified that the phenomenon of grade repetition is surprisingly prevalent of which a survey indicated that parents reported that around 15% to 18% of their children repeated a grade by age fifteen in 1993 and 1996. The study used multivariate approach to investigate the effects of state education policies which included head start expenditure, provision of public pre-

school handicapped programme, current school expenditure per pupil, provision of special education services, and grade school entrance dates. It was found that school entrance month has a very large and significant impact on individual students' probability of having repeated a grade. The impact was due relative to the age of the student. This has shown how important it is to monitor the upbringing of a child especially a teenager age in respect to education and to ensure repeating a grade where necessary is in order to build up a reliable human capital, especially in developing economy such as Nigeria.

It was observed recently that there was crowding of students in a class in the United States, especially California that led to a fall in the standard of building human capital. As a result of this Federal and State investment in elementary and secondary class size reduction was adopted and this elicited a sizeable body of research from the Economists on the potential benefits of smaller classes as this one of Sims (2009). The paper examined an increase in upper elementary class sizes in California associated with the K-3 class size reduction program. The research found that the reduction of first and second grade class sizes by approximately 9.5 students each led to an average increase of two students in fourth and fifth grade classes. Evidence was presented to have shown that this size increase reduced mathematics scores of fifth graders by about -0.07 standard deviations and fourth graders about -0.03 standard deviations. It also observed smaller, negative effects on language scores. All in all, the findings compliment the previous evidence that experimental reductions in class size raise student's achievement.

It is pertinent to notice at this juncture that in Nigerian schools from primary through to university level owned by the public, overcrowding is the order of the day. For instance, in Kano one can find a primary school that has enrolment of pupils of about 12,000 with only 50 classrooms running two shifts program (morning and afternoon sessions) of which each classroom has an average of not less than 100 pupils.

The main focus of a research conducted by Oketch (2006) was to bring out to the forefront, the role that human capital plays in enhancing a region's economic productivity. Apart from the fact that the study has identified a bi-directional links between human resources development generated from formal schooling and economic growth on one hand, and between investment in physical capital and growth on the other, if suffix it all to accept the hypothesis that both human and physical capital investments are necessary, if Africa is to attain industrial development. It further establish a statement that human resource development is a determinant of investment in physical capital which contributes significantly to per capita growth in the next round.

Joy (2006) have looked into the issue of gender inequality among male and female college graduates and noticed that "gender differences in college major and selected job choice variables explain a significant portion of gender differences in engineering computer, medical, teaching and service occupation" to the disadvantage of the latter. The research concluded that development of human capital among the female would have eliminated the

differences in the short time coming, if women would had have equal opportunity to their male counterparts.

In a paper presented by McMahon (1998), it was pointed out that human capital is central to the growth process of an economy. It shows the significance of human resource development through education in attaining rapid per capita economic growth in East Asia. The research tested the separate contribution of primary, secondary and higher education and how these differ as between enrolment and rate of public investment at each of these levels. It found that education, democratisation, and political stability influence rates of investment in physical capital. The research finally stated that since most countries had Universal Primary Education (UPE) early, the rate at which secondary education expanded necessary to successful exports was very significant in attracting high rates of investment and high per capita growth. Post-primary and higher education expenditures are more significant after primary enrolments are universal.

The most devastating problems enveloping the Nigerian economy are unemployment and underutilization of human resources which was argued to be solved through the apprenticeship system in the informal sector as postulated by Duru (2008) from a field work conducted in the local areas surrounding Ahmadu Bello University (ABU) Zaria in Kaduna State. Using a small sample of 200 hundred respondents, descriptive technique and simple percentages were used in the analysis, whose findings explicitly suggested that apprenticeship system could be utilised as the main avenue for acquiring skills and developing human capital in the non-formal sector;

bearing in mind that this informal sector constitutes the major percentage of the Nigerian economy. It can therefore become a major source of resolving joblessness among the graduates of various institutions, let alone the policy makers could identify same and respond accordingly.

The impact of public expenditure on human capital, the supply of different labour skills and its macroeconomic and distributional consequences is appraised within a multi-sector CGE model by Hong-Sang and Erik (2003). The model is applied and calibrated to two Highly Indebted Poor Countries (HIPCs), Tanzania and Zambia. The simulation suggests that education expenditure can raise economic growth. However, to maximize benefit from education expenditure, a sufficiently high level of physical investment is needed, as are measures that improve the match between the pattern of educational output and the structure of effective demand for labour. An important result of simulation experiment is that, a well targeted pattern of educational expenditure can be effective for poverty alleviation.

It is perfectly identified by Agiobenebe and Ajie (2008) that the ill-performance and lagging behind nature of Sub-Sahara Africa (SSA) in every aspect of life, is "mass ignorance" and that is why, the SSA ranks highest in "socio-political insecurity, poverty, ignorance and diseases; the solution to which is nothing more than acquiring "knowledge and its application with responsibility". Conclusively, even though the paper has not claimed to have devolved on all the issues responsible for SSA lagging, it stressed that unless proper, adequate and timely funding of education is adhered to, there will be no time when the region will come up age as far taking position in

globalization is concerned. “Therefore massive investment in people, human resource development from basic education to life-long learning is an imperative”.

The strong intra-linkages that exist among three variables that were considered of utmost importance as necessary conditions for the progress of Nigeria and for its beneficent participation in the current globalization were discussed by Adawo (2003). Out of the many problems hindering the progress of Nigerian economy, “reduction of corruption, sound and qualitative education and training, and acquisition of meaningful technical capabilities”, were identified as the most imperative channels to fashion Nigeria forward.

Although, the works of Ajayi and Haastrup (2009) centred on university education in Nigeria, the findings and recommendations could as well be applied to the lower levels of educational strata. Among the problems identified include financial crisis, deteriorated infrastructure, brain-drain syndrome, graduate unemployment and political interferences and their solution could be the one and the only: human capital development.

The attempt of examining the impact of education expenditure on human capital development in Nigeria was made by Aigbokhan et. al. (2005), and it was posited that the investment expenditure on education did not demonstrate a positive effect on the overall human capital formation in Nigeria.

In a paper on Nigerian banking competitiveness, Asogwa (2006) mentioned that strategic management has become the litmus paper of testing the competitiveness of a bank. The strategy include product leadership and innovation not only profitability and its expansion; whereby the key for achieving this strategy is human capital development. A bank that acquires experts and experienced personnel that are well trained and informed could stand firmly to sustain competition globally and that is why labour, as factor of production, financial institutions invest massively in and will continue despite the development of technology.

To highlight the importance of human capital, Adoeye and Chete (2008) explained that the ability to create wealth is more important than the wealth itself. This is because, it guarantees the substitution in case the wealth lost, thus, the importance of technology and knowledge accumulated in human capital. They summarised stating that the important aspects that should be evaluated to forecast country's competitiveness are investment in technology and education.

Oluwole (2006) made both descriptive and empirical analysis of the impact of human capital development on economic growth in Nigeria. For that purpose, government expenditure on education, health and other social services were employed as proxies for human capital development. The result of the study showed that despite that education is better funded than health and other social services, yet the sector is still faced with challenges which disturb its proper functioning. Moreover, the result of the study shows that although human capital development is very crucial to economic

growth, yet poor funding of education, health and other social services has made it impossible to achieve reasonable result in Nigeria.

The most important problem that gives poor shape to technological progress in economic development of most developing countries is comparatively low human capital development. Onodje and Olaniyan (2008) has shown that when an institution (or country) cut back on human capital development either because of its cost or shortage of revenue possible to finance or sustain the cost, it is likely that insufficient requisite skills will feature the organisation and the result of which is capability to compete and at longer end, the organisation will driven out of the market. Therefore, for competition to be maximised and appropriated adequate human capital is necessary.

A number of efforts were devoted on the issue of poverty in Nigeria, whereby the role of human capital has been seen as necessity of tackling poverty through a broadly-based growth process, with an explicit orientation to employment generation, supplemented by massive investments in human capital of the poor, (Oladeji and Abiola (2000), Aigbokhan (2008) and Tairu (2003)). By human capital is meant improvement in education and training; health and nutrition. All these reinforce each other and collectively influence the pace of a growth process and could either break or sustain the vicious circle of poverty. They are, therefore, strong complementarities among growth, poverty reduction and developing human capital. In the seamless web of interactions among the components of human capital, education plays the central role. Education, being a measure of human capital, is

hypothesised to be positively connected with income, and therefore welfare. It follows that the more educated the household head, the less the probability that the household will fall into poverty. Years of educational attainment of household head is used to measure welfare of the household.

The paper by Elu and Price (2010) has looked into the phenomenon of technology transfer from china to SSA's manufacturing firms which are a firm specific type of human capital. It found that there is increasing openness of the SSA countries to Chinese product, but in essence the local manufacturing firms are not deriving meaningful technology through this transaction rather it led to continuous shut down of local firms. The paper lastly warned that increasing trade openness with China is not a long run source of higher living standards for Sub-Sahara Africa.

Edward (2009) has explained the relationship of public spending in Ghana and its relationship to economic growth where aggregated and disaggregated expenditure were verified. The main finding showed that aggregated government expenditure delayed the progress of the economy, though expenditure on health and infrastructure enhance economic growth, on the contrary, such spending on education has shown no effect in the short run. In addition, the result revealed that the political economy of the country has proved to be significant in shaping the structure of the economic growth attained within the study period.

The importance of improving access to and equity in the provision of education and health to achieve human development stock is demonstrated

by Pundy (2006). Though the main shortcoming to attain economic growth in South Africa is squarely the shortage of skilled human resources, but for sustained growth to check poverty and unemployment, human capital of higher order than what is amenity being produced in both quantity and quality. He stressed the importance of linking the development of human capital with/ to all other sectors for a meaningful development.

In a presentation made by Ajetomobi and Ayanwale (2007) which looked into nature of education allocation to GDP in Nigeria and its relationship to the existence of high level of unemployment, it was observed that poor funding and increasing level of enrolment featured the economy and the resultant effect has been the retardation of economic growth as utilisation of resources is low and poor. For Nigeria to avoid the anticipated calamity, efforts must be multiplied many folds in developing human capital.

Another dimension is given to the modern study of human capital in Nigeria most especially in Kano, where the non formal education which is inherent in the State was explored. The research by Jibril (2011), has identified a dual educational system which encompassed western education and the traditional Islamic/Qur'an education where despite government sponsor for the earlier, the later still enrolls large number of youth, and of course providing a considerable measure of human capital for the State and the economy in general. The paper has shown that economic status of parents, rural or urban location of the household, family size, and parents' level of western education are the major factors that continue to determine the demand for non formal education, otherwise known as Almajirci. The paper

suggested that for household to send their wards to formal education system poverty needs to be addressed through rehabilitating commerce, agriculture and industry sectors. Another argument forwarded by Jibril (2010) is that, for meaningful human capital development, and the achievement of international targets such as the MDGs and Decade for Education for Sustainable Development, the duality in the Kano education system needs to be taken into full consideration.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 INTRODUCTION

In this chapter, we attempted to show the different methods designed to gather the necessary information for the study. It shows the type and source of the data, the terms defined as well as models specification and estimation techniques.

3.2 DESCRIPTION OF THE STUDY AREA

Kano State was created in April, 1967 and took off in April, 1968, which comprised the present Kano and Jigawa States then, until 1991 when the latter was created. It is located in the savannah vegetation belt within the following degrees; 12` 37`N, 9` 29`E, 10` 33`S and 7` 34`W. It borders Jigawa State to the east, south by Bauchi and Kaduna States, west by Katsina State and north also by Jigawa and Katsina States. It has mean temperature of 30^0C – 33^0C around the months of March to May and lowest 10^0C by December – January every year. In size, it is 20,760 square kilometres, 1754,200 hectares representing agricultural land and 92,250.81 hectares forest vegetation. It has a population of 9,383,682 (2006 census) mainly Hausa and Fulani speaking people.

It is an agrarian State with about 75% of population practicing agriculture. Crops produced are groundnut, cotton, millet, guinea corn, maize, cowpea, rice, wheat and variety of vegetations. Livestock include cattle, sheep, goats, and in addition to poultry and fish farming, donkeys and horses are reared as beast of burden transport and cavalry. Mineral resources available include:

tin, columbine, feldspar, glass, sand, gemstone, gold, lead, zinc, copper, clay, wolfram and bauxite. In the manufacturing sector, there are about 300 small, medium and large scale industries located at Bompai, Sharada and Challawa industrial estates. It is pertinent to note that a large number have closed down due to excessive electricity/power out stage and economic downturn.

Among its tourism attraction sites are: Dala and Goron Dutse hills, Emir's Palace, the City Wall, Kofar Mata Dying Pits, Kurmi Market and so on. It is also blessed with many hotels which include: Tiga Rock Castle, Daula Hotel, Ni'ima Hotel, Torona Hotel, Tahir Guest Palace; Central Hotel etc. There is also an International Airport, the Malam Aminu Kano International Airport (MAKIA), a railway line and road networks linking the State with the rest of the country and the neighbouring republics.

The State has 44 Local Government areas. The State has been administered by 16 Governors among which only 7 were civilians including the incumbent. Presently, there are agitations for the creation of additional two to three States. Also, among these 44 Local Government areas, 8 are within the metropolitan area of the State that makes up the State capital.

3.3 TYPES OF DATA

This study has used time series data from 1990 to 2009, namely;

a. Data on distribution of students' enrolment by type of institution and academic year.
b. Data on government expenditure on education.

c. Data on gross budget estimate and allocations to education.
d. Data on primary and secondary schools buildings.
e. Data on secondary school certificate of education (WAEC/NECO).
f. Data on the number of graduates over the years in the State.

3.4 SOURCES OF DATA

Data were collected through secondary sources. The data collected were from different sources which include:

i. Kano State Ministry of Budget and Planning
ii. Kano State Ministry of Education
iii. Kano Education Resource Department (KERD)
iv. National Population Commission (NPC) Kano state office
v. Kano State House of Assembly.
vi. Kano State Scholarship Board.

3.5 METHODS OF DATA ANALYSIS

The analysis of the study was broadly divided into two parts. The first part took the descriptive form using statistical tools and data gathered on school enrolment, teaching staff strength, general government expenditure on education and gross government expenditure.

The second part was empirical using the Ordinary Least Squares (OLS) regression method. The package used in this research was the E-views. The Step-wise method was applied to both simple and multiple linear regression techniques to determine the nature and degree of relationship that exist between Public Expenditure on Education (PEE) and the State Government

Expenditure (SGE) in providing and enhancing Human Capital Development (HCD) in Kano State.

Some of the statistical tests carried out include R-square, adjusted R-square, student's t-test, F-test and Durbin-Watson tests. All statistical tests were carried out at 95 percent significant level.

3.6 MODEL SPECIFICATION AND ESTIMATION PROCEDURE

The relationship between the dependent variables (HC) and all other independent variables were expressed, each in a single functional form, along their linear model options as follows:

HC = f(PEE)

$$Y = \beta_0 + \beta_1 X_1 + \mu \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \quad (3.1)$$

Where Y is the number of graduates from tertiary institutions

X is Public Expenditure on Education (PEE)

The annual public expenditure on education comprises of the recurrent expenditure and the capital expenditure, whereas the former is the summation of personnel cost and overhead cost, the latter is number of schools provided and the teaching aids supplied. With this therefore, we can rewrite as follows:

PEE = f(ReE, KpE)

$$Y = \alpha_0 + \alpha_1 X_1 + \alpha_2 X_2 + \mu \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \quad (3.2)$$

Where: Y = PEE,

X_1 = ReE and

X_2 = KpE

In stochastic form equation 3.2 becomes:

$$Y = \beta_0 + \beta_1 ReE + \beta_2 KpE \quad \text{(3.3)}$$
$$(t_1) \quad (t_2)$$

Where:

β_0, β_1, and β_2, are parameters to be estimated,

μ = error term,

$t_1 - t_2$; values in parentheses are the t values for each variable,

Y = HC = Human Capital (Number of Graduates)

X_1= ReE = Recurrent Expenditure

X_2= KpE = Capital Expenditure

It should be noted that recurrent expenditures are day to day costs of the education sector such as payment of salaries of academic and non-academic staff, overhead cost and so on while the capital expenditures include: building of structures, furniture, and all other teaching materials. In this vain, we can as well depict human capital as function of these variables as follows:

HC = f(PSE, SSE, ASE, NSB)

That is: $Y = \alpha_0 + \alpha_3 X_3 + \alpha_4 X_4 + \alpha_5 X_5 + \alpha_6 X_6$ ..... (3.4)

In stochastic form equation 3.4 becomes:

$$Y = \beta_0 + \beta_3 PSE + \beta_4 SSE + \beta_5 ASE + \beta_6 NSB + \mu \quad \text{(3.5)}$$
$$(t_3) \quad (t_4) \quad (t_5) \quad (t_6)$$

Where:

β_0, β_3, β_4, β_5, and β_6 are parameters to be estimated.

μ = error term,

$t_3 - t_6$; values in parentheses are the t values for each variable,

Y = HC = Human Capital

X_3= PSE = Primary school Enrolment

X_4= SSE = Secondary School Enrolment

X_5= ASE = Academic Staff Employed

X_6= NSB = Number of schools Built

It is pertinent to note that by the rule of thumb a very high value of R^2 means that a significant variation in dependent variable is explained by the explanatory variables. When this happens, the model is said to have strong explanatory powers. Also, very low values of D.W. indicate the existence of serial or auto-correlation.

3.7 TEST FOR STATIONARITY

The essence of investigating the time series properties is to enable us use the data and this can only be possible when series are stationary. By definition, a stationary process is one whose joint and conditional distribution are invariant with respect to displacement in time. Stationary is important because if there is non-stationary of the time series, the classic T-test and F-test become inappropriate. The problem of nonsense correlation or spurious regression may arise, where otherwise unrelated series may be presented when non-stationary series are used. The test therefore, was done using the Augmented Dickey-Fuller (ADF). This was because the ADF allows serial

correlation in the error term. Here the observations were first tested at levels. To know whether the data is stationary, the values of the ADF statistics were compared with the Mackinnon critical values. If an ADF value is greater than Mackinnon critical value at choosing level of significance, say 5%, then we reject the null hypothesis of non-stationary and conclude that the data is stationary.

The model for unit root test is specified as follows:

$Dx_i = \alpha + \delta_i + \beta X_{t-1} + \sum \lambda DX_{t-1} + \mu$

Where:

X_t = the variable under investigation

Dx_i = the difference of the variable under investigation

μ = the random error term while

α and δ_i are intercepts when the test is carried out.

The null hypothesis of a non-stationary is rejected, if the statistics is greater than the critical value. The t-statistics refers to the value of Augmented Dickey-Fuller statistics.

CHAPTER FOUR

PRESENTATION OF DATA, ANALYSIS AND THE RESULTS

4.1 INTRODUCTION

In this chapter of the study, we dealt with presentation and analysis of empirical data generated from various sources stated in the earlier part of this work. Concurrently, the qualitative and quantitative analyses were presented. Tables, graphs and percentages were used in presenting the data. Moreover, multiple regression analysis was carried out in the quantitative analysis after which interpretation of the results follows.

4.2 KANO EDUCATION POLICY OBJECTIVES

The objectives of public investment in education since the inception of the State were summarized as follows:

a) To provide quality education to Kano indigenes.
b) To ensure Education For All (EFA).
c) To create necessary manpower for the State in order to substitute the non-indigenes with the indigenes at the State and national levels.
d) To provide modern qualitative labour force for international competitiveness.

To achieve these policy objectives, as stated in the Roadmap for economic development of Kano State (2007-2011), there was a need to improve the education sector through proper and adequate finance, intensify social mobilization and encouraging stronger participation of the local community through for example, public/private partnerships in developing new schools and providing further financial support to private and community schools.

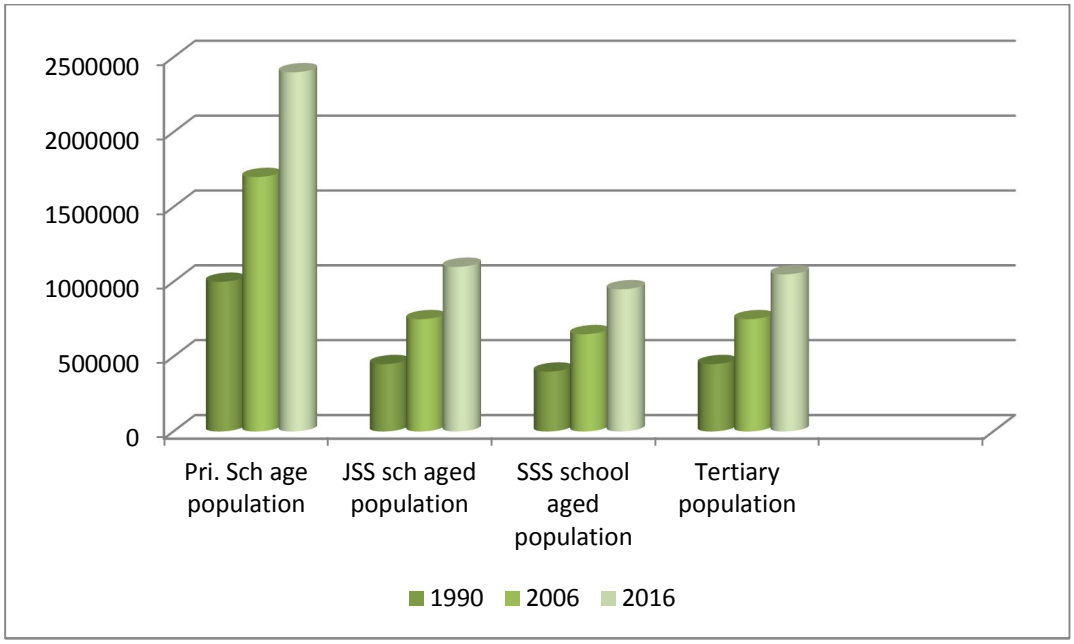
4.3 DEMOGRAPHY AND DEMAND FOR EDUCATION

One vital component in education planning is the size of the population that needs to be provided with access to education services. The extent to which the population of the State changes with time since the inception of the State is alarming. Kano State population grew from 5.6 to 9.4 million between 1991 and 2006 which translates into an average annual growth rate of 3.5%. The 2006 national census placed Kano the most populated among the States of Nigeria with not less than 10 million people. Due to this rapid population growth, the size of the school-age population grows each year and new school places need to be provided on an annual basis, if the proportion of children enrolled in school is to remain constant.

The Kano State high population growth gave rise to the expansion of the school age population. In 1990, there were approximately one million children of primary school age, 450,000 of junior secondary school age, 400,000 of senior secondary school age and 435,000 of tertiary institution age. From Figure 4.1, we can observe the trend of this growth in the demand for education in the State and the projection therewith for 2016.

The annual population growth rate between 1991 and 2006 in Kano State was 3.5%. This has been used to project populations forward to 2016 and backwards to 1991. It has been assumed, therefore, that the age structure of the population remains the same. This population growth rate has been provided by the National Population Commission (NPC) based on the 1991 population census.

Figure 4.1: School Age Population in Kano State (1990-2016)



Source: Kano State Ministry of Education (2008)

4.3.1 OUT OF SCHOOL CHILDREN

The out of school population was calculated using net enrollment rates and school aged population, based on the 1991 and 2006 Nigeria Population Census. Nevertheless, in Kano State there are other school aged children that do not patronize the formal education but the religious Qur'anic schools. Global estimates for 2004 show that approximately half of all the children of primary school age, who are currently out of school are located in Sub-Sahara Africa (SSA) (UNESCO, 2006). Another study conducted by the same body showed that 21% of all primary school age out of school children in SSA are located in Nigeria. The research showed also that approximately 10% of children of primary school in Nigeria are in Kano. Estimate of the secondary school aged population out of school is 1 to 1.2 million children out of secondary school in this age group.

A number of reasons were provided by the Kano State Ministry of Education to explain why these children were not found in the school. Firstly, there are the direct and indirect costs of attending school. The direct cost include: the school fees to be paid, the cost of uniform, the cost of books and other stationary and lastly, the cost of transportation and pocket money. On the other hand, the indirect cost comprised of cost of losing what the child has been contributing to the parents; the opportunity cost of schooling. Secondly, 6-7 years of age is seen as too young to attend school (formal education) even though the children are within the age bracket. Thirdly, distance to school and poor quality of school constituted another set of factors to this problem. Lastly, children from households with better educated household heads and with higher income were more likely to be enrolled in schools.

4.4 POVERTY, THE ECONOMY AND DEMAND FOR EDUCATION

Apart from high rate of population growth, there is as well high dependency ratio in the state. By using the working population age in Nigeria (15-64), it was identified that there is at least one member of the household who is either a child (0-14) or over aged of 64 in Kano State, (National Bureau of Statistics, 2006). This high dependency ratio implies that the burden on the economically active household members, in terms of providing for other family members including sending children to school, is high in the State. A recent study on poverty in Nigeria found that 70% of Nigerians are living below the poverty line that implies spending less than a Dollar per day for food intake.

A greater percentage of economically active population in Kano State (aged 15 and above) are in employment, even though, a considerable number are classified as underemployed. Most individuals are self employed and work in their own or household enterprises/farms. Agriculture is a very important sector of employment for the Kano economy. The agriculture is characterized by small-holding, rain-fed subsistence farming and a growing large scale commercial farming. This entails that, there is as well seasonal unemployment.

4.5 SOURCES OF FINANCE IN KANO STATE

There are two major sources of revenue generation to the State government which include the share from the federation account that comes monthly and the internal or local sources of revenue collection. The earlier being the Federal Government deposit tax receipts and revenues from the sale of oil into the federation account later been shared between Federal, State and Local Governments according to a formula, (World Bank, 2007). The criteria been used in this allocation include population and a number of other key principles such as internal revenue generation capacity, land mass and derivation.

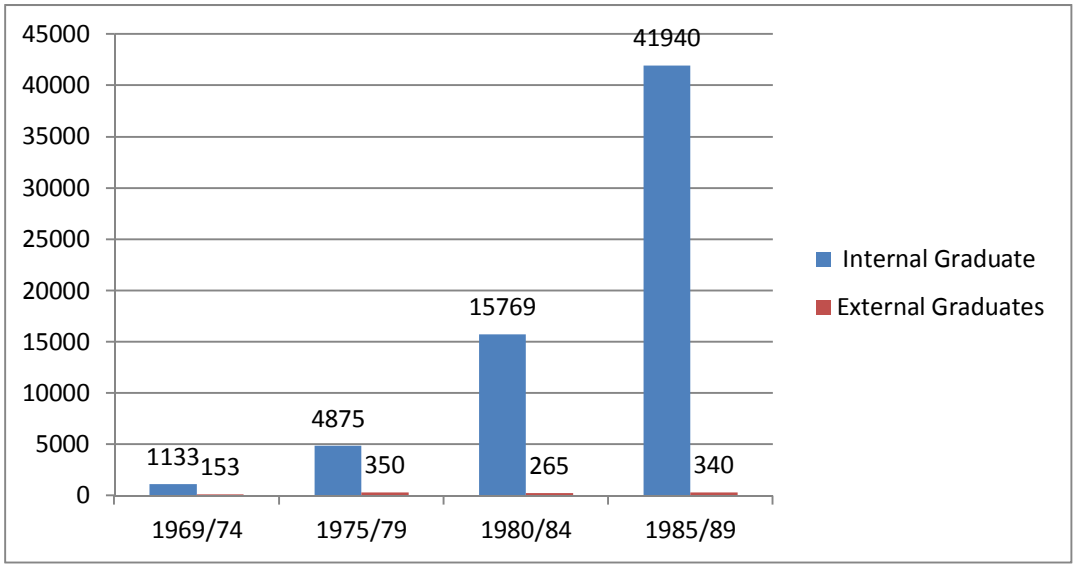
4.6 STATISTICAL BACKGROUND OF KANO HUMAN CAPITAL FORMATION

In Kano State there is existence of surplus labour relative to shortage of critical skills and for this reason, education goes a long way to solve these problems. Provision of formal education has been the sole responsibility of the State government especially since the inception of the State until recently

that the State government is inviting parents/guardians and the community at large to come in as business entity. At the creation of the State in 1967, the State indigenes were sponsored to attain higher level of education not only in Nigeria but outside the country. During that time, there was no university in the State or any other higher tertiary institution of learning until in 1970 when the Institute for Higher Education was created. The Institute was comprised of four independent schools/colleges; the School of Management studies, the School of Technology, and the School for Community and Rural Studies, and the School for Preliminary Studies. All of these none has ever been degree awarding institution. Later new schools were added in the educational sector of the State such as Audu Bako School of Agriculture, Sa'adatu Rimi College of Education (COE), and School of Environmental Studies. In 1970, the Bayero University, Kano (BUK) was established and later on in 2002, the Kano State University of Science and Technology (KUST) came into being.

There was excessive quest for the State indigenes to take over the running of the affairs of the State, though there is sharp shortage in supply of qualified manpower and therefore Ordinary National Diploma (OND), Higher National Diploma (HND), degrees and other certificates in any discipline were regarded sufficient for immediate employment. Figure 4.2 shows the number of graduates in National Diploma (ND), Higher National Diploma (HND), National Certificate on Education (NCE), degrees and all other certificates in any discipline that were sponsored by government.

Figure 4.2: Number of Graduates generated through public expenditure prior to 1990



Source: Kano State Scholarship Board

We can see from figure 4.2 that from the creation of the State in 1967 up to 1989, the total number of graduates under government sponsorship was less than seventy thousand. Out of 64,825 graduates through government expenditure up to 2% were sponsored outside Nigeria. These are the graduates that were supplied into labor market as Kano State share in providing manpower necessary for modern production in Nigeria and the State as well.

It is pertinent to notice that the number has been increasing every year from as small as 106 graduates in 1969 to 9662 graduates in 1989, yet the number is too meager considering the opportunities available by the number of firms and industries located in Kano State, the opportunity open to individuals to take up private informal businesses and the rate of demand of public and civil servants needed in Kano State and in Nigeria and the international community.

4.7 FUNDING OF EDUCATION IN KANO STATE

The Kano State educational system is witnessing an explosion in the context of declining resource inputs particularly from government. This is because enrolments in schools are increasing and the needed resources to meet the infrastructural and other requirements are dwindling. Since inception of the State the responsibility for the management, funding and supervision of education has solely been that of the government and this has caused a number of problems in different aspects of education in the state. The major areas, which have been affected, are quality, equity and efficiency of the system.

In order to understand clearly the extent to which the state government is worried about this scenario and the response made, one will like to see the expenditure profile that covers the research period.

Table 4.1: State Government Annual Budget and its Allocation on Education

Year	State Annual Budget (□b)	Share to Education (□b)	Education/budget percentage	UNESCO (26%) requirement (□b)	Amount Underfunded (□b)
1990	1.304	0.130	10	0.339	0.210
1991	1.796	0.215	12	1.581	1.559
1992	1.167	0.218	19	0.303	0.084
1993	3.083	0.244	8	0.802	0.557
1994	2.798	0.330	12	0.727	0.397
1995	3.879	0.341	9	1.009	0.668
1996	5.682	0.380	7	1.477	1.097
1997	5.454	0.427	8	1.418	0.991
1998	8.155	0.915	11	2.120	1.205
1999	8.221	0.795	10	2.137	1.343
2000	25.042	2.650	11	6.511	3.861
2001	35.872	3.919	11	9.327	5.408
2002	36.360	3.887	11	9.455	5.566
2003	38.733	4.714	12	10.071	5.356
2004	27.859	3.557	13	7.243	3.686
2005	46.655	3.450	7	12.130	8.680
2006	51.991	7.777	15	13.518	5.741
2007	57.766	9.285	16	15.019	5.735
2008	105.216	12.476	12	27.356	14.880
2009	114.891	20.312	18	29.872	9.559

Source: Columns 1 & 2; Ministry of Budget and Planning, Kano State. Columns 3, 4 & 5; Author's calculations

Huge amounts of money have been earmarked in education sector to arrest the situation, as depicted in Table 4.1, so as to develop human capital in the State where in 1990, out of more than □1.3b speculated for the whole State as budget, not less than □130m were allocated to education to cater for anything that has to do with education from primary school pupils to students of undergraduate level. It can be observed that this amount has been increasing throughout the period under study. For instance, out of □25.04b budgeted in the year 2000 □2.65b were allocated to education sector. This has shown that as Kano State budget has increased by 1481.7%, the education share has increased by 1938.5% from 1990 to 2000, a period of eleven years.

Moreover, from the year 2000, there has been remarkable changes in the amount been speculated to education in Kano State. For instance, out of □25.042b budgeted for the State, □2.65b were allocated to education at all sectors but in 2009, □114.891b was budgeted for the State out of which □20.312b were for education. This has shown that there is remarkable change to the extent that the state budget has changed by 220% while education allocation has changed by 662.75%. This has shown numerically that there was tremendous increase in education slot from the State budget.

Nevertheless, going by the UNESCO stipulation, education is underfunded provided that a given government allocates less than 26% of its annual budget to the sector. The UNESCO recommends 26% budgetary allocation to the education sector, [Bolaji (2004) and Ribadu (2010)].

4.7.1 EDUCATION EXPENDITURE

Undoubtedly, the bulk of funding formal education in Kano State comes from the State's own budget, nevertheless, there are number of other avenues that provide additional funds to this education sector. Among these avenues include the Federal Government, some international donor agencies such as DFID, UNICEF, USAID and World Bank and though insignificant but worthy to mention are the communities, individuals and households.

One vital feature that needs to be analyzed is the spending composition of all the expenditures of government on education in the State. Apart from the fact that underfunding became visible as in Table 4.2, it also shows that much expenditure are geared towards teacher salary inputs. The resultant effect of this could be deterioration of schools building, inadequate classes as there is growing increase in demand for education at all levels, insufficient teaching materials and at the same time insufficient employment of teachers and their basic needs that improve efficiency due to the general problem of underfunding.

According to the Fast Track Initiative (FTI), it is expected that 33% of all allocation for spending on education shall go to capital expenditure, which is non-teacher salary inputs. In Kano State, over the years, the benchmark hardly been reached especially in the military era, where all those periods within the scope of this study were experiencing finance deficit until the coming of this democratic dispensation that things are improving though the finance is fluctuating.

Box 4.1: Sources of Kano state Education Sector Financing

Federal Government

a. Funds directly to Unity and Federal Technical secondary schools and tertiary institutions. These include Federal Government Colleges, Unity school of Karaye, the Bayero University and so on.
b. There is capital funding in Universal Basic Education Commission (UBEC) International Fund. This funding is only available after the State government deposited its matching fund of 30% of the required amount that the fund releases the 70%. From the total generated, 70% of this fund is confined to construction, renovation and purchase of furniture, 15% to teaching materials including textbooks, and another 15% to teacher support such as training.
c. Education Trust Fund (ETF). The major unit financed by this fund is identified in provision of capital project with a stated rule of proportion to each type of institution. For instance, Federal and State Universities 20%, Federal and State Colleges of Education 10%, Monotechnics and Polytechnics 10%, Primary education 24%, Secondary education 16% and Special Project 20%, (World Bank 2007).
d. Provision of special services such as schools inspection in the State.

Kano State Government

a. All state level tertiary institutions and secondary schools are funded.
b. Special but constant support to primary schools in such items like overhead and capital costs, and also there is cost of releasing matching fund to UBEC as stated above.
c. Provides demonstrative and inspection services through the State Ministry of Education.

Local Government Authorities

a. Pays primary school teachers salaries.
b. Provides some capital funding for primary schools.
c. Administers and inspects local primary schools through Local Government Education Authorities (LGEA).

External Sources

a. International donor agencies such DFID, USAID, UNICEF, UNESCO and World Bank provide some support to the education sector in the State.

Communities, Individuals and Households

a. At all levels and under different situations, households provide donations, fees and other supports to education.

Table 4.2 shows how the composition of government expenditure on education has been, where from 1990 to 1997, the FTI benchmark proved deficit in appropriate financing of the sector except in 1998 where some amount was earmarked for capital projects. On the other hand, during the democracy period more money was directed in providing capital projects except in some few periods like 2004, 2007 and 2008.

The Fast Track Initiative (FTI) is a partnership of developing and donor countries and agencies to support global Education For All (EFA) goals by focusing on accelerating progress towards the EFA goal of universal primary school completion, for boys and girls alike, by 2015. Among the benchmark

indicators of the FTI include the pupil-teacher ratio which set it at 40:1. Throughout the period covered by this research the FTI benchmark has never been attained except in 2004 and 2008 where the pupils/teacher ratio were 36:1 and 38:1 respectively. These ratios were not because of increase in the volume of employment of the teachers but as a result of sharp decrease in pupils' enrolment. Democracy has surely boosted the enrolment of pupils both in the urban and rural areas that was what led to the increase in enrolment which in turn led to overcrowding in classrooms. Though, overcrowding has featured primary education in Kano state for a long period of time, the problem has escalated in the democratic period where 80:1 pupils/teacher ratio was attained in 2005.

Table 4.2: The Composition of Government Spending on Education

Year	Total expenditure (□)	Recurrent Expenditure (□)	Capital Expenditure (□)	FTI (33%) Benchmark (□)	Deficit/Surplus (□)
1990	129,540,420	110,244,420	19,296,000	42,748,338	-23,452,338
1991	214,973,000	160,143,000	54,830,000	70,941,090	-16,111,090
1992	218,844,000	165,980,000	52,864,000	72,218,520	-19,354,520
1993	244,446,195	209,471,195	34,975,000	80,667,244	-45,692,244
1994	330,051,500	300,873,500	29,178,000	108,916,995	-79,738,995
1995	352,078,280	323,811,560	28,266,720	116,185,837	-87,919,112
1996	380,345,000	348,945,000	31,400,000	125,513,850	-94,113,850
1997	427,108,000	353,000,000	74,108,000	140,945,640	-66,837,640
1998	914,749,870	401,996,000	512,753,870	301,867,457	+210,886,412
1999	794,702,759	752,743,759	41,959,000	262,251,910	-220,292,910
2000	2,650,247,200	1,449,747,200	1,200,500,000	874,581,576	+325,918,424
2001	3,918,956,292	1,794,463,000	2,124,493,292	1,293,255,576	+831,237,716
2002	3,887,237,000	1,587,674,000	2,299,563,000	1,282,788,210	+1,016,774,790
2003	4,714,207,940	1,845,252,000	2,868,955,940	1,555,688,620	+1,313,267,320
2004	3,557,115,620	2,685,000,000	872,115,620	1,173,848,155	-301,732,535
2005	3,450,000,000	1,085,000,000	2,365,000,000	1,138,500,000	+1,226,500,000
2006	7,776,886,000	5,193,886,000	2,583,000,000	2,566,372,380	+16,627,620
2007	9,284,897,960	6,568,497,960	2,716,400,000	3,064,016,327	-347,616,327
2008	12,475,752,259	8,835,652,259	3,640,100,000	4,116,998,245	-476,898,245
2009	20,312,254,271	11,379,818,118	8,932,436,153	6,703,043,909	+2,229,392,243

Source: Columns 2, 3 and 4; Ministry of Budget and Planning, Kano State, column 5; FTI Benchmark provides that 33% of allocation to education shall be spent on capital expenditure (non-teacher salary inputs) and column 6; Authors calculation of deficit/surplus (the difference between columns 4 and 5.

Table 4.2 provides the budget allocation to education in Kano state vis-a-vis State budget and what should have been the allocation, if the UNESCO guidelines would have been allowed to hold. The Table has shown that throughout the period under study, 26% requirement has never been attained. The highest percentage ever earmarked for on education from the State budget was 19% in 1992, followed by in 2009 that 18% was allocated. For instance, in 1992, only □218.48 million out of □1.17 billion of the State total budget was allocated to education whereby the required expenditure should not have been less than □303.32 million; a shortage of □84.48 million. Likewise, in 2009, out of □114.89 billion which the State budgeted, only □20.31 billion was allocated to education. Going by the UNESCO requirements, □29.87 billion should have been the allocation; therefore there was a shortage of □9.56 billion.

This could be the reason behind the insufficient number of primary and secondary schools available in western education sector in the State. Though expenditure on education has been increasing throughout the period of study in the State as shown in Figures 4.1 and 4.2, but the number of schools being provided have never been able to cater for the expanding demand for education in the State. The increase in expenditure in education in the State was because the value of money in the economy has reduced which caused inflation and the huge amount of money mentioned so far in the sector. It is necessary as well to increase this allocation because of the increasing demand for western education as population grows.

4.8 THE GROWTH OF PRIMARY AND SECONDARY SCHOOL BUILDINGS

In 2009, the total number of primary and secondary schools in the State were 4381 and 763 respectively. Though, there was no proper record of the number of these institutions prior to 1995, but in 1996 there were 2110 primary schools which shows a percentage increase of 106% only for over thirteen years while the number of school children as at 1996 was 948,269 pupils which increased to almost 3 million pupils.

In 1996, there were only 260 secondary schools in the State and this implies that there was a percentage increase of 193% to 2009. This shows that the growth of providing secondary education in the State in terms of buildings out grew that of the primary schools. Also, the number of students in secondary education as at that period was 115,821 but this has grown to 609,819 in 2009. This was a testimony of congestions that featured all public primary and secondary schools in the State.

Box 4.2: Benchmark Indicators and Kano State's Attainment

Body	Indicator	Benchmark	Attainment
UNESCO	Percentage of total budget to education	26%	Highest 18%
FTI	Percentage of capital/recurrent expenditure to total expenditure on Educ.	33%	8 times in 20yrs
	Pupil-Teacher ratio	40:1	2 times in 20yrs
	Students-Tutor ratio	40:1	Once in 11yrs
	Percentage of pupils enrolled in Private Primary Schools	≤10%	
	Percentage of age-group entering first grade primary cycle	100	58%
	Percentage of age-group completing primary cycle	100	73%

Source: Kano State Education Sector Analysis, 2007

The gross intake rate is defined as total enrollment in the starting grade divided by the population of the starting age. The completion rate is defined as total enrolment in the final grade divided by the population of finishing age. The finishing ages in primary and junior secondary schools are 11 years and 14 years respectively.

Table 4.3: Teachers, Pupils and Number of Schools in Kano Primary and Secondary Education Sectors

Year	Primary Education						
	Number of schools	Pupils' enrolment				Total number of teachers	Pupils/ Teacher ratio
		Male	Female	Male/Female pupils ratio	Total		
1990	n.a	575761	317956	1.8	893,717	21362	42
1991	n.a	661293	355590	1.9	1,016,883	22768	45
1992	n.a	455987	266378	1.7	722,365	15188	48
1993	n.a	468314	264175	1.7	732,489	16343	45
1994	n.a	501921	282520	1.8	784,441	16894	46
1995	n.a	510606	308216	1.7	818,822	16782	49
1996	2110	572782	375487	1.5	948,269	16809	56
1997	2115	539783	325575	1.7	865,358	16250	53
1998	2150	681657	421725	1.6	1,103,382	15319	72
1999	2270	857145	431852	2.0	1,288,997	19232	67
2000	2424	891285	450017	2.0	1,341,302	19051	70
2001	2409	891285	450017	2.0	1,341,302	19984	67
2002	2752	1008771	672514	1.5	1,681,285	22084	76
2003	2981	1040122	752569	1.4	1,792,691	26214	68
2004	2989	1226779	745480	1.6	1,972,259	26351	36
2005	3785	1636235	976518	1.7	2,612,753	32826	80
2006	3795	1678241	991126	1.7	2,669,367	34566	77
2007	3795	1845223	1089257	1.7	2,934,480	44202	66
2008	4347	1002001	956644	1.1	1,958,645	51301	38
2009	4381	1752335	1246532	1.4	2,998,867	51874	58

Source: Ministry of Education, Kano state. Columns 5 and 8 are author's calculations based on the FTI benchmark.

In the secondary school sector, the year 2001 was featured with the highest students/tutor ratio where 107 students were for a tutor. From 2005, the ratio has been decreasing from 80:1 to 47:1 which has been a result of new secondary schools built throughout the State. The number of secondary schools in the State in 2005 was 452 but by 2009 the number has increased to 763, an increase of about 69%. In addition to that, there was increase in employment level of tutors, where by 2005 the number of tutors employed was 6179 which increased to 12883 in 2009; a percentage increase of 108% in the employment of the tutors.

Table 4.4: School Buildings, Student Enrolment and Number of Tutors in Secondary Schools

Year	Secondary Education						
	Number of schools	Students' Enrolment				Total number of Tutors	Students/ Tutor ratio
		Male	Female	Male/Female Student ratio	Total		
1990	199	n.a	n.a	-	108488	n.a	-
1991	205	n.a	n.a	-	107860	n.a	-
1992	168	n.a	n.a	-	112131	n.a	-
1993	166	n.a	n.a	-	110164	n.a	-
1994	197	n.a	n.a	-	121126	n.a	-
1995	230	n.a	n.a	-	114705	n.a	-
1996	260	n.a	n.a	-	115821	n.a	-
1997	251	n.a	n.a	-	115927	n.a	-
1998	255	n.a	n.a	-	177772	n.a	-
1999	313	140370	59290	2.4	199660	4331	46
2000	334	52748	34728	1.5	87476	4428	20
2001	296	277279	98001	2.8	375280	3511	107
2002	351	303698	98268	3.1	401966	4020	100
2003	433	330117	98535	3.4	428652	5021	85
2004	452	364185	108389	3.4	472574	5365	88
2005	452	368629	124321	3.0	492950	6179	80
2006	516	495839	127891	3.9	623730	8097	77
2007	595	377487	140111	2.7	517598	8097	64
2008	757	380315	151216	2.5	531531	12822	41
2009	763	418002	191817	2.2	609819	12883	47

Source: Kano state MOE, Gidan Murtala, columns 5 & 8 are author's calculations

4.9 THE OUTPUT OF EDUCATION EXPENSES

For every input directed towards production there must be output which evaluates cost encountered, technical combination of inputs, method production and quantity of inputs used. There will be two criteria for the evaluation of these expenses. We examined the results of students completing secondary school and the number of graduates produced every year. It is disappointing to observe the number of students who completed the secondary with at least three credits and those with at least five credits was very low. In the State own higher institutions, there are some courses that admit students with three to four credits while in the Federal institutions and Kano State University of Technology, a minimum of five credits is

required. The information in Table 4.5 has shown the instances of the performance of students generated from the public expenditure on education.

Table 4.5: Number of Students with at Least Three and Five Credits in Secondary School Leaving Examination

Year	Number of Candidates			Results Earned			
	Registered with WAEC	Registered with NECO	Net Registered Students	At least 3 credits (Net)	Percentage with at least 3 Credits	At least 5 Credits (Net)	Percentage with at least 5 Credits
1990	8040	-	8040	858	10.72	612	07.61
1991	7608	-	7608	330	04.34	96	01.26
1992	8676	-	8676	516	05.95	210	02.42
1993	12876	-	12876	772	05.99	100	00.78
1994	11460	-	11460	1945	16.97	430	03.75
1995	11448	-	11448	948	08.28	190	01.70
1996	10722	-	10722	822	07.67	72	00.67
1997	11184	-	11184	576	05.15	54	00.48
1998	12774	-	12774	924	07.23	252	01.97
1999	13839	-	13839	336	02.43	14	00.10
2000	-	13976	13976	6118	43.76	1836	13.14
2001	5259	18718	18406	8777	47.69	4582	24.89
2002	12176	18476	18998	12834	67.55	4955	26.08
2003	10712	18471	19017	9505	49.98	4500	23.66
2004	12853	20171	20429	3560	17.43	829	04.06
2005	14602	23883	25570	2826	11.05	677	02.65
2006	17900	23819	25894	12675	48.95	5226	20.18
2007	20365	30240	31137	17545	56.35	8071	26.69
2008	39417		39417	3635	09.22	2324	05.90
2009	29810		29810	2434	08.17	832	02.79

Source: Kano Education Resource Department (KERD), Examination Section.

4.9.1 THE OUTPUT OF THE POST-PRIMARY EDUCATION

The general result of these students is not encouraging as it hinders human capital development in the State that is left behind other States in the modern method of production in Nigeria. The number of students sitting for the examination has been increasing tremendously from merely eight thousand

to about forty thousand in 20 years but the percentage of those with the minimum requirements for admission into higher institutions of learning has been decreasing. For instance, from 1990 to 1999, the number of students with at least three credits has been less than 10% except in 1990 and 1993 where 10.72% and 16.97% were recorded respectively. Likewise, in respect of those that scored at least five credits in this first ten years period was generally poor. No period has recorded up to 10%. This implies that the State has not been able to fill in its quota in all allocations speculated for the State in all Federal institutions. More years must be wasted in clearing the abnormalities before gaining admission into these degrees awarding institutions.

The first decade of the twenty-first century however, has shown some level of improvements. The number of those who scored at least three credits has been more than 10% except in 2008 and 2009 where 9.22% and 8.17% were attained respectively. Though, the result is gradually improving, for instance from 43.76% in the 2000 to 47.69% in 2001 and to the highest attainment of 67.55% in 2002, the results have been a fluctuating phenomena. It fell down to 11.05% in 2005 before it rose again up to 56.35% in 2007. On the other hand, the number of students that scored at least five credits from the year 2000 to 2009 has improved compared to first ten years of the research period. Whereas, 13.14% of the students scored at least five credits in the year 2000, in 2009 not up to 3% scored five credits and above. In addition to that, there never been a period where 30% of the thousands of students that sat for the final secondary school examinations scored at least five credits. That means not more than 26% of these students are gaining admission

directly into degree awarding institutions as immediate as necessary after completing secondary education in the State.

4.9.2 THE OUTPUT OF THE TERTIARY EDUCATION

The type of graduates to be analyzed is such that comprise of degree holders and other certificates of higher learning. It would have been better if the data could be categorized into different components of graduates with respect to their area of specialization. The data was not available in that form. Nevertheless, Table 4.6 shows the number of graduate produced through government expenditure in Kano State within the period under study.

It could be seen that the State government still sponsor some of its citizens abroad for further study as it has been a tradition since the inception of the State. For instance, in 1990 the number of graduates in all fields of study was 10,106 in Nigeria and 346 from abroad. But this number has increased to 55,591 for internal generated graduates and 81 only for those from abroad. It should be noted that in the late 1990s the figure was reading in less than thousands up to 2001. This scenario cannot be unconnected with poor performance of these students in their secondary school leaving examination of which most of them were not able to secure at least five credits; the minimum requirements into higher institutions of learning.

Table 4.6: Number of Graduates in Kano State (1990-2009)

Year	Internal Graduates			External Graduates			Grand Total	Sub-total	%Δ	Male/ female ratio
	Male	Female	Total	Male	Female	Total				
1990	9253	853	10106	331	15	346	10452		-	11
1991	12703	871	13574	77	25	102	13676		30.85	15
1992	9488	988	10476	135	13	148	10624		-22.32	10
1993	11475	1121	12596	145	37	182	12778		20.27	10
1994	9715	1936	11651	136	15	151	11802		-07.64	5
1995	8930	611	9541	119	7	126	9667		-18.09	15
1996	6913	629	7542	9	1	10	7552		-21.89	11
1997	5679	800	6479	5	Nil	5	6484		-14.14	7
1998	5607	812	6419	4	Nil	4	6423		-00.94	6
1999	5230	972	6202	1	Nil	1	6203	95,661	-03.43	5
2000	5172	1012	6184	Nil	Nil	Nil	6184		-00.31	2
2001	5932	2909	8841	Nil	Nil	Nil	8841		42.97	2
2002	8460	4124	12584	Nil	Nil	Nil	12584		42.34	4
2003	17058	4361	21419	3	Nil	3	21422		70.23	4
2004	18500	4347	23170	2	Nil	2	23172		08.17	3
2005	24785	7303	32088	8	Nil	8	32096		38.51	4
2006	26790	7820	34610	25	1	26	34636		07.91	3
2007	30249	8974	39223	24	1	25	39248		13.32	3
2008	35305	11261	46566	30	2	32	46598		18.73	3
2009	42083	13508	55591	79	2	81	55672	280,453	19.47	3
Total	299,327	75,535	374,862			1,252	376,114	% change 193.17		4

Source: Kano State Scholarship Board. Columns 5 and 6 are author's calculations

The percentage of graduates been produced through government expenditure in the State has been decreasing since 1991 up to the 2000. This can be connected with the fact that the money been speculated for financing education in those periods has become a reflection of this number of graduates produced. It was noted earlier that one of the major factors affecting number of students in schools from primary school level to the tertiary level has been the level of poverty. This could be the reason that has been reducing the number of the graduates in the State because the military era was featured with less allocation on education from annual budget. Therefore, the improvement in budgetary allocation to education in the

democratic dispensation has greatly influence the number of students that enroll in tertiary institutions for attainment of higher qualification.

In a nut shell, the number of graduates from 1990 to 1999 and from the year 2000 to 2009 can testify to this assertion. From 1990 to 1999 which represented the military era, total of only 95,661 graduates were generated, whereas from the year 2000 to 2009 which represented the democracy era, a total number of 280,453 graduates were produced a percentage increase of 193.17%.

4.10 PRESENTATION AND ANALYSIS OF REGRESSION RESULTS

Attempt was made to estimate the level of impact of government expenditure in Kano State on human capital generation and development with respect to formal education expenditure. Before embarking on any econometric estimation, the variables must be subjected to unit root test. This is to avoid misleading results.

4.10.1 UNIT ROOT TEST

In performing the stationary test we used a maximum lag of 1, and excluded only trend. We use the augmented Dickey Fuller (ADF) test to find the existence of unit root in each of the time series. The result shows that the variables were not stationary in levels except recurrent expenditure on education (REE). Primary schools enrolment (PSE), Secondary school enrolment (SSE), and number of School buildings in Kano State (NSB) were stationary at first difference while academic staff employed (ASE), capital expenditure on education (CEE) and number of graduates in Kano State were stationary at second difference as indicated in Table 4.7 below:

Table 4.7: Stationary Test Results

	ADF	1% CV	5% CV	10%CV	Remark
ΔLOG(NOG)					
Level	2.152663	-3.8572	-3.0400	-2.6608	
1st difference	-0.197038	-3.8877	-3.0521	-2.6672	1(2)
2nd difference	-3.606589	-3.9228	-3.0659	-2.6745	
ΔLOG(REE)					
Level	3.271434	-3.8572	-3.0400	-2.6608	1(0)
ΔLOG(CEE)					
Level	1.562831	-3.8572	-3.0400	-2.6608	
1st difference	-0.965894	-3.8877	-3.0521	-2.6672	1(2)
2nd difference	-2.633620	-3.9228	-3.0659	-2.6745	
ΔLOG(PSE)					
Level	-0.267652	-3.8572	-3.0400	-2.6608	1(1)
1st difference	-3.973273	-3.8877	-3.0521	-2.6672	
ΔLOG(SSE)					
Level	-0.008575	-3.8572	-3.0400	-2.6608	1(1)
1st difference	-4.032888	-3.8877	-3.0521	-2.6672	
ΔLOG(ASE)					
Level	1.880995	-3.8572	-3.0400	-2.6608	
1st difference	-2.483212	-3.8877	-3.0521	-2.6672	1(2)
2nd difference	-6.469204	-3.9228	-3.0659	-2.6745	
ΔLOG(NSB)					
Level	-0.298005	-3.8572	-3.0400	-2.6608	(1)
1st difference	-3.770420	-3.8877	-3.0521	-2.6672	

Source: E-views 3.0 package

4.10.2 REGRESSION RESULTS

To investigate the impact of government expenditure on human capital development in Kano State, we used the Ordinary Least Squares (OLS) by estimating equation 3.5. The empirical result shows that a 1% rise in recurrent expenditure on education (REE) in Kano State would induce 0.007% rise in human capital development proxy by number of graduates in Kano State (NG) and the variable is statistically insignificant, this is in line with theoretical expectation. With this positive relationship, it is expected

that the various efforts diverted to increase the level of recurrent expenditure on education would sparked up the number of graduates in the State.

Table 4.8: Regression Results

Regressors'	Coefficients	T-statistic
C	-3.898061	-1.094626
LOG(REE)	0.006513	0.039802
LOG(CEE)	0.014433	0.170886
LOG(PSE)	-0.381875	-0.752348
LOG(SSE)	0.606283	2.932396
LOG(ASE)	1.248393	2.521908
LOG(NSB)	-0.233501	-2.154158
R^2	0.886155	
R^{-2}	0.833612	
F-Statistic	16.86513	
D.W	1.314238	

Source: E-views 3.0 package

At 5% level of significance, the R^2 of 0.8336 shows that more than 83% of the variations in the dependent variables were accounted for by the independent variable on the other hand, as the value of D.W. is 1.314 suggesting that serial correlation is not a major problem. In other words, The R^2 (0.89) indicated a good fit since it shows that 89% of the variation in human capital development as proxy with number of graduates in the State is explained by government expenditure component in the State. In the same vein, the F-statistic (16.87) is high, this is significant and it is an indicative of the overwhelming significance of the R^2 and the overall integrity of the estimated regression model. The DW statistic (1.31) is low; it implies the presence of serial correlation.

The coefficient of capital expenditure on education in Kano State (CEE) is positive but insignificant. This implies that a 1% rise in capital expenditure on education in Kano State (CEE) would lead to 0.014% rise in number of graduates in Kano State. The capital expenditure on education in Kano State showed a positive relationship with number of graduates in the State.

The coefficient of primary school enrolment in Kano State is negative; this is not in line with a priori expectation, although not significant in explaining number of graduates in the State. A 1% rise in primary school enrolment would reduce human capital development proxy by number of graduates in the State by 0.38%. The insignificant relationship between primary schools enrolment and number of graduates in the State could be attributed to the system of education in the State as a significant number of the primary schools enrolment is on "Almajiri/Islamiyya" system of education which in most cases result to neglect of furthering to higher institutions in conventional way.

The coefficient of Secondary School Enrolment (SSE) showed positive relationship with human capital development proxy with number of graduates in the State (NG), and is statistically significant. This means that, 1% increase in secondary schools enrolment (SSE) would induce number of graduates in the State by 0.61%.

The coefficient of Academic Staff employed is positive; this is in line with the a priori expectation. The increase in the number of academic staff employ would expand the number of graduate in the state. A percentage increase in the academic staff in the State would increase the number of

graduates in the State by 1.24 percent. Also, number of schools buildings in Kano State (NSB) showed a negative sign and is insignificant. This is not in line with a priori expectation. The negative relationship between number of schools buildings and number of graduates may be due to the buildings of the schools without provision of facilities that would provide a conducive environment for learning thereby leading to drop out of students from the formal schools.

4.11 IDENTIFIED PROBLEMS MILITATING AGAINST HUMAN CAPITAL FORMATION IN KANO STATE

The importance of human capital in developing an economy cannot be over emphasized, however, in Kano State the efforts been made by government to generate sufficient and adequate graduates have been facing a number of problems which this study summarized them into two basic components as follows:

a) Insufficient funding. Since it is through public expenditure that most human capital were generated in the State, any short fall in required financing has full tendency of creating vacuum. This is so because the study has shown that 26% minimum requirement to finance education has never been achieved in Kano State.

b) Inappropriate financing. The earmarked money allocated to education has never been spent in a supposed channel. Expenditures on education composed of capital and recurrent expenditures. Whereas the capital expenditures include cost of building and renovation of schools and classrooms, teaching aids (reading and writing material for teachers and pupils/students), classrooms furniture and so on, the recurrent expenditures include payment of salaries to academic and

non-academic staff, over-head cost of the ministry, cost of training of and organizing seminars to academic staff.

It is pertinent to note that the twin-problem has generated a number of problems in education sector of Kano State that we breakdown as follows:

i. Insufficient schools; at the primary, secondary and tertiary levels, to accommodate the increasing demand for education in the State.
ii. Insufficient number of classes in the existing schools that led to congestions in almost all schools in urban and semi-urban areas.
iii. Existence of dilapidated buildings in almost all public schools.
iv. Insufficient/absence of classroom furniture that made learning non-conducive.
v. Insufficient and inadequate teaching aid such as textbooks, drawing/practical books and equipments, schools chalk and so on.
vi. Delayed promotion of academic staff.
vii. Poor record keeping necessary for planning.
viii. Inconsistency and delayed payment of salaries and other incentives to both academic and non-academic staff.
ix. Absence of academic staff training or refresher course or seminars in all public primary and secondary schools.

The conglomeration of these problems made the working conditions in the education sector of the State to be generally poor so much so that there is continuous fall in morale of the academic staff which translates into poor results of the students at all levels of educations especially at the secondary leaving examinations of both WAEC and NECO.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 SUMMARY OF FINDINGS

Like other States in Nigeria, Kano State government has, for quite some time now, embraced the strategy of development planning as a veritable instrument of economic transformation. The fixed medium term plans formulated have implemented through the instrumentality of the annual budget. But long years of planning and budgeting in the state have not resulted in the attainment of the desired economic and social objectives. One of the major factors responsible for the failure of development plans is inappropriate coordination and harmonization of development plans and budgets. This due to the problem of inadequate executive capacity, plans distortions and underachievement, plan indiscipline, poor statistical base and negative political influence. Of course, funds constraint posed serious problems during implementation of some of the plans. On the other hand, budget implementation has turned out to be the problematic stage most beset with problems, hence, resulting in the low rate of performance. This is due to poor human capital development.

Considering the weak performance of planning and budgeting, the need for reforms is highly needed. The effectiveness of these reforms depend on the available executive capacity which human capital must provide as skilled labour such as engineers, Economists, nurses, medical doctors, lawyers, sociologist, qualified and disciplined teachers and so on.

The study has examined the impact of public expenditure on human capital development in Kano State for the last twenty years. In general, the study

has revealed that public expenditure has a significant role in generating and developing human capital in Kano State. In the process the study made use of secondary data while both qualitative and quantitative methods of analyses were employed. A multiple regression model was estimated. The result shows that there is need for government to spend more on the provision of western education in the State in order to attain a higher and qualitative human capital for the growing population year by year. Budgetary allocation to education, though increasing, has been inadequate to solve educational problems; most especially, the decay of basic infrastructures of learning process.

The major findings from this research work are firstly, accessibility problem. It was discovered that a considerable number of children of primary school age were out of school for various reasons, the backbone of which is poverty. At the secondary and tertiary education levels as well, there were a high number of candidates out of the system, more often than not, associated with insufficient facilities to accommodate the potential students. Also, those in the school were discovered to be congested coupled with insufficient teaching materials.

Also, it was discovered that the quality of western education in Kano State is low. The low quality of primary and secondary education and especially the secondary education was because pupils/teacher ratio is high and school infrastructure is generally poor. A considerable number of dilapidated school buildings existed. The performance of students in public secondary schools examination has been falling continuously. In addition to that there is

increasing demand for tertiary institutions in the State, not necessarily because of good performance in NECO and WAEC result but because of absolute number of graduating students of the State.

Furthermore, with regards to equity, it was observed that there was substantial gender gap in educational participation and the gap seems to be largest for the poor households. Most importantly, in financing education, it was observed that Kano State depends heavily on revenue allocation from Federal government and therefore has limited public resources to devote to the education sector. Apart from insufficient fund, there is problem of inappropriate expenditure mix, where low percentage of total expenditure is devoted to capital expenditure in favour of recurrent expenditure. Lastly, there is poor method of keeping record and sometimes there is as well inappropriate data available on education. There is no clear statistics upon the type of human capital available in the State and what is clearly needed and in what magnitude.

5.2 CONCLUSIONS

Human capital development remains the centre piece of any meaningful economic growth programme that should be pursued by any economy. It takes into account all the opportunities, strategies and challenges that might face the process of human development. Economies are encouraged to evolve the process of expanding choices and developing capabilities of the people in all economic, social and cultural activities. Through these, the skills, knowledge, productivity and inventiveness are enhanced for a better and more meaningful life.

The results of this study show that public expenditure does not only have positive impact to human development in Kano State but such impact is strong and statistically significant. The policy implication of this study is that greater emphasis in increasing budgetary allocation and accurate management of resources should be placed for the improvement of quality education, if the public expenditure on western education is to contribute to human capital.

5.3 RECOMMENDATIONS

It is recommended that a careful scrutiny of public priorities be done by making education for all a realistic through increasing spending in the context of human capital development in Kano State. Adequate funding is necessary for operations and maintenance and for investment in the education infrastructure. Education spending policy needs should focus on not only the recurrent expenditure but the capital expenditure as well. Also a greater portion of public spending on education in the State should be devoted to primary and secondary education and also in providing more State-own tertiary institutions. In addition, gender equity in education need to be addressed by improving the existing and devising new more acceptable means of incorporating girl child into western education. By so doing, the benefits of educational spending will be distributed equitably while promoting human capital development.

Furthermore, the big gap between sound policies of the State government and their practical implementation, which diminishes the expected positive impact on the well being of the people and the development of the State as

whole, should be closed. This gap can be erased through the following suggestions:

i. Improvement of monitoring and evaluation unit capable of executing duties promptly and diligently coupled with immediate response from the government.
ii. Rehabilitation of buildings in the primary and secondary sectors to be supplemented with rational distribution of teachers in all rural and urban areas.
iii. Careful statistics to be provided to pave a direction of concern to government and the masses in pursuing different disciplines of education.
iv. The public schools should include students from all categories of the society; the masses, the middle and the upper class income earners especially the children of political and top ranking bureaucrat's office holders.

This is necessary to stop the deterioration in human capital development in recent years, taking into cognizance of the fact that human capital development represents both the ends and the means of economic development.

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APPENDIX A

REGRESSION RESULT

Dependent Variable: LOG(NOG)
Method: Least Squares
Date: 03/02/12 Time: 13:50
Sample: 1990 2009
Included observations: 20

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-3.898061	3.561089	-1.094626	0.2935
LOG(REE)	0.006513	0.163629	0.039802	0.9689
LOG(CEE)	0.014433	0.084460	0.170886	0.8669
LOG(PSE)	-0.381875	0.507578	-0.752348	0.4652
LOG(SSE)	0.606283	0.206754	2.932396	0.0117
LOG(ASE)	1.248393	0.495019	2.521908	0.0255
LOG(NSB)	-0.233501	0.108396	-2.154158	0.0506

R-squared	0.886155	Mean dependent var	9.581358
Adjusted R-squared	0.833612	S.D. dependent var	0.718344
S.E. of regression	0.293018	Akaike info criterion	0.652049
Sum squared resid	1.116171	Schwarz criterion	1.000555
Log likelihood	0.479511	F-statistic	16.86513
Durbin-Watson stat	1.314238	Prob(F-statistic)	0.000019