PERSONAL, HOME AND SOCIAL FACTORS AS DETERMINANTS OF FEMALE STUDENTS' ENROLMENT AND COMPLETION IN UNIVERSITY EDUCATION IN SOUTHWESTERN NIGERIA, 2001-2010

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ABSTRACT

Female students' enrolment and completion in university education in Nigeria was low between 2001-2010. These have been attributed to some personal, home and social factors which have inhibited many females from being enrolled and completing university education in some courses. Previous studies examined the link between these factors and low female enrolment and completion at the primary and secondary school levels without focusing on Science Education, Engineering, Agriculture, Law, Mathematics and Statistics at university level. This study, therefore, examined personal (age, role model with mentorship and feminine inclination), home (mothers' education, fathers' education, parent's socio-economic status and parental support) and social (school environment, socio cultural value, government and non-governmental involvement) factors as determinants of female students' enrolment and completion in these universities courses from 2001-2010.

The study adopted a causal modelling design with two hypothesised models. Six government-owned universities (one per state) from the south-west were selected. They comprised three states (Adekunle Ajasin, Ekiti State and Olabisi Onabanjo Universities) and three federal (University of Ibadan, Obafemi Awolowo University and University of Lagos). Stratified and purposive sampling techniques were used to select 622 female final and penultimate year students from five courses (Mechanical engineering (37), Civil law (207), Mathematics and Statistics (38), Science Education (164) and Agriculture (176). Role model and mentorship (r=0.75), feminine inclination (r=0.89), parents socio-economic status (r=0.87), parental involvement (r=0.83), school environment (r=0.79), traditional and cultural value (r=0.76) and government and non-governmental involvement (r=0.83) inventories were used to collect data. Key informant interview was also used. Data were subjected to multiple regression, path analysis at 0.05 level of significance and content analysis.

The 10 factors had significant joint contributions to female enrolment and completion in university education ($F_{(9,612)}$ =26.46; R^2=0.28) and ($F_{(9,612)}$=15.44; R^2=0.20), accounting for 28.0% and 20.2% of their variances respectively. Role model with mentorship (β=.29), school environment (β=.29), had relative contributions to enrolment while parental support (β=.23) age (β=19) and socio-cultural value (β=19) had relative contributions to completion. There was no significant difference between the hypothesised and the reproduced models. The percentage of direct and indirect effects were 55.6% and 44.3% on enrolment while on completion were 67.3% and 38.7% respectively. There were 62 pathways, where eight and 54 exert direct and indirect causative effects on enrolment, and 103 pathways where seven and 96 exert direct and indirect effects on completion. Content analysis revealed that there was attrition despite low enrolment of female students across the courses examined.

Role model with mentorship and school environment factors had casual effects on enrolment pattern while parental support, age and socio-cultural values were key determinants of completion of university education among female students in Nigeria. These factors should be taken cognizance of in order to improve female enrolment and completion of courses at the university level.

Keywords: Enrolment and completion, Female university education, South-western, Nigeria.

Word count: 457

CERTIFICATION

We certify that this research work was carried out by Omolola Bosede Kayode-Olawoyin, with Matric No. 147860, under our supervision in the Department of Teacher Education, Faculty of Education, University of Ibadan, Nigeria.

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DEDICATION

This work is dedicated to God Almighty.

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CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Female gender have been marginalized globally in almost every facet of life, such as economy, mining, agriculture, engineering and, most importantly, education. Female higher education has been recognized as a fundamental right and increasing female access to education is a central policy aim of the international community and most developing countries. Gender equality in education is also a critical element of the Millennium Development Goals (MDG). However, while the benefits of educating girls and women for societies, in general, and their families, more specifically, are well-understood, the case for education serving as a catalyst in reducing gender inequality, or benefiting women themselves, is less clearly established. Thus, female enrolment in, and completion of, university education were low, particularly between 2001 and 2010.

The Christian Missionaries and the British Colonialists started Western Education in Nigeria and kept it in its low estate before Independence in 1960, only a little benefit was derived from the education provided. Similarly, little attention was paid to education by its custodians. It was an attempt to find a way out of the educational difficulties of the period that led to the setting up of the Phelps-stokes Commission. The Phelps-Stokes Commission that was set up in 1920 looked into the study of education in West, South and Equatorial Africa and submitted its report in 1922. The report of this Commission, however, gave a decisive direction to education in Nigeria, and was able to find the lapses in the educational work being done by the missionaries of the time. The Commission made this recommendation, among other things: that emphasis should be placed on the education of women in Africa and noted that the future welfare of Africa and the education of men and women, of boys and girls, should be parallel and simultaneous (Fafunwa, 1987). The report of the Commission was the first attempt ever at giving women equal education with the men.

Since the report, governments at various levels, from Federal to Local government have been making consistent efforts at educating women and girls and closing the gap at both primary and secondary levels of education; however, the gap is still wide at the tertiary level (Geeta 2002; Meena, 2002; Ajayi, 2012). In May 1961, the United Nations' Universal Declaration of Human Rights and UNESCO's educational plans for Nigeria were announced

in a conference held in Addis Ababa, Ethiopia. A target was set: to achieve 100% universal primary education in Nigeria by the year 1980.

The United Nations made the years 1975-1985 a decade for women and the year 1975 was declared as women's year. Meanwhile, governments at various levels began to look inward for ways of bridging the gap of unequal access to education. And so, at international levels, most of the African states were signatories to the Declaration of the World Conference on Education For All (Jomtien, 1990), The International Congress on Education for Human Rights and Democracy (Montreal, 1993), The E-9 Summit (Delhi, 1993) World Conference on Human Rights (Vienna 1993), World Summit on Social Development (Copenhagen, 1995), Fourth Conference on Women (Beijing, 1995), World Conference on Higher Education For All (EFA) Forum (Dakar, 2000), (Osokoya, 2008).

The implementation of the free and compulsory Universal Primary Education (UPE) in 1976 was in line with the UN plan (UNESCO, 2004). Since then, UNICEF with UNESCO, as well as many other organizations, has sponsored research and conferences within Nigeria regarding the education of girls. The National Policy on Education (2004) also gave birth to a lot of issues that included the education of women. Until the 1970s, more boys participated in education in Nigeria. Purposeful plans of action led to an increase in females in schools after 1990, especially after the EFA declaration (Jomtien, 1990). According to Kitetu (2001), more boys than girls were enrolled in 1991 with a difference of 138,000, but by 1998, the difference was only 69,400. At the pan-African Conference held at Ouagadougou, Burkina Faso in 1993, three decades after the UN Declaration of the 1960s, it was observed that Nigeria was still lagging behind other countries of the world in female access to education (UNESCO, 2007). It was also noted that gender inequality existed in education and that there was need to identify and eliminate all policies that hindered females' full participation in education (Obasi, 1997).

Despite these commitments, Nigeria is yet to achieve gender equality in education especially in Universities (Davies, 2001). Higher education or post-secondary education is the education received after secondary education. NPE (2004) states that higher education covers the post-secondary section of the national education system, it is given in universities, polytechnics and colleges of technology, including such courses as are given by the colleges of education, correspondence colleges, and such institutions as may be allied to them. The aims of this level of education are:

(a) The acquisition, development and inculcation of the proper value-orientation for the survival of the individual in society;

(b) The development of the intellectual capacities of individuals to understand and appreciate their environment;

(c) The acquisition of both physical and intellectual skills which will enable individuals to develop into useful members of the community;

(d) The acquisition of an objective view of the local and external environment (NPE, 2004).

The shortage of high-level human resources, as well as the need of the country to meet the needs of the expanding economy after independence, made the then Nigerian government, in April 1959, to appoint the Ashby Commission, in order to conduct an investigation into Nigeria's need in the field of post-school certificate and higher education. In its report, the commission suggested, amongst other things, the establishment of more universities besides the University College, Ibadan, which was the only one in the country at the time. In response to this, four additional universities were established, namely, The University of Ife (now Obafemi Awolowo University), The University of Lagos, The University of Nigeria, and the Ahmadu Bello University, bringing the total number then to five. Since then, more efforts have been put into the training of high level human resources, with the result that, as of 2010, Nigeria has 32 Federal Universities, 34 State Universities and over 38 privately owned Universities.

Article 4 of the 1998 World Conference on Higher Education Report held in Paris refers to the importance of "enhancing participation and promotion of women..., in particular their active involvement in decision-making." In pursuing this, UNESCO also declared that "gender equality should be a key item on the agenda from 2008 to 2013." The emphasis shows the recognition of the role women play as agents of national development and sustainability. In developing countries, such as Nigeria, women can be rated as second-class citizens because they often miss out on opportunities to display their potential in places of power, particularly in the academic field.

When university education started in Nigeria, with the establishment of the University College, Ibadan, in 1948, out of the 104 students admitted in that year, only three (3) were females. This picture has since been changing with higher female enrolment in some disciplines but girls enrolment in the traditionally tagged masculine field of study is still low in the over 100 universities operating in the country. However, a number of factors are responsible females' low enrolment and completion at the university level in courses like

Engineering, Agriculture, Mathematics and Statistics, and Science Education. The female nature, inclinations and interests are today seen as major determinants of the status of females in terms of their placement in higher education (Ajayi, 2012). Osokoya (2005) affirms that lack of self-confidence by female gender had affected them greatly in their quest for higher education. He notes further that females themselves have allowed negative filtering influences around to overwhelm them, and as they carry these thoughts in their heads, they allow their confidence to be eroded.

The early history of education in Nigeria indicates that women lacked easy access to formal education. Sanni (2001) observes that in 1965, 37.7% of pupils in primary schools were girls while only 9% of under-graduates were female students. The figure rose to 25.5% by 1974 and the students were mainly enrolled in such courses as Education and the Social Sciences, even up till the 2007 enrolment.

The Federal Office of Statistics' Annual Reports (2006) indicates that the total full-time enrolment of females at the university level stood at 75, 548, as against the male population of 168, 217 in 2005. Achume (2004) notes that the early educational curriculum was designed to train females as teachers, nurses and clerks. They were not in medicine, politics, engineering, law and environmental studies. This obviously resulted in shortage of qualified women for top-level leadership posts in these human endeavours, and so nobody could stand as mentors or role models to the upcoming female generation.

However, looking at Tables 1.1 below, it is clear that there are still more males than females in Nigerian universities. Also, females are fewer in courses like Agriculture, Engineering and Technology, Science, Medicine and Veterinary Medicine.

Table 1.1: Enrolment in Nigerian University by gender and Faculty (2008/2009) Academy Year

YEAR	TOTAL	MALE	%	FEMALE	%
Admin / Management Sciences	96957	64976	67	31981	33
Agriculture	48385	32513	67.2	15872	32.8
Arts	79606	52416	65.8	27190	34.2
Education	102834	67822	66	35012	34
Engineering/Technology	64889	51479	79.1	13410	20.7
Environmental Science	33736	26217	77.7	7519	22.3
Law	38080	24492	64.4	13588	35.7
Medicine	45709	29721	65	15988	35
Pharmacy	9143	6509	71.1	2634	28.9
Science	98863	75043	75.9	23320	24.1
Social Science	117515	78387	66.7	39128	33.3
Veterinary Medicine	3744	2983	79.7	761	20.3
Dentistry	2805	1943	69.3	862	30.7

Source: National Universities' Commission Data Bank, Abuja.

Tables 1.1 above show the position of female students' enrolment in university education. It is very obvious that males outnumbered females in all faculties of the universities in Nigeria. For instance, in Administration and Management, there was 67% males against 33% females. The situation is more acute in Environmental Science and Veterinary Medicine with only 22.3% and 20.3% respectively representing the female gender. In Engineering and Technology, girls formed only 20.7% of the entire population, which may be a pointer to the fact that Engineering and Technology is somewhat a 'male reserve'. Odejide (2003), in agreeing with the above position (on females' enrolment in higher education in the country), observes that a typical picture that can be seen in a number of Nigerian universities is that of higher female enrolment in the Arts and Humanities and decreased numbers in the natural sciences. In Technology, female enrolment is minimal. On a comparative basis, male-female enrolment is tilted in favour of the males in majority of disciplines. Females made about 40% of admissions into university education, but there is considerable variation across the zones of the country.

Fapohunda (2011), Elegbede (2012) and Fehintola (2012) reported that Nigeria is yet to achieve gender equality in education. Elegbede stressed further that some traceable factors to this ill-starred development include lack of funds, resulting from wide-spread poverty, traditional and religious inclination which place low priority on educating the girl-child, non-provision of educational facilities, poor funding of the educational sector, early marriages, and collection of bride price, among others. Female enrolment in higher levels of education, particularly the university, and, specifically the technical and science-related disciplines, is extremely low. Nigeria is a highly patriarchal society where men dominate all spheres of women's lives. Women are in the subordinate position, particularly at the community and household levels; besides, male children are preferred to the female. The influence of the father and the mother is particularly significant in shaping and perpetuating patriarchy. The mother provides the role model for daughters while the father demonstrates to the son what it means to 'be a man' (World Bank, 2005).

Home factors, such as the socio-economic status of the family, father's and mother's level of education, and parental support have been identified as having constant influence on female enrolment and completion in university. Osokoya (2002), Meana (2003), Mbuguni (1991), and Smith (2002) linked parents' income and expectation to higher education enrolment. The society of the female student in Africa has a lot of roles to play in her education. Early studies on female education by Stromquist (1996) and FAWE (1998) noted that the African society has given African girls some traditional roles to play in the society

and having a university education cannot make the child fulfil such roles. Patriarchy, the tradition or culture which gives male children superiority over the female in the African society, taboos, and preference for male children over the female are issues that form the African social context. Stromquist (1989), therefore, posits that these cultural values from home do not stop outside the school: the same group of people are still maintaining the cultural dictates in the school environment; thereby, streamlining female students to the so-called feminine fields of study. It has also been noted that government's provisions in terms of quota and the financing of the university do not favour female enrolment and completion.

Inclinations and interests are very vital in female enrolment into the university. Osokoya (2002) and Meena (2005) posit that female self-esteem and confidence are so low because females have allowed the negative flittering comments to erode their self-esteem and confidence. FAWE (2001) also notes that females are not so many in the positions of authority; as such, there are fewer women who could stand as role models and mentors to the younger girls. Female students are not well guided in the choices they make, especially when making decisions to enrol in some courses at the university. The fact that most female role models are in the arts and social sciences, naturally make female students tilt towards that direction.

Forum of African Women Educationists (FAWE, 2001) noted earlier that the school environment is hostile to female students because they are molested and victimized in some of the Nigerian campuses. Some school environments are not conducive to learning, especially for girls. Studies have shown that many girls miss school during their menstrual periods because there are no decent toilet facilities to meet their needs. While some toilets have no doors, some others have no running water (Meena, 2002; FAWE, 2002). Some female students have reported the different cases of intimidations, discriminations, and harassment from school environment both from teachers and students (Meena, 2002; FAWE, 2002). Eccles (1993) opined that female students are often more influenced by social values within the classroom than on finding an occupation that will provide money. So, if the environment is conducive and all facilities in place, female students will likely love to stay till completion.

In many societies, marriage is still considered as the ultimate goal for girls and so there is no need to invest in their formal education several years. Besides, some families consider girls as a source of wealth for the families, while majority believe that educating girls is like watering another man's garden (Colclough, 1993) The socialization process in some communities lead girls to view marriage as the ultimate purpose in life and if they get a good

husband who can take care of them, they need not worry about getting formal education for themselves. A good number of girls and parents find education irrelevant to their lives and drop out to get married early, or are forced to get married because their parents want to be paid dowry. The fact that more female graduates have no jobs helps the parents to be more convinced of the fact that female education is irrelevant (Chimombo, 2008; Osezual & Ibadin, 2001).

The World Conference on Higher Education for all (EFA) Forum (Dakar, 2000) was in line with the Millennium Development Goals declaration of September 2000 which became operational in 2001. The third goal which is to promote gender equality and empower women had this target, Eliminate gender disparity in primary and Secondary education preferably by 2005, and at all levels by 2015 with an indicator of Ratios of girls to boys in primary, secondary and tertiary education, the justification for the period, 2001-2010, was made in order to investigate the extent of achievement of the third goal in university education and especially in some masculine fields of study like Engineering, natural sciences, technology and mathematics within the first decade of its declaration in Nigeria.

There have been some attempts made by researchers to examine female education both at primary and secondary levels; a few works have been done also at the tertiary level (Fahintola 2011; 2012). Although these studies have attempted to investigate the causes of low female enrolment and completion, no study has really and specifically examined the combined influence of personal, home and social variables on female university education in courses like Engineering, Law, Agriculture, Science Education as well as Mathematics and Statistics in a path model, especially in Nigeria. Moreover, research on correlates of female education seems to always limit the variables under investigation to a minimal number. This study, therefore, is aimed at investigating the influence of personal, (age, role model, with mentorship and feminine inclination), home (mothers' education, father's education, parent's socio-economic status and parental support) and social (school environment, socio-cultural value, governmental and non-governmental involvement) factors on female enrolment and completion in the following courses: Mathematics and Statistics, Law, Science Education, Agricultural Science and Engineering, in southwest universities.

1.2 Statement of Problem

Education, especially at the higher level, is an excellent instrument for bringing about individual and national development. It is crucial that females, just like their male counterparts, acquire university education. However, a close look at the pattern of females'

enrolment and completion in university in Nigeria reveals abysmal low levels. In spite of all the laudable goals and objectives of education, Nigerian females still suffer a lot of constraints and inhibitions which militate against their personal and national development. The gulf between the male and the female gender in university education is still there and wide, especially in some departments traditionally tagged as 'masculine' fields of study. This gap between males and females becomes widened, as the level increases, for a number of reasons which are often personal, home-based and sometimes products of socio-cultural influences. Research has established the fact that equality has not been fully achieved in university education in Nigeria.

It suffices then that researchers beam their searchlight on socio-economic background, parental support, age, interest and inclination, place of role model and mentorship, school environment, government and non-government roles and socio-cultural values, since they are the personal, home and social factors that could explain the low or higher enrolment and completion of females' university education. The influence of these variables on enrolment and completion would also need verification.

This study, therefore, seeks to investigate the causal influence of home, social and personal factors which determine female enrolment and completion in university education.

1.3 Research Questions

The following research questions were raised to guide the investigation:

1. What is the joint contribution of personal, home and social factors (age, father's education, mother's education, parents' socio economic status, parental support/ involvement, feminine inclination, traditional/cultural value, role model, school environment, government and nongovernmental involvement) to female students' enrolment in university education?
2. What is the most meaningful causal model for providing an explanation of the enrolment and completion of female students in university?
3. What is the most meaningful causal model for providing an explanation of female students' completion in university education?
4. Are there significant differences between the hypothesized models and the reproduced causal models in relation to female students' enrolment and completion in university education?
5. What proportion (in percentages) of the total effect of the personal, home and social factors is direct and indirect on the enrolment of female students in university?

6. What proportion (in percentages) of the total effects of the personal, home and social is direct and indirect on the completion of female students in university?
7. What are the significant pathways indicating direct and indirect effect of the ten independent variables on female students' university enrolment?
8. What are the significant pathways indicating direct and indirect effects of the eleven independent variables on female students' university completion?

1.4 Scope of the Study

The study is geared towards investigating the causal influence of personal, home and social factors as determinants of female students' enrolment and completion in university education courses. The study also concentrated on developments between 2001 and 2010. The areas of concentration included three federal universities and three state universities, each from the states in southwest geo-political zone, Nigeria, to make six states in all.

1. University of Lagos, Lagos State
2. Olabisi Onabanjo University, Ogun State
3. University of Ibadan, Oyo State
4. Obafemi Awolowo University, Ile-Ife, Osun State
5. Ekiti State University, Ado-Ekiti, Ekiti State
6. Adekunle Ajasin University, Akungba Akoko, Ondo State.

1.5 Significance of the Study

Findings from the study would help the government to focus more on female university education, it would provide government with necessary information as may be required to encourage, put require material in place, and sensitize females to enrol and complete their programme. And also, bridge the gap of educational disparity between male and female gender in the country.

It is hoped that the findings of this study would assist Policy Makers in the search for solutions to the problems of inadequate girls' enrolment in masculine field of study in university education.

It could also help university authorities to formulate policies that would guarantee female enrolment in different courses, and not just in some courses. The study would also help parents to know that female university education is a priority and not by convenience.

It would also help female students to be strengthened to go for any course of study, stay on till completion, and also pursue further degrees.

Lastly, the study would form an empirical basis for further studies on female university education. It is, therefore, hoped that results from the study would generate reliable evidences on personal, home, and social factors determining females' university education in Nigeria

1.6 Operational Definition of Terms

Most of the terms and concepts used in this research have diverse meanings and applications that cannot be pinned down to a single definition. The following terms are therefore given the operational definitions as used in this study.

Home Factors --- Home factors, in this work, are influences from the females' home environment which include, parental support, parental involvement, effect of poverty, parents' level of education, preference for male education and education demands.

Personal Factors--- Personal factors, in this work, are personal interest and inclinations with the effect of role models and mentors.

Social Factors--- Social factors, in this study, would be measured in terms of several other factors which the society exerts on the female university education. This includes: the school environment, governmental and non-governmental roles, the effects of the mass media with cultural values, norms and traditional beliefs of the people.

Enrolment---In this study, enrolment means to officially join a university or course and combined effects of home, personal and social factors put in place to ensure entrance of female students in university. Enrolment is the process of arranging to join a school, university or course.

Completion---- The act of finishing school, the process involved, especially when it has taken a long time.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

This chapter presents the review of relevant literature on female education. There has been quite a considerable amount of literature on female education both in Nigeria and on the international scene. The chapter is structured under the following sub-headings:

i. The theoretical framework
ii. The conceptual framework
iii. Historical development of university education in Nigeria
iv. Historical development of university education in the United States of America
v. Historical development of university education in Great Britain
vi. Female education in Nigeria
vii. Importance of female education
viii. Home factors and female education
ix. Social factors and female education
x. Personal factors and female education
xi. Female higher education in the United States of America
xii. Female higher education in Pakistan
xiii. Female higher education in Ghana
xiv. Female higher education in Kenya
xv. Empirical studies on female higher education
xvi. Government strategies for implementing female education in Nigeria
xvii. Government strategies for implementing female education in the United Kingdom
xviii. Appraisal of Literature

2.1 The Theoretical Framework

The theories that underpin this work are the feminist theory and self-prophecy fulfilling theory.

2.1.1 The Feminist Theory

The basic assumption of feminist theory is that women suffer certain injustices on account of their sex. The theory stresses the importance of gender divisions in society and portrays them as working to the overall advantage of men. Although feminists are united with

their common desire for justice and their concern for women's welfare, there is a spectrum of feminist views. For instance, Liberal feminism focuses on equal rights while radical feminism focuses on the sex war and separatism, and sees patriarchy as built into the structure of society. The Socialist feminist focuses on the impact of capitalism. The theory, however, has five major concepts embedded into it:

Patriarchy – the dominance of men in society and the oppression of women for men's gain. An example is discrimination – the unfair and unequal treatment of women;

Gender stereotypes – the negative generalisations and misconceptions about women. These are perpetuated in the media, as well as in the education system;

Economic dependence – women giving up work to take charge of childcare and housework responsibilities; thus, becoming dependent on their husbands for money;

Emotional work – women are expected to do the majority of emotional care for their family, on top of their job and housework, the so-called 'triple shift'.

Feminists believe that education, as it stands, promotes male domination; that there is gendered language within education, education produces stereotypes, and misses women from the curriculum, 'girls' and 'boys' subjects have been allowed to develop. For instance, girls study Food and Nutrition while boys go for Woodwork. The theory also believes that the education system is patriarchal and the hidden curriculum reinforces gender differences. Girls tend to do better now, although boys still demand more attention from teachers. Men dominate top positions in school (head teachers, principals, heads of departments and vice-chancellors).

This theory believes that the family is patriarchal, dominated by men, and it exploits and oppresses women. The family supports and reproduces inequality between men and women. Women are oppressed because they are socialised to be dependent on men and remain in second place. Feminism studies what feminists perceive to be a male-dominated society where, historically, girls and women have been 'kept in their place' while men have dominated areas, such as politics, education, the military, and so on. Until very recently, it was not unusual for girls to pick subjects that prepared them for their future as mothers and housewives. Cookery or Home Economics were seen as the subjects that many girls should follow whereas science was irrelevant.

Feminism believes that society is male dominated; in other words, it is a patriarchy. It also believes that society is based on conflict between the sexes and women have historically been disadvantaged in society, and that, historically, men have had more power than women.

Feminists believe that this is wrong and needs changing. Though there are many different feminist theories, they all share some things in common. They look at the differences in society between men and women and try to see how these problems could be solved. Feminists believe that education is an agent of secondary socialisation that helps to enforce patriarchy. It looks at the society on a macro scale. They want to generalise their ideas about males and females to the whole of society.

Liberal feminists believe that the best way to fight patriarchal systems is by establishing legislation to fight discrimination. This school of thought believes women would achieve better equality if they were just more visible in the current social structure. Liberal feminists believe changes in equal opportunities and educational policies, for example, the National Curriculum, will end patriarchy.

On the other hand, Socialist feminists believe that it is the gendered division of labour that contributes to women's inequality. The fact that men have historically been paid more, and get higher positions in companies, plays a big part. Socialist feminists point out the fact that the majority of people who stay at home to raise children and take care of the home are women. They believe that women are oppressed based on gender and class inequalities.

Many feminists believe that women are being suppressed by a male-dominated society, both in education and in later life. They argue that the curriculum is more based around traditionally male-dominated subjects. Thus, it sets up men more than women for further education, or more prosperous work opportunities. Coupled with this is the stereotypical view of a woman's part in society – of becoming housewives, marrying early and having children. Feminists argue that this contributes to the suppression put on women by the male-run society.

Sociologists Heaton and Lawson (1996) argue that the 'hidden' curriculum is a major source of gender socialisation within schools. The theory believes that schools seemed to show or have text books with modern family culture, where children are taught from an early age that males are dominant within the family. Various subjects are aimed at a certain gender group, for example, Food Technology would be aimed at females, leading on to the typical role of females doing housework and cooking. Sports in schools are very much male and female dominated within the education system, with boys playing rugby and cricket while girls play handball and rounders. It could be seen that the majority of teachers are females, but that the senior management positions are mainly male-dominated.

The basic assumption shared by feminists is that the gendered divisions in society operate to the disadvantage of women. The process of gender socialisation usually

encourages traditional gender roles which reinforce and justify male-dominance. Feminists have shown that the so-called natural differences between men and women are not true; hence, women are perfectly capable of building a successful career as men are.

Feminists believe that the society, through the mass media, often presents women as cleaners, housewives, domestic servants, providing comfort and support for men. They believe that this gender representation is an aspect of patriarchy. Feminism holds the belief that the media suggests these roles are natural and normal. Hence, it sees this as an example of patriarchal ideology – a set of beliefs which distort reality and support male-dominance.

2.1.2 The Self-Fulfilling Prophecy or Pygmalion Effect

Self-fulfilling prophecy (or the Pygmalion effect) refers to the notion that one person's expectation for another person's behaviour can quite unwittingly become a more accurate prediction simply for its having been made (Rosenthal & Jacobson, 1968). For example, suppose that Lawrence is meeting Emily, a friend of his friend, Edward, for the first time. Edward has said in the past that Emily is a little shy. According to the theory, that expectation may lead Lawrence to behave toward Emily in a way that guarantees she behaves in a more reserved manner. Lawrence may assume that Emily would not like to talk a lot about herself, so Lawrence would not ask her a lot of questions. Lawrence may think that Emily is uncomfortable meeting new people, so he would not engage Emily in much conversation. Lawrence's behaviour makes her behave more shyly than she might have otherwise. Lawrence's expectation or prophecy about Emily is, therefore, fulfilled as a result of that expectation. This is self-fulfilling-prophecy.

According to Rosenthal and Jacobson (1968), the self-fulfilling prophecy has been studied in many contexts in addition to how it might affect social situations in everyday life (as in the example described above). For example, patients' health outcomes may be affected by doctors' expectations and the results from psychological research may be affected by the expectations of the experimenter about the outcome. They also reviewed many studies showing that the expectations of experimenters may affect participants' performance on cognitive tasks. However, Rosenthal and Jacobson (*ibid*) presented one of the first studies to provide evidence that the self-fulfilling prophecy can have an effect in the classroom, with teachers' expectations affecting students' achievement. Many studies have shown that there are gaps in achievement based on ethnicity and socioeconomic status. Although there is a long history of controversy over Rosenthal and Jacobson's 1968 study (Snow, 1995), reviews

of large numbers of studies investigating teachers' self-fulfilling prophecies have shown that they do occur, although the magnitude of their effects tend not to be great and may depend on a number of factors (Jussim & Harber, 2005). For example, Jussim and Harber reported that expectations are more likely to have effects on students entering new situations (e.g. when they start school or transition to middle or high school), when students perceive that teachers are engaging in differential treatment of students, and for students in stigmatized groups. This latter factor is particularly noteworthy, since these expectations are likely to be negative and could perpetuate the negative stereotypes of these groups (Rubie-Davies, Hattie, & Hamilton, 2006).

The self-fulfilling prophecy is principally true in the case of a teacher's expectations of females in a classroom situation. Some teachers are already of the opinion that females do not perform well and that females cannot achieve equally with men. This expectation makes the lecturers unnecessarily hostile to females even during lectures, which is one of the reasons for the low achievement of females in higher education.

The expectation here did not start from the school, as has already been mentioned; rather, the school is just a continuation of the social expectation. It has been observed in the African traditional society that parents have higher expectations of the boy-child and that the girls would end up in the kitchen, in another man's house. Moreover, girls would change their names to another man's name when they finally get married to their husbands. These expectations adversely affect the girl-child who would later turn into a woman. On the contrary, these expectations positively affect the morale of the boy-child while the girl-child is already demoralized from childhood. In a nutshell, this has led to the obvious gender disparity we have today in our society.

2.1.3 Self-Efficacy Belief and Female Education

Bandura, in 1986, painted a portrait of human behaviour and motivation in which individuals' self-beliefs are critical elements. His subsequent work, *Self-efficacy: The exercise of control* (1997), advanced the discussion. Of all the beliefs that people hold about themselves and that affect their day-to-day functioning, and standing at the core of social cognitive theory, are *self-efficacy beliefs*. These can be defined as the judgments that individuals hold about their capabilities to learn or to perform courses of action at designated levels. In essence, self-efficacy beliefs are the self-perceptions that individuals hold about their capabilities.

According to social cognitive theory, self-efficacy beliefs provide the foundation for human motivation, well-being, and personal accomplishment: unless people believe that their actions can produce the outcomes they desire, they have little incentive to act or to persevere in the face of difficulties. These self-perceptions touch virtually every aspect of people's lives—whether they think productively, self-debilitatingly, pessimistically or optimistically; how well they motivate themselves and persevere in the face of adversities; their vulnerability to stress and depression, and the life choices they make.

Self-efficacy beliefs can enhance human accomplishment and well-being in countless ways. They influence the choices people make and the courses of action they pursue. Individuals tend to select tasks and activities in which they feel competent and confident and avoid those in which they do not. Unless people believe that their actions will have the desired consequences, they have little incentive to engage in those actions. How far will an interest in medicine take a student who feels hopeless while studying anatomy? Whatever factors operate to influence behaviour, they are rooted in the core belief that one has the capability to accomplish that behaviour.

Self-efficacy beliefs also help to determine how much effort people will expend on an activity, how long they will persevere when confronting obstacles, and how resilient they will be in the face of adverse situations. People with a strong sense of personal competence approach difficult tasks as challenges to be mastered rather than as threats to be avoided. They have greater intrinsic interest and deep engrossment in activities, set themselves challenging goals and maintain strong commitment to them, and heighten and sustain their efforts in the face of failure. Moreover, they more quickly recover their sense of efficacy after failures or setbacks.

Self-efficacy beliefs also influence an individual's thought patterns and emotional reactions. High self-efficacy helps create feelings of serenity in approaching difficult tasks and activities. Conversely, people with low self-efficacy may believe that things are tougher than they really are, a belief that fosters anxiety, stress, depression, and a narrow vision of how best to solve a problem. Self-efficacy has been especially prominent in educational research, where scholars have reported that, regardless of previous achievement or ability, self-efficacious students work harder, persist longer, persevere in the face of adversity, have greater optimism and lower anxiety, and achieve more.

In psychology, intelligence (in the form of IQ) has typically been acknowledged as the most powerful cognitive predictor of achievement. However, when researchers tested the joint contribution of self-efficacy and intelligence to the prediction of achievement, they

found that students' self-efficacy beliefs made a powerful and independent contribution to the prediction of their academic performance. Self-efficacy is also a critical determinant of the life choices that students make and of the courses of action they pursue. Typically, they engage in activities in which they feel competent and avoid those in which they do not. Doing so is particularly critical at the high school and college levels, where young people progressively have more academic options. Students with high self-efficacy engage in more effective self-regulatory strategies at differing levels of ability. Self-efficacy enhances students' memory performance by enhancing persistence. In studies of college students who pursue science and engineering courses, high self-efficacy has been demonstrated to influence the academic persistence necessary to maintain high academic achievement.

In general, researchers have established that self-efficacy beliefs and behaviour changes and outcomes are highly correlated and that self-efficacy is an excellent predictor of behaviour. The depth of this support prompted Graham and Weiner (1996) to conclude that, particularly in psychology and education, self-efficacy has proven to be a more consistent predictor of behavioural outcomes than have any other motivational constructs.

An incontrovertible finding in educational research is that students learn from the actions of models. Different modelling practices in school can differently affect self-efficacy beliefs. For example, when models make errors, engage in coping behaviours in front of students, and verbalize emotive statements reflecting low confidence and achievement (such as “Gosh, I seem to be having some trouble with this, don't I?”), low-achieving students perceive the models as more similar to themselves and subsequently experience greater achievement and self-efficacy under their tutelage. Social cognitive theorists recommend that teachers engage in effective modelling practices and that they select peers for classroom models judiciously so as to ensure that students view themselves as comparable in learning ability to the models. Peer models should also share similar attributes to the students for whom they are serving as models.

Some researchers have suggested that teachers should pay as much attention to students' perceptions of competence as to actual competence, for it is the perceptions that may more accurately influence students' motivation and future academic choices. Assessing students' self-efficacy beliefs can provide teachers with important insights about their pupils' academic motivation, behaviour, and future choices. For example, unrealistically low self-efficacy, not lack of capability or skill, can be responsible for maladaptive academic behaviours, avoidance of courses and careers, and diminishing school interest and achievement. Students who lack confidence in skills they possess are less likely to engage in

tasks in which those skills are required, and they will more quickly give up in the face of difficulty. In such cases, in addition to continued skill improvement, schools must work to identify their students' inaccurate judgments, and design and implement interventions to challenge them.

Teachers can also provide frequent and appropriate feedback as students are engaged in a task. Of course, it has been amply shown that effort-focused feedback (such as "Well done, you're working hard.") enhance students' self-efficacy and performance to a greater degree than does ability-focused feedback (such as "Well done, you're so smart.").

It seems clear that many of the difficulties that people experience throughout their lives are closely connected with the beliefs they hold about what they can and cannot do. Sound research evidence suggests that students' academic failures in basic subjects, as well as the misdirected motivation and lack of commitment, often characteristic of the underachiever, the dropout, the student labelled at risk, and the socially disabled, are in good measure the consequence of the beliefs that students develop about their ability to exercise a measure of control over their environments.

Empirical findings have amply strengthened the claim of social cognitive theorists that self-efficacy beliefs play an influential role in human agency, and they support the contention of theorists and researchers that students' self-efficacy beliefs in academic areas powerfully influence their subsequent motivation and performance in these areas. Clearly, researchers and school practitioners should continue to look to students' beliefs about their academic capabilities as important predictors and determinants of academic achievement, for they are critical components of motivation and behaviour. It must be noted, however, that most female students hold wrong beliefs about themselves and this has kept them away from university education in general, and in some field of study in particular.

2.2 Conceptual Framework

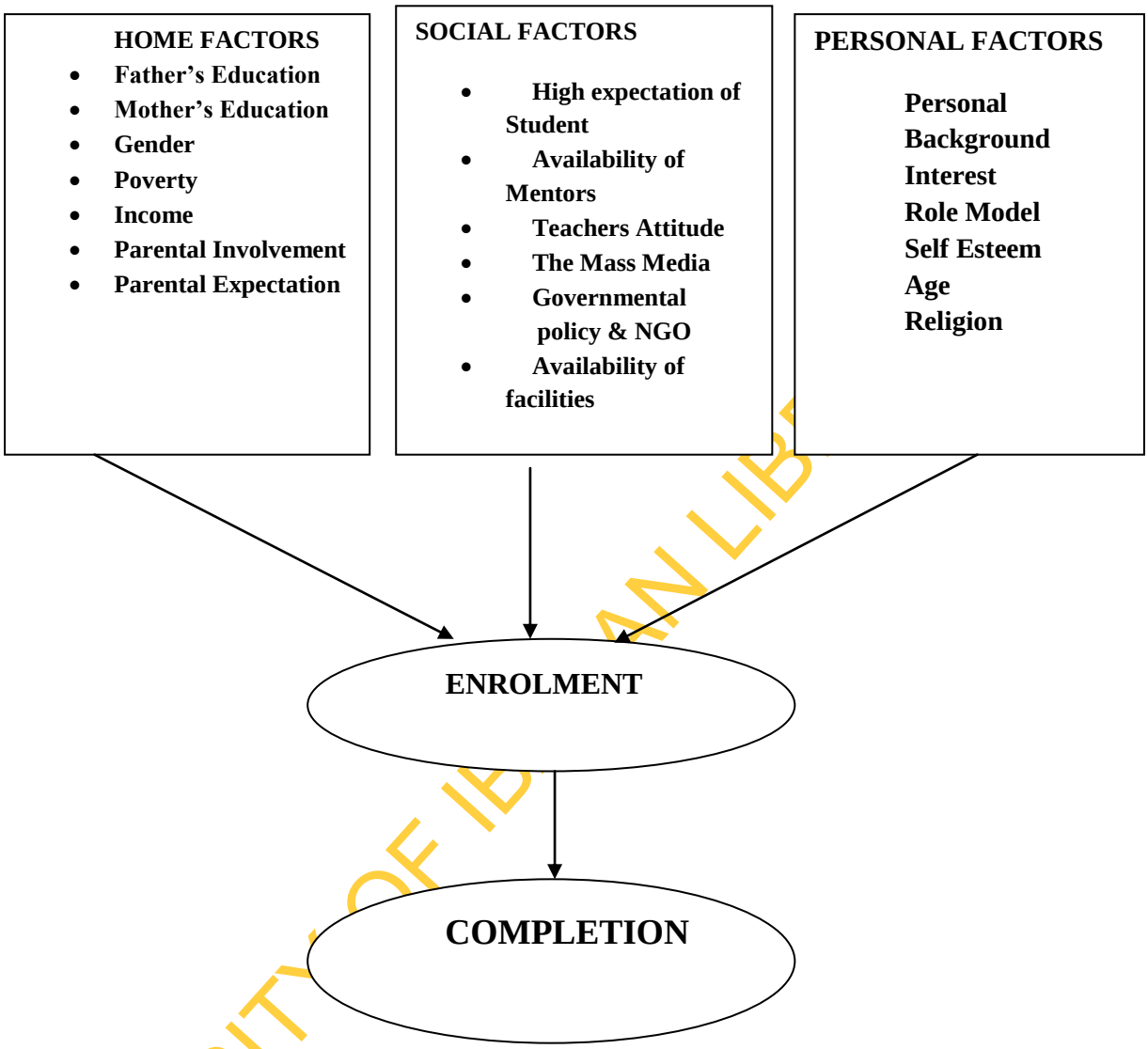


Fig: 2.1 showing the conceptual framework

This framework conceptualises the home, social and personal factors which determine enrolment and completion of female students in university education. This conceptualisation, according to Sinnot (2008), is based on a theory of overlapping spheres of influence which focus on complex interactions of society, government policies, the school, the family and the personality of the learner, as they interact to affect female students' participation and achievement.

2.3 Historical Development of University Education in Nigeria

Nigeria ranks as the tenth largest nation in the world, and by far the largest nation in Africa, with an estimated population of 123,337,822 people. Located north of the Gulf of

Guinea in West Africa, Nigeria is bordered on the east by Cameroon, on the northeast by Chad, on the north by Niger, and on the west by the Republic of Benin. Land features change dramatically in Nigeria, from rain forests along the coast to rolling savanna hills about 200 miles north of the coastline. The savanna extends another 200 miles northward across the Niger and Benue Rivers. In the northeast, mountains form the border between Cameroon and Nigeria. The central and western part of northern Nigeria is a flat, semi-desert land called the Sahel. The Sahara Desert expands southward into the northern edges of Nigeria. The total land area is 356,669 square miles (923,773 square kilometers).

In 2000, more than 50 percent of the people in Nigeria lived in urban areas. Lagos, the former capital on the southwestern coast, has an estimated 13.5 million citizens. The city is among the 10 largest cities in the world. Other large cities include Ibadan in the west with 1.5 to 2.0 million people, Ogbomosho in the west with more than 720,000 people, and Kano in the north with almost 800,000 people. In 1991, the capital was moved to Abuja, located in the central part of Nigeria, north of the Niger and Benue River confluence. By 2000, the capital had grown to more than 335,000 people.

Four major ethnic groups make up about 65 to 70 percent of the population. The largest group is the Hausa/Fulani, a mixture of two ethnic groups living primarily in the northern half of the country. The Hausa/Fulani people number about 35 to 40 million. The Yoruba in western Nigeria number about 30 million people, and the Igbo in eastern Nigeria number about 15 million people. More than 300 ethnic groups, each speaking a different language, live in Nigeria. English, nonetheless, is the common language used for business, education, and government.

Before the British arrived in the early nineteenth century, there were two major types of education in Nigeria. In the Islamic north, education was strictly religious in nature. In each Muslim community, a mallam drilled children as young as five years old in the teachings of the Qur'an and the Arabic alphabet. During the colonial era, larger cities set up more expansive Islamic schools that included subjects such as maths and science. In 1913, these Islamic schools, almost all in the north, numbered 19,073 and enrolled 143,312 students. In the 1970s, the government took control of the Islamic schools, but in the 1990s, the schools were allowed to operate independently again.

The indigenous system was the second type of education before the British occupation. Students were taught the practical skills needed to function successfully in traditional society. Usually children within two or three years of age belonged to an age-group. Together, they learned the customs of their community and were assigned specific

duties around the village, such as sweeping lanes or clearing brush. As the children grew older, the boys were introduced to farming and more specialized work, such as wood carving or drumming. Girls would learn farming and domestic skills. Boys would often enter into apprenticeship-type relationships with master craftsmen. Even in the twenty-first century, this kind of education is common.

Formal education, or Western-type of education, was introduced by British missionaries in the 1840s. The Anglican Church Missionary Society (CMS) started several schools in the mid-1800s. The colonial government gave the church financial aid, but in the early twentieth century the government began building primary and secondary schools. By the time the British combined the northern and southern regions into one colony in 1914, a total of 11 secondary schools were in operation, all but 1 run by missionaries. There were also 91 mission and 59 government elementary schools.

Western education slowly entered the northern region. In 1947, only 66,000 students attended primary schools in the north. Ten years later, the number enrolled had expanded to 206,000 students. In the western region, over the same period, primary school enrollment expanded from 240,000 to 983,000 students. The eastern region experienced the most dramatic growth in primary enrollment during this period, jumping from 320,000 to 1,209,000 students. The number of secondary school students in the entire nation grew much less dramatically, increasing from 10,000 in 1947 to 36,000 in 1957. Much of this growth, 90 percent, was almost entirely in the south.

In the 1950s, Nigeria adopted the British system called Form Six. It divided grades into six elementary years, three junior secondary years, two senior secondary years, and a two-year university preparation program. Those who scored high on exit examinations at the end of Form Six usually were qualified to enter universities.

Although Nigeria celebrated its independence in 1960, the second half of the sixties brought the chaos and disaster of the Nigerian Civil War. After a long series of ethnic riots and killings against the Igbo of eastern Nigeria, the Igbos seceded from Nigeria in May 1967, naming their new country the Republic of Biafra. The war destroyed much of the nation's educational framework, especially in eastern Nigeria. Biafra surrendered in 1970, but the country never fully resolved the issues that led to the war.

In 1976, Nigeria passed a law making education compulsory for all children between the ages of 6 and 12. By 1980, approximately 98 percent (15,607,505 students) of this age group were enrolled in primary school, up from 37 percent in 1970. The military and civilian

governments paid little attention to education, however, and the quality of education deteriorated nationwide.

By 1985, the country as a whole had 35,000 primary schools with fewer than 13 million students. Another 3.8 million primary school-aged children lived on the streets. Conditions became progressively worse. By 1994, the number of primary students in school had changed little, even with the country's high birth rate.

Secondary education fared worse than the other levels of education. During the 1970s and 1980s, the majority of primary students, finishing sixth grade, never went on to junior secondary school. Those who did rarely went on to senior secondary school, and for those who were qualified for higher education, very few openings existed in the 1960s. At independence, with about 6,000 students, there were only six higher educational institutions in Nigeria: the University of Ibadan, the University of Ife, the University of Lagos, Ahmadu Bello University, the University of Nigeria at Nsukka, and the Institute of Technology at Benin. More universities and polytechnics were built in the 1970s, and more students were able to go on for postsecondary education. In 1971, approximately 19,000 students were studying in institutions of higher education. By 1985, the number had increased to 125,000 students; however, that figure still represented a tiny portion of the population.

During the precolonial era, Nigerian women contributed to the sustenance of the kin groups. Precolonial Nigerian economy was basically at a subsistence level, and Nigerian women participated effectively in this economy. Apart from being mothers and wives, and apart from taking charge of the domestic sector, women contributed substantially to the production and distribution of goods and services.

In the agricultural sector, the women farmed alongside their husbands and children. In south-eastern Nigeria, women also took part in the production of palm oil and palm kernel. They also participated in local and long distance trade in different parts of the country and were fully involved in the procurement and sale of various food items and related commodities.

Women in pre-colonial Nigeria were fully involved in food processing, for example, fish drying (especially in the coastal areas of Calabar, Oron and the Niger Delta area), garri processing, and so on. In eastern Nigeria, the women of Okposi, Uburu and Yala were very active in salt production.

Women were engaged in pottery making, especially in Afikpo in present-day Abia State, and in weaving. In northern Nigeria, even the women in purdah were involved in food

processing and also traded with the aid of their children. Most often, these women supplied the means of sustenance for entire households.

Precolonial Nigerian women also provided health care and spiritual services, extensively. Most traditional religions feature immortal females as goddesses. Most goddesses in Nigeria were portrayed as river goddesses, fertility goddesses and earth goddesses. In the Niger Delta area, women provided music, songs and dances required during religious activities. Women also officiated as priestesses, diviners, healers, traditional birth attendants, and, oftentimes, as custodians of sanctuaries for gods and goddesses.

The legal status of Nigerian women in precolonial times needs highlighting. Under the precoionial customary laws in most Nigerian societies, women were considered free adults. At the same time, certain limitations were imposed which subordinated them to male authority. Women had independent access to income. Since land was usually owned communally, whoever worked or tilled the land, whether male or female, derived the benefits. Nevertheless, women in many societies could not inherit land.

Education in precolonial times was functional. It enabled women to obtain a skill in order to earn a living. Ogunsheye observes that "a woman who was without a craft or trade, or who was totally dependent on her husband, was not only rare, but was regarded with contempt" (Aliyu, 1992). As regards politics, women in precolonial Nigeria were an integral part of the political set up of their communities. Most often, they carried out separate functions from the men. These functions were fully complementary.

The colonial economy was an export oriented one and it seriously undermined the prestige of the traditional occupations of Nigerian women. While it placed women at a great disadvantage, it enhanced the economic status of the British, Lebanese, Syrian and a few male Nigerian merchants.

Many of the smaller markets hitherto dominated by women gradually disintegrated as a result of the emergence of expatriate firms, such as John Holt, United African Company (UAC), Lever Brothers, etc. Women were denied access to medium and large scale loans, which were vital in operating at the bulk purchase level of the colonial economy. In agriculture, cash crop incentives, technology and innovations were restricted to men (Curtin, 1964). Colonial policies and statutes were clearly sexist and biased against women.

In the traditional Nigerian society, there exists the degenerate belief that women are second-class citizens (Enejere, 1991). A woman is considered as a man's property or pleasure object. She is also considered as a 'machine' meant for producing children. This situation has resulted in unfair treatment of women, especially with regards to education. The average rural

Nigerian parent would rather invest in the education of the son rather than that of the daughter (Ada, 1992). Enejere (1991) further avers that gender inequality in Nigeria is promoted by religious and communal customs. Young girls, particularly in Northern Nigeria, are denied the benefit of education. This has grave consequences for both the individual and the society at large.

Education is the process through which individuals are made functional members of the society (Ocho, 2005). It is a process through which the young acquires knowledge and realizes their potentialities and uses them for self-actualization (Offorma, 2009). Education has been described as the most important aspect of human development, a key to a successful living, especially girl-child education (Michael, 2011). Denying the girl-child access to education implies making her a dysfunctional member of the society. Statistics shows that many girls are not enrolled in school. The global figure for out of school children is estimated at 121 million; 65 million are girls, with over 80 percent of these girls living in sub-Saharan Africa, including Nigeria (UNICEF, 2007). ActionAid International (AAIN), cited by KIKI (2010), reported that not until recently, in a school of 150 students in Northern Nigeria, only 2-3 students are girls. This trend has minimally improved with the introduction of Sharia judicial law system (Islamic Law) in most states in northern Nigeria. The advent of the law necessitated the creation of separate schools for girls. Even at that, girls in this region do not have the right to choose education. OKIKI (2010) cited an example in Jega Local Government Area of Kebbi State, in the northern part of Nigeria, where females were not allowed to go to school until recently when the Local Government Council chairman enacted a bye-law, making female education compulsory.

In order to improve girls' enrolment in schools, government and non-government agencies have initiated various programmes. The federal Ministry of Education and United Nations Children Education Fund (UNICEF) have been leading the campaign for girl-child education in Nigeria with some measure of success. However, it is high time libraries and information centres got involved in the campaign for the girl-child education.

Education is the process of providing information to a person to help him or her develop mentally, socially, emotionally, spiritually, politically and economically (Offorma, 2009). Education is one of the fundamental rights of individuals. Article 26 of the universal declaration of human rights, which was adopted by the United Nations General Assembly, as cited by Nwangwu (1976), stipulated that:

i. Everyone has the right to education. This shall be made free in the elementary and primary stages.

ii. Elementary education shall be made compulsory while technical and professional education shall be made generally available.

iii. Higher education shall be equally accessible to all on the basis of merit.

iv. Parents have a prior right to choose the kind of education that shall be given to their children.

Education is a vital tool for empowerment that allows meaningful contributions to society. According to UNICEF (2007), girls' education does not only bring the immediate benefit of empowering girls, but is seen as the best investment in a country's development. Education helps girls to develop essential life skills, including self-confidence, the ability to participate effectively in society and protect themselves from HIV/AIDS and other sexual exploitations. UNICEF further asserts that girls' education helps in cutting child and maternal mortality rates, contributing to national wealth and controlling disease and health status. Children of educated women are likely to go to school. Consequently, this has exponential positive effects on education and poverty education for generations to come. One very important aim of every family is to raise healthy and productive individuals who will contribute meaningfully to society. This can be achieved through the education of the girl-child who is the mother of tomorrow.

Access implies the right to education. It has to do with the opportunity provided for the girl-child to be educated. It is observed that many State and Local Governments do not take cognizance of the peculiarities of the girl-child in the provisions for education for the citizenry (Ada, 2007). Consequently, many girls do not have access to education. Girls' access to basic education especially in northern states has remained low. Only 20 percent of women in the North west and North east of the country are literate and have attended school (UNICEF, 2007). Okeke, Nzewi and Njoku (2008) identified child labour, poverty and lack of sponsorship, quest for wealth, bereavement, truancy, broken home and engagement of children as house helps, as factors inhibiting children especially girls' access to education in Nigeria.

One of the most prevalent impediments to the girl-child education is child labour. Many families often send their daughters out to work at a young age to get additional income needed to exist beyond subsistence level and finance the education of male children. British Broadcasting Corporation (BBC) news (2006) reported that African societal view point favours boys over girls because boys maintain the family lineage. That their mothers were not educated is another reason that makes them feel that their daughters do not need education. Some families justify the denial of girls of their right to education to prevent them from

bringing shame to the family through early pregnancy. Others believe that women who are at the same level of education as the men may not find marriage partners among their countrymen and may end up marrying foreigners. For such families, early marriage is the best way to prevent this and at the same time preserve traditions (Offorma, 2009).

In sub-Saharan Africa (Nigeria inclusive), the number of girls out of school each year has risen from 20 million in 1990 to 24 million in 2002 (*ibid*). There exist wide variations across the states and zones with the North Central and North West presenting the worst scenarios. The tables below paint a correct picture of the situation.

The Federal Government, through the Universal Basic Education (UBE) programme, is making effort at accelerating girl-child education. The programme has made some progress in increasing school enrolment for girls in northern Nigeria (Ndeokwelu, 2010). In November, 2009, the UBE commission unfolded plans to collaborate with the Police Officers Wives Association (POWA) on girl-child education and children with special needs (Compass, 2009). The United Nations Children Education Fund (UNICEF) has also initiated several programmes to accelerate girl-child education in the country. The "Strategy for Acceleration of Girls' Education in Nigeria (SAGEN) was launched by UNICEF and the Federal Ministry of Education in July, 2003. SAGEN gave rise to the Girls' Education Project (GEP) launched in December, 2004 and currently under implementation. An evaluation of GEP in March, 2006, showed that Girls' school enrolment is up by 15% and in GEP schools, actual girls' attendance is up by 25% (with 12000 more girls regularly attending school than before) and gender gaps are about two thirds of their previous levels. To date, 900 schools in Nigeria are getting direct support from UNICEF (UNICEF, 2007).

Higher education was not within the reach of the missionaries due to its cost intensive. The colonial government who had the resources was, also, not interested to venture into it. There were great agitations from within and outside the country for the establishment of this level of education. This gradually yielded little fruit in 1932 with the establishment of Yaba Higher College. From 1842, when the missionary bodies first established the first primary school in Nigeria till 1859, there was no secondary grammar school established in Nigeria. The first secondary school was established in 1859 at Lagos by the C.M.S. Unfortunately, it took the colonial government in Nigeria about 73 years, from the date the first secondary school was established in 1859, to establish a higher education institution in Nigeria. The first Higher Education institution established in Nigeria was the Yaba Higher College (Lagos). It was established in 1932 by the colonial government, but commenced studies in 1934. The college, though established in 1932, began intensive studies in 1934 in

courses such as medicine, agriculture, engineering, survey, commence, forestry, veterinary medicine and teacher education.

Before the establishment of Yaba Higher College there were postsecondary education institutions that offered sub-professional and vocational courses at Central Agricultural Research Station, Moor Plantation, Ibadan, at Samaru near Zaria. Others were the Nigerian Railway in Lagos centre for engineering and Vom Centre for veterinary medicine. These did not satisfy the increasing demand for Higher education in Nigeria. It would be recalled that the British colonial government had the intention of using education to raise, among the people, lower manpower who would help them to perpetuate colonialism. The introduction of Higher education was seen as a measure of creating great awareness among the people. This, it was believed could run contrary to the spirit of colonialism.

The following factors, however, led to the establishment of higher education in Nigeria.

- The agitation from the nationalists for higher education in Nigeria and Africa as a whole;
- The role of the mass media in extending the voice of the people for higher education across the continent of Africa;
- The higher demand for indigenous middle level manpower by the colonial government and the then European companies;
- The increased turn-out of secondary school leavers in Nigeria;
- The world war exposure and the high sense of equality of man developed by some of our soldiers after the war;
- The educational experience and competence of Mr. E R.J. Hussey.

The establishment of Yaba higher college completed the circle of the three levels of education in Nigeria, provided learning opportunity for some of our secondary school leavers and also produced some Nigerians who occupied assistantship positions in the public or civil service or private sectors of the country.

The college had the following challenges;

1. The curriculum was limited to the areas of need of the colonial government and not based on the general needs and aspirations of Nigerians;
2. The products of the college could not rise above the assistant position, to become medical, engineering, agriculture assistants, etc.;

3. The students spent between four and seven years to qualify in their respective areas of study for the ordinary diploma, whereas their counterparts who studied abroad spent less than that number of years to obtain degrees in similar disciplines;
4. The college diploma was criticized as being inferior and had no recognition outside Nigeria;
5. Some brilliant students of the college were frustrated out of the school at the peak of their studies; this led some to commit suicide (Nduka, 1975);
6. The world economic depression and the world wars equally affected the college. Some of its members of staff were conscripted. Consequently, fund was reduced.

The Asquith Commission was set up in August 1943 to:

(a) Look into the principles that guide the promotion of higher education, learning and research as well as the development of universities in the British Colonies;
(b) Explore possible means through which universities and other agents in the United Kingdom can assist the institutions of higher education in the colonies to achieve the principles above.

The following recommendations were submitted by the Commission:

1. Universities should be established in the areas as soon as possible, starting with university colleges;
2. Training of teachers should be given the highest priority;
3. Facilities should be provided for the teaching of arts and science to control the problem of lack of teachers in the grammar schools;
4. Research should be a very important aspect of university life;
5. Colonial universities should be autonomous like those in the United Kingdom;
6. Colonial universities should be assisted by London University so as to be awarded degrees of the university;
7. A colonial Grants Advisory Committee should be created;
8. Universities should be residential and open to both sexes and all classes (Osokoya, 1989).

The Elliot Commission was then set up in June 1943 by the Secretary of State to report on higher education in British West Africa. The thirteen-member Commission was charged with the responsibility of:

a. looking into the alleged lukewarm attitude of the colonial government towards establishing higher education;

b. verifying the fact in the alleged lack of opportunity for Africans to participate in the development of their country.

The commission was asked to look into the organisation and facilities of existing centres of higher education in British West Africa and make recommendations for future university development.

The Elliot Commission unanimously and strongly agreed on the need for higher education in the area but was divided on:

1. The number of university colleges;
2. Where the university colleges would be sited.

On the basis of the afore-mentioned, the reports were sent in two different volumes: the majority report and the minority report. The majority report recommended three university colleges: one to be sited in Nigeria for the faculties of arts, science and professional schools of medicine, agriculture, forestry, animal health and teacher education; another to be sited in the Gold Coast for faculties of arts, sciences and an institute of education; and the third to be sited in Sierra-Leone for courses in arts and science up to the intermediate level and teacher training courses. The minority report recommended the immediate establishment of one institution of the status of a university for all British West Africa to be sited at Ibadan. The modification of the above led to the establishment of the University College, Ibadan, in 1948.

The University College started in Ibadan on 18th January, 1948, with 104 students (all residential), under the Principal designate Dr. Kenneth Mellanby. The college was, however, criticised on the basis that:

1. It did not offer higher degrees;
2. It served the purpose of a university college and not a full autonomous university needed by the people;
3. It was not truly African in scope, nature and curriculum;
4. Too few Africans were recruited to work in the institution. For instance, up to 1953, only six (6) Africans were employed as against (81) expatriates employed by the University authority;
5. The college placed very high premium on entrance examination condition;
6. Its curriculum was closely modelled after that of the University of London.

These and other problems led to the setting up of the Ashby Commission. It was the first Nigerian Commission set up on higher education in 1959 to investigate and recommend

to the government, among other things, on the needs for higher education in Nigeria. The nine-man commission was composed of three members each from Nigeria, Britain and America. The commission's report was so comprehensive that it embraced the secondary, technical, commercial, veterinary and higher education needs of Nigeria. It also projected the manpower needs of the country up to the 1980's and worked out effective strategies for realising such through the various levels of our education.

The major findings of the commission included:

1. Lack of continuity from primary to secondary schools. It stated that students were not well prepared for higher education, stating that three-quarter of the teachers were not certified;
2. That there were high drop-out rates leading to shortage of teachers;
3. That secondary education was too literal;
4. That few students were attracted to agriculture and technology;
5. That there was educational imbalance between the North and the South.

The findings and recommendations of the Commission assisted, to a great extent, the establishment of more universities in the country. For instance, in 1962, the number of universities in Nigeria rose from one (in 1948) to five. These universities are:

1. University of Ibadan, Ibadan, 1948;
2. University of Nigeria, Nsukka, 1960;
3. University of Ife, Ile-Ife, 1962;
4. Ahmadu Bello University, Zaria, 1962, and
5. University of Lagos, Lagos, 1962.

These Universities were planned to take care of the lapses created in the early years of the University of Ibadan. They were established as full autonomous Nigerian universities, aimed at raising the required manpower to take their respective places in the country.

2.4 Historical Development of University Education in the United States of America

Religious denominations established most early colleges in order to train ministers. Harvard College was founded by the colonial legislature in 1636. Harvard at first focused on training young men for the ministry, and won general support from the Puritan government, some of whose leaders had Attended Oxford or Cambridge. The College of William & Mary was founded by Virginia government in 1693, with 20,000 acres (81 km2) of land for an

endowment, and a penny tax on every pound of tobacco, together with an annual appropriation. James Blair, the leading Church of England minister in the colony, was president for 50 years, and the college won the broad support of the Virginia gentry. It trained many of the lawyers, politicians, and leading planters. Yale College was founded in 1701, and in 1716 was relocated to New Haven, Connecticut. The conservative Puritan ministers of Connecticut had grown dissatisfied with the more liberal theology of Harvard, and wanted their own school to train orthodox ministers. New Light Presbyterians in 1747 set up the College of New Jersey, in the town of Princeton; much later it was renamed Princeton University (Rudolph, 1991).

Many Protestant denominations, as well as the Catholics, opened small colleges in the nineteenth century (Katz, 1983). The Catholics, especially, opened a number of women's colleges in the early twentieth century. All of the schools were small, with a limited undergraduate curriculum based on the liberal arts. Students were drilled in Greek, Latin, geometry, ancient history, logic, ethics and rhetoric, with few discussions and no lab sessions. Originality and creativity were not prized, but exact repetition was rewarded. The college president typically enforced strict discipline, and the upperclassman enjoyed hazing the freshman. Many students were younger than 17, and most of the colleges also operated a preparatory school. There were no organized sports, or Greek-letter fraternities, but literary societies were active. Tuition was very low and scholarships were few. Many of their students were sons of clergymen; most planned professional careers as ministers, lawyers or teachers (Miller, 1976).

The nation's many small colleges helped young men make the transition from rural farms to complex urban occupations. These colleges especially promoted upward mobility by preparing ministers and thereby provided towns across the country with a core of community leaders. The elite colleges became increasingly exclusive and contributed relatively little to upward social mobility. By concentrating on the offspring of wealthy families, ministers and a few others, the elite Eastern colleges, especially Harvard, played an important role in the formation of a Northeastern elite with great power.

There were no schools of law in the early British colonies; thus, no schools of law were in America in colonial times. A few lawyers studied at the highly prestigious Inns of Court in London, while the majority served apprenticeships with established American lawyers (LaBelle, 2011). Law was very well established in the colonies, compared to medicine, which was in rudimentary condition. In the 18th century, 117 Americans had graduated in medicine in Edinburgh, Scotland, but most physicians in the colonies learned as

apprentices (Rodden, 2013). In Philadelphia, the Medical College of Philadelphia was founded in 1765 and became affiliated with the university in 1791. In New York, the medical department of King's College was established in 1767, and in 1770 awarded the first American M.D. degree (Currie, 2011).

At the beginning of the 20th century, fewer than 1,000 colleges with 160,000 students existed in the United States. Explosive growth in the number of colleges occurred in bursts, especially 1900-1930, in 1950-1970. State universities grew from small institutions of fewer than 1000 students to gigantic campuses with 40,000 more students, as well as a network of regional campuses around the state. In turn the regional campuses broke away and became separate universities. To handle the explosive growth of K-12 education, every state set up a network of teachers colleges, beginning with Massachusetts in the 1830s. After 1950, they became state colleges and then state universities with a broad curriculum.

The Association of Catholic Colleges and Universities was founded in 1899 and has continued to facilitate the exchange of information and methods (Larsen, 2012). Vigorous debate in recent decades has focused on how to balance Catholic and academic roles, with conservatives arguing that bishops should exert more control to guarantee orthodoxy (Leonard 1924; Cohen & Brawer, 2013; Bogue, 1948). Major new trends included the development of the junior colleges. They were usually set up by City school systems starting in the 1920s (Bogue, 1948). By the 1960s, they were renamed as "community colleges."

Junior colleges grew from 20 in number in 1909, to 170 in 1919. By 1922, 37 states had set up 70 junior colleges, enrolling about 150 students each. Meanwhile, another 137 were privately operated, with about 60 students each. Rapid expansion continued in the 1920s, with 440 junior colleges in 1930 enrolling about 70,000 students. The peak year for private institutions came in 1949, when there were 322 junior colleges in all; 180 were affiliated with churches, 108 were independent non-profit, and 34 were private Schools run for-profit (Belkin, 2014).

Many factors contributed to rapid growth of community colleges. Students' parents and businessmen wanted nearby, low-cost schools to provide training for the growing white collar labor force, as well as for more advanced technical jobs in the blue collar sphere. Four years colleges were also growing, albeit not as fast; however many of them were located in rural or small-town areas away from the fast-growing metropolis. Community colleges continue as open enrollment, low-cost institutions with a strong component of vocational education, as well as a low-cost preparation for transfer students into four-year schools. They appeal to a poorer, older, less prepared element (Calia, 2014).

Since the Great Recession, U.S. universities have transitioned from federal grants to corporate funds and have been "increasingly reliant on private philanthropy." At the University of Maryland, Northrop Grumman has funded a cybersecurity concentration, designs the curriculum in cybersecurity, provides computers and pays some cost of a new dorm. At Ohio State IBM partnered to teach big data analytics. Murray State University's engineering program was supported by computer companies. The College of Nanoscale Science and Engineering at State University of New York in Albany received billions of dollars in private sector investment. ITT Educational Services Inc, a big operator of For-Profit Schools; warned in July 2014, it could face restricted funding from the U.S. government for failing to file timely financial reports (Marklein, 2010).

Students can apply to some colleges using the Common Application. There is no limit to the number of colleges or universities to which a student may apply, though an application must be submitted for each. With a few exceptions, most undergraduate colleges and universities maintain the policy that students are to be admitted to (or rejected from) the entire college, not to a particular department or major. (This is unlike college admissions in many European countries, as well as graduate admissions.) Some students, rather than being rejected, are "wait-listed" for a particular college and may be admitted if another student who was admitted decides not to attend the college or university. The five major parts of admission are ACT/SAT scores, GPA, College Application, Essay, and Letters of Recommendation (UNESCO, 2013). Not all colleges require essays or letters of recommendation, though they are often proven to increase chances of acceptance.

The US is the most popular country in the world in terms of attracting students from other countries, according to UNESCO, with 16% of all international students going to the US (the next highest is the UK with 11%). 671,616 foreign students enrolled in American colleges in 2008-9 (Stainburn, 2010). This figure rose to 723,277 in 2010–2011. The largest number, 157,558, came from China. According to Uni in the USA, despite "exorbitant" costs of US universities, higher education in America remains attractive to international students due to "generous subsidies and financial aid packages that enable students from even the most disadvantaged backgrounds to attend the college of their dreams" (Kingkade, 2012).

Every state has an entity designed to promote coordination and collaboration between higher education institutions. In the 1980s and 1990s, significant changes in the economics of academic life began to be felt, identified by some as a catastrophe in the making and by others as a new era with potentially huge gains for the university. Some critics identified the changes as a new "corporatization of the university." Academic jobs have been traditionally

viewed by many intellectuals as desirable, because of the autonomy and intellectual freedom they allow (especially because of the tenure system), despite their low pay compared to other professions requiring extensive education. And until the mid-1970s, when federal expenditures for higher education fell sharply, there were routinely more tenure-track jobs than Ph.D. graduates.

Now, by contrast, despite rising tuition rates and growing university revenues (especially in the U.S.) well-paid professorial positions are rarer, replaced with poorly paid adjunct positions and graduate-student labor.[45] People with doctorates in the sciences, and to a lesser extent mathematics, often find jobs outside of academia (or use part-time work in industry to supplement their incomes), but a Ph.D. in the humanities and many social sciences prepares the student primarily for academic employment. However, in recent years, a large proportion of such Ph.Ds, ranging from 30 percent to 60 percent, have been unable to obtain tenure-track jobs. They must choose between adjunct positions (which are poorly paid and lack job security), teaching jobs in community colleges or in high schools (where little research is done), the non-academic job market (where they will tend to be overqualified), or some other course of study, such as law or business.

Indeed, with academic institutions producing Ph.Ds in greater numbers than the number of tenure-track professorial positions they intend to create, there is little question that administrators are cognizant of the economic effects of this arrangement. The sociologist Stanley Aronowitz wrote: "Basking in the plenitude of qualified and credentialed instructors, many university administrators see the time when they can once again make tenure a rare privilege, awarded only to the most faithful and to those whose services are in great demand" (Bowman & Bastedo, 2010).

Most people who are knowledgeable in the academic job market advise prospective graduate students not to attend graduate school if they must pay for it. Graduate students who are admitted without tuition remission and a reasonable stipend are forced to incur large debts that they will be unlikely to repay quickly. In addition, most people recommend that students obtain full and accurate information about the placement record of the programs they are considering. At some programs, most Ph.Ds get multiple tenure-track offers, whereas at others few obtain any; such information is clearly very useful in deciding what to do with the next 5–7 years of one's life.

Some believe that, as a number of Baby Boomer professors retire, the academic job market will rebound. However, others predict that this will not result in an appreciable growth of tenure-track positions, as universities will merely fill their needs with low-paid

adjunct positions. Aronowitz ascribed this problem to the economic restructuring of academia as a whole:

In fact, the program of restructuring on university campuses, which entails reducing full-time tenure-track positions in favour of part-time, temporary, and contingent jobs, has literally "fabricated" this situation. The idea of an academic 'job market', based on the balance of supply and demand in an open competitive arena, is a fiction whose effect is to persuade the candidate that he or she simply lost out because of bad luck or lack of talent. The truth is otherwise.

The effects of a growing pool of unemployed, underemployed, and undesirably employed Ph.Ds on many countries' economies as a whole is undetermined.

Universitas 21 ranked the country as having the best higher education system in the world in 2012. Cost was not considered in the rankings. Numerous organizations produce rankings of universities in the United States each year. A 2010 University of Michigan study has confirmed that the rankings in the United States have significantly affected colleges' applications and admissions (Jaschik, 2007). Referred to as the "granddaddy of the college rankings," (AGSRR, 2007) America's best–known American college and university rankings have been compiled since 1983 by U.S. News & World Report, and are widely regarded as the most influential of all college rankings (Morse, 2007).

On 19 June, 2007, during the annual meeting of the Annapolis Group, members discussed the letter to college presidents asking them not to participate in the "reputation survey" section of the U.S. News and World Report survey (this section comprises 25% of the ranking). As a result, "a majority of the approximately 80 presidents at the meeting said that they did not intend to participate in the U.S. News reputational rankings in the future" (PSCSR, 2014).

However, the decision to fill out the reputational survey or not will be left up to each individual college as: "the Annapolis Group is not a legislative body and any decision about participating in the US News rankings rests with the individual institutions" (EVCM, 2015). The statement also said that its members "have agreed to participate in the development of an alternative common format that presents information about their colleges for students and their families to use in the college search process" (*ibid*). This database will be web-based, developed in conjunction with higher education organizations including the National Association of Independent Colleges and Universities and the Council of Independent Colleges.

On 22 June, 2007, U.S. News and World Report editor Robert Morse issued a response in which he argued, "in terms of the peer assessment survey, we at U.S. News firmly believe the survey has significant value because it allows us to measure the "intangibles" of a college that we can't measure through statistical data. Plus, the reputation of a school can help get that all-important first job and plays a key part in which grad school someone will be able to get into. The peer survey is by nature subjective, but the technique of asking industry leaders to rate their competitors is a commonly accepted practice. The results from the peer survey also can act to level the playing field between private and public colleges" (Leonhardt, 2015). In reference to the alternative database discussed by the Annapolis Group, Morse also argued, "It's important to point out that the Annapolis Group's stated goal of presenting college data in a common format has been tried before U.S. News has been supplying this exact college information for many years already. And it appears that NAICU will be doing it with significantly less comparability and functionality. U.S. News first collects all these data (using an agreed-upon set of definitions from the Common Data Set). Then we post the data on our website in easily accessible, comparable tables. In other words, the Annapolis Group and the others in the NAICU initiative actually are following the lead of U.S. News (Leonhardt, 2015).

Studies have looked at the financial payoff to the large investment in time, tuition, student loans, and lost earnings that is typically required to receive an academic degree. People with higher education have always tended to have higher salaries and less unemployment than people with less education. However, the type of degree has a large impact on future earnings (Goodman *et al.*, 2015). By mid-career, the median annual earnings of undergraduates range from $76,000 in the STEM fields to $46,000 in education and social work. There is also a wide variation in the values of graduate degrees over undergraduate degrees. In medicine, they increase earnings by an average of 137%, while in the arts the increase is 23% (Zimmerman, 2013).

Selection of a four-year college as compared to a two-year junior college, even by marginal students, such as those with a C+ grade average in high school and SAT scores in the mid-800s, increases the probability of graduation and confers substantial economic and social benefits for most undergraduates (Vedder *et al.*, 2013; Barrett, 2015). Some fields of study produce many more graduates than the professions can take in. Due to the resulting higher education bubble, these graduates often have to consider jobs for which they are overqualified, or that have no academic requirements (Barshay 2015; Krupnick, 2015; Torpey, 2012).

Although an associate degree is usually less financially lucrative in the long term than a bachelor's degree, it can still provide a respectable income at much less cost in time, tuition, student loans, and lost earnings, sometimes with the option of upgrading to a bachelor's degree at a later time. Even ten years after graduation, the median annual salary of those with an associate degree in an engineering field is only slightly below that of B.A. holders, and significantly exceeds that of B.A. holders in the humanities or psychology (Chen & John, 2011). They can also benefit university graduates, since some four-year schools fail to prepare their graduates for the kinds of jobs that are available in their surrounding regions. Over seven percent of the nation's community college students already possess a bachelor's degree. At some colleges, the figure is close to twenty percent (M., 2008). In spite of persistently high unemployment, there is still a demand for many skilled trades that do not require a bachelor's degree (Rowan-Kenyon, 2007).

Socioeconomic status can play a part in one's chances of taking advantage of higher education. A 2011 national study found that college students with a high socioeconomic status persisted in college 25 percent more than students with a low socioeconomic status. In fact, students with a high socioeconomic status are 1.55 times more likely to persist in college than students with a low socioeconomic status. Attaining even higher degrees than a bachelor's degree can also be affected by socioeconomic status. A 2008 study reports that 11 percent of students with low socioeconomic status report earning a master's, medical, or law degree compared to 42 percent of high socioeconomic students (Aud *et al*., 2011). Analyst Jeffrey Selingo wondered whether higher education had less and less ability to level the playing field. A 2007 study found that 52 percent of low-income students who qualified for college enrolled within 2 years of graduation compared to 83 percent of high-income students (Wright & Brody, 1996). The National Center for Education Statistics reports that in 2009 high school graduates from low-income families enrolled in college immediately at a rate of 55 percent. In comparison, 84 percent of high school graduates from high-income families enrolled immediately into college. Middle-class families also saw lower rates with 67 percent enrolling in college immediately (Walpole, 2008). It also found that a high percentage of students who delayed enrollment in college attended high schools that had a high level of participation in the free and reduced lunch program. Students who work long hours in high school are less likely to pursue post-secondary education (Thompson, 2012). Students who had access to financial aid contacts were more likely to enroll in higher education than students who did not have these contacts (Mangan, 2010).

Socioeconomic status can also influence performance rates once at a university. According to a 2008 study, students with a low socioeconomic status study less, work more hours, have less interaction with faculty, and are less likely to join extra-curricular activities. Forty-two percent of students with low socioeconomic status indicated that they worked more than 16 hours a week during school, with a high percentage working up to 40 hours a week, (Rubin, 2012) although such students may benefit since potential employers assign great importance to a graduate's work experience (Greenfield, 2015). Students with low income may not apply for higher education. These students are often racial minorities (Bailey & Dynarski, 2011). This is also evidence of a positive relation between socioeconomic status and social integration at university. In other words, middle-class students take part in more formal and informal social activities and have a greater sense of belonging to their universities than do working-class students (Zota, 2009).

Race can play a part in which students enroll in college. A 2007 study found that African Americans are more likely to delay enrolling in college. The National Center for Education Statistics reports that between 2003 and 2009 rates of immediate college enrollment increased for Asian Americans and whites, but not for African Americans. The 2011 Condition of Education study found that in 2008, 63 percent of college students were white, while 14 percent were African American and 12 percent were Hispanic (Krupnick, 2015). Race can play a part in a student's persistence rate in college. Drop out rates are highest with the Native American and African American population, both greater than 50 percent. Caucasians and Asian Americans had the lowest dropout rates. A significant cause of the difficulties that African Americans experience in college is the low quality of education that they receive in high school (Krupnick, 2015). Although only 16% of them are assessed as proficient readers after high school, 71% go on to college where proficient reading skills are a prerequisite (Haemon *et al*., 2010).

In discussing student's access to education in the United States, one area of concentration that current research has focused on in the last half century is the differences that exist between students entry and completion rates based on gender. In a study done by Bailey and Dynarski (2011) it was observed that the increase in inequality that has been observed in the last 40+ years has been predominantly driven by women (Bozkurt, 2015).

Within higher-income families that are sending more children to universities and colleges, women make up a greater percentage (15% compared to 7%) of this growth. While the largest gap of educational attainment between men and women is seen in the highest income group, women are attaining higher levels of education than men in every income

group. This observation poses a unique and confusing problem: if educational attainment has a positive correlation to familial income, why are more women entering and completing college than men? Bailey and Dynarski proposed that the observed educational gap by gender may be due to differing incentives to accumulate human capital. Men and women may participate in what they term "segregated labor markets" and "asymmetric marriage markets," and perhaps, to make up for those perceived market differences, females are more motivated to obtain higher levels of education (Bozkurt, 2015).

The gap of educational attainment between men and women is starting at a young age and affecting students access to higher education later on in life. According to Bailey and Dynarski, there are two main explanations for the gender differences in educational attainment and inequality. First, men and women respond in different and gender-specific ways to family and/or school circumstances, and second, the differences in circumstances across men and women of the same family income and race have shaped inequality in educational attainment for some time. More specifically, the bulk of primary and secondary teachers are female and women run most single parent households. The absence of a strong male role model affects males differently from females. Studies by Bailey and Dynarski have shown that teachers provide role models to demographically similar students, and their unintended biases affect their interactions and assessments of their students (Bozkurt, 2015).

When comparing graduation rates between men and women, in children born after 1960, more white women were graduating from college than white men, which was a change from children born before this time (Bozkurt, 2015). It is estimated that 65,000 illegal immigrants graduate from high school each year. These graduates have lived in the United States for more than 5 years and most were often brought to the United States by their parents as young children (Zemsky, 2014). This leaves the U.S. Government with the question of what rights to give the illegal immigrants after their graduation, particularly with access to higher education. A 2010 study conducted at the University of Nevada, Las Vegas (UNLV) on illegal immigrants and higher education.

Installing pathways to higher education and in-state tuition for undocumented students in the United States presents both opportunities and constraints in developing practices that promote social justice, equity, and equality. Those who are sympathetic to the challenges facing undocumented students may support opportunities to promote the potential of those who are deserving of incorporation and membership in U.S. society. On the other hand, proponents of tighter borders and tougher immigration laws may view all undocumented people, including model, hardworking young people, as "illegals" or temporary workers and

consider them to be drains on the resources of society. This puts educational administrators in precarious positions since they are professionals who are trained to promote and support students in their pursuit of knowledge and self-improvement. Therefore, many professionals are left with little choice but to search for individuals and resources already established within outlaw cultures" (Robert, 2010).

In 1996, the United States passed a law banning states from offering residency benefits to illegal immigrants that they did not then also offer to every U.S. citizen. This basically made it so that states could not offer in-state tuition to illegal immigrants, even if they technically qualified based on residency status. States have argued the clarity of this law and many have enacted their own laws allowing in-state tuition to be given on the claims that it is based on high school attendance and not explicitly residency (Schumpeter, 2011). This law is especially important since illegal immigrants are also unable to obtain governmental financial aid and are unable to legally work, leaving them without sources to help pay for out-of-state tuition (Aronowitz, 2014).

The DREAM Act was introduced in 2001 and aims to give more access to higher education for illegal immigrants by repealing the law 1996 law. It also aimed to set up pathways for students who obtain higher education to become legal residents. The act has been introduced in many states and many different times, but has still not been passed. Critics of the act argue that it encourages more illegal immigration, that schools will engage in grade inflation so that border-line students can take advantage of the act, and that a financial burden could be placed on taxpayers. Proponents argue the opposite, emphasizing that giving the illegal immigrants an opportunity at higher education means they will be more self-sufficient in the future, contributing more to taxes and relying less on state resources. They also claim that children should not be punished for the actions of their parents and that giving them this opportunity would encourage them to be contributing and law abiding citizens. Whether this act would have positive effects on illegal immigrants attending college is still hard to see since not many states have actually done it and the time span has not been enough for thorough research (Buss, 2005).

The 2010 UNLV study recommends key policy changes to support illegal immigrants access to higher education. In general, practitioners need to weigh opportunities against constraints and consider the potential opportunities to promote social justice, equality, and equity in higher education access. Rather than considering undocumented students as "illegals" and restricting their access to legitimate educational pathways, it is recommended that, at the very least, those in positions of power adopt an outlaw cultural framework to

support the strengths inherent within diversity as well as pursue avenues of social justice for undocumented students who are seeking to access higher education to improve their future and secure permanent membership in U.S. society (Aronowitz, 2014).

A MOOC is a massive open online course aimed at unlimited participation and open access via the web. It became popular in 2010-2014. In In addition to traditional course materials such as filmed lectures, readings, and problem sets, many MOOCs provide interactive user forums to support community interactions between students, professors, and teaching assistants. Robert (2014) notes that they at first seemed to be an extremely inexpensive method of bringing top teachers at low cost directly to students. However, very few students—usually under 5%--were able to finish a MOOC course. He argues that they have passed their peak: "They came; they conquered very little; and now they face substantially diminished prospects" (Aronowitz, 2014).

Critics contend that tuition increases have outpaced inflation. Because schools are assured of receiving their fees no matter what happens to their students, they have felt free to raise their fees to very high levels, to accept students of inadequate academic ability, and to produce too many graduates in some fields of study. Despite the vast expense and economic distortions that result from student aid, the proportion of graduates who come from poor backgrounds has actually declined since 1970. Analyst Robert E. Wright predicted cost increases without matching increases in quality would continue until professors were encouraged to own colleges in private partnerships; he predicted that would not happen until barriers to entry are decreased and government education subsidies are paid directly to students instead of to colleges and universities. A report in The Economist criticized American universities for generally losing sight of how to contain costs.[83] Analyst Jeffrey Selingo in the Chronicle of Higher Education blamed rising costs on unnecessary amenities such as private residence rooms, luxury dining facilities, climbing walls, and sometimes even so-called lazy rivers similar to ones found in amusement parks (ELS, 2002). The 2014 documentary Ivory Tower described colleges as participating in an "arms race" to provide the best luxury facilities, and asked whether college was worth the expense in an era of "predatory loan systems" and job scarcity and rampant inequality (Gorman, 2009). One analyst argued that second-tier schools with Ivy League Envy had become "so obsessed with rising up the academic hierarchy" that they focused too heavily on research while neglecting undergraduate education, and argued that schools should embrace Internet technology and online software to streamline costs (Buss, 2005).

Amenities, such as a lazy river at a dorm at the University of North Florida, are reputed to be driving up costs for undergraduate education (ELS, 2002). Another issue is the rising cost of textbooks (Kiener, 2013). There are textbook exchanges for students who will accept a used text at a lower price. Lower priced alternatives offered by Flat World Knowledge are now available but have yet to make a significant impact on overall textbook prices. The total cost of all higher education in 2002 was $289 billion (Weisbrod, 2008).

One theory for the continual increase in tuition is that universities prioritize endowment growth over educational interests (Singletary, 2009). A possible explanation for this is that universities are concerned with intergenerational equity for the benefit of future generations of students, as well as the overall benefit to society. This means that the universities will usually seek to grow their endowments to sustain their level of activity well into the future. Arguments against this justification mainly focus on the idea that the intergenerational equity theory does not accurately reflect the behaviour of institutions with large endowments. Peter Conti-Brown, for example, describes how many of the elite universities cut their budgets during the recession despite sitting atop multibillion-dollar endowments, which were theoretically supposed to act as cushions during such economic downturns.

Still, tuition increases may not be completely the responsibility of the higher education institutions. Instead, an article written by Archibald and Feldman suggests that tuition increases simply reflect the increasing costs of producing higher education. According to the cost-disease theory, it would be difficult to achieve cuts in per-student cost without the deterioration of quality in the education. While the decision-making of college administrators does come into play, the argument is that there are more fundamental and economy-wide factors that result in cost increases. A general economic trend is that costs in service industries grow more rapidly than in manufacturing industries, and increase in higher education costs is simply a reflection of this phenomenon. Some universities describe being caught in a dilemma where they are pressured to offer broader curricula and improve facilities to attract new students on one hand, but on the other hand these universities must raise tuition to compensate for state spending cuts and rising expenses (Shin & Milton, 2007).

Annual undergraduate tuition varies widely from state to state, and many additional fees apply. Listed tuition prices generally reflect the upper bound that a student may be charged for tuition. In many cases, the "list price" of tuition that is, the tuition rate broadcast on a particular institution's marketing platforms may turn out to be different from the actual (or net) tuition charged per student. A student that has applied for institution-based funding

will know his or her net tuition upon receipt of a financial aid package. Since tuition does not take into account other expenses such as the cost of living, books, supplies and other expenses, such additional amounts can cause the overall cost of college to exceed the tuition rate multiplied by the number of courses the student is planning to take (Weisbrod, 2008).

In 2009, average annual tuition at a public university (for residents of the state) was $7,020. Tuition for public school students from outside the state is generally comparable to private school prices, although students can often qualify for state residency after their first year. Private schools are typically much higher, although prices vary widely from "no-frills" private schools to highly specialized technical institutes. Depending upon the type of school and program, annual graduate program tuition can vary from $15,000 to as high as $50,000. Note that these prices do not include living expenses (rent, room/board, etc.) or additional fees that schools add on such as "activities fees" or health insurance. These fees, especially room and board, can range from $6,000 to $12,000 per academic year (assuming a single student without children) (Broder, 2008). Such fees are not at all government regulated, allowing a theoretically enormous increase each year. While tuition is monitored to some degree in legislatures and is often publicly discussed, fees on the side are frequently overlooked in public opinion and regulatory policies (Lewin, 2013). Although tuition costs have risen, the rising costs have had little effect on transfer rates and overall enrollment. In a study on effects of rising tuition costs, analysis revealed that the rising costs of colleges have "weak or no effects" on enrollment. Rising tuition costs have not deterred enrollment "as long as students believe the potential return of a college education is much greater than the cost" (Raab, 2013).

In addition to tuition, living expenses, books, supplies and fees, students also face a less-acknowledged opportunity cost in years of missed potential income. A high school educated person could expect to earn about $84,000 for four years of work; in choosing to attend and pay for college, an individual forgoes those earnings (Clark, 2008).

Study comparing college revenue per student by tuition and state funding in 2008 dollars. In 2010, community colleges cost an average of $2,544 per year for tuition and fees. A private four-year college cost an average of $26,273 annually for tuition and fees (Espenshade *et al.*, 2009). College costs are rising while state appropriations for aid are shrinking. This has led to debate over funding at both the state and local levels. From 2002 to 2004 alone, tuition rates at public schools increased by just over 14 percent, largely due to dwindling state funding. A more moderate increase of 6 percent occurred over the same period for private schools (Clark, 2008). Between 1982 and 2007, college tuition and fees

rose three times as fast as median family income, in constant dollars (Douthat, 2010). In the 2012 fiscal year, state and local financing declined to $81.2 billion, a drop in funding compared to record-high funding in 2008 of $88 billion in a pre-recession economy.

To combat costs colleges have hired adjunct professors to teach. In 2008 these teachers cost about $1,800 per 3-credit class as opposed to $8,000 per class for a tenured professor. Two-thirds of college instructors were adjuncts, according to one estimate; a second estimate from NBC News in 2013 was that 76% of college professors were in "low-paying, part-time jobs or insecure, non-tenure positions," often lacking health insurance (Wessler, 2014). There are differences of opinion on whether these adjuncts teach more or less effectively than regular tenured or tenure-track professors. There is some suspicion that student evaluation of adjuncts, along with doubts on the part of teachers about subsequent continued employment, can lead to grade inflation (Marklein, 2013).

Additionally, schools are increasingly using price discrimination as a strategy across different programs to increase revenue (i.e., employing strategies like a for-profit business). Yet the school is still fundamentally different from a for-profit business entity in that it is restricted by its school mission. For example, a school may charge particular types of students (such as low-income or moderate-income students) less tuition in order to help them. Another example is merit-based aid, in which the school will grant high-achieving students money (Clinedinst, 2005).

Princeton sociologists Thomas Espenshade and Alexandria Walton Radford published a book-length study of admissions that found that an upper-middle-class white applicant was three times as likely to be admitted to an American college as a lower-class white with similar qualification. New York Times columnist Ross Douthat has cited this as an example of how U.S. universities can exacerbate wealth inequality. A 2006 report by Future of Children, a collaboration of Princeton and the Brookings Institution, concluded that "the current process of admission to, enrollment in, and graduation from colleges and universities contributes to economic inequality as measured by income and wealth." According to Suzanne Mettler of Cornell, government policy towards higher education has an effect of deepening inequality and disadvantaging students from the lower classes.

Athletics have been increasingly subsidized by tuition. One in eight of the 202 Division 1 colleges actually netted more money than they spent on athletics between the years 2005 and 2010. At the few money-making schools, football and sometimes basketball sales support the school's other athletic programs. Athletes, on average, cost six times what it

cost to educate the non-athlete. Spending per student varied from $10,012 to $19,225; cost per athlete varied from $41,796 to $163,931.

The portion of state budget funding spent on higher education has decreased by 40 percent since 1978, while at the same time most tuition fees have significantly increased. Between 2000 and 2010, the cost of tuition and room and board at public universities increased by 37 percent. The misconception persists that there simply is less money in "the system" to help pay for college these days. Actually, the reverse is true. In 1965, $558 million was available for financial aid. In 2005 more than $129 billion was available. As college costs have risen, so has the amount of money available to finance a college education. The kernel of truth in this myth is that the proportion of gift aid and self-help funding has shifted: loans and work make up a larger percentage of aid packages than they once did (Lederman, 2013). During the early 1980s, higher education funding saw a shift from reliance on state and federal government funding to a greater reliance on family contributions and student loans. Pell Grants, which were created to offset the cost of college for low-income students, started funding more middle-class students, stretching the funds thinner for everyone. During the mid-1990s 34 percent of the cost for college was covered by the maximum offered Pell Grant, compared to 84 percent during the 1970s (Michelle, 2009).

During Clinton's presidency, funding for higher education was focused on creating tax benefits tied to attending college. These proposed policies put less emphasis on developing grants to allow students to attend college. Some have argued that this approach did not adequately provide aid to those students most in need of it. Furthermore, there was fear that tax deductions or credits would actually work to drive up tuition costs.

The federal government also began funding fewer grant programs and more loan programs, leaving students with higher amounts of debt. In 2003, almost 70 percent of federal student aid awarded was student loans, which was a much higher percentage than just a decade before (Tandberg, 2010). In fact, the National Center for Education Statistics reports that during the 2007–2008 school year, 66% of degree recipients had borrowed money to complete their degree; 36% of these graduates had to borrow from state or private sources, averaging total loan amounts of $13,900; 95% of these loans were private. On the average, a student borrowed $24,700.36 during the 2007–2008 school year (Hoyt, 2001). One estimate of total debt of all ex-students in 2011 was $1 trillion (Gorman, 2009). Furthermore, the economic troubles of the recent decade have left higher education funding shifted toward other needs because higher education institutions have the ability to gain extra funds through raising tuition and private donations (Schapiro & McPherson, 2006).

Policy changes in higher education funding raise questions about the impact on student performance and access to higher education. Many early studies focused on social integration and a person's individual attributes as the factors for degree completion (Aud *et al*., 2011). More recent studies have begun to look at larger factors including state funding and financial support. It has been found that providing need-based aid proved to increase degree completion in 48 states. There has also been a positive correlation between providing merit-based aid and degree completion (*ibid*). Also, as the level to qualify for state need-based aid is lowered, the probability of persistence increases. Low-income families now have to pay more to attend college, making it harder for such populations to attain higher education.

In 1980, low-income families had to use 13 percent of their income to pay for one year of college. In 2000, this proportion grew to 25 percent of their income, while high-income families use less than 5 percent of their income (Tandberg, 2010). Thus, fully understanding how need and merit (non-need) aid is determined is critical when looking to ensure greater access to higher education. It is clear that at both private and public colleges and universities family income has a significant impact on need-based financial aid. As colleges and universities compete for students, the demarcation between merit-based aid and need-based aid is less clear. While there has been a traditional distinction between need-based and merit-based funding, recent trends indicate that these two categories are more blurred than their labels would suggest. Specifically, research confirms that merit-based financial aid often takes into account student need and vice versa.

Controversy has also risen regarding performance-based funding. Performance-based funding is a system in which the state's higher education budget is allocated to various institutions by several measures to best determine allocation of funds. This system has been criticized due to the complexity of the measurements as well as the resulting changed environment and goals of campuses. Many have criticized performance-funding, noting an overemphasis of test scores without consideration of other possible measures (Lauerman & Deprez, 2010).

A 2006 report by Michael S. McPherson and Morton Owen Schapiro indicated that financial aid to students in the 1990s held the strongest correlation with student SAT scores. The report was conducted in the interest of looking directly at the relationship between financial aid grants and various factors, with specific focus on the variables of family income level and SAT scores and minor focus on personal variables, such as race and gender. The reason these factors were given greater consideration was that, according to McPherson and

Schapiro, the information was readily available and it led to a more meaningful comparison across students than variables like high school GPA. The report also made clear that it ignored the distinctions that universities make between "need-based" and "merit-based" aid. McPherson and Schapiro argued, "Although it is commonplace to track the importance of merit as opposed to need-based aid based on the responses given by college and university administrators on survey forms, we have argued that the distinction between 'need-based' and 'non-need-based' student grants is a slippery one" (Blumenstyk, 2010).The findings in the report indicated that "the principle of awarding financial aid strictly in relation to ability to pay is becoming an increasingly less important factor in the distribution of aid in America's private colleges and universities" (*ibid*).

Some low-income students have to work and study at the same time. This may adversely impact their performance in school.Most discussions on how higher education funding is determined have focused on the economic and demographic influences; however, according to a 2010 study on the relationship between politics and state funding many political factors influence higher education funding. First, as the number of interest groups for higher education in a state grows, so does the amount of money given to higher education. Second, states with a more liberal political ideology give more funding to higher education. Third, governors with more control over the state budget tend to award less money to higher education. This is attributed again to the fact that higher education funding is considered to be tradable with other programs. Fourth, a more professional state legislature correlates with more funding for higher education. ('Professional' here refers to a legislature that acts much as the U.S. Congress does in that members have many staff members and spend more time in session.) Fifth, the more diverse a state population becomes, the less support there will be for higher education funding (Tandberg, 2010).

There has been rapid growth in recent years of for-profit schools, of which the University of Phoenix is the largest with an enrollment over 400,000 nationwide. Other large institutions, with numerous branch campuses and online programs include Devry and Kaplan University. Altogether, they enroll 9% of the students. They have aggressively recruited among military veterans, and in 2010 received 36% percent of all the tuition aid paid by the federal government. The University of Phoenix received 88% of its income from federal aid to students; the maximum allowed is 90%. In 2001, the University of Phoenix opened a two-year online program oriented toward lower-income students who receive federal financial aid; in 2010 it had over 200,000 students seeking two-year degrees. Critics have pointed to the heavy dependence on federal loans and grants to students, the low student completion

rate, and the inability of the majority of graduates to pay their student loans because they failed to secure high-paying jobs. The University of Phoenix reports that in 2009, 23% of its students completed an associate degree within three years of enrolling, and for bachelor's degree students, its six-year completion rate was 34%.

The amount of debt that students have after graduation has become an issue of concern, especially given the weak job market after 2008 (Vedder, 2012; Reaney, 2013). Nearly all loans are financed by the federal government at an artificially low rate, but students sometimes obtain private loans (which generally have higher interest rates and start accumulating interest immediately). In 2010, the U.S. Department of Education announced stricter eligibility rules for federal financing of loans to student at for-profit schools, which were experiencing higher default rates (Derek, 2012). Student loans total $1 trillion, averaging $25,000 each for 40 million debtors. The debtors average age is 33. Forty percent of the debt is owed by people 40 or older.[123] A 2013 poll by NBC News found that more than 40% of college graduates from 2011 to 2012 were underemployed, and that some were "heavily in debt because of the cost of their education" (Albrecht, 2011).

Grade inflation has been a pernicious aspect of American college life since the 1960s. Until the mid-1960s, the most common letter grade at college was a C. For the next thirty years it was a B. Since the mid-1990s it has been an A. On average, private colleges have been more subject to this phenomena than public colleges, as have the humanities compared to STEM courses, post-graduate courses compared to undergraduate courses, and courses taught by women compared to courses taught by men. The most likely explanation is the desire of instructors to avoid confrontations with students demanding a better grade, as well as the desire to receive favorable course evaluations from those students. Although standardized tests are certainly imperfect measures of ability, comparing trends in scoring with those in grades is revealing: Unlike GPAs, overall test scores have remained relatively steady over time, demonstrating that the grade inflation is artificial. Graduate literacy has also remained constant. A graduate may take pride in having a straight-A transcript, but his or her potential employers know that factors such as internships, work experience, choice of major, volunteering, choice of extracurricular activity and relevance of coursework are more reliable indicators of ability (Katsikas, 2015; Babcock & Marks, 2010).

In 1961, the average full-time student at a four-year college studied for about twenty-four hours per week, while his modern counterpart in all demographic subgroups averages only fourteen hours per week. This cannot be explained by technological innovations such as the internet, since most of the decline predates the innovations that are most relevant to

education. The most plausible explanation for these findings is a general decline in academic standards. Longitudinal data indicate that the few students who take full academic advantage of their time in college earn more in the long run (Arum & Roksa, 2011).

In Academically Adrift, Richard Arum and Josipa Roksa draw on transcript data, the Collegiate Learning Assessment, and survey responses from more than 2,300 undergraduates at twenty-four institutions in their first semester and again at the end of their second year. Their analysis reveals that 45 percent of these students demonstrated no significant improvement in a range of skills including critical thinking, complex reasoning, and writing during their first two years of college (Everett & Seymour, 1973).

Financial pressures have made college administrations increasingly reluctant to lose the tuition obligations of students who might otherwise be failed or expelled, and to fill their classrooms they must accept students who will certainly not be able to complete a four-year degree in four years. Disruptive, immature or otherwise irresponsible behavior on the part of some of these students can impede the learning experiences of other students (Schuster & Finkelstein, 2008). While the traditional approach to pedagogy in higher education focuses on the teacher's responsibility, J. Scott Armstrong argues that students have a "natural learning" ability. They should take responsibility for their learning. The teacher-centered approach inhibits learning (Menand, 2010).

2.5 Historical Development of University Education in Britain

The history of education in England can be traced back to the Anglo-Saxons' settlement of England, or even back to the Roman occupation. During the Middle Ages, schools were established to teach Latin grammar, whilst apprenticeship was the main way to enter practical occupations. Two universities were established: the University of Oxford, followed by the University of Cambridge. A reformed system of "free grammar schools" was established in the reign of Edward VI.

In the 19th century, the Church of England was majorly responsible for education until the establishment of free, compulsory education towards the end of that century. University College, London was established, followed by King's College, London; the two institutions formed the University of London. Durham University was also established in the early nineteenth century. Towards the end of the century, the "redbrick" universities were founded.

The 1944 Education Act established the Tripartite System of grammar schools, and secondary modern schools. The school-leaving age was raised to 16 in 1972. Independent

schools have a long history in England; some were set up before the tenth century. The oldest is King's School, Canterbury, which was founded in 597. Many independent schools were charitable foundations. A group of these charity schools, much later, invoked the name "public school" to indicate that they were open to the public regardless of religious beliefs.
In Tudor England, Edward VI reorganised grammar schools and instituted new ones so that there was a national system of "free grammar schools" that were in theory open to all and offered free tuition to those who could not afford to pay fees. The vast majority of poor children did not attend these schools since their labour was economically valuable to their families.

In 1562, the Statute of Artificers and Apprentices was passed to regulate and protect the apprenticeship system, forbidding anyone from practising a trade or craft without first serving a 7-year period as an apprentice to a master. Following the Act of Uniformity in 1662, religious dissenters set up academies to cater for students who did not wish to subscribe to the articles of the Church of England. Some of these 'dissenting academies' still survive, the oldest being Bristol Baptist College. Several Oxford Colleges (Harris Manchester, Mansfield, and Regent's Park) are also descendants of this movement.

From 1692, 'parish' apprenticeships under the Elizabethan Poor Law came to be used as a way of providing for poor, illegitimate and orphaned children of both sexes alongside the regular system of skilled apprenticeships, which tended to provide for boys from slightly more affluent backgrounds. These parish apprenticeships, which could be created with the assent of two Justices of the Peace, supplied apprentices for occupations of lower status such as farm labouring, brickmaking and menial household service. Until as late as the nineteenth century, all university fellows and many schoolmasters were expected or required to be in holy orders. Schoolmistresses typically taught the three Rs (reading, writing and 'rithmetic) in dame schools, charity schools, or informal village schools.

In the early years of the Industrial Revolution entrepreneurs began to resist the restrictions of the apprenticeship system,[4] and a legal ruling established that the Statute of Apprentices did not apply to trades that were not in existence when it was passed in 1563, thus excluding many new 18th century industries.

In the 18th and 19th centuries, the Society for Promoting Christian Knowledge founded many charity schools for poor students in the 7 to 11 age group. It is from these schools that the modern concept of primary and secondary education has grown. It was also an early provider of teacher education (Kynaston, 2008).

Robert Raikes initiated the Sunday School Movement, having inherited a publishing business from his father and become proprietor of the Gloucester Journal in 1757. The movement started with a school for boys in the slums. Raikes had been involved with those incarcerated at the county Poor Law (part of the jail at that time) and saw that vice would be better prevented than cured. He saw schooling as the best intervention. The best available time was Sunday as the boys were often working in the factories the other six days. The best available teachers, were lay people. The textbook was the Bible, and the originally intended curriculum started with learning to read and then moved on to the catechism (Sampson, 1982).

Raikes used the paper to publicize the schools and bore most of the cost in the early years. The movement began in July, 1780, in the home of a Mrs. Meredith. Only boys attended, and she heard the lessons of the older boys who coached the younger. Later, girls also attended. Within two years, several schools opened in and around Gloucester. He published an account on November 3, 1783 of Sunday School in his paper, and later word of the work spread through the Gentleman's Magazine, and in 1784, a letter to the Arminian Magazine.

The original schedule for the schools, as written by Raikes was "The children were to come after ten in the morning, and stay till twelve; they were then to go home and return at one; and after reading a lesson, they were to be conducted to Church. After Church, they were to be employed in repeating the catechism till after five, and then dismissed, with an injunction to go home without making a noise."

There were disputes about the movement in the early years. The schools were derisively called "Raikes' Ragged School." Criticisms raised included that it would weaken home based religious education, that it might be a desecration of the Sabbath, and that Christians should not be employed on the Sabbath. "Sabbatarian disputes" in the 1790s led many Sunday schools to cease their teaching of writing.

Most schools at this time focused on grammar instruction, which at that time was centered on the instruction of Latin and Greek. Many schools taught Latin and Greek to the exclusion of all other subjects. Prior to the 19th century, there were very few schools. Most of those that existed were run by church authorities and stressed religious education. The Church of England resisted early attempts for the state to provide secular education.

In 1811 National Society for Promoting the Education of the Poor in the Principles of the Established Church in England and Wales was established. Historically, schools founded by the National Society were called National Schools (still an integral part of the state school

system), as opposed to the non-denominational "British schools" founded by the British and Foreign School Society which was established in 1808 as Society for Promoting the Lancasterian System for the Education of the Poor by Joseph Fox, William Allen and Samuel Whitbread and supported by several evangelical and non-conformist Christians.

In 1814, compulsory apprenticeship by indenture was abolished. By 1831, Sunday School in Great Britain was ministering weekly to 1,250,000 children, approximately 25% of the population. As these schools preceded the first state funding of schools for the common public, they are sometimes seen as a forerunner to the current English school system.

In 1818, John Pounds, known as the crippled cobbler, set up a school and began teaching poor children reading, writing, and arithmetic without charging fees (WCA, 2008). In 1820, Samuel Wilderspin opened the first infant school in Spitalfields. In August, 1833, Parliament voted sums of money each year for the construction of schools for poor children, the first time the state had become involved with education in England and Wales (whereas a programme for universal education in Scotland had been initiated in the 17th century).

A meeting in Manchester in 1837, chaired by Mark Philips, led to the creation of the Lancashire Public Schools' Association. The association proposed that non-denominational schools should be funded from local taxes. In 1837, the Whig former Lord Chancellor Henry Brougham presented a bill for public education. In 1839, government grants for the construction and maintenance of schools were switched to voluntary bodies, and became conditional on a satisfactory inspection.

In 1840, the Grammar Schools Act expanded the Grammar School curriculum from classical studies to include science and literature. After John Pounds' death in 1839 Thomas Guthrie wrote Plea for Ragged Schools and started a ragged school in Edinburgh, another one was started in Aberdeen. In 1844 Anthony Ashley-Cooper, 7th Earl of Shaftesbury formed the 'Ragged School Union' dedicated to the free education of destitute children and over the next eight years over 200 free schools for poor children were established in Britain (WCA, 2008), with some 300,000 children passing through the London Ragged Schools alone between 1844 and 1881.

Over 95% of children of elementary school age were already enrolled in schools well before it was made compulsory and free. In 1861 the Royal Commission on the state of popular education in England, chaired by the Duke of Newcastle, reported "The number of children whose names ought [in summer 1858 in England and Wales] to have been on the school books, in order that all might receive some education, was 2,655,767. The number we

found to be actually on the books was 2,535,462; thus, leaving 120,305 children without any school instruction whatever."

The Forster Elementary Education Act 1870 required partially state-funded board schools to be set up to provide primary (elementary) education in areas where existing provision was inadequate. Board schools were managed by elected school boards. The schools remained fee-charging, but poor parents could be exempted. The previous government grant scheme established in 1833 ended on 31 December, 1870.

The Act meant that compulsory attendance at school ceased to be a matter for local option, as children had to attend between the ages of 5 and 10, with exceptions such as illness, if children worked, or lived too far from a school. The Act empowered school boards to make byelaws for educating children between the ages of 5 and 13 but exempted any child aged over 10 who had reached the expected standard (which varied by board).

The Elementary Education Act 1880 insisted on compulsory attendance from 5 to 10 years. For poorer families, ensuring their children attended school proved difficult, as it was more tempting to send them working if the opportunity to earn an extra income was available. Attendance Officers often visited the homes of children who failed to attend school, which often proved to be ineffective. Children under the age of 13 who were employed were required to have a certificate to show they had reached the educational standard. Employers of these children who weren't able to show this were penalised (Curtis, 1965). An act brought into force thirteen years later went under the name of the "Elementary Education (School Attendance) Act 1893", which stated a raised minimum leaving age to 11. Later the same year, the act was also extended for blind and deaf children, who previously had no means of an official education. This act was later amended in 1899 to raise the school leaving age up to 12 years of age (Gillard, 2011).

The 1891 Elementary Education Act provided for the state payment of school fees up to ten shillings per head. The Elementary Education (School Attendance) Act 1893 raised the school leaving age to 11 and later to 13. The Elementary Education (Blind and Deaf Children) Act of the same year extended compulsory education to blind and deaf children, and made provision for the creation of special schools. The Voluntary Schools Act 1897 provided grants to public elementary schools not funded by school boards (typically Church schools). In the late Victorian period grammar schools were reorganised and their curriculum was modernised, although Latin was still taught.

In 1889, the "Technical Institutes Act" was passed. According to D. Evans, "It gave powers to the County Councils and the Urban Sanitary Authorities to levy a penny tax to

support technical and manual instruction. The curricula in technical institutions also had to be approved by the Science and Art Department. In the following year the Local Taxation Act introduced the 'whiskey tax', which made extra money available for technical instruction". From April 1900 higher elementary schools were recognised, providing education from the age of 10 to 15.

The controversial Conservative Education Act 1902 (also 'Balfour's Act') made radical changes to the entire educational system of England and Wales. It ended the divide between schools run by the 2568 school boards and the 14,000 church schools, administered primarily by the Church of England, which educated about a third of students. Local Education Authorities were established, which were able to set local tax rates, and the school boards were disbanded. Funds were provided for denominational religious instruction in voluntary elementary schools, owned primarily by the Church of England and Roman Catholics. The law was extended in 1903 to cover London Haley (Halevy, 1952).

G.R. Searle, like nearly all historians, argues the Act was a short-term political disaster for the Conservative Party because it outraged Methodists, Baptists and other nonconformists. It subsidized the religions they rejected. However Searle argues it was a long-term success. The Church schools now had solid financing from local ratepayers and had to meet uniform standards. It led to a rapid growth of secondary schools, with over 1000 opening by 1914, including 349 for girls. Eventually, the Anglican schools were nationalized. Grammar schools also became funded by the LEA. The act was of particular significance as it allowed for all schools, including denominational schools, to be funded through rates (local taxation), and ended the role of locally elected school boards that often attracted women, non-conformists and labour union men (Kelly, 1962). The Liberals came to power in 1906, but their attempt to repeal the act was blocked by the House of Lords, setting up a major constitutional confrontation (Lawson & Silver, 1973).

The Fisher Education Act 1918 made secondary education compulsory up to age 14 and gave responsibility for secondary schools to the state. Under the Act, many higher elementary schools and endowed grammar school sought to become state funded central schools or secondary schools. However, most children attended primary (elementary) school until age 14, rather than going to a separate school for secondary education.

The year 1918 saw the introduction of the Education Act 1918, commonly also known as the "Fisher Act" as it was devised by Herbert Fisher. The act enforced compulsory education from 5–14 years, but also included provision for compulsory part-time education for all 14- to 18-year-olds. There were also plans for expansion in tertiary education, by

raising the participation age to 18. This was dropped because of the cuts in public spending after World War I. This is the first act which starting planning provisions for young people to remain in education until the age of 18 (O'Day 1982). The 1918 act was not immediately implemented, instead waiting until an act in 1921 before coming into effect.

After the passing of the 1929 Local Government Act, poor law schools became state funded elementary schools. The concept of junior technical schools was introduced in the 1930s to provide vocational education at secondary level, but few were ever opened.

A report of 1938 of a committee chaired by Will Spens, a former Vice-Chancellor of the University of Cambridge, recommended that entry to schools would be based on intelligence testing. This was followed by the Norwood Report of 1943 which advocated the "tripartite" division of secondary education that was embodied in the 1944 Education Act.

The Education Act 1944, relating to England and Wales, authored by Rab Butler and sometimes known as "the Butler Act", defined the modern split between primary education and secondary education at age 11; it also established the Tripartite System, consisting of grammar schools, secondary modern schools and secondary technical schools. Academically gifted students who passed the "Scholarship" exam (later replaced by a "Grading Test" and the 11+ examination) were able to attend a grammar school. Children who did not pass the selection test attended secondary modern schools or technical schools. The school leaving age was raised to 15 (Richmond, 2007).

Changes in government approaches towards education meant that it was no longer regarded adequate for a child to leave education aged 14, as that was the age when they were seen to really understand and appreciate the value of education, as well as being the period when adolescence was at its height. It was beginning to be seen as the worst age for a sudden switch from education to employment, with the additional year in schooling to only provide benefits for the children when they leave. Although there were concerns about the effects of having less labour from these children, it was hoped that the outcome of a larger quantity of more qualified, skilled workers would eliminate the deficit problem from the loss of unskilled labour (Sanderson, 1999). The 1944 Act should have been brought into effect as from September, 1939; however, it was not implemented because of the effects of the Second World War, but was eventually enforced from April, 1947 (Richmond, 2007).

Education was made compulsory to age 15 in 1947. The 1944 Act had also recommended compulsory part-time education for all young people until the age of 18, but this provision was dropped so as not to overburden the post-war spending budget (as had happened similarly with the Act of 1918) (O'Day, 1982).

The Tripartite System became controversial in the post-war years. Critics condemned it as being elitist and defenders claimed that grammar schools allow pupils to obtain a good education through merit rather than through family income. In some areas, notably that of the London County Council, comprehensive schools had been introduced. They had no entrance test and were open to all children living in the school catchment area. However, despite tentative support for 'multilateralism' in secondaries, and a desire to raise the standard of secondary moderns to that of private institutions, from Minister for Education Ellen Wilkinson, the majority of Labour MPs were more concerned with implementing the 1944 Act; her successor George Tomlinson saw this through, although the secondary technicals remained underdeveloped (Stephens, 1999).

In 1965, the Labour government required all local education authorities to formulate proposals to move away from selection at eleven, replacing the tripartite system with comprehensive schools. This was done by the minister Tony Crosland by means of Circular 10/65 and withholding funding from any school that sought to retain selection. This circular was vehemently opposed by the grammar school lobby. Some counties procrastinated and retained the Tripartite System in all but a few experimental areas. Those authorities have locally administered selection tests.

The Circular also requested consultation between LEAs and the partially state-funded direct grant grammar schools on their participation in a comprehensive system, but little movement occurred. The 1970 report of the Public Schools Commission chaired by David Donnison recommended that the schools choose between becoming voluntary aided comprehensives and full independence. This was finally put into effect by the Direct Grant Grammar Schools (Cessation of Grant) Regulations 1975. Some schools (almost all Catholic) became fully state-funded, while the majority became independent fee-paying schools (Leach, 1911).

In 1964, preparations had begun to raise the school leaving age to 16 to be enforced from 1 September 1973 onwards. As well as raising the school leaving age in 1973, the year also saw the introduction of the Education (Work Experience) Act, allowing LEAs to organise work experience for the additional final year school students (Stephens, 1999). In some counties around the country, these changes also led to the introduction of Middle schools in 1968, (*ibid*) where students were kept at primary or junior school for an additional year, meaning that the number of students in secondary schools within these areas remained virtually constant through the change (Sanderson, 1999). As of 2007, there are now fewer

than 400 Middle Schools across England, situated in just 22 Local Education Authorities (*ibid*).

This increased the legal leaving age from 15 to 16, leaving a gap year of school leavers who, by law, had to complete an additional year of education from 1973 onwards. Many secondary schools in areas without a Middle School were unable to accommodate the new 5th year students. The solution to the problem was to construct a new building for these schools (often referred to as "ROSLA Buildings" or "ROSLA Blocks") that needed to extend their capacity (Kynaston, 2008), providing them with the capacity to cope with the new generation of ROSLA students. The "ROSLA Buildings" were delivered to schools in self-assembly packs and were not intended to stand long-term, though some have proven to have stood much longer than was initially planned (*ibid*).

High technology industry (Aerospace, Nuclear, Oil & Gas, Automotive, Power Generation and Distribution, etc.) trained its professional engineers via the advanced apprenticeship system of learning usually a 5-year process. The higher Apprenticeship framework in the 1950s, 60s and 70s was designed to allow young people (16 years) an alternative path to A Levels to achieve an academic qualification at level 4 or 5 NVQ. The Higher Apprenticeship Framework was open to young people who had a minimum of 4 GCE "O" Levels to enroll in an Ordinary National Certificate or Diploma or a City & Guilds technician course. For advanced engineering apprenticeships "O" Levels had to include Mathematics, Physics, and English language. The advanced apprenticeship framework's purpose was to provide a supply of young people seeking to enter work-based learning via apprenticeships by offering structured high value learning and transferable skills and knowledge. These apprenticeships were enabled by linking industry with local technical colleges and professional Engineering Institutions.

The Advanced Apprenticeship Framework offered clear pathways and outcomes that addressed the issues facing the industry. This system was in place since the 1950s. The system provided young people with an alternative to staying in full-time education post-16/18 to gain pure academic qualifications without work-based learning. The Advanced Apprenticeship's of the 1950s 60s and 70s provided the necessary preparation towards Engineering Technician. Technician Engineer or Chartered Engineer registration. Apprentices undertook a variety of job roles in numerous technical functions to assist the work of engineers, in the design, development, manufacture and maintenance of production system (Casey, 2008).

In modern times, apprenticeship became less important, especially as employment in heavy industry and artisan trades has declined since the 1980s. Traditional apprenticeships reached their lowest point in the 1980s: by that time, training programmes were rare and people who were apprentices learned mainly by example. Following the 1979 General Election, the Conservative Party regained power under Margaret Thatcher. In the early period it made two main changes:

New Vocationalism was expanded (Labour had made some small efforts beforehand, but the Conservatives expanded it considerably). This was seen as an effort to reduce the high youth unemployment, which was regarded as one of the causes of the sporadic rioting at the end of the seventies. The Youth Opportunities Programme was the main scheme, offered to 16- to 18-year-olds. It had been introduced in 1978 under the Labour government of James Callaghan, was expanded in 1980 under the Conservative government of Margaret Thatcher, and ran until 1983 when it was replaced by the Youth Training Scheme. The Assisted Places Scheme was introduced in 1980, whereby gifted children who could not afford to go to fee-paying schools would be given free places in those schools if they could pass the school's entrance exam.

In 1986, National Vocational Qualifications (NVQs) were introduced, in an attempt to revitalise vocational training. Still, by 1990, apprenticeship took up only two-thirds of one percent of total employment (Smith, 2001). The 1988, Education Reform Act made considerable changes to the education system. These changes were aimed at creating a 'market' in education with schools competing with each other for 'customers' (pupils). The theory was that "bad" schools would lose pupils to the "good" schools and either have to improve, reduce in capacity or close.

The National Curriculum was introduced, which made it compulsory for schools to teach certain subjects and syllabuses. Previously the choice of subjects had been up to the school. National curriculum assessments were introduced at the Key Stages 1 to 4 (ages 7, 11, 14 and 16 respectively) through what were formerly called Standard Assessment Tests (SATS). At Key Stage 4 (age 16), the assessments were made from the GCSE exam. League tables began showing performance statistics for each school. These are regularly published in newspapers and on the internet, so parents and the public can see results for schools in each area of the country (Walvin, 1982).

Formula funding was introduced, which meant that the more children a school could attract to it, the more money the school would receive. Open Enrollment and choice for

parents was brought back, so that parents could choose or influence which school their children went to.

Schools could, if enough of their pupils' parents agreed, opt out of local government control, becoming grant-maintained schools and receiving funding direct from central government. The government offered more money than the school would get usually from the local authority as an enticement. This was seen as a political move given that, often, local authorities were not run by the governing Conservative Party whereas central government was.

In 1994, the government introduced Modern Apprenticeships, based on frameworks devised by Sector Skills Councils. These frameworks contain a number of separately certified elements:

a. knowledge-based element, typically certified through a qualification known as a 'Technical Certificate';
b. competence-based element, typically certified through an NVQ; and
c. Key Skills (literacy and numeracy) (Aldrich, 2005).

A child whose sixteenth birthday falls in the period 1 September to 31 January may leave compulsory schooling at the end of the Spring term (the following Easter). A child whose sixteenth birthday falls in the period 1 February to 31 August may leave on the Friday before the last Monday in May. Under section 8 (4) of the Education Act 1996, a new single school leaving date was set for 1998 and all subsequent years thereafter. This was set as the last Friday in June in the school year which the child reaches the age of 16 (Curtis, 1965).

Under section 7 of the Act, it was made an obligation for parents to ensure a full-time education for their children either at school or "otherwise" which formalised the status of home education. During the 1997 General Election, the Labour party mantra was "Education, Education, Education," a reference to their conference slogan. Winning the election returned them to power, but New Labour's political ideology meant that many of the changes introduced by the Conservatives during their time in power remained intact. They began changing the structure of the school and higher education systems. The following changes took place.

The previous Labour focus on the comprehensive system was shifted to a focus on tailoring education to each child's ability. Critics see this as reminiscent of the original intentions of the Tripartite system. Grant-maintained status was abolished, with GM

schools being given the choice of rejoining the local authority as a maintained community school, or becoming a Foundation school.

The Government run 11 plus selection exam has now been abolished in the UK, and no longer do all children sit for it as used to be the case. However, voluntary selection tests are still conducted in certain areas of the UK, where some of the original grammar schools have been retained. These areas include: Northern Ireland and some English counties and districts including Devon, Dorset, Kent, Buckinghamshire, Essex, Birmingham, Trafford, Wiltshire, North Yorkshire, Calderdale, Kirklees, Wirral, Warwickshire, Gloucestershire, Lincolnshire and some London boroughs such as Bexley, Kingston-upon-Thames and Redbridge. There have been various so far unsuccessful attempts by campaigners to accomplish the abolition of all remaining grammar schools. The remaining grammar schools are now, thus, still selective, typically taking the top 10-25% of those from the local catchment area. Some of the still-existing grammar schools in the United Kingdom can trace their history back to earlier than the 16th century.

Labour expanded a policy started by the Conservatives of creating specialist schools. This new type of secondary school teaches the National Curriculum subjects plus a few specialist branches of knowledge (e.g. business studies) not found in most other schools. These schools are allowed to select 10% of their pupils.

In 1997, there were 196 of these schools. In August 2002, there were 1000. By 2006, the plan was to have 2000, and the goal was to make all secondary schools specialist eventually. The Beacon Schools programme was established in England in 1998. Its aim was to identify high performing schools, in order to help them form partnerships with each other and to provide examples of effective practice for other schools. The programme was replaced in August 2005 with more broadly based programmes; the Leading Edge Partnership programme (for secondary schools) and Primary Strategy Learning Networks (PSLNs) (at the primary level) (Gillard, 2011).

A new grade of Advanced Skills Teacher was created, with the intention that highly skilled teachers would be paid more if they accepted new posts with outreach duties beyond their own schools. City Academies were introduced. These are new schools, built on the site of, or taking over from existing failing schools. A city academy is an independent school within the state system. It is outside the control of the local education authority and set up with substantial funding from interested third parties, which might be businesses, charities or private individuals. Education Action Zones were introduced, which deprived areas are run

by an action forum of people within that area with the intention of making that area's schools better. Vocational qualifications were renamed/restructured as follows:

i. GNVQs became Vocational GCSEs and AVCEs.
ii. NVQs scope expanded so that a degree-equivalent NVQ was possible.
iii. The New Deal was introduced, which made advisors available to long-term unemployed (in the UK this is defined as being unemployed for more than 6 months) to give help and money to those who want to go back into Education.
iv. Introduced Literacy and Numeracy Hours into schools, and set targets for literacy and numeracy.
v. Set Truancy targets.
vi. Set a maximum class size of 30 for 5-7 year olds.

Introduced the EMA, (Education Maintenance Allowance), which is paid to those between 16 and 18 as an enticement to remain in full-time education and get A-Levels/AVCEs. A Performance Threshold was introduced in 2000 to allow experienced teachers access to higher rates of pay on meeting a set of performance standards, including a standard of pupil attainment. The performance-related pay changes have been bitterly opposed by teaching unions, most notably the National Union of Teachers which challenged the Threshold scheme by legal action. Introduced Curriculum 2000, which reformed the Further Education system into the current structure of AS levels, A2 levels and Key Skills.

A report was commissioned, led by the former chief-inspector of schools, Mike Tomlinson, into reform of the curriculum and qualifications structure for 14- to 19-year-olds. The report was published on October 18, 2004, and recommended the introduction of a diploma that would bring together both vocational and academic qualifications and ensure that all pupils had a basic set of core skills. It is proposed that the current qualifications would evolve into this diploma over the next decade, whether the government will follow the recommendations is yet to be seen the Conservative Party have already introduced alternative proposals to return to norm-referencing in A-levels rather than the current system of criterion-referencing.

In 2003, a green paper entitled Every Child Matters was published. It built on existing plans to strengthen children's services and focused on four key areas:

Increasing the focus on supporting families and carers as the most critical influence on children's lives. Ensuring necessary intervention takes place before children reach crisis point and protecting children from falling through the net. Addressing the underlying problems

identified in the report into the death of Victoria Climbié weak accountability and poor integration

Ensuring that the people working with children are valued, rewarded and trained

The green paper prompted a debate about services for children, young people and families resulting in a consultation with those working in children's services, and with parents, children and young people. The Government published Every Child Matters: the Next Steps in November, 2004, and passed the Children Act 2004, providing the legislative spine for developing more effective and accessible services focused around the needs of children, young people and families.

In January 2007, Education Secretary Alan Johnson announced plans to extend the school leaving age in England to eighteen by 2013. This would raise the leaving age for the first time since the last raise in 1972, when compulsory education was extended until sixteen. This change will include training such as apprenticeships and work based training rather than exclusively offering continued academic learning (WCA, 2008).

Reports were published in November, 2006, to suggest that England's Education Secretary Alan Johnson was exploring ways to raise the school leaving age in England and Wales to 18, pointing to the decline in unskilled jobs and the need for young people to be equipped for modern day employment (Sampson, 1982). Such proposals are expected to become effective from 2013 onwards.

The Academies Act 2010, one of the first government bills introduced in the Conservative Liberal Democrat coalition government, allowed publicly funded schools in England to become academies, still publicly funded but with a vastly increased degree of autonomy in issues such as setting teachers' wages and diverging from the National Curriculum (Kynaston, 1982).

The Education Act 2011 makes changed to many areas of educational policy, including the power of school staff to discipline students, the manner in which newly trained teachers are supervised, the regulation of qualifications, the administration of local authority maintained schools, academies, the provision of post-16 education, including vocational apprenticeships, and student finance for higher education. It abolished the General Teaching Council for England, the Qualifications and Curriculum Development Agency and the Training and Development Agency for Schools and other bodies.

In 2008, a new law was passed (the Education and Skills Act 2008). This affected education mainly from 2013 onward as it said that by 2013, all young people in England have to stay on in education or training at least part-time until they are 17 years old. It also said

that by 2015, all young people will have to stay on in education or training at least part-time, until they are 18 years old.

This means that post-2015, all young people were now required to participate in education or training through either full-time education or training, including school, college and home education; work-based learning, such as an apprenticeship; or part-time education or training or volunteering more than 20 hours a week (Leach, 1911).

2.6 Importance of Female Education

Education is first and foremost a social tool that is imperative for the continued survival and growth of the human society. Against this background, it is worthy of note to mention that education, whether formal or informal, assumes a heavy social context, since it is generally concerned with the impartation of knowledge in people.

As observed by Okafor (1971) and Ali (1988) education ideally trains manpower for the economy, it also helps to fully develop the potentials of individuals and equally help such individuals consummate employment opportunities. Thus, since education is a critical variable in modern work situations, formal education enhances labour force participation of women.

Shaheed (1995) argued that women's involvement in formal education broadens their experience and also gives them access to new resources and skills. To a very large extent, it is to be understood that education is the main tool for imparting skills and attitudes relevant to the contribution of the individual concerned to natural development. Traditionally, Nigerian Society does not see much importance in women's education, but rather in the domestic tasks. In view of this the woman's role has come to be limited to sexual and commercial labour, satisfying the sexual needs of men, working in the fields, carrying loads, tending babies and preparing food (Hammond & Jablav, 1992). Turning an historical lens on women's involvement in formal education helps demonstrate that discrimination against them sometimes overt and other times quite unawares has led to limited expectations for where, how and why women should participate in education. The belief that they would not be able to use advanced schooling led to concerns that their movement into certain fields was in appropriate or unfair to men. Invariably, this goes against Schaeffer's (2005) argument that education depicts individuals' involvement in formal training, for the purpose of acquiring basic knowledge, skills and expertise necessary for living a meaningful and impactful life, generally aimed at the development of human beliefs.

Interestingly, the high illiteracy rate among Nigerian women is the consequence of the interplay of several factors, including sex stereotyping and forced early marriages. In his argument, Adamu (1987) identified culture among the Hausa Fulani ethnic group of Northern Nigeria as one of the greatest problem confronting women's education. As at the period when universal free primary education between 1975 and 1984 was in operation statistics provided by the Federal Ministry of Education (1985) indicate gender discrimination in access to basic education in the extreme north when compared to the Southern states. This trend could be attributed to early marriage of females, which remains a common phenomenon by the Hausa Fulani ethnic groups. It is the contention of this paper in view of the above statements to argue that the number of women who have acquired formal education at the earlier stage is disproportionate to the number involved in the labour sector at that period. It observes unequal access to educational opportunities as the bedrock of ignorance and powerlessness associated with women's social disempowerment in Nigeria.

The socioeconomic impact of female education constitutes a significant area of research within international development. Increases in the amount of female education in regions tends to correlate with high levels of development. Some of the effects are related to economic development. Women's education increases the income of women and leads to growth in GDP. Other effects are related to social development. Educating girls leads to a number of social benefits, including many related to women's empowerment.

Recent research in human development has established a strong link between women's education and international development. International development is an academic discipline concerned with the social and economic progress in impoverished regions. In particular, researchers seek to determine what factors explain differences in rates of development. Women's education is one of the major explanatory variables behind the rates of social and economic development (Klasen, 2002), and has been shown to have a positive correlation with both (King & Hill, 1998; Dollar & Gatti, 1999). According to the notable economist Lawrence Summers, "Investment in the education of girls may well be the highest-return investment available in the developing world" (King & Hill, 1998). Closing gender disparity is also one of the UN Millennium Developmental Goals (UN, 2013).

There are multiple ways researchers measure the effects of women's education on development. Typically, studies concern themselves with the gender gap between the education levels of boys and girls and not simply the level of women's education (King & Hill, 1998; Psacharopoulos & Patrinos, 2004). This helps to distinguish the specific effects of women's education from the benefits of education in general. Note that some studies,

particularly older ones, do simply look at women's total education levels (Dollar & Gatti, 1999). One way to measure education levels is to look at what percentage of each gender graduates from each stage of school. A similar, more exact, way is to look at the average number of years of schooling a member of each gender receives. A third approach uses the literacy rates for each gender, as literacy is one of the earliest and primary aims of education (King & Hill, 1998). This provides an idea of not just how much education was received but how effective it was.

The most common way to measure economic development is to look at changes in growth of GDP. In order to ensure that a connection holds, correlations are analyzed across different countries over different periods of time. Typically the result given is a relatively steady average effect, although variation over time can also be measured (Patrinos, 2008). The benefits of education to an individual can also be analyzed. This is done by first finding the cost of education and the amount of income that would have been earned during years enrolled in school. The difference between the sum of these two quantities and the total increase in income due to education is the net return (*ibid*).

Both individuals and countries benefit from women's education. Individuals who invest in education receive a net monetary gain over the course of their lifetime (Psacharopoulos & Patrinos, 2004). According to Patrinos (2008), lead education economist at the World Bank, "the profitability of education, according to estimates of private rate of return, is indisputable, universal, and global." The principle holds particularly for women, who can expect a 1.2% higher return than men on the resources they invest in education (*ibid*). Providing one extra year of education to girls increases their wages by 10-20% (Levine *et al*., 2008). This increase is 5% more than the corresponding returns on providing a boy with an extra year of schooling (*ibid*).

This individual monetary gain creates an increase in the overall economic productivity of a country. Girls are underrepresented in schooling, meaning that investments aimed specifically at educating women should produce bigger dividends (Schultz, 2001). Although investment in women's education is not present everywhere, David Dollar and Roberta Gatti have presented findings that show that this decision, along with other failures to invest in women are not "an efficient economic choice for developing countries" and that "countries that under-invest grow more slowly" (Dollar & Gatti, 1999). Looking holistically at the opportunity cost of not investing in girls, the total missed GDP growth is between 1.2% and 1.5% (Chaaban & Cunningham, 2011). When looking at different regions, it is estimated that 0.4-0.9% of the difference in GDP growth is accounted for solely by differences in the

gender gap in education (Klasen, 2002). The effect of the educational gender gap is more pronounced when a country is only moderately poor. Thus the incentive to invest in women goes up as a country moves out of extreme poverty (Dollar & Gatti, 1999).

In addition to total economic growth, women's education also increases the equitability of the distribution of wealth in a society. Increased women's education is important for achieving this as it targets the impoverished women, a particularly disadvantaged group. There is also evidence that lower gender disparity in educational attainment for a developing country correlates with lower overall income disparity within society (Hanushek, 2008).

Women's education leads to significant social development. Some of the most notable social benefits include decreased fertility rates and lower infant mortality rates, and lower maternal mortality rates (King & Hill, 1998). Closing the gender gap in education also increases gender equality, which is considered important both in itself and because it ensures equal rights and opportunities for people regardless of gender. Women's education has cognitive benefits for women as well (Kabeer, 2005). Improved cognitive abilities increase the quality of life for women (Nussbaum, 2011) and also lead to other benefits. One example of this is the fact that educated women are better able to make decisions related to health, both for themselves and their children. Cognitive abilities also translate to increased political participation among women (Kabeer, 2005). Educated women are more likely to engage in civic participation and attend political meetings, and there are several instances in which educated women in the developing world were able to secure benefits for themselves through political movements (Levine *et al*., 2008; Kabeer, 2005). Evidence also points to an increased likelihood of democratic governance in countries with well-educated women (Levine *et al*., 2008).

There are also benefits relating to the woman's role in the household. Educated women have been found to experience less domestic violence, regardless of other social status indicators like employment status (Sen, 1999). Women with an education are also more involved in the decision-making process of the family and report making more decisions over a given time period (Levine *et al*., 2008; Kabeer, 2005). In particular, these benefits extend to economic decisions. Besides the intrinsic value of increasing a woman's agency, (Kabeer, 2005) having women play a more active role in the family also brings about social benefits for family members. In a household where the mother is educated, children and especially girls are more likely to attend school (King & Gatti, 1999; Birdsall *et al*., 2005). In households where a mother is not educated, adult literacy programs can indirectly help to

teach mothers the value of education and encourage them to send their children to school (Birdsall *et al*., 2005). There are also a number of other benefits for children associated with having an educated mother over an educated father, including higher survival rates and better nutrition (Schultz, 2001).

2.7 Home Factors and Female Education

These are factors related to the direct and indirect costs of sending children to school as well as the overall poverty of the family and the employment prospects available. Lack of school fees was the most common reason for non-enrolment and dropout in a number of surveys. Studies have shown that there are still other direct costs to schooling which are acting as constraints to enrolling and keeping children in school (Burchfield & Kadzamira, 1996; Kadzamira *et al*., 1999; Chimombo & Chonzi, 1999). These studies have identified inadequate clothing, and lack of money to buy school supplies as the reasons for non-enrolment and lack of participation of females in classroom activities. This demonstrates the complexity of the issue at hand, in the context of pervasive poverty in rural areas.

Many studies have found that the necessity for children to perform economically important tasks that support household survival limits participation, especially in rural and urban centres (Anderson, 1988; Lockheed & Verspoor, 1991). For Nigeria, Bryant (1990) noted that many children began working at very early ages and were not enrolled in school at all. He noted that they spent their time child minding their siblings, working on the farms or in family fields and with herds.

Other studies have shown that girls, on average, spend more time on domestic chores than boys (Davison & Kanyuka, 1990; Kaunda, 1995; Sey, 1997). Sey (1997) observed that the division of labour at home meant that girls in rural areas had little time for studying at home. There is also the question of the relevance of education. Women are under-represented in the formal economic sector. In 1990, for example, women constituted about 15% of paid employment (Lewis *et al*., 1990). A good number of the people in Nigeria live in the rural areas. According to a study by Hyde and Kadzamira (1994), there are few job opportunities available for females. Parents in these areas tend to see little utility in educating their daughters.

2.7.1 Female Education and Poverty

It is widely agreed that the relationship between poverty and education operates in two directions: poor people are often unable to obtain access to adequate education, and

without adequate education, people are often constrained to a life of poverty. However, before addressing the inter-relationships between poverty and education, it is important to discuss the concept of poverty.

Poverty has many dimensions and does not merely entail a low level of income or expenditure. Works of Amartya Sen (1992; 2001) have broadened our understanding of poverty by defining it as a condition that results in an absence of the freedom to choose, arising from a lack of what he refers to as 'the capability to function effectively in society.' This multidimensional interpretation moves far beyond the notion of poverty as being solely related to a lack of financial resources. For example, Sen's viewpoint would suggest that inadequate education could, in itself, be considered as a form of poverty in many societies.

When considering poverty's linkages with a lack of sufficient financial resources, it is useful to consider the two distinct components of absolute and relative poverty. Absolute poverty is the absence of financial resources required to maintain a certain minimal standard of living. For example, an absolute poverty line can be set based on factors, such as the financial resources needed for the most basic needs, or the income level required to purchase basic food needs (Fields, 2000; Deaton, 1997). Such poverty lines need to be adjusted for inflation if they are to be used at different time points. A poverty line commonly used by the World Bank for making international comparisons is US$1 per person, per day, or sometimes US$2 per person, per day. This kind of absolute poverty line provides a fixed yardstick against which we could measure change, for example, to see whether a country is making any progress in reducing poverty, or to compare several countries or several regions.

In contrast, relative poverty is seen as poverty that is partly determined by the society in which a person lives. Someone who may not be regarded as poor in Bangladesh may (with the same financial resources) be considered as poor in Sweden. By absolute poverty standards, such as the designation of US$1 per person, per day, few people in developed countries may be considered poor – yet a considerable proportion of the population in these countries might be considered to be relatively poor because they are excluded from the mainstream of economic and social life. Such people might experience poverty via sources, such as social marginalization, lack of education, low income, poor language skills, and other factors that prevent a genuine integration into mainstream society.

Both absolute and relative poverty are relevant for education. Lack of financial resources may limit school attendance among the absolutely poor in developing countries.

The relatively poor in developed countries, however, often feel excluded from the school community, or the whole school community itself may feel excluded from the wider society. Such exclusion affects their ability to gain the full benefits from education or to translate the benefits of education into remunerative employment. This also has a potential impact on motivation to participate or to do well in education. Thus, both absolute and relative poverty have impact on education. Where absolute poverty is considered, the focus will be on developing (poor) countries. In contrast, where relative poverty is considered, the focus will usually be on developed (rich) countries (even though relative poverty is also widely present in poor countries).

Throughout the world, it has been found that the probability of finding employment rises with higher levels of education, and that earnings are higher for people with higher levels of education. A better educated household is less likely to be poor. The impact of education on earnings and, thus, on poverty works largely through the labour market, though education can also contribute to productivity in other areas, such as peasant farming (Orazem, Glewwe & Patrinos, 2007:5). In the labour market, higher wages for more educated people may result from higher productivity, but also perhaps from the fact that education may act as a signal of ability to employers, enabling the better educated to obtain more lucrative jobs.

Middle-income countries – which frequently have well developed markets for more educated labour – are particularly likely to see the benefits of education translated into better jobs and higher wages. In Chile, for instance, between one-quarter and one-third of household income differences can be explained by the level of education of household heads (Ferreira & Litchfield, 1998, p. 32). It was previously thought that the returns to education (the quantified benefits of investing in education) were highest at primary levels. This belief provided a strong case for expanding investment in primary rather than higher levels of education (Psacharopoulos & Patrinos, 2004). However, new evidence seems more mixed.

While some studies continue to show higher returns for primary education, there is now also much evidence that investment in education at secondary or even tertiary levels may bring higher returns in some countries. This could indicate that returns to education vary with factors, such as the level of development, the supply of educated workers, and shifts in the demand for such workers in the development process. It is well known that the demand for more educated labour rises as a country develops (Murphy & Welch, 1994). This increase in demand for highly skilled workers requires educational output to adjust accordingly, raising

the relative returns to higher levels of education (Goldin & Katz, 1999). Nevertheless, the absolutely poor in developing countries usually have low education levels. Some may still not even have access to primary education or may not complete their primary education. Universal primary education is, therefore, crucially important to reduce poverty. However, there are also examples of countries where the rapid expansion of education has resulted in lowering education quality, suggesting that countries face a trade-off between quantity and quality in the short to medium term. In such cases, the impact of education on poverty reduction may be small, and a lot of effort must go into protecting and enhancing the quality of education.

In developed countries, there are sometimes groups of students who are excluded from the social mainstream. Some of the factors associated with this include poverty (especially relative poverty), language, ethnic minority status, or immigrant status (Schnepf, 2004). Although these factors may all separately contribute to social disadvantage and social exclusion, they often interact. Thus, social exclusion is a common feature of many educationally 'at risk' students, both poor and non-poor. Social mobility varies across countries in the developed world. Generally, education improves job prospects for poor groups, although upward social mobility is more difficult for groups that are also otherwise socially marginalized, such as immigrant communities or ethnic minorities. Even among such groups though, education lowers poverty, but the returns to education may be smaller than for non-minority members due to discrimination. Some of the advantages that education provides (externalities) both improve the living standards of communities and contribute to the social and economic development of countries. The benefits of education result in changes in people's behaviour as a consequence of the knowledge gained. A long list of such benefits can be identified (Wolfe & Haveman, 2002), but not all of these changes in behavior necessarily have an impact on poverty.

Frequently, these benefits to a society are particularly large when female education improves. It is well known, for instance, that lower fertility is strongly linked to higher female education. Mothers' education is also an important determinant of health care and sanitation in a household. This is reflected in, among other things, infant and child mortality levels that are much lower for the children of better educated mothers (Schultz, 1999). Better health status (for instance, lower levels of stunting) is in turn translated into greater success at school, thereby bringing positive feedback to education itself in the next generation.

Similarly, parental education and again, particularly that of the mother – also influences the support that parents can give to children, improving the quality and success of education in the next generation. The education of girls has a further strong and very important effect on the role of women in society. It tends to draw more women into the labour market. This increase in female labour force participation expands income-earning opportunities for many households and better utilizes the labour, skills, and talents of women.

Education is seen as one of the most important ways of combating HIV and AIDS, both in developed and particularly developing countries. These effects of education on wider development influence poverty in a narrower or 'money-metric' sense as well as in the broader 'choice limitation' sense in which Sen uses the term. In addition, there are other positive developmental impacts of education which may not be so clearly linked to poverty but which are nevertheless important. These include the fact that education improves the functioning, or even the sustainability, of democracy in poor and rich countries alike, and that higher levels of education seem to reduce crime. Many studies in developing countries have shown that access to education differs depending on income level.

Systematic investigation of this difference across countries is now easier using Demographic and Health Surveys, which have been carried out in many developing countries. Such studies show large differences in enrolment in Grade 1 in many countries, but also that fewer poor children remain in school to higher grades (Filmer & Pritchett, 1999; 2001; Orazem, Glewwe & Patrinos, 2007, p. 18).

More affluent people in urban settings are often better located to gain access to schools as there are sometimes few schools in the poorest rural areas of developing countries. This is reflected in the lower proportion of students starting school. In addition to access, there is the further problem of limited demand for education among the poor in developing countries. The demand for education depends on a number of things, such as the financial and opportunity costs of education, the quality of education, and its perceived benefits.

The financial costs of schooling are often high, making it difficult for poor parents to afford schooling for their children. Such financial costs include not only school fees, but also other direct costs such as the costs of transport, school uniforms, and school books. In addition to financial costs, there are also non-financial costs, such as the opportunity cost of sending children to school. Particularly in rural areas, many children may be involved in agricultural work or domestic duties (for example, fetching wood or water), so sending them

to school involves an opportunity cost to the household. There is usually a strong gender dimension to this choice: girls often have more household responsibilities, and there may be fewer well-paying jobs available for educated girls than for boys. In developing countries suffering high levels of HIV and AIDS, there is often a heavy burden on children to care for ill relatives, which may limit their educational opportunities.

Morrisson (2002) notes that the demand for education may be quite sensitive to the costs of education, so that high transport costs or school fees may reduce the demand for education substantially. Cost sensitivity (price elasticity) might even be greater among the poor, leading to greater inequality in access, as examples from Indonesia, Madagascar and Tanzania illustrate. The inverse is also true: reducing the costs associated with education, including school fees, is likely to improve school attendance most among the poor. That is one of the reasons why the global Education for All initiative places such a great emphasis on eliminating school fees in poor countries. The World Bank (2004) notes that poor people are often the last to enrol in basic education, thus government spending that improves access strongly favours poorer households.

However, the poor also seem to be more responsive to school quality. If educational quality is poor, then poor people are more likely not to attend than rich people (Morrisson, 2002). Thus, an increase in educational quality is another strong incentive for the poor to attend school, again increasing enrolment. It is not only the costs or the poor quality of schooling that reduce demand for education among the poor. In many societies, and particularly in rural areas, the benefits of education may be low or not yet well understood. Often the poor, even when they are educated, have difficulty finding jobs that compensate them adequately for their education. This may be because the education they receive is of a lower quality, or may be perceived to be of a lower quality, than is the case in schools in richer areas. It may, however, also be because jobs are scarce in rural areas, where many of the poor live, and the economic benefits of education are therefore not apparent to parents. This is particularly true for girls, adding to the trend towards lower enrolment ratios for girls.

For education to offer a route out of poverty on a substantial scale often requires special interventions or favourable economic circumstances. A large number of interventions have been implemented to overcome the negative impact of poor home background in countries throughout the world, with varying degrees of success. These interventions include remedial education measures, nutritional support, social work in the community, attempts by

school authorities to involve poor parents in their children's education, adult literacy campaigns, and anti-poverty policies, to name a few.

Early childhood development efforts appear very important to allow children to develop (UNESCO EFA, 2006). Yet it is difficult to draw generalized conclusions from such interventions. Those that have been successful seem to be so because they deal well with the specific context of a particular school, rather than because they offer a model that can be applied across most schools. There appears to be a limit to what schools alone can do to overcome the effects of poverty on education. Levin (2004) summarizes US evidence and says, "sustained improvement over time in high-poverty schools is rare, despite claims by studies of exceptional schools." This supports the view of the Coleman Report, that it is difficult for schools to overcome the effects of a poor home background. A study for the Joseph Rowntree Foundation on the relationship between poverty and education could identify no single reason.

2.7.2 Parental Involvement and Female Education

Most children have two main educators in their lives – their parents and their teachers. Parents are the prime educators until the child attends an early-year setting, or starts school. As such, parents remain a major influence on their children's learning throughout school and beyond. The school and parents both have crucial roles to play. There is no universal agreement on what parental involvement is. It can take many forms, from involvement at the school (as a governor, helping in the classroom or during lunch breaks), through to reading to the child at home, teaching of songs or nursery rhymes, and assisting with homework.

Parental involvement with children, particularly from an early age, has been found to equate with better outcomes (particularly in terms of cognitive development). What parents do is more important than who they are for children's early development, that is, home learning activities undertaken by parents is more important for children's intellectual and social development than parental occupation, education or income (Sylva *et al*., 2004). The Effective Provision of Pre-School Education (EPPE) project is a large-scale longitudinal study of 3,000 children, which has followed the progress of these children from the age of three. Parents' involvement in home learning activities makes an important difference to children's attainment (and social behaviour) at age three-plus through to the age of ten, particularly when the influence of other background factors have been taken into account, such as family socio-economic status, mother's education, income and ethnicity (Sammons, 2007).

The EPPE research has found that a range of activities is associated with positive outcomes at age 3 and 7 including (Sylva *et al*., 2004): playing with letters and numbers, emphasizing the alphabet, reading with the child, teaching of songs and nursery rhymes, painting and drawing, as well as visiting the library.

Sammons (2007) also found significant differences in the types of home learning activities that parents undertake with boys compared to girls. Significantly, more girls' parents reported activities, such as reading, teaching of songs and nursery rhymes, and so on. Differences in this aspect of parenting may account for some of the variation in cognitive and social behavioural outcomes of boys and girls when they are admitted into the primary school. Parental involvement continues to have a significant effect on achievement into adolescence and even adulthood. Research, using data from the National Child Development Study (NCDS) to explore the effect of parents' involvement on achievement at 16 in English and Maths (and average grades across all public exams), found that very high parental interest is associated with better exam results compared to children whose parents show no interest.

Fathers have a critical role to play in ensuring positive outcomes for their children. There is consistent evidence that fathers' interest and involvement in their children's learning (which was measured in terms of interest in education, outings and reading to the child) is statistically associated with better educational outcomes (controlling for a wide variety of other influencing factors). These outcomes included: better exam results, a higher level of educational qualifications, greater progress at school, higher educational expectations, more positive attitudes (e.g. enjoyment) and better behaviour (e.g. reduced risk of suspension or expulsion) at school (Goldman, 2005).

These positive associations exist across different family types, including two-parent families, single parent families and children with non-resident fathers. However, the specific outcomes and strength of effect can vary across family type. Research indicates that fathers' involvement is important not only when a child is in primary school but also when he/she is in secondary school, regardless of the child's gender (Goldman, 2005). Other studies involving further analysis of the NCDS data have found that fathers' and mothers' involvement in their child's education, at age 7, independently predicted educational attainment at age 20, in both sons and daughters (Flouri & Buchanan, 2004). Parental involvement in the study was measured in terms of the number of outings with the child, parents' interest in education and reading to the child. The study also controlled for a wide range of other influences on educational attainment. Further research has examined the effect

of parental interest on educational outcomes at age 26 (which again controlled for key factors, such as birth-weight, social class and mother's educational ability). It found that although mothers' interest predicted educational attainment in both sons and daughters, fathers' interest at age 10 predicted only later educational attainment in daughters. It found that fathers' interest affected sons' educational attainment via its effect on mothers' interest (Flouri, 2006).

2.7.3 Parents' Education and Female Education

International studies indicate that parental education influences expectations, in that having higher parental education is significantly related to having higher expectations of children's achievement (Davis-Kean & Schnabel, 2001). However, it is also likely that parents with higher education have higher attaining children for whom they have higher expectations.

Parents' perception of their child's skills and ability also influences their aspirations for him/her (Gutman & Akerman, 2008). U.S. studies have found that parents with high aspirations are more involved in their children's education (*ibid*). A literature review by Gutman and Akerman (2008) found that most parents have high aspirations for their young children; however, these aspirations are likely to change as children grow older because of economic constraints, children's abilities, and the availability of opportunities. Although aspirations significantly predict attainment, regardless of socio-economic background, they may be stronger predictors of achievement for young people from more advantaged (socio-economic) backgrounds.

There is evidence that some groups (in particular females, those from lower socio-economic backgrounds and some ethnic minorities) may be more likely, than others, to experience an 'aspiration-achievement gap', which is the difference between their aspirations and educational achievement. Whilst high parental and pupil aspirations may lessen the effects of low socio-economic background, the effects vary amongst different ethnic groups. For example, Black Caribbean young people have poor progress (even when a broad number of socio-economic variables were included in the analysis) despite high educational aspirations of parents and pupils. This suggests the need to ensure that practical and attitudinal obstacles are also addressed alongside measures which support aspirations.

Nearly three-quarter of parents surveyed in 2007 said that they felt it was extremely important to help with their child's homework (Peter *et al*., 2008). Nearly 60% of parents said that they frequently helped their child with his/her homework (i.e. they did so 'every time' or

'most times'); approximately one-third did so occasionally. How often a parent helps with homework is strongly tied to the school-year of the child: parents of younger children helped more frequently than those in later school years (*ibid*). Research shows that pupils tend to hold positive views about homework, seeing it as important in helping them to do well at school. Sharp *et al*. (2001) suggest that there is a positive relationship between times spent on homework and achievement, particularly for' secondary school pupils. Evidence for primary schools is inconclusive. This does not necessarily mean that the more time spent on homework, the higher the achievement, as some international studies have suggested that pupils who do a great deal of homework and those who do very little tend to perform less well at school (*ibid*).

There is mixed evidence about whether or not parental involvement in homework affects pupils' achievement at school. Some research suggests that the type and amount of parental involvement may be important in increasing pupils' achievement. A study from the United States has explored the effects of different types of parental involvement in homework. The study found that different forms of support (e.g. support for children's autonomy) are associated with higher test scores, whereas others (e.g. direct involvement) are associated with lower test scores (*ibid*).

Beyond simply eliminating distractions, parents can help to create an effective learning environment for their children, as international studies have found that children can have distinct preferences for different learning environments, and it may be useful for study environments to be based on children's individual learning styles (Geiser, 1999).

The EPPE research project has examined the relationship between children's home learning environment and their reading attainment (for 3 to 5 year olds) (Sammons, 2007). One major factor that positively influenced attainment is the frequency with which parents reported reading to the child. This is associated with higher scores for 'pre-reading', 'language' and 'early number' attainment. Frequency of alphabet learning made a bigger difference on pre-reading attainment than the mothers' highest qualification. Frequency of library visits showed a smaller but significant positive impact on the above outcomes.

The benefit of learning across the family is now well documented. Family learning broadly refers to approaches which engage parents and children jointly in learning. This can include family literacy and numeracy programmes to improve the basic skills of parents and the early literacy of children. It may also include joint parent/child sessions to support early reading skills. An evaluation of literacy and numeracy programmes, which examined achievement before and after the courses found significant improvement in the reading and

writing of parents and children following the programme, which was sustained 9 months later (Brookes *et al*., 1997). Similar improvements were also found for the numeracy schemes. Teachers felt that the children who had taken part in family literacy programmes had better classroom behaviour and better support from their families compared to their peers (*ibid*). They were rated equal to their peers in their motivation and achievement. Communication between parents and children was also found to improve markedly. Parents also reported being more confident in helping their child at home and communicating with the teacher at school.

OFSTED (2000) also supports the findings above in terms of the positive outcomes for parents and children from successful programmes of family learning. In addition, the research reported the following outcomes for parents. Benefits in terms of progression for over 50% of participants to further education, or training, or a better job, and improved parenting and better relationship with children.

Work commitments are the most commonly cited barrier by parents (44%) from getting more involved in their child's school life. Alongside this, it should be noted, however, that there are also many benefits for families from working (Farrel, 2003). Other barriers cited by parents included childcare issues/the demands of other children (7%) and lack of time generally (6%) (Peter *et al*., 2008). Difficulties with basic literacy and numeracy skills can also be a barrier to parents being involved in their child's education. Analysis of longitudinal data on adults (using the British Cohort Study and the National Child Development Study) has looked at how parents' literacy and numeracy levels can affect children (Bynner & Parsons, 2006). This study indicated that children of parents with the poorest grasp of literacy and numeracy are at a substantial disadvantage in relation to their own reading and maths development compared to children who have parents with good literacy/numeracy.

2.7.4 Socioeconomic Background and Female Education

Parental involvement has a positive effect on children's achievement even when the influence of background factors, such as social class and family size have been taken into account (Desforges & Abouchear, 2003). Parental behaviour has a bigger effect than school quality on pupils' attainment at Key Stage 2 (Duckworth, 2008).

Duckworth (2008) found that a child's ability on entry to school is the most important factor in predicting Key Stage 2 attainment across subjects (followed by socio-economic background factors including income and parental education). Evidence suggests that for

boys, parental behaviour and family relationships have a greater influence on attainment for all Key Stage 2 subjects; whereas for girls, parental education and social and economic background have a greater influence on attainment in English and Maths at Key Stage 2.

A survey of parents in 2007 has found variation in levels of parental involvement among different ethnic groups. For example, Black parents are more than twice as likely as White parents to say they felt very involved in their child's education (Peter *et al*., 2008). Parents from non-White ethnic backgrounds are also more involved in their child's school activities (including homework). Parents from non-White backgrounds are also less likely to say that a child's education is the school's responsibility rather than the parents' (17% of Black and Asian parents compared to 27% of White parents said that it was the school's responsibility).

Research on the views of parents from different ethnic communities in England found that Black and Asian parents placed an extremely high importance on the value of education and expressed a great deal of concern about the future of their children (Barn *et al*., 2006). Good education was viewed as very important to combat racial discrimination and disadvantage, and to prevent social exclusion.

Research has found that lone parents (along with non-resident parents) are less likely than average to feel very involved in their children's education (Peter *et al*., 2008). Lone parents are also less likely than others to say that they felt very confident in talking to teachers at their child's school (two-thirds of parents said that they felt very confident compared to 60% of lone parents). There is evidence that the attitudes and aspirations of parents (and of children themselves) predict children's educational achievement. However this association between parental aspirations and a child's attainment is complex and affected by interrelationships.

2.7.5 Gender

Colclough and Lewin (1993) showed that the ratio of female to male primary enrolments was significantly lower in countries developing countries than in other countries. The World Bank (1995) also noted that the gender gap in school enrolment is not just a matter of access. In addition to lack of school places for girls, in many countries, parents' demand for education of their daughters is low, reflecting both cultural norms and females' work in and around the home. Literate parents are more likely than illiterate ones to enrol their daughters in school, and the regions with the highest proportions of illiterate adults are therefore those with the widest gender gaps. Overcoming the gender gap will therefore

require not only providing more school places for female in higher institutions but also overcoming many parents' ignorance of the gains that will result from enrolling their female children in higher institutions.

In an attempt to conceptualise the problems associated with female education, Wamachiu and Njau (1995) noted that the survival or non-survival of females in the education systems is influenced by a complex interplay between macro-level policy and micro-level practices, beliefs and attitudes. Together, they determine whether households feel it profitable to educate their daughters; whether sending any female child to school is a wise or poor investment for the future.

Anderson (1988) argued along similar lines and said that the prospects for lifelong economic activity affect girls and boys differently. He observed that since education is often thought to be most useful in the formal sector, and because girls/women often have less access to this sector than boys/men, parents decide that schooling is not relevant for the economic roles of their female children. In addition to low expectations about future employment, Lockheed and Jamison (1979) also argued that in many cultures, parents decide that education is not worthwhile for their daughters who will move into their husbands' families when they marry and that gains in productivity or income due to education will accrue to the families of their sons-in-law rather than to them.

In India, the low value attached to female education is said to be linked with some rooted features of gender relations. Dreze and Saran (1994) noted that gender division of labour combined with patrilineal property rights, the norms of patrilocal residence and village exogamy, tend to reduce the perceived benefits of female education. It seems that culture defines the economic worth of educating girls*vis-à-vis* boys. As Summers (1992) summed it up, under-investment in girls is an economic problem that results from a vicious cycle caused by distorted incentives. The speculation that girls will not grow up to do things other than serve their husbands, reduces the parents' motivation to invest in their daughters as human capital. Uneducated women have few alternatives and so the expectation becomes self-fulfilling, trapping women in a continuous cycle of neglect.

Colclough (1994), however, urged that there is little systematic evidence to show that private returns to education of girls are, in general, lower than those for boys. What goes on in the classroom also affects female access to education. Teaching methods, curriculum content, classroom and other facilities are all found to affect female participation and achievement (Anderson, 1988). The sex of the teacher is also important. Anderson (1988) said that it affects teacher-pupil interaction with female teachers acting as role models and

thereby providing more encouragement to girls than male teachers. Other in school effects on female access include tracking by sex into certain courses.

Finn *et al*. (1980) observed that within a classroom, socio-cultural expectations are transmitted through modelling of sex-appropriate behaviour, teacher responses to their students and the academic support they provide for them. They argued that even when course content appears the same for boys and girls, there are subtle and important differences in curricula exposure by gender with girls actually being taught to prepare themselves for marriage and motherhood. Little research has been done on classroom interactions, but Malewezi (1990), in her study on why girls fail to continue with their education, observed that teachers treated girls differently from boys both in terms of academic expectations and gender-specific forms of discipline. Although Davison and Kanyuka (1990) tried to examine this, their conclusions were not very clear on this issue. Gender differences are particularly acute when desegregated by urban-rural residence. In a study on the determinants of inequality in participation in school in Java, Pearse (1985) found that the urban-rural distinction, parental income, sex differences and demographic characteristics of the households were related to levels of participation.

Further, Anderson (1988) observed that female attendance at school is more sensitive to distance, and the number of children under five in the household than male attendance. This was also supported by Ashby (1985) who found that the presence of other siblings influence who is and who is not sent to school, and for girls, it was particularly important whether or not they had brothers. However, Lloyd and Blanc (1996) found no supporting evidence that family support systems operate systematically to the benefits of boys relative to girls. Instead, girls are more slightly favoured in female headed households, whereas boys are slightly better off in high income households. This study, therefore, explores whether decisions made on who goes and who does not go to school have such differential effects by sex.

2.7.6 Division of Labour

The existing sexual division of labour which assigns women the domestic responsibilities is another constraint for female education. FAWE's 2002 survey reported that some African husbands have refused to allow their wives to participate in educational programmes because of domestic responsibilities and lateness in returning from the programmes. The research also indicated that child care and domestic responsibilities at times tie women down and prevent them from joining adult literacy programmes. The implication

of this is that once young girls drop out from school, only a small proportion are able to take advantage of remedial programmes after marriage.

In 2002 also, FAWE posited that subject and knowledge in the schools contribute in a number of ways to the continuation of sex inequality in society. Certain subjects in the school including mathematics, the sciences, building and mental work are usually perceived as masculine while others such as typing and home economics are perceived as feminine. The highly valued skills and knowledge from which girls are sometimes excluded in the school are those which are highly rewarded in adult life. Females without such skills and knowledge would not be able to compete with men and would thus have less access to highly skilled jobs. This could possibly explain why most women remain outside the decision and policy making processes and are unable to influence matters that would benefit girls and women. Educational reports and findings have also established that transition rates are low for female (FAWE, 1998; 2002). There has been no agreed strategy on how to improve transition rates at this level (Osokoya, 2008).

Literature affirms that educational stereotyping reinforces existing oppressive gender relations in Nigerian higher institutions and perpetuates women's subordinate status in our society stromquist (1995).

Meena (1996) submitted that education plays a very vital role in the social life of people in the society as it allocates gender specific roles that reinforce the oppressive gender relations that patriarchy has extended into the school life and the school has constantly reinforced such. In another submission, Meena (2002) claims that when the University of Dar-es Salaam in Tanzania opened an Engineering faculty, there were no toilet facilities for female students, because it was assumed that the faculty was naturally for male students. This oversight did not end there as it was followed by very hostile treatments of females who dared to cross the boundary of an otherwise male dominated discipline.

Teachers are members of the wider society in which the school is located and have been socialized into the dominant gender stereotype culture. In the school system, teachers tend to reinforce sex-role stereotype when they use sexist language and some learning aids. Some teachers would not worry when females talk less or contribute less to classroom discussion because they believe that girls are expected to be quiet. Others at times reward girls and boys differently for their performance in certain subjects. The research on female under schooling in Africa carried out by the African Academy of Sciences Research

Programme (2002) reports that the attitude of majority of male teachers to female pupils is not encouraging while some female teachers are also very hostile to female students.

It is obvious that teachers' expectations were very biased against girls, for several teachers have limited perceptions of female students' academic abilities added to parents' limited expectations for daughters and as such do not motivate girls or encourage them to realize their potentials. As earlier stated insufficient female role model has been noted as one of the factors inhibiting female participation in higher education; there are very few female role models for females who wish to continue their education to tertiary levels in Nigeria.

One of the critical factors that can affect the demand for education is the socio-economic status of the clients of the education system (Stromquist, 1989; Coclough & Lewin, 1993; Lockheed *et al*., 1994). Central to this is the issue of poverty. Parents or guardians are at times unable to meet both the direct and indirect costs of schooling which results in their being forced to withdraw their wards from the school system. Heneveld (1996) argued that the direct costs of schooling have actually become more pronounced with the advent of structural adjustment programmes, which, among other things, have advocated cost sharing policies which are tantamount to the shifting of education costs to parents. Thus, for example, the introduction of school fees in Nigeria between 1982 and 1986 resulted in the decline in school enrolment from 92% to 75%. It has to be stressed that even if school fees are abolished, as we now have in most states' primary schools in Nigeria and numerous other countries, the household is by no means relieved of education expenditures.

Schooling costs can be quite high and, thus, households at times have to make harsh decisions on who should benefit from the little that they have. The literature elsewhere has argued that in such instances, households will tend to fall back on established cultural and social beliefs. Omoruyi (2011) observed that cultural factors in Nigeria and gender-specific attitudes about the division of labour also shape the decisions about whether a child should or should not be in school. Anderson (1988) also argued that the disadvantage of girls' education is mediated through gender-based divisions of labour and social roles. Thus, there are in most societies, gender-based divisions of labour in both the production of goods and services and in household-based production, which affect access to schooling. In most instances, boys tend to be favoured. It is one of the aims of this study to establish the extent of this problem, especially as it concerns higher education in Nigeria.

It is worth noting that the decision to enrol and remain in school is also a function of the perceived benefits of schooling, both by the parents and the students. Much literature,

especially those influenced by the human capital school of thought, has pointed out that education, especially at the primary school level, has both social and private benefits. It has been argued that education, especially basic education, also contributes to poverty reduction by increasing the productivity of the poor's labour, by reducing fertility and improving health, and by equipping people to participate fully in the economy and society (World Bank, 1996). These benefits have also been espoused in the literature (Colclough, 1996). However, do individuals at the household level perceive similar net benefits as those making calculation of rate of returns to education? This seems not to be the case.

First, it seems evident that education, at the household level, is associated with formal employment and social mobility. This is, among other things, due to the fact that most families cannot sufficiently appraise social gains that accrue as a result of education. Thus, for example, efficiency gains in child care, health or even the conduct of daily life are much more difficult to anticipate in than is the impact of schooling upon likely wage earnings in the market economy (Colclough with Lewin, 1996). In this vein, one of the potential attractions of primary education is the need to move to and acquire secondary education along with higher education and thus raise the probability of getting formal employment. Primary education is therefore transitory and the perceived probability of gaining entry to secondary schooling has an increasingly important influence upon the decision to send children to primary school (Colclough, 1996).

The most obvious reason that may undermine enrolment and increase school dropout rate is the actual availability of schools themselves. Secondly the proximity of the schools to primary school-age children is also vital. Herz (1995) quoted a study by Robinson (1987), carried out in Egypt, showed that the enrolment and the persistence of boys and girls were a function of distance to the available schools. Thus, for instance, the location of a school within 1 km of a community resulted in an enrolment rate of 94 percent for boys and 74 percent for girls; when the distance was increased to 2 km., boys' enrolment fell only slightly to 90 percent, but girls' enrolment fell to 64 percent.

On the effects of distance to persistence in school, Odaga and Heneveld (1995) isolated two issues: the first relates to the length of distance and energy, which the children have to expend to cover the distance, often on an empty stomach. The other relates to the concern and apprehension which parents have for the sexual safety of their daughters (Odaga, 1995). The above argument clearly indicates that the problem of distance to schools will affect both boys and girls; however, girls are more likely to be affected than boys.

2.7.7 Opportunity Cost and Female Education

Another critical aspect that comes into play, when making decisions about schooling, is the opportunity cost of sending children to school. It has been argued in the literature that in most societies, child labour is indispensable to the survival of some households, and schooling represents a high opportunity cost to those sending children to school (Heneveld, 1996). One reason for this is that child labour has got immediate and visible financial rewards especially in the unskilled informal sector, hence nullifying the case for education (Odaga & Heneveld, 1995; Tembon *et al*., 1997). What has led to this scenario? In Tanzania, for example, it has been argued that the declines in real wages in the late 1970s and 1980s combined with the deterioration of social services and infrastructure led to families having to include their children in survival strategies (Peasgood *et al*., 1997). The labour referred to above can be for agriculture, domestic or for market tasks. The Tanzanian case clearly demonstrates that the opportunity cost for child labour has risen. What may be of interest here is how this opportunity cost can be quantified or measured.

Child labour is a source of income in a family. Boys become cow and goat herders in rural areas where farmers keep cattle. Along the lakeshore absenteeism from class and eventually dropout is caused by demands for income generation through fishing. Children are used for agricultural labour since most farmers are females and depend heavily on their children for food and crop production. Likewise, Bryant (1990) noted that many children in Malawi began work at a very early age and were not enrolled in school at all. Girls spent their time child minding their siblings. Both boys and girls spend their time working on estate farms, or in family fields. Cultural factors and gender-specific attitudes about the division of labour also shape the decisions about whether a child should or should not be in school. (Davison & Kanyuka, 1990).

There are differential parental expectations of female and male children in the performance of household chores with the female children carrying the larger bulk of the duties. Further, they more often become housemaids in various houses while boys become houseboys later in life. Others, however, have argued that the opportunity costs of girls' education are generally higher, given the prevailing sexual divisions of labour that assigns women reproductive and domestic tasks (Stromquist, 1989).

The assertion by Stromquist has also been supported by other recent studies. Tembon *et al.* (1997) and Rose *et al.* (1997) documented the tasks that were assigned to school pupils and reached the same finding that girls tended to have heavier workloads than boys do. These

assertions, however, need to be reviewed. Does this hold true all the time? Does it vary between cultures? Is there an urban/rural dichotomy? How much time do pupils spend doing these chores? Certainly these questions can be tackled and the most effective way would be to study their work patterns over a period of time. The importance of this cannot be overemphasised; if children are spending too much of their time offering their labour at the household, it is likely that their school attendance will be poor, resulting in low achievement or high repetition and eventual dropping out of school.

Secondly, one can also argue that the opportunity cost of schooling is certainly going to rise with age. That is as both boys and girls get older the opportunity cost of attending school increases. This is inevitable; they both become more able to contribute towards the survival of their families through, among other things, their labour on the farms and even in other forms of income generating activities. This has implications for the age at which children are enrolled in school and late entry could therefore be closely linked with school dropout.

Considering both opportunity cost and the perceived benefits of education, it has to be stressed that cultural value and the attitudes of parents who are the principal decision making unit at the household level, play a major role. At the cultural level, there seems to be strong bias against female education. Most societies still look at females in terms of their reproductive roles and thus the importance of education is diminished. In the case of parents, studies have shown that parental background, especially their level of education, significantly influences their decision to enrol and retain the child in the system. Other studies have even gone further to argue that such parents also tend to be more aware of the benefits that accrue to the education of girls (Ross, 1997).

2.7.8 Selectivity of Occupational/Career

Female students tend to drift into, or guided towards, areas of study described as feminine. Thus, some subjects are taught in boys' schools only, for example woodwork or carpentry, and metal work. In girls' schools only, Home Economics is taught, even in this 6-3-3-4 system. Who says that a girl cannot be a good carpenter or furniture maker? Or that a boy cannot be a good cook? After all, in most top-rate hotels all over the world, chefs are mostly males (Meena, 2002).

In the early days of education in Nigeria, science subjects were not taught in girls' schools. Biology, which has to do with human reproduction a feminine sphere, was introduced later. Subjects like Physics, Chemistry, Additional Mathematics, are taught mainly

in boys' schools for a long time. Fields like Engineering and Medicine were regarded as male domain reserve while Education (teaching), Nursing, Liberal Arts, Secretariat Studies were seen as female occupations (Alele, 1986). The activities of choice of subjects for school certificate and in tertiary institutions is a result of socialization that some subjects are "feminine" and other "masculine." The result is that in the labour market, women end up in the low-paying, low status, jobs regarded as both less productive and less important for development.

Sources of inequality in education attainment between males and females are many and complex. The demand for education by the individual or family or community can be simply explained within the framework of the human capital model of schooling. Simply put, the theory says that people acquire education and training by reference to the costs of education and the benefits expected, either in the form of higher labour market earnings or consumption gains at individual or societal level. Given differential costs and benefits, people or groups will acquire or not acquire education.

Given this, it could be argued that discriminatory provision of facilities and discriminatory access of boys and girls to these facilities reflects the perceptions of educational authorities and of parents and relations who have to decide whether a child attends school or not, of the costs and benefits of female education. If one adds the facts that girls are assumed to have a comparative advantage in child bearing and rearing over boys (Ram, 1980), it becomes easy to understand the rationale for the socio cultural and other obstacles to female education.

2.7.9 Provision or Availability of Facilities

In the traditional economy, male and female roles were complementary to each other. The colonial masters brought with them Victorian attitudes about women's role. The attitude was that a man's home is his castle and a woman's service is in the home. Men became sole bread-winners in the Western tradition while women were relegated to housework only. To be a full-time housewife, or to have 'a wife of leisure', becomes a mark of prestige, especially for the first wave of 'emancipated' Nigerians (at least in non-female seclusion areas). Schools were established to train men as administrative assistants, clerks, messengers and clergy. Beyond the primary school, only boys' schools were established at the initial stages. Girls' schools came much later. Even now, there are more schools for boys than for girls. Thus, as regards provision of facilities for girls, the perception of education authorities was that education was more relevant for boys who were needed in the emerging civil

services than the girls who were future housewives. This was enforced by reluctance of parents to send their daughters to school.

2.8 Social Factors and Female Education

The socialization factor, as Stromquist (1989) rightly puts it in the theory of feminism, has seen the society and the school as both playing great roles in the achievement and participation of females, since gender is the social construction of what it is to be a man and what is it to be a woman. Socialization defines the gender roles assigned to boys and girls. It defines male position as superior and the female position as subordinate. The process of socialization is, therefore, a major factor that affects schooling system in its structure. It determines the designing of a curriculum, affects the content of the educational process, and shapes the distribution process, and intake of knowledge. It defines who makes knowledge and how knowledge is made. Girls drop out of school oftener than boys due to pregnancy, early marriage, and economic reasons. Repetition of grades is also higher among girls than boys because of their domestic chores. Girls usually have less time than boys for homework and study and thus tend not to perform as well as boys, especially at the primary level or as day – students of Secondary Schools and among poorer households (Williams, 1986).

2.8.1 Accessibility of Facility to Girls

That the facilities are available does not mean the facilities would be utilized. Decisions to attend school are usually made by parents and relations. It is argued that female access to institutions such as schools depends on the extent to which cultural and religious beliefs accord women roles outside the home. Thus, one would expect to find that in a culture dominated by patriarchy or where female seclusion is practised, females will have less access to education than men. Both factors operated and still operate with varying degrees of relaxation in Nigeria. As a patriarchal society, females are expected to perform mainly domestic roles and thus education was irrelevant to the everyday life of women. This attitude is weaning, especially in the southern part of the country. In the Northern parts of the country, patriarchy and female seclusion, combined, still make many parents reluctant to send their daughters to school.

2.8.2 Early Marriage

This is another practice that limits females' participation and achievement in education. At higher level of education especially, girls are sometimes withdrawn from school to get married. The more attractive the girls were, the more likely they were to catch

the eye of a chief or a wealthy personality in the community and to marry young. This practise accounts for the seeming rarity in the past and consequent novelty of pretty girls acquiring higher education.

Fear of excessive emancipation is a myth about women. It is widely assumed that educated women do not make 'good' (submissive) wives; that they are morally corrupt or promiscuous and that they are barren. This belief explains the widespread incidence of heavily pregnant brides, a practice which has defiled the teaching of the church. It is also believed that educated girls will reject parental choice of husbands and that they will find it difficult to get a husband. However, the real feat is of the effects of education on females' attitudes, their newly acquired attitudes are seen as incompatible with their 'proper' roles as wives and mothers. Cultural factors still operate strongly today in some parts of the country, especially in rural areas, or of poor people.

In Canada, education and the democratic right of all people, women included, to have access to education up to the best of their ability and according to their own free, mature choice are highly valued. Yet for some women, barriers to education still exist: their family and traditional culture, their poverty and their children and husband. Their free choice may be limited by the kind of background they have, both in and out of school in their early years. The daily struggle a woman goes through to improve her life through education is as personal and individual as her name. Girls and women are often discouraged from continuing their education by the cultural group among whom they grow up.

Even in Nigeria, some families have negative attitudes towards educating girls because they do not expect them to join the permanent work force but to get married and do the domestic work needed at home. In the past, when most work was manual, it required physical strength or "masculine" characteristics that traditionally excluded women. Of course that is not true of today's work force, though some people still seem to think so. Also, labour-saving devices in the home and the financial demands of supporting the home make it possible and necessary for women to be employed. In other countries and ethnic groups, the barriers may be as strong as taboos or even worse. In such cases, a girl educates herself at her peril and must be strong in support of her own human rights.

Africans from societies and cultures vary differently from one another but continue the legacy of the past, which is reinforced by religion, and have firm convictions about the roles of men and women, especially women. Nigerian law guarantees the education of girls, but women may have to fight for their own higher education. In Nigeria, also, there is a

legacy of devaluing the contributions women make to society and that legacy lives on. For instance, some believe that women are emotionally unstable and are therefore unable to work as efficiently as men. Some believe that women are generally not as capable as men. Some believe women are more suited to domestic chores.

Women do not necessarily believe these myths, but some are so indoctrinated that they lack the confidence to challenge them. This is where the self- prophecy fulfilling theory comes to play. If women internalize these negative views, they may not even imagine great things for themselves, let alone go after them and better themselves through education.

2.8.3 Mentorship

Mentorship is of outmost importance in this regard. Mentorship has been highlighted by Bryne (1991) as an effective means of upward mobility within the employment sector. It is a process in which an experienced, often older person takes an inexperienced and usually younger person under his wing to encourage him, shape the awareness of his own potential, and create for him the desire to reach some set goal.

In the university, mentorship operates differently for students and for staff. For staff, mentorship within higher education helps ensure that, from the experience of the mentor, the protégée gains access to fertile areas for research grants, avenues for publications and recommendations for inclusion on committees. FAWE/AAU (1998) claim that women in higher education establishment in African universities do not often benefit from mentorship. FAWE (*ibid*) also affirmed that most African girls allow themselves to be overwhelmed by all the negative filtering influences that they see and hear around them. They internalize these external impacts and simply allow their self-confidence to be eroded believing the self-prophecy fulfilling theory of Rosenthal.

2.8.4 School Environments

There are arguments that school environments are at times not conducive to effective learning, and this may ultimately lead to underachievement which results in repetition, a precursor for dropout. Arguments against repetition basically stress that repetition has potentially harmful effects on students' self esteem and attitudes towards schooling and increases the likelihood of dropping out of school (Cuadra, 1992). Indeed, some studies have actually shown that this relationship does exist. School environments also seem to affect the two sexes differently. Others have argued that the school environment, especially the teachers' attitudes, behaviour and teaching practices, have perhaps the most significant

implications for female participation and academic achievement (Odaga, 1995). This problem is rooted in societal beliefs which teachers bring into the classroom scenario. This can therefore be linked to the cultural beliefs which tend to look at females as having less ability than males and hence leads to the marginalisation of girls in the classroom and further de-motivates girls in their academic pursuits.

In tackling the issue of school environments, it has also become popular to investigate the presence and conditions of such school facilities as toilets. This is especially in view of the potentially negative effects that the absence of such facilities may have on females' persistence in schools (Tembon *et al*., 1997; Rose *et al*., 1997; Herz, 1995).

2.8.5 Teachers' Expectation and Female Education

Another set of factors that have been found to influence decisions about enrolment and completion are those that relate to teaching and the organisational structure of the school and its environment. Both male and female teachers have been found to have lower expectations of girls' academic ability. Boys are perceived to be intelligent, hardworking, motivated and co-operative, while girls are perceived to be easy to control, passive, calm and submissive (Kainja & Mkandawire, 1990). In addition, teaching practices have been observed to have negative consequences for female education. Boys are called more often than girls to answer questions in a class (Davison & Kanyuka, 1990; Sey, 1997). It can be noted that teachers' low expectation of girls reflect the views held by the wider society and a question of interest is whether community schools have helped to solve this problem.

A number of studies have also shown that parents are reluctant to send girls to school if the school environment is not safe and secure for girls. These studies have mentioned teachers or lecturers proposing, impregnating and marrying girls and flirtations between girls and boys as constraints to female education (Meena, 2002; 2005).

2.8.6 Cultural Attitudes and Practices

Parental attitudes determine a child's chances of education. Parents control the initial decision of a child to attend school and often influence the nature of a child's participation in education. Support for children's schooling may influence persistence in school and achievement. Likewise, Davison (1993) found that very few mothers thought it was more important to educate girls than to educate boys. The reason most cited was that girls got married or conceived during the school cycle, resulting in wastage and loss of the educational

investment. Yet, Kenyan mothers preferred to invest in their daughters' education because daughters were seen to be more responsible than sons in providing financial assistance to the family. None of the fathers investigated gave any preference to educating girls. The same observations about mothers were made by Thawe and Sagawa (1991).

Cultural factors have been seen to contribute considerably to school dropout for both females and males. Kapakasa (1992) in her study on determinants of girls participation and persistence in school, found that initiation ceremonies contributed significantly to school dropout as parents demonstrated willingness to pay more for initiation of their daughters than for regular schooling. Since initiation prepares young girls for married life, the girls choose to put into practice what they learn at the initiation ceremonies rather than continue with schooling. Kainja and Mkandawire (1989) also contended that while girls as well as boys experience multiple repetition, girls are at a disadvantage because the onset of adolescence brings competing demands in school, at home and in the community with the risk of pregnancy and early marriage. However, the influence of initiation on schooling is countered by Hyde and Kadzamira (1994).

2.8.7 Discrimination with Taboos and Female Education

Culturally determined ways of defining women and men and their roles in a given society shape gender-specific opportunities and constraints. Thus, the existence of discriminatory attitudes towards the schooling of girls is informed by customs and culture (Stromquist, 1989). Mobility restrictions arise in many societies when girls reach puberty, and this makes the effect to be more on girls' achievement than on access (Lloyd & Blanc, 1996). In some tribes in Nigeria, as soon as a girl reaches puberty, she is taught the wisdom and knowledge of her society in order to maintain and develop it. These instructions are considered directly relevant to a girl, preparing her for life as a wife and mother in a village. Sometimes conflict arises between what is taught at home and at school which may lead to parents opposing girls' continued attendance at school.

Indeed, girls' behaviour is often directly related to the many tribal and traditional taboos which dictate what and what not to do at the various stages of their development which may conflict with the demands of schooling. And as Omoruyi and Ajayi (2011) observed, cultural factors in Nigeria and gender specific attitudes about the division of labour also shape the decisions about whether a child should or should not be in school. Anderson (1988) and Stromquist (1989) also argued that the disadvantage of female education is mediated through gender-based divisions of labour and social roles. Thus, there are in most

societies, gender-based divisions of labour in both the production of goods and services and in household-based production which affect access to schooling. In addition, parents show a strong preference for educating sons than daughters (Kainja & Mkandawire, 1990; Davison & Kanyuka, 1990; Chimombo, 1999). The most common reason given for preferring to educate sons was that girls often got married or became pregnant and therefore failed to complete schooling.

Another factor which also acts together with attitude is religion. Religious privileges of access have often been restricted to certain classes and to males. This pattern of transmitting and gaining of religious knowledge and power have been influential in determining participation in formal higher education. King (1987) found that religion, along with gender; social class and regional location were important determinants of schooling. With the efforts in recent years to change the attitudes about female education, one would have hoped that more girls participate and persist in school to higher levels. This study explores the extent to which such efforts have resulted in the improvement of female education.

2.9 Personal Factor and Female Education

The internalization of cultural attitudes which regard female as the inferior sex affects girls' beliefs in themselves and their behaviour. The FAWE (2002) survey research reported that many African girls see themselves as future wives and mothers only and do not see the need to have career aspirations. FAWE (1998) also noted that most African girls allow themselves to be overwhelmed by all the negative filtering influences that they see and hear around them. They internalize these external impacts, and simply allow their self-confidence to be eroded; thereby, making them feel it was not needful to have a university education.

In the literature, the issue of interest and attitude has been stressed extensively. For instance, Meena (2005) noted that female students are likely to get involved in areas of study where they seem comfortable with: it would be very difficult to convince a child who has not shown any interest in Mathematics to go for science oriented courses. Bandura (1986) also supports this view in the self-efficacy theory. Basically, female students want motivation but research has this to say that inclinations and interest have their place in the choice of career (Osokoya, 1989; FAWE, 2002; Meena, 2005).

2.10 Female Higher Education in the United States of America

Higher education in the United States is an optional final stage of formal learning following secondary education. Higher education, also referred to as post-secondary

education, third stage, third level, or tertiary education, occurs most commonly at one of the 4,726 Title IV degree-granting institutions, either colleges or universities in the country (NCES, 2014). These may be public universities, private universities, liberal arts colleges, or community colleges. High visibility issues include greater use of the Internet, such as massive open online courses, competency-based education, cutbacks in state spending, rapidly rising tuition and increasing student loans (ELS, 2002).

Strong research and funding have helped make American colleges and universities among the world's most prestigious, making them particularly attractive to international students, professors and researchers in the pursuit of academic excellence (Weissmann, 2014).

As of 2012, the latest figures available in 2015, the US has a total of 4,726 Title IV-eligible, degree-granting institutions: 3,026 4-year institutions and 1,700 2-year institutions (NCES, 2014). The US had 21 million students in higher education, roughly 5.7% of the total population (Frerking, 2007). About 13 million of these students were enrolled full-time which was 81,000 students lower than.

A US Department of Education longitudinal survey of 15,000 high school students in 2002, and again in 2012 at age 27, found that 84% of the 27-year-olds had some college education, but only 34% achieved a bachelor's degree or higher; 79% owe some money for college and 55% owe more than $10,000; college dropouts were three times more likely to be unemployed than those who finished college; 40% spent some time unemployed and 23% were unemployed for six months or more; and 79% earned less than $40,000 per year (BCTD, 2007; Yoder, 2013).

The Great Dome of Massachusetts Institute of Technology (MIT), a university adopting the polytechnic university model. Colleges and universities in the U.S. vary in terms of goals: some may emphasize a vocational, business, engineering, or technical curriculum (like polytechnic, universities and land-grant universities) while others may emphasize a liberal arts curriculum. Many combine some or all of the above, being a comprehensive university.

In the US, the term "college" refers to either one of three types of education institutions: stand-alone higher level education institutions that are not components of a university, including 1) community colleges, 2) liberal arts colleges, or 3) a college within a university, mostly the undergraduate institution of a university. Unlike colleges versus universities in other portions of the world, a stand-alone college is truly stand-alone and is not part of a university, and is also not affiliated with an affiliating university.

Almost all colleges and universities are coeducational. During a dramatic transition in the 1970s, all but a handful of men's colleges started accepting women. Over 80 percent of the women's colleges of 1960s have closed or merged, leaving fewer than 50 in operation. Over 100 historically black colleges and universities operate, both private (such as Morehouse College) and public.

Higher education created accreditation organizations independent of the government to vouch for the quality of their degree. The accreditation agencies rate universities and colleges on criteria such as academic quality, the quality of their libraries, the publishing records of their faculty, and the degrees which their faculty hold, and their financial solvency. Nonaccredited institutions exist, such as Bible colleges, but the students are not eligible for federal loans.

Community colleges are often though not always two-year colleges. They have open admissions, with generally lower tuition than other state or private schools. Graduates receive the associate's degree such as an Associate of Arts (A.A.). Many students earn an associate degree at a two-year institution before transferring to a four-year institution for another two years to earn a bachelor's degree.

Four-year colleges usually have a larger number of students, offer a greater range of studies, and provide the bachelor's degree, mostly the Bachelor of Arts (B.A.) or Bachelor of Science (B.S.). They are either primarily undergraduate institutions (i.e. Liberal Arts Colleges) or the undergraduate institution of a university (such as Harvard College and Yale College).

Four-year institutions in the U.S. emphasizing the liberal arts are liberal arts colleges, entirely undergraduate institutions and stand-alone. They traditionally emphasize interactive instruction although research is still a component. They are known for being residential and for having smaller enrollment, class size, and higher teacher-student ratios than universities. These colleges encourage a high level of teacher-student interaction at the center of which are classes taught by full-time faculty rather than graduate student teaching assistants (TAs), who teach classes at some Research I universities and other universities. Most are private, although there are public liberal arts colleges. Some offer experimental curricula, such as Hampshire College, Beloit College, Bard College at Simon's Rock, Pitzer College, Sarah Lawrence College, Grinnell College, Bennington College, New College of Florida, and Reed College.

Universities are research-oriented educational institutions which provide both undergraduate and graduate programs. For historical reasons, some universities such as

Boston College, Dartmouth College, and The College of William & Mary have retained the term "college" as their name. Graduate programs grant a variety of master's degrees (like the Master of Arts (M.A.), Master of Science (M.S.), Master of Business Administration (M.B.A.) or Master of Fine Arts (M.F.A.)) in addition to doctorates such as the Ph.D. The Carnegie Classification of Institutions of Higher Education distinguishes among institutions on the basis of the prevalence of degrees they grant and considers the granting of master's degrees necessary, though not sufficient, for an institution to be classified as a university.

Some universities have professional schools. Examples include journalism school, business school, medical schools which award either the M.D. or D.O., law schools (J.D.), veterinary schools (D.V.M.), pharmacy schools (Pharm.D.), and dental schools. A common practice is to refer to different units within universities as colleges or schools, what is referred to outside the U.S. as faculties. Some colleges may be divided into departments, including an anthropology department within a college of liberal arts and sciences within a larger university. Few universities adopt the term "college" as names of academic organizations. For example, Purdue University is composed of multiple colleges—among others, the College of Agriculture and the College of Engineering. Of these Purdue breaks the College of Agriculture down into departments, such as the Department of Agronomy or the Department of Entomology, whereas Purdue breaks down the College of Engineering into schools, such as the School of Electrical Engineering, which enrolls more students than some of its colleges do. As is common in this scheme, Purdue categorizes both its undergraduate students (and faculty and programs) and its post-graduate students (and faculty and programs) via this scheme of decomposition, being a topical decomposition that focuses on an academic sector of directly related academic disciplines.

The American university system is largely decentralized. Public universities are administered by the individual states and territories, usually as part of a state university system. Except for the United States service academies and staff colleges, the federal government does not directly regulate universities. However, it can offer federal grants and any institution that receives federal funds must certify that it has adopted and implemented a drug prevention program that meets regulations (College Board, 2007).

Each state supports at least one state university and several support many more. California, for example, has three public higher education systems: the 10-campus University of California, the 23-campus California State University, and the 112-campus California Community Colleges System. Public universities often have a large student body, with introductory classes numbering in the hundreds and some undergraduate classes taught by

graduate students. Tribal colleges operated on Indian reservations by some federally recognized tribes are also public institutions.

Many private universities also exist. Among these, some are secular while others are involved in religious education. Some are non-denominational and some are affiliated with a certain sect or church, such as Roman Catholicism (with different institutions often sponsored by particular religious institutes such as the Jesuits) or religions, such as Lutheranism or Mormonism. Seminaries are private institutions for those preparing to become members of the clergy. Most private schools (like all public schools) are non-profit, although some are for-profit.

Students often use scholarships, student loans, or grants, rather than paying all tuition out-of-pocket. Several states offer scholarships that allow students to attend free of tuition or at lower cost, for example HOPE Scholarship in Georgia and Bright Futures Scholarship Program in Florida. A considerable number of private liberal arts colleges and universities offer full need-based financial aid, which means that admitted students will only have to pay as much as their families can afford (based on the university's assessment of their income) (Levitz & Thurm, 2012). This can turn some of the most prestigious institutions into the cheapest options for low-income students (Lederman, 2013). In most cases, the barrier of entry for students who require financial aid is set higher, a practice called need-aware admissions. Universities with exceptionally large endowments may combine need-based financial aid with need-blind admission, in which students who require financial aid have equal chances to those who do not.

Financial assistance comes in two primary forms: Grant programs and loan programs. Grant programs consist of money the student receives to pay for higher education that does not need to be paid back, while loan programs consist of money the student receives to pay for higher education that must be paid back. Public higher education institutions (which are partially funded through state government appropriation) and private higher education institutions (which are funded exclusively through tuition and private donations) offer both grant and loan financial assistance programs. Grants to attend public schools are distributed through federal and state governments, as well as through the schools themselves; grants to attend private schools are distributed through the school itself (independent organizations, such as charities or corporations also offer grants that can be applied to both public and private higher education institutions) (Lederman, 2013). Loans can be obtained publicly through government sponsored loan programs or privately through independent lending institutions.

Grant programs, as well as work study programs, can be divided into two primary categories: Need-based financial awards and merit-based financial awards. Most state governments provide need-based scholarship programs, a few also offering merit-based aid (CFM, 2012). Several need-based grants are provided through the Federal Government based on information provided on a student's Free Application for Federal Student Aid. The federal Pell Grant is a need-based grant available from the Federal government. The federal government also has two other grants that are a combination of need-based and merit-based: the Academic Competitiveness Grant, and the National SMART Grant, but the SMART grant was abolished in 2011 with the last grant awarded June 2011. In order to receive one of these grants a student must be eligible for the Pell Grant, meet specific academic requirements, and be a US citizen (Lederman, 2013).

A student's eligibility for work study programs is also determined by information collected on the student's FAFSA (Lederman, 2013). Need-based financial awards are money or work study jobs provided to students who do not have the financial resources by themselves to pay for higher education. The intent of need-based financial aid is to close the gap between the required cost to pay for the higher education and the money that is available to pay for the education.

Merit-based financial awards are money given to a student based on a particular gift, talent, conditional situation, or ability that is worthy of the monetary award, regardless of economic standing. The intent of merit-based financial aid is to encourage and reward students who exhibit these qualities with attendance at a school of higher education through the financial incentive. Not only does merit-based assistance benefit the student, but the benefit is seen as reciprocal for the educational institution itself, as students who exhibit exceptional qualities are able to enhance the development of the school itself.

Financial aid has also been found to be linked to increased enrollment. A study conducted by the National Bureau of Economic Research found that an increased availability of any amount financial aid amounts to increased enrollment rates. Evidence also suggests that access to financial aids also increases both ‘persistence and competition’. Further benefit has been noted with academic-based scholarships, augmenting the effects of financial aid by incentivizing the scholarship with performance-based requirements (Kingkade, 2013).

Many companies offer tuition reimbursement plans for their employees, in order to make the benefit package more attractive, to upgrade the skill levels and to increase retention (Thelin, 2004). In 2012 student loan debt owed in the United States totaled more than $1 trillion (Potts, 1971). In 2012, total student loans exceeded consumer credit card debt.[20].

Many different types of loans can be taken out by a student or the student's parents in order to pay for higher education. In general these can be divided into two categories: federal student loans and private student loans.

There are five kinds of student loans available through the government: Perkins Loans, subsidized Stafford Loans, unsubsidized Stafford Loans, direct loans, and PLUS loans. A student's eligibility for any of these loans, as well as the amount of the loan itself is determined by information on the student's FAFSA. The interest rate and whether or not interest accrues on the loan while the student is in school depends of the type of Federal loan.

Students can also acquire loans privately, through banks, credit unions, savings and loan associations, or other finance companies (ref. article pg. 3). Private loans are typically used to supplement federal student loans, which have a yearly borrowing limit. However, private loans typically have more rigid repayment policies.

US tax payers may be eligible for tax credits designed to help make higher education more affordable. There are two different tax credits meant to help defray the costs of higher education: the Hope Tax Credit and the Lifetime Learning Tax Credit.In the early years of American history, women were discouraged from pursuing higher education because it was considered unnatural for a woman to be educated. Women who advanced their education were considered "unsexed" (Wood, 2009). Over the last few centuries women's positions and opportunities in the educational sphere have improved dramatically. Since 1982, more bachelor's degrees have been earned in the United States by women than by men (NCES, 2015; Molly, 2014). Women now also earn the majority of master's degrees and doctoral degrees in the U.S (Molly, 2014).

In Colonial America girls were taught to read and write, but could only obtain higher education if there was room left in the schools after the boys. Generally, that restricted them to being educated in the summer when boys were working (WHA, 1994).

Coinciding with the beginnings of the first wave of feminism in the 19th century came the attempt by women to gain equal rights to education in the United States. Women's rights organizations focused on adjusting and increasing women's place in the public arena by arguing that the only fundamental differences between women and men were socially created ones, and thus women should be offered the same extensive and practical education that was offered to men. After long battles against gender oppression women finally obtained the right to be educated through several government acts/conventions, the opening of facilities willing to educate them, and the opportunity to continue into higher education (Wood, 2009).

Coeducation was a controversial topic in the 1930s (Rury, 1984) and sex-segregated school systems protected "the virtue of female high school students" (Rury, 1984). Home economics and female industrial education were new elements of the high school curriculum designed for unmistakably female occupations. These classes taught women practical skills, such as sewing, cooking, and using the new domestic inventions of the era. Unfortunately, this "formal training offered women little advantage in the struggle for stable work at a liveable wage."

The 1930s also saw tremendous changes in women's education at the college level. In 1900, there were 85,338 female college students in the United States and 5,237 earned their bachelor's degrees; by 1940, there were 600,953 female college students and 77,000 earned bachelor's degrees (Nash & Romero, 2012). This increase was partially explained by the "contemporary discourse that reinforced the need for higher education for women in their positions as wives, mothers, citizens, and professionals" (*ibid*).

Because the proper role for a white, middle class woman in 1930s American society was that of wife and mother, (*ibid*). Arguments in favor of female education emphasized concepts of eugenics and citizenship. Education showed women how to exercise their civic responsibilities, and it showed them the importance of the vote. Participation in student government trained women "early to become leaders later" (*ibid*). One study showed that in 1935, 62 percent of Women College graduates voted compared to only 50 percent of women who did not attend college (*ibid*).

The basic assumption in the 1930s was that women should marry. There was also the perception that college educated women were less likely to marry, either because they "waited too long" or because the college experience which broadened their minds deluded them into believing "marriage should be between equals" (*ibid*). Others argued college made women better wives and mothers (*ibid*) because it "imparted practical skills" (*ibid*).

In addition, the 1930s marked great economic hardship in the United States with the start of the Great Depression. At this point in history, a college major was expected to be a practical one. As difficult financial times neared, needing to justify college expenses became very real for women and their families. A study in 1924 that surveyed nearly sixteen-hundred woman PhD recipients concluded that seventy percent required grants, scholarships, and fellowships in order to cover the expense associated with earning a higher degree. Despite the financial support, the majority of these women were required to save money for years before pursuing their degrees because the aid was never enough despite these disadvantages, the

1930s marked the peak of woman PhD earners. These degrees varied in fields and began to legitimize fields for women that were once off-limits (Solomon, 1995).

The "self-support" that these women engaged in to help finance their education became a widely accepted necessity. Both men and women were forced to find ways of supporting their education at this period of time. To help lessen the financial burden faced by families trying to educate their children, the National Youth Administration was created by the United States Government. Between 1935 and 1943, the NYA spent nearly 93 million dollars providing financial assistance (Horowitz). Despite the growing increasing opportunities for women in education, there was a constant need to justify the expense. As the number of college graduates increased, those who were displaced during the Great Depression had to compete with a younger and more-educated group of people (Deckard, 1983).

The 1930s also marked the 10th anniversary of Women's suffrage in the United States. Despite earning the right to vote, women were still largely refused any role in positions of political power that allow them to make political change for their gender (McGowan, 1931). Despite growing numbers of women graduates, many were denied positions that they were qualified for in favor of men. This struggle sparked new examples of political activism and increased support for an Equal Rights Amendment (Nash & Romero, 2012).

Teaching and nursing were the top two fields for women throughout the 1930s, but home economics also experienced a great surge in popularity during the Depression (*ibid*). Home economics brought a scientific language to the traditional women's sphere of the home and raised "homemaking to the status of a respectable though definitely female occupation" (Rury, 1984). Social work, child development, and nursery school educational programs were also popular (*ibid*).

In addition to this strong vocational orientation in American education during the opening decades of the twentieth century (*ibid*) women began to make slow inroads into traditionally male dominated areas of education, such as business, science, medicine, architecture, engineering, and law (Nash & Romero, 2012). Women were also able to gain positions of responsibility within the federal government because of the watershed events of the New Deal (*ibid*). Salem College founded in 1772, is the oldest female educational establishment that is still a women's college. In 1833 Oberlin College was founded, making it the first university in the nation to accept women and African Americans as students (Horany, 2002).

Prior to the American Civil War only five colleges admitted women, two of which had all-female student bodies: Antioch and Hillsdale. With the start of the war many males were away serving in the armed forces, so more opportunities arose for females to fill the empty space in schools and the universities became more willing to admit the women (WCUS, 2009). Slowly more educational institutions opened their doors to women. Today, there are 60 women's colleges in the United States offering educational programs that parallel co-educational universities both in subject matter and in quality.

In 1848, the Seneca Falls Convention was held in New York to gain support for education and suffrage but it had little immediate impact because at that time women were still considered the property of men rather than individuals in society. This convention is significant because it created a foundation for efforts toward equal education for women, even though it was not actually achieved until much later (Wood, 2009).

The Morrill Land-Grant Colleges Act of 1862 founded universities to educate both men and women in practical fields of study, though women's courses were still centered around home economics. By 1870 30% of colleges were co-educational, later in the 1930s women-only colleges were established that expanded opportunities for courses of study to include more intellectual development as opposed to domestic instruction (Wood, 2009).

2.11 Female Higher Education in Pakistan

Women's education in Pakistan is a fundamental right of every citizen, according to article thirty-seven of the Constitution of Pakistan, but gender discrepancies still exist in the educational sector. According to the 2011 Human Development Report of the United Nations Development Program, approximately twice as many males as females receive a secondary education in Pakistan, and public expenditures on education amount to only 2.7% of the GDP of the country (UNDP, 2011).

Patriarchal values heavily govern the social structure in Pakistani society. Specifically, a woman is expected to take care of the home as wife and mother, whereas the male dominates outside the home as a breadwinner. Men and women are conceptually segregated into two distinct worlds. The household resources are allocated in the favor of sons due to their role in society outside the home. Therefore, education for boys is prioritized over girls, because it is perceived that boys must be equipped with educational skills to compete for resources in the public arena; while girls have to specialize in domestic skills to be good mothers and wives. Hence, education is not perceived as being important for girls.

This gender division of labor has been internalized by the society, and girls do not have many choices for themselves that could change these patriarchal realities of their lives. Society does not allow girls to develop their human capabilities by precluding them from acquiring education. Lack of emphasis on the importance of women's education is one of the cardinal features of gender inequality in Pakistan (Chaudhry & Rahman, 2009). The Human Development Report (HDR) listed Pakistan in the category of "low human development" countries with a female literacy rate of thirty percent, and Pakistan has ranked 145 in the world in terms of human development (UNDP, 2011).

Apart from the acquisition of knowledge and values conductive to social evolution, education also enables development of mind, training in logical and analytical thinking. It allows an individual to acquire organizational, managerial, and administrative skills. Moreover, enhanced self-esteem and improved social and financial status within a community is a direct outcome of education. Therefore, by promoting education among women, Pakistan can achieve social and human development, and gender equality. A large number of empirical studies have revealed that increase in women's education boosts their wages and that returns to education for women are frequently larger than that of men. Increase in the level of female education improves human development outcomes such as child survival, health and schooling (Klasen & Lamanna, 2008). Lower female education has a negative impact on economic growth as it lowers the average level of human capital (Klasen, 1999).

Developmental Economists argue that in developing countries female education reduces fertility, infant mortality and increases children's education (Knowles *et al*., 2002). Gender inequality in education directly and significantly affects economic growth. Empirical studies done by using regression analysis reveal the fact that the overall literacy rate, enrollment ratio, ratio of literate female to male have positive and significant impact on economic growth (Chaudhry, 2007). Chaudhry (2007) investigated the impact of gender inequality in education on economic growth in Pakistan. The secondary source of time series data drawn from various issues has been used. In his regression analysis, he estimated a set of regressions showing a moderate explanatory power. The variables, overall literacy rate, enrollment ratio, ratio of literate female to male have positive and significant impact on economic growth. It was found that gender inequality in initial education reduces economic growth (Chaudhry, 2007).

In another empirical study, Chaudhry (2009) investigated factors affecting rural poverty in Southern Punjab (Pakistan), and he concluded that alleviation of poverty is

possible by lowering the household size and dependency ratio, improving education, increasing female labor participation. He employed Logit regression models and used primary source of data from the project area of Asian Development Bank for estimation. Results indicate that as dependency level and household size increase the probability of being poor increases too. Education has the significant inverse relationship with poverty because it provides employment opportunities and rejects poverty. The inclusion of trained and education women workforce will not only ensure women's welfare, it will also increase the overall productivity of the workforce due to more competitiveness. Hence, the developmental and feminist economists argue that it is desirable for the government to allocate more resources towards women's education, as it is going to benefit the whole society.

According to UNDP 2010 report, Pakistan ranked 120 in 146 countries in terms of Gender-related Development Index (GDI), and in terms of Gender Empowerment Measurement (GEM) ranking, it ranked 92 in 94 countries. Gender inequality in education can be measured in different ways. Gross and net enrollment rates and completion and drop-out rates are the ways to identify the gender inequality in education. Pakistan aims to achieve Millennium Development Goals and also aims to eliminate gender disparity at all levels of education by the year 2015. Elimination of gender disparity at all levels of education requires higher allocation of resources on women's education. Strong gender disparities exist in literacy and educational attainment between rural and urban areas of Pakistan (UNDP, 2010).

Patriarchal values are deeply embedded in the society of Pakistan, and its different manifestations are observed in different aspects of the society. As mentioned above, gender division of labour enforces women to primarily specialize in unpaid care work as mothers and wives at home, whereas men perform paid work, and come out as breadwinners. This has led to a low level of resource investment in girls' education not only by their families but also by the state. This low investment in women's human capital, compounded by negative social biases and cultural practices, restrictions on women's mobility and the internalization of patriarchy by women themselves, becomes the basis for gender discrimination and disparities in most spheres of life. Some of the ramifications are that women are unable to develop job-market skills, hence, they have limited opportunities available to them in the wage-labour market. Moreover, social and cultural restrictions limit women's chances to compete for resources in a world outside the four walls of their homes. It translates into social and economic dependency of women on men. The nature and degree of women's oppression and subordination vary across classes, regions and the rural and urban divide in Pakistan. It has been observed that male dominant structures are relatively more marked in the rural and tribal

setting where local customs and indigenous laws establish stronger male authority and power over women (Khan, 2007).

Destruction of schools and killings have harmed women's education in Pakistan. 16-year-old education activist and blogger Malala Yousafzai was shot in the head and neck by Taliban insurgents 9 October 2012 after she had blogged about the destruction of schools and closing of all-girls schools in her town of Mingora in the Swat District. Later, the Taliban denied that it opposes education and claimed "Malala was targeted because of her pioneer role in preaching secularism and so-called enlightened moderation" (Wieseltier, 2012).

In September 2012, the Pakistani newspaper Dawn reported that 710 schools have been destroyed or damaged by militants in Khyber Pakhtunkhwa and 401 schools have been destroyed or damaged in Swat (Huma, 2012). While the Taliban's campaign extends beyond girls to secular education in general, (*ibid*) at least one source reports the damage was related to Taliban opposition to girls' education (Wieseltier, 2012). Another source includes the bombing of girls' schools as among the Taliban policies (Huma, 2012).

In year 2006, the literacy rate in urban areas was recorded 58.3% while in rural areas it was 28.3%, and only 12% among rural women (FBS 2005/06). An interesting factor in this context is that female enrollment was recorded highest at the primary level, but it progressively decreases at the secondary, college and tertiary levels. It was estimated that less than 3% of the 17–23 age group of girls have access to higher education (FBS 2005/06).

The amount of women who attend school in urban areas vs. rural areas differs drastically. In urban areas women education is increasing every day. The parents of girls who live in urban areas are a lot more accepting of them to enroll in school and even encourage girls to pursue a career they are also a lot more knowledgeable of their rights. This makes them a lot more motivated to stand up for their education. Parents in urban areas are a lot more modernized or westernized. These urban parents acknowledge the importance of an education. Women who live in urban areas are often enrolled in private schools getting a better education there as they have a lot more educational accessibilities. Women in urban areas are also surrounded by people who are educated and are not put down or beaten for going to school. Unlike in urban areas, women in rural areas are discouraged to attend school. Most of them are brought up in conservative families with little to no education. They have to work harder than women in urban areas because they have little support system. If their parents accept education they still cannot go since most of them are very poor and cannot afford the expense. The women also do not attend school in rural areas of Pakistan because it is not culturally accepted. These conservative families tend to be more traditional expecting

women to stay at home and attend the house while men go out to work. They're also restricted in rural areas because their town may not even have a school having them travel a long distance to get there (Tahir, 2015).

The Taliban has taken control of Swat Valley denying women the right to an education. They had stated that any female young or old that attends school after January 15 would be killed (Washington Times). The Taliban also believes that women should not be educated. This fundamentalist group has shut down, banned, and even attacked schools. The Taliban has repeatedly tried to eliminate women the right to have an education. They have left "tens of thousands of students with no educational options" said the officials in Swat Valley. Fazlullah a militant leader of the Taliban has had up 168 schools bombed, including 104 for girls. He is responsible for having more than 30 percent of female drop out of school in 2006 and 2007 because of his illegal radio show. On his radio station he would announce the names of those girls who attend school and shame them and targeting these individuals led the Taliban to attack the girl's family as well as their schools. The schools destroyed will take a lot of money, time, and effort to rebuild them (Malala, 2013).

According to the government of Pakistan, total enrollment level of pre-primary in public sector was 4,391,144. Out of 4,391,144 pre-primary students, 2,440,838 are boys, and 1,950,306 are girls. It shows that 56% of enrolled students are boys, and 44% are girls. Further breakdown of these statistics into urban and rural enrollment levels reveals almost similar percentage of enrollment among boys and girls, that is, in rural schools 57% are boys and 43% are girls.

There is a huge sector of private education in Pakistan. According to the government of Pakistan, 2,744,303 pre-primary students are enrolled in private schools. Among them, 1,508,643 are boys, and 1,235,660 are girls. It shows that 55% of enrolled kids are boys and 45% are girls. Of the total number, 39% students are in rural areas, and the percentage of enrolled boys and girls in rural areas are 58% and 42% respectively.

Primary education is compulsory for every child in Pakistan, but due to culture, poverty, and child labour, Pakistan has been unable to achieve 100% enrollment at the primary level. The total enrollment in primary public sector is 11,840,719, and among them, 57% (6,776,536) are boys, and 43% (5,064,183) are girls. The 79%of all the primary students in Pakistan are enrolled in rural schools, and the gender enrollment ratios are 59% and 41% for boys and girls respectively in rural Pakistan. The private schools are mostly located in urban centers, and the total enrollment in private primary schools was 4,993,698.

The enrollment level falls dramatically from primary to middle school level in Pakistan. These statistics can be very helpful in comprehending the problems faced by Pakistan in its educational sector. 3,642,693 students are enrolled in public middle schools, and among them, 61% (2,217,851) are boys, and 39% (1,424,842) are girls. Of the total enrollment, 62% students are in rural areas, and the enrollment of girls are much lower in rural middle schools vis-à-vis urban schools. In rural schools, 66% enrolled students are boys and 34% are girls.

The enrollment in private schools declines sharply after primary level, as the cost of attendance in private schools increases and the majority of the population cannot afford private education in Pakistan. The total number of students enrolled in private schools at middle level is 1,619,630. Of the total level of enrollment in private schools, 66% students are in urban schools. Hence, the ratio of boys and girls is relatively balanced with 54% boys and 46% girls.

The total number of students enrolled in private high schools is 1,500,749. The 61% of students are boys and 39% are girls. Overall enrollment decreases sharply at high school level. A very disproportionate gender ratio is observed in rural high schools, only 28% of the enrolled students are girls, and 72% are boys. 632,259 students are enrolled in private high schools. Most of them are in urban centers. The ratio of boys and girls enrollment is 53% and 47% respectively. The overall ratio seems to equalize among boys and girls in higher secondary education.

There are 699,463 students enrolled in higher secondary education in public institutions. There is almost 50% boys and girls enrollment in higher secondary education. But there is a discrepancy between urban and rural enrollments. Only 16% of the students from the total number are from rural areas, and among them only 28% are female students. While in urban centers, 55% students are female students. Private Sector 154,072 students are enrolled in private higher secondary institutions, with 51% boys and 49% girls.

Female students outnumber their male counterparts in degree level education. There are only 296,832 students are enrolled in degree level education in public sector institutions, and 62% of them are female students while 38% are male students. Very small number (less than 1%) of students are in rural institutions. 29,161 students are enrolled in private sector institutions, among them 4% are female students, mostly in urban city centers.

These statistics shed some interesting facts about education in Pakistan; the gender disparity in education is much lower in urban places vis-à-vis rural areas. One of the possible explanations of this pattern is relatively stronger dominance of tribal, feudal and patriarchal

traditions in rural areas. Moreover, there are very few employment opportunities for women in rural areas, and thus, there is very little financial incentive for families to send their girls to schools. However, it is interesting to note that, despite the meagre representation of females in the education sector, the level of achievement of female students is consistently far higher than that of their counterpart male students. Girls generally outclass boys in examination, and they are also higher achievers in universities. Unfortunately, the majority of the girls never get an opportunity to develop their educational capabilities (UNDP, 2011).

Officially the government of Pakistan is committed to provide every citizen an access to education, but critics say that its budget allocation towards education does not correspond with its former commitment. The expenditure on education as a percentage of GDP was 1.82% in 2000–2001, while it has been raised slightly in 2006–2007 to 2.42%, and it is still relatively lower than most neighboring countries (Chaudhry & Rahman, 2009). Feminist economists argue that the government of Pakistan needs to fully address and resolve the gender concerns that exist in the educational sector. They suggest that one of the ways to improve this situation is by increasing funding for women's education, encourage and financially incentivize people in the rural areas to send their girls to schools (UNDP, 2011). In the apprentice of gender studies, the gender division of labor is considered patriarchal, and feminists argue that it can be consciously neutralized by the public policies, that is, encouraging girls to study mathematics, science, computers, and business administration, etc. This way, girls will specialize in higher paying fields (jobs) instead of solely focusing on care work (Noureen & Awan, 2011).

Statistics show that education in Pakistan can be characterized by extensive gender inequalities. Girls/women have to face socio-cultural hurdles to acquire education. International community has developed a consensus through the Millennium Development Goals to eliminate gender inequality from education (Nussbaum, 2003). The proponents of gender equality argue that it is not only humane and ethical thing to provide everyone easy access to education without any gender bias, but it is also essential for development and progress of a society that both men and women are educated. They also point towards empirical studies that have confirmed that gender inequality in education has significant impact on rural poverty in Pakistan, and female literacy is important for poverty alleviation. Feminists like Martha Nussbaum are arguing that there is an immediate need to increase the public expenditures on female education in order to achieve gender equality at all levels (Noureen & Awan, 2011).

2.12 Female Higher Education in Ghana

Ghana performs better in measures of human development than most Sub-Saharan countries. This is partly due to higher average per capita income for the nation as a whole, but also longer life expectancy. Levels of social deprivation in Ghana are less severe than many low income countries, however a significant proportion of Ghanaians are excluded from even the most basic capabilities that make for well-being; sufficient income, nutrition, and access to water, health and basic education. Life chances are not equal for men and women in Ghana. Although women have slightly longer life expectancy than men, men have much greater access to education and to higher average incomes than women.

The impact of poverty is evident in Ghana's mixed performance in terms of health. At present, more than one in four people do not survive to 40 years of age and more than one in ten children dies before their fifth birthday. However, infant and child mortality are lower in Ghana than in much of the Sub-Saharan region. Life expectancy in Ghana is currently 57 years, which is higher than the average life expectancy in Sub-Saharan Africa, now 46.1 years. Ghana's better life expectancy is thought to be due to lower HIV/AIDS prevalence rates, estimated at 2.3 percent of the population.

Maternal mortality has remained largely unchanged in Ghana for a decade: 215 out of 100,000 women die in childbirth. This national average hides significant differences between levels of health care to poor and rich women. Whilst infant mortality has declined over the past 15 years, falling from 75 per 1000 births in 1990 to 68 per 1000 births in 2005, it has not shown any significant change in recent years.

Ghana has a critical shortage of health care workers, with only 0.15 doctors and 0.92 nurses per 1000 people. Whilst access to water is better in Ghana than much of the region, access to sanitation is poor. Only 18 percent of people have access to adequate sanitation facilities, and this falls to 11 percent in rural areas. Access to education is increasing in Ghana. The youth literacy rate is significantly higher than the rate for the adult population as a whole; 71 percent of young people aged 15 to 24 are literate.

Enrolment rates at primary school are also rising. In 1999, 57 percent of children of primary age were enrolled in primary school, but by 2004 this figure had risen to 65 percent. Although actual numbers of students enrolled in primary school are increasing, net enrolment rates remain well below the goal of Education for All, or net enrolment of 100 percent. Completion rates are still problematic: only 63 percent of children that enroll in primary school survive to the fifth year.Most young people end their schooling before reaching senior

secondary school. Overall, only 37 percent of young people of secondary age are enrolled in secondary school.

In spite of the fact that girls show slightly better survival rates in primary school than boys, their participation in secondary school is lower, and decreases through the system. Children in rural areas, and children in poorer homes drop out of school earlier, drop out in greater numbers, and fail to make the transition to junior secondary school compared to their peers in richer homes.

Ghana has 8 states and at least 11 private universities. An estimated 3% of the 18-21 age group participate in higher education. Within a period of 13 years from 1983-96, total enrolment in universities and polytechnics increased by 162%.At the University of Ghana current student enrolment stands at 11,637, about 30% of whom are women. In 2000, only about 11% were pursuing postgraduate studies, while at the University of Cape Coast the figure was only 6%. Enrolment of female students as a percentage of total enrolments increased in Ghanaian universities from 21% in 1991-92 to 26% in 1998-99. The establishment of Science Resource Centres by the Ministry of Education and the creation of a Science, Technology, and Mathematics Education (STME) clinic for girls as an activity of the Ghana Education Service have both begun to produce positive results.

2.13 Female Higher Education in Kenya

Gender disparities in Kenyan education refers to the differences in outcomes observed between different sexes in the Republic of Kenya. Specifically, gender disparities allude to one sex being disadvantaged over the other in experiences and outcomes. Education disparities can be seen in different enrolment rates, dropout rates, and survival rates among the sexes. Often these phenomena happen together. Gender disparities in education can also include a difference in the quality of education received. In Kenya, gender disparities in education may be created or perpetuated by policy, ethnicity, region, religion, and age.

Enrolment in education has greatly increased in Kenya over the years. During the last two decades of colonial rule, 1943–1963, it is estimated that girls took up just 25% of all children enrolled in the workforce. In 1953, only one woman, or 6% of all students, achieved post-secondary education (Chege *et al.*, 2014). Since then, according to a UNICEF study, enrolment has increased and the gender gap has reduced in size. UNICEF estimates as of 2012, 83.2% of youth (ages 15–24), are literate (UNICEF, 2014). In 1973, the girls made up only 43% of total primary school enrolment. In the educationally advanced districts, this

proportion was close to 50%, while in the districts in the pastoral areas and coast province it was below 32% (Kinyanjui, 1977).

UNICEF states females actually show slightly higher enrolment than males in primary school, 84.5% enrolment compared to 83.5% for boys. In addition, overall survival rate to the last year of primary school is a high 96.1% (UNICEF, 2014). However, the relationship between male and female enrolment switches and widens in secondary education. In secondary school, 51.6% of enrolled students are male and 48.4% are female. UNICEF reports that the greatest gender disparity exists among the poorest quintile group of Kenya, with attendance rates being 33.1% and 25% for males and females respectively (*ibid*). What is very clear is that there is a distinct difference in rates of enrolment for females in certain districts, with the highest district, Kinnyaga enrolling 51.8% of its girls in school and the lowest district, Wajir, only enrolling 13.9% of its girls (Chege *et al*., 2014).

2.14 Empirical Studies on Females' Education

Researches on the education of women have been carried out by different experts; scholars have investigated several times into different aspects of education of both the girl child and women.

For example, Omoruyi (2011) investigated the challenges or constraints of women in continuing higher education programmes with particular focus on the B.Ed part-time programme of the University of Lagos. A simple survey research design was employed to explore the issue. A 15 item questionnaire supplemented with oral interview sessions provided the data used for the study. The study involved 150 randomly selected women in B. Ed part-time programme of the University of Lagos. The sample was drawn from across three Departments in the Faculty. The data collected were analyzed using mean score, frequency count and simple percentages. The findings of the study showed that the major constraints or challenges of women's participants in the programme include time constraints, increasing marital demand, poor economic or financial base, poor learning environment, lack of encouragement from employers and spouse, increasing social pressure and poor psychological disposition. The implications of study for women's counselling and education were highlighted.

Ajayi (2012) investigated "Breaking the Barrier of Stereotype and Biases" and submitted that there is a need for an in-depth analysis to address the barriers, stereotypes and biases faced by Nigerian women in higher educational institutions. With the objectives of the study realised and established, the research design was structured in a way that allowed for

thorough evaluation of the role of women in Nigerian higher institutions and the factors influencing their active participation. The study aimed to answer three research questions, and adopted quantitative methodology by using surveys to collect information from forty-one higher education institutions from seven states of the federation. The institutions were selected through randomisation by convenience and six hundred and fifteen respondents formed the sample. There were two instruments used in the data collection process, the first being a 'Quick Survey of Women in Leadership and Management Position of Tertiary Institution Checklist' (QSWLMPTIC), which assessed the number of women working as principal officers at the institutions for a particular period of time, and the second 'Indices for Women in Higher Institutions' Leadership Questionnaire' (IWHILQ), which examined the factors influencing the participation of women. The results of the study showed that there is still a wide gap in women's participation in leadership and management roles; and that factors such as gender self-actualisation and cultural mentality contribute to the lack of participation of women in prominent job roles in academia.

Also, Rab (2010), when looking at women as role models in higher education: a way forward, explored the area of women's careers though in-depth interviews of women professors in leadership positions in the universities of Pakistan. Several themes emerged from the data, highlighting both negative and positive factors which influenced their lives. The broader objective of the research was to bring forth the features that were supportive in the lives of these professional women and to highlight the strategies that led to their placement in senior positions in the university. The questions were focused on their individual experiences, family, education, work, progress, opportunities and challenges.

In this, the almost non-existent recognition of female role models in senior leadership positions in the Pakistani context. In South Asia there is rare research in the area of women as role models in higher education. The women who were interviewed were all in leadership positions in Pakistani Higher Education Institutions (HEIs). The focus was also to develop some positive role models for young women aspiring to pursue careers in higher education, keeping in view the small number of women in such leadership positions. It emerged from the thematic analysis that, amongst other factors, having role models in their lives was a positive feature for these women in their professional journey.

In (2011), Tessens studied the senior university women's perceived development needs said that women's participation in senior leadership positions in Australian universities is still low, despite the implementation of equal opportunity legislation, affirmative action initiatives and in-house women-only leadership development programmes. This under-

representation of senior women combined with the gender pay gap in universities, suggests on-going systemic and cultural barriers to women's progress within the higher education sector.

Maria and Alif (2012) looked into the challenge to women's participation in decision making bodies in universities and use Kerala. Kerala, one of the smallest states in the Indian peninsula, stands unique among other Indian states, with a consistently higher level of human development indicators such as literacy rate, infant mortality rate, life expectancy and gender development index. The Human Development Report published by Kerala state planning board indicated that the overall sex ratio, enrolment of students in higher education, and longevity have been favourable to females thus depicting a high status for Kerala women. Kerala Economic Review 2010 (KER), published by the Government of Kerala, reports that more than two thirds of the total number of students enrolled for higher education and almost three quarters of the students admitted in postgraduate programmes in science in the state are females. However, the high rate of literacy and impressive levels of females in higher education have not translated into the Kerala's work participation scenarios as only one third of highly educated women are members of the working class.

According to KER 2010, almost three quarters of the school teachers in Kerala are women, whereas they only made up one third of the faculty members in universities. Cochin University of Science and Technology, the only Science and Technology University in the state can claim that no more than one third of its teaching staff and one tenth of those in higher academic or administrative decision-making bodies are women. Hence, a sample survey was carried out amongst the faculty members of the university to investigate the reasons for the low rate of women's participation in teaching and the prevalence of the glass ceiling between women and the higher academic and administrative bodies of the university.

The majority of the faculty members were of the opinion that social networking and organisational back-up play a dominant role in whether or not one is nominated for academic and administrative decision-making positions. The women faculty members felt strongly that social and family constraints and caring responsibilities held them back from taking up responsibilities in addition to their teaching; and that the political involvement of male faculty members also made it difficult to knock down the barrier of the glass ceiling.

Ekong (2012) in women and the development process: A study of rural women's organisations in community development, devoted to the empowerment of women, especially in the rural areas, where more than 70% of Nigerians live. In fact, specialised agencies have been established for this purpose. However, impact analysis of these programmes shows that

the target groups have not always been reached; and this has led to various initiatives being developed by women themselves to improve their conditions. He discussed the role of women and the extent of their involvement in governance and the development process. It examines the problems and prospects of women in the governance and development of rural areas in Nigeria where they are using community development organisations as a vehicle and organisational medium. This paper is based on a case study of the Cross River State, which has ten major towns and twenty-five hamlets. These were divided into twelve districts and two hundred questionnaires were distributed in each district. A survey of rural women's organisations in the twelve districts revealed that a total of three hundred of them existed; and one hundred of these were closely studied. The result showed a genuine desire by women to be actively involved in governance and development to improve their socio-economic status. However, there still exists a combination of factors hindering their efforts to break through the thick cycle of poverty.

Ellahi (2005) studied empowering women in Pakistan: a way towards achieving one of the millennium development goals. Women's empowerment is a process where women raise their self-reliance, organise themselves, become independent in making choices and use their rights to eliminate the element of subordination. Pakistan being a developing country has outlined women's development as a national agenda for improving the status of women and eradicating the problems of unemployment and poverty. Women's empowerment can be measured by the ability of women to make decisions, the research study sought to measure women's empowerment in Pakistan. A sample of 200 women was selected from the province of Punjab in Pakistan and data was collected through questionnaire surveys. Quantitative as well as qualitative techniques of estimation were carried out using SPSS software, and the findings suggested that women in Punjab province are better at household and economic decision-making than social empowerment. The survey also showed that the majority of women in Punjab region are aware of their rights and duties. Some critical recommendations were made at the end of the study to enhance women's empowerment.

Sanjaya (2012) worked on Role of Informal Women Entrepreneurs in Livelihood Development and Regional Development. The construction of entrepreneurship is often described from a masculine perspective (Thornton, 2005). Entrepreneurial activities such as capital investment, business management, risk-taking, seeking opportunities, earning profit and expansion of the firm are seen as the economic role of males (OECD, 2004). However, on the one hand women play a significant and growing role as entrepreneurs in the context of SME; and on the other hand governments and non-profits organizations around the world are

actively promoting women entrepreneurship through a variety of programmes and policies. The objectives of the study were to identify the significance of the role of informal women entrepreneurs in the livelihood development of the family, to understand the socio-economic potentialities of informal women entrepreneurs and to determine what the gender barriers to the development of women entrepreneurs are. The study was carried out in Sella Kataragama in 2010. In the data collection process, structured questionnaires and semi-structured interviews were conducted to collect primary data; and the study sample consisted of 60 entrepreneurs.

Study samples reveal that women are engaging in a more diverse range of businesses as informal entrepreneurs than men. Moreover, they are performing their entrepreneurial roles alongside their domestic roles and generating either additional income to the family or the entire family income. The research findings indicated that several factors influence women's involvement in entrepreneurship: it is easy to manage the domestic and business roles; it helps to achieve social recognition; it provides an escape from dependency; offers satisfaction even with minimal profits; and develops self-knowledge and skills. Barriers discouraging women entrepreneurs are identified as traditional, stereotyped gender roles at home and the perception of lack of social security. The study revealed that informal women entrepreneurs perform a significant role in the livelihood development of the family. Hence, the socio-economic potentialities of informal women entrepreneurs need to be taken into account in policy making in regional development.

Onsongo (2012) examined promoting gender equity in selected public universities in Kenya: an examination of sustainable interventions. The purpose of the study was to examine sustainable gender equity interventions in selected public universities in Kenya. The sample consisted of four public universities that were purposively selected because they had established gender centres or institutes that were assumed to be co-ordinating gender equity interventions. The study respondents were university managers (registrars, personnel officers, deans of faculty and schools, heads of academic departments and directors of gender centres, senior academic staff and undergraduate students), from various faculties/schools in the universities. Data for the study was collected during the months of March to August 2007.

The instruments used for data collection were questionnaire for students and academic staff, semi-structured interview guides for university managers and directors/co-ordinators of gender centres, meeting observation guides and a document analysis guide. The study focused on interventions related to access to university education by women, curriculum transformation (inclusion), university environment (climate) and staff promotion and

development. This study was guided by the feminist critical policy analysis perspective following Bensimon and Marshall (1997).

The findings from this study reveal that there are a number of impediments to the implementation of sustainable gender equity interventions including inadequate funding for the activities geared towards enhancing gender equity, inadequate qualified academic staff to teach and manage gender related courses and centres, lack of gender awareness among students, staff and university managers, negative attitudes towards gender issues and lack of clear gender policy guidelines. A number of recommendations were made for the improvement of policy and practice at the level of government, universities, and society and donor agencies.

Tessens in 2008 worked on Leadership Development for Women programme: Change for women and culture Women-only staff development programmes have been conducted at Australian universities for many years with the aim of addressing gender inequity. Despite the wide plethora of programmes available, few have an explicitly stated philosophical approach with a dual agenda. A dual agenda programme engages the organisation and the women in an organisational change process. This is achieved by going beyond the "fix the women" approach to leadership development and by promoting an organisational change strategy.

Gunatilake (2011) explained analysis of the impact of gender roles on female managerial level employees: A case study of the Sri Lankan garment industry. The society itself has had to get adjusted to changes required by globalisation, such as seeing its women go as unskilled labourers to foreign countries, to newly established garment factories, call centres etc. The need for females to work was all the more prominent in the context of thirty years of civil war, during which the predominantly male armed forces were engaged in the battle fields.

Nevertheless, the education system in Sri Lanka was such that more females entered tertiary level education and became qualified to gain employment at managerial levels. Since the end of the three- decade long civil war in 2009, Sri Lanka has been entering into a new development era. Hence the present economic trends in Sri Lanka will demand more female employees for emerging opportunities. The Sri Lankan garment sector consists of a large proportion of females, representing different levels of the organisational hierarchy. The entry of females into industry calls for new conditions of employment and addressing issues relating to diversity.

Gender roles are the foundations of ascribed roles for either gender, and these affect the lives of men and women around the globe in varying degrees. Grounded theory approach was the main research method. The study covers two Sri Lankan large-scale private sector garment organisations. Using theoretical sampling, in-depth interview were held with female and male managers. Findings enabled a better understanding of the gender role attitudes held by female and male managers and the impact of such attitudes on the personal and work lives of female managers.

Kanchana (2012) worked on Gendered micro politics: Experiences of Sri Lankan and Australian academics. There have been great efforts in gender and feminist research to understand the non-tangible, subtle forms of gender politics within the academy that constructs advantage/disadvantage relationality among academics. This constitutes a significant aspect of work relations between academic males and females as revealed in a large volume of literature (Wilson *et al*., 2010; Obrien, 2011). What became clear were the active, overt as well as the informal, covert intangible and subtle forms of resistance and discrimination on the part of the male academics against females that heavily impact on the disadvantaged position of the females.

On the other hand, it is an area where very strong, clear and evident privileging of the male occurs in the academy. Within the research, there was an attempt to interrogate how micro politics are manifest within the academy in Sri Lanka and Australia in a gendered sense with special focus on male resistance. The research was conducted using 37 in-depth academic life-histories of male and female academics in research universities in Australia and Sri Lanka that are analysed using Foucauldian discourse analysis. The findings revealed that male resistance and micro politics were found in many areas of the academy including, for instance, gendered remarks made towards female academics that devalue their academic excellence, the tendency to undermine publicly outspoken women, framing more proactive and qualified academic women with masculinised administrative activism to control their mobility, male bias in appointment and selection and some normative and cultural practices used to resist women's advancement intentionally or unintentionally. The study also notes that micro politics within the academy is not limited to gender but it is also manifested in ethnicity and class as well as academic disciplines.

Lárusdóttir in 2010 look into a gender-sensitive leadership research. What does it take? Where does it lead? The researcher attempted to place the concept of gender at the centre of the study and look at the data from a feminist perspective. This involved exploring the manner in which educational leaders constructed their leadership identity in an

environment where discourses on education and leadership are not only gendered but also gender biased. The leaders' narratives raised questions about the gendered experiences children and young people have the cultural ideas and messages they receive and the impact these may have on the adoption of values as well as the formation of gender identity and leadership identity.

Educational institutions (in this case, schools) can be seen as composed of several layers, or arenas. Within every arena are dominant gendered discourses on education and on leadership and they reflect the values of stakeholders who occupy the arenas, teachers, students, parents and administrators. From these arenas principals receive ideas about what to do and how to behave. These ideas often reflect stereotypical views and expectations about appropriate ways to be feminine and masculine and they are associated with beliefs about the kind of work men and women are most suited to do. The work explores the interplay between leadership, values and gender.

2.15 Government Strategies for Implementing Women Education In Nigeria

The Convention on the Elimination of All Forms of Discrimination against Women (CEDAW), adopted in 1979 by the UN General Assembly and acceded to by 180 States, sets down rights for women, of freedom from discrimination and equality under the law (UNICEF, 2004). CEDAW has realized the rights and equality of woman is also the key to the survival and development of children and to building healthy families, communities and nations. Article 10 pinpoints nine changes that must be changed in order to help Nigerian women and other women suffering from gender disparity. It first states, their must be the same conditions for careers, vocational guidance, and for the achievement of diplomas in educational establishments of all categories in rural as well as in urban areas. This equality shall be ensured in pre-school, general, technical, professional and higher technical education, as well as in all types of vocational training (UNESCO, 2007). Second, is access to the same curricula, the same examinations, teaching staff with qualifications of the same standard and school premises and equipment of the same quality. Third, is the elimination of any stereotyped concept of the roles of men and women at all levels and in all forms of education.

This is encouraged by coeducation and other types of education which will help to achieve this aim and, in particular, by the revision of textbooks and school programs and the adaptation of teaching methods. Fourth, the same opportunities to benefit from scholarships and other study grants. Similarly, fifth is the same opportunities of access to programs of

continuing education, including adult and functional literacy programs, particularly those aimed at reducing, at the earliest possible time, any gap in education existing between men and women. Sixth, is the reduction of female student drop-out rates and the organization of programs for girls and women who have left school prematurely. Seventh concern listed is the same opportunities to participate actively in sports and physical education. Lastly, it is access to specific educational information to help to ensure the health and well-being of families, including information and advice on family planning.

The Federal Government of Nigeria has taken a very strong position on the general principles of equality and human rights. Section 18 of the 1999 Nigeria Constitution, dealing with the functional principles of state policy reflects Nigeria's commitment to equal educational opportunity and specifies that,

> Government shall strive to eradicate illiteracy and to this, Government shall as at when practicable provide: free, compulsory and universal primary education; free secondary education; free university education; and free adult literacy programme.

Women activists and leaders, politicians and technocrats have constantly been taking measures to redress the issues of imbalance in Nigeria. Among these measures is the argument against discriminatory admission policy, which favour girls seeking admission into some disciplines in the country's tertiary institutions. The campaign is aimed at increasing the number of girls who enrol in schools in Nigeria and also ensure that the girls complete their educational career before they enter into marriage.

The social and traditional practices that hinder the educational development of women is also being vehemently fought against. The setting up of the federal college of Education, Gusau, in Zamfara State for women only, the designation of one of the two federal Government colleges in each state of the federation as Girls College, is also a step in government effort.

In the same vein, the revised edition of the national policy on education (2004) stipulates that Nigeria's philosophy of education is based on the integration of the individual into a sound effective citizen and equal educational opportunities for all citizens of the nation at the primary, secondary and tertiary levels. The policy document further states that, Universal Basic Education in a variety of forms, depending on needs and possibilities, shall be provided free for all citizens and made compulsory. The Nigerian government is signatory

to the UNESCO Convention against discrimination in education. Article 10 of the convention States that all parties should:

> Take all appropriate measures to eliminate discrimination against women In order to ensure to them equal rights with men in the field of education, which includes same curriculum, examination and standards for teaching and scholars ...including lifelong education, equal participation in sports and elimination if stereotypes content.

In the year 1980, Nigerian government was signatory to Lagos Plan of Action which put particular importance on female education and the role of women in the development process. The Federal Government of Nigeria is also party to the Convention on the Rights of the Child (adopted by UN General Assembly in 1989), and the Declaration of the World Summit for all which underscored the principles of equal rights of girls to education.

2.16 Appraisal of Reviewed Literature

In this chapter, works of scholars on female education especially at the higher level, which is an excellent instrument for bringing about individual and national development, have been reviewed. However, researching into the pattern of females' involvement in higher education in Nigeria reveals abysmal low levels. Most works have been able to examine those factors that determine female enrolment at primary and secondary levels of education while much has not been done at the tertiary level, even when available, variables such as home, personal and social have not been brought together in a path analytical way to examine the interplay of these factors on female university enrolment and completion. This study, therefore, becomes imperative as it would fill the gap created by previous researchers by bringing these variables (social, personal and home variables) together in a path-analytical way so as to give more focus and attention to female university education.

CHAPTER THREE

METHODOLOGY

This chapter presents the research design, variables, population, sample and sampling technique, instrumentation, data collection and method of data analysis.

3.1 Research Design

The study adopted a causal modelling research design. The study design attempted to establish the cause-effect relationships between the endogenous variables (personal, home and society) and the exogenous variables (gender, age and family background). In this study the researcher would have no control over the variables of interest and would not be able to manipulate them.

3.2 Variables in the Study

The variables that were investigated in a recursive path model adopted for this study are age, parents' education, parents' income and occupation which are the exogenous variables. These variables are exogenous because there are no variables under the study that can influence them. The endogenous variables are school environment, socio cultural value, government and non-governmental involvement. Enrolment and completion serve as the criterion variables. These variables are endogenous because other variables in the study are assumed to have direct or indirect influences on them.

3.3 Population

The target population for this study consisted of all female students in the Universities of Southwest Nigeria. The female students targeted are old, young, married and unmarried, undergraduate students of these Universities. Southwest comprises six states which are Lagos, Ogun, Oyo, Ondo, Osun and Ekiti.

3.4 Sample and Sampling Procedure

The subjects for this study were selected from the Southwest Universities, using multistage random sampling technique. This is a sampling strategy that allows for concurrent usage of sampling methods such as simple sampling technique, stratified sampling technique, systematic sampling technique and cluster sampling technique in a single study in helpful variety to appropriately satisfy the sampling requirements in the study.

The six states of southwest Nigeria – Lagos, Ogun Oyo, Osun, Ekiti and Ondo – were selected and involved. Purposive sampling method was employed to select the six

universities. 1. It must be a government-owned university and 2. It must have the faculty of Education, Law, Agriculture, Science and Engineering/Technology because past research has shown that females are few in these courses. Five departments were also purposively selected, while the strata of female final and penultimate year students were used for the study. 622 female undergraduate students finally participated in the study. The sampling procedure is shown in Table 3.1 below.

Table 3.1: The distribution of Subjects Sampled

State	Institution	Faculty	Field of study
Lagos State	University of Lagos	Science Engineering Education Law Agriculture	Mathematics and Statistic Mechanical Science Education Civil Law Agricultural Science
Osun State	Obafemi Awolowo University	Science Engineering Education Law Agriculture	Mathematics and Statistic Mechanical Science Education Civil Law Agricultural Science
Ogun State	Olabisi Onabanjo University, Ago Iwoye	Science Engineering Education Law Agriculture	Mathematics and Statistic Mechanical Science Education Civil Law Agricultural Science
Oyo State	University of Ibadan	Science Engineering Education Law Agriculture	Mathematics and Statistic Mechanical Science Education Civil Law Agricultural Science
Ekiti State	Ekiti State University	Science Engineering Education Law Agriculture	Mathematics and Statistic Mechanical Science Education Civil Law Agricultural Science
Ondo	Adekunle Ajasin University	Science Engineering Education Law Agriculture	Mathematics and Statistic Mechanical Science Education Civil Law Agricultural Science

3.5 Research Instrument

A questionnaire titled "Females' Enrolment in University Education Questionnaire" was developed to explore Personal, Home and Social factors which determine female students' enrolment and completion in university education. The questionnaire has eight Sections. Section A was designed to collect data on demographic characteristics of the respondents while section B – I are sub-scales that gathered data on enrolment of females students in university education. The instrument consists of 84-item in Likert- format having seven sub-scales sections B – I and which has 9, 12, 19, 8, 15, 14 and 7 items respectively. The focus of each Section of the Instrument is as follows:

Section A: - Demographic Characteristics

Section B: - Role Model and Mentorship Scale (RMMS)

Section C: - Feminine Inclination Scale (FIS)

Section D: -Parent Socio-economic Status Scale (PSSS)

Section E: - Parental Involvement Scale (PIS)

Section F: - School Environment Scale (SES)

Section G: - Socio Cultural Values Scale (SCVS)

Section H: - Government and Non-Governmental Scale (GNGS)

The instrument was rated following a four-point scale where;

Very True – 4 True – 3

Rarely True – 2 Not True – 1

3.5.1 Role Model and Mentorship Scale (RMMS)

Effect of role model and mentorship was measured using Role Model and Mentorship Scale (RMNS) that was developed by the researcher. It consists of 9 items that gathered data on place of role model and mentors. The instrument was subjected to validity to ensure that it would measure what is to measure. Experts in the faculty and in Obafemi Awolowo University, Ile-Ife, were involved to check for both content and face validity.

3.5.2 Feminine Inclination Scale (FIS)

The instrument contained 12 items that centred on Feminine inclination; feminine inclination was measured using Feminine Inclination Scale (FIS) that was developed by the researcher. The instrument was subjected to validity to ensure that it would measure what is to measure. Experts in the Faculty and in Obafemi Awolowo University, Ile-Ife, were involved to check for both content and face validity. The 12 items were designed to generate information on the place of interest and inclination on female students enrolment.

3.5.3 Parent Socio-economic Status Scale (PSSS)

Parent Socio-economic Status Scale was adapted for Parent socio-economic status, this instrument contains 8 items about level of parents' education, parents' income and structure of the family. It was also subjected to both content and face validity.

3.5.4 Parental Involvement Scale (PIS)

Parental Involvement Scale (PIS) was used to determine Parental Involvement. The instrument contains 19 items which generated data on the level of parental involvement, expectation and effect of poverty.

3.5.5 School Environment Scale (SES)

Effect of School Environment was measured using School Environment Scale (SES) that was developed by the researcher. It consists of 15 items that gathered data School Environment nature of the school and policies in place. The instrument was subjected to validity to ensure that it would measure what is to measure. Experts in the faculty and in Obafemi Awolowo University, Ile-Ife, were involved to check for both content and face validity.

3.5.6 Socio Cultural Values Scale (SCVS)

Socio Cultural Values Scale was used to determine socio-cultural values, this instrument contain 14 items and question about level of parent the societal determine values roles of the mass media and stereotypes which determine women's placement in the society. Validity of the instrument was carried out by experts in the Faculty of Education to check for both content and face validity.

3.5.7 Government and Non-Governmental Scale (GNGS)

Effect of Government and Non-Governmental was involvement measured with Government and Non-Governmental Scale that was developed by the researcher. It contain of 7 items that gathered data on place of Government contributions to female education. The instrument was subjected to validity to ensure that it would measure what is to measure. Experts in the faculty and in Obafemi Awolowo University, Ile-Ife, were involved to check for both content and face validity.

3.6 Validation of Instrument

To determine the reliability level of the instrument in generating the needed data, trial testing was employed; in this regard copies of the instrument were administered on a group of 63 respondents. The responses were collated and analysed using Cronbach's Alpha to establish the reliability of each scale in the instrument, the reliability coefficient are as follow: RMMS (r= 0.75), FIS (r=0.89), PSSS (r=0.87), PIS (r=0.83), SES (r=0.79), SCVS (r=0.76), GNS (r=0.83). This group were excluded from the final study. The validity established, however, ranged between 0.3 and 0.8, using item total correlation which implies that the instrument would measure what it is to measure.

3.7 Procedure for Data Collection

The procedure for collecting data for the study came in the following stages. The first stage focused on selection of research assistants in the six states where the study was carried out. Necessary trainings to facilitate the success of the work were given to the research assistants at this stage. The next stage is the administration of the instrument to the respondents.

To ensure hundred percent response, the researcher and research assistants travelled round the six states to administer the instruments and ensure that they were properly completed. Personal administration of the instrument enabled the researcher to interact with the respondents. This gave the researcher the opportunity to explain items that were not clear to the respondents.

Statistical data were collected from the Universities on total enrolment and graduation of students between 2001 and 2010 to ensure level of female students' enrolment and completion. The researcher also employed the means of focus group interview, different sets of female students were subjected to interview on their enrolment and prospect of graduation in their chosen fields of study. The final stage centred on the collection and collation of research, instruments with profound gratitude to the participants before the final computation of data.

3.8 Data Analysis

Path analysis was employed to provide causal influence of personal factor, home factors and societal factors on the enrolment and completion of female students in university education under investigation. Path analysis is a statistical method for analysing quantitative data that provides empirical estimates for the effects of variables in a hypothesized causal system. It is the method of analysis which is designed to shed light on the tenability of a theoretical model formulated by the researcher. Path Analysis was adopted because it is an

extension of regression model used to test the fit of the correlation matrix against two or more causal models. Causal modelling technique is advantageous in examining whether a pattern of inter-correlations among variable "fit" the researcher's underlying theory of which variables are causing other variables in a study. Causal relationships between variables are represented by single-headed arrows, while variables assumed to be correlated, but not causally related, are linked by a curved double-headed arrow.

Building the Hypothesised Recursive Path Model

According to Blalock (1964), causal model is a method of selecting the variables that are perceived to be determinants of the influences made by predictor variable through the application of path analysis technique. Kerlinger and Pedhauszer (1973), however, affirm that a recursive system of path analysis is only applicable in any study on the following assumptions:

1. When there is no reciprocal causation between variable in the study;
2. When residuals are uncorrelated with variable preceding them in the model, and among themselves;
3. When each of the endogenous or dependent variables is directly related to the variables presenting it in the hypothesized causal sequence.

The model developed for the study was, therefore, based on logical assumptions after an extensive literature review.

Causal Model and Sound Theory

The development of any hypothesized causal path model must be based on sound theories on the variables to be studied. This assumption is affirmed by Duncan *et al*. (1998) and Bryant and Zick (1996) who postulate that hypothesized causal model is subject to sound theory, information from previous research and temporary order. It was, therefore, possible for the researcher to assume that some personal, home and social variables are bound to be influencing female students' enrolment and completion in university education in southwest Nigeria. Theoretical assumptions were, hence, made that Parents' Education, Parents' occupation, Parental Support, Feminine Inclination, Cultural Value School Environment and societal support would exert influences on female students' enrolment and completion in university education.

Causal Model and Temporal order.

When a variable precedes another with which it is assumed or known to be causally related, it is definite that the later variable is being influenced by the former and not vice versa in a recursive model. In this study, for example, family background of the female student could only influence enrolment and not vice versa. Similarly, feminine inclination could be influential to enrolment and not vice versa.

Causal Model and previous Research

It is essential that a meaningful causal order among any number of researchable variables be based on an extensive review of previous research findings on the variables. In this study, some of the variables that were hypothesized to be investigated through confirmatory parsimonious models are presented in the figures as follows:

The hypothesized variables are represented in the model as:

X_1 – Age

X_2 – Mother's Level of Education

X_3 – Father's Education

X_4 – Parent's Socio-economic status

X_5 – Govt/Non Govt Involvement

X_6 – Parental Support

X_7 – Role Model/mentorship

X_8 – Feminine Inclination

X_9 – School Environment

X_t – Socio-Cultural Value

X_y – Enrolment

X_z - Completion

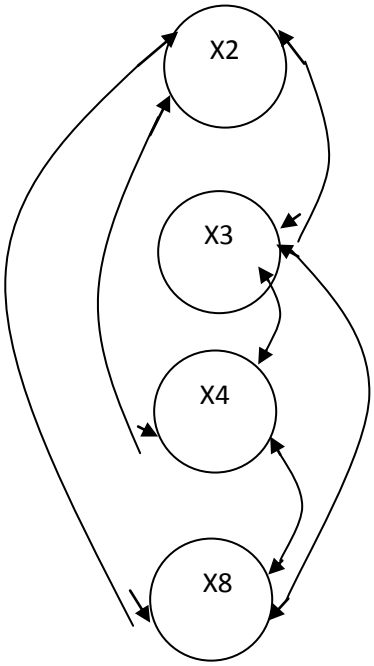


Figure 3.1: Hypothesized Causal linkages of Variables Xi, X3, X4 andX8

Logical reasoning and literature (Brown 2006, Thomas, Strauss, and Henriques, 1991) tend to suggest that (X_2) mother's education (X_3) father's education will affect (X_4) parent's SES, and all these would affect (X_8) feminine inclination.

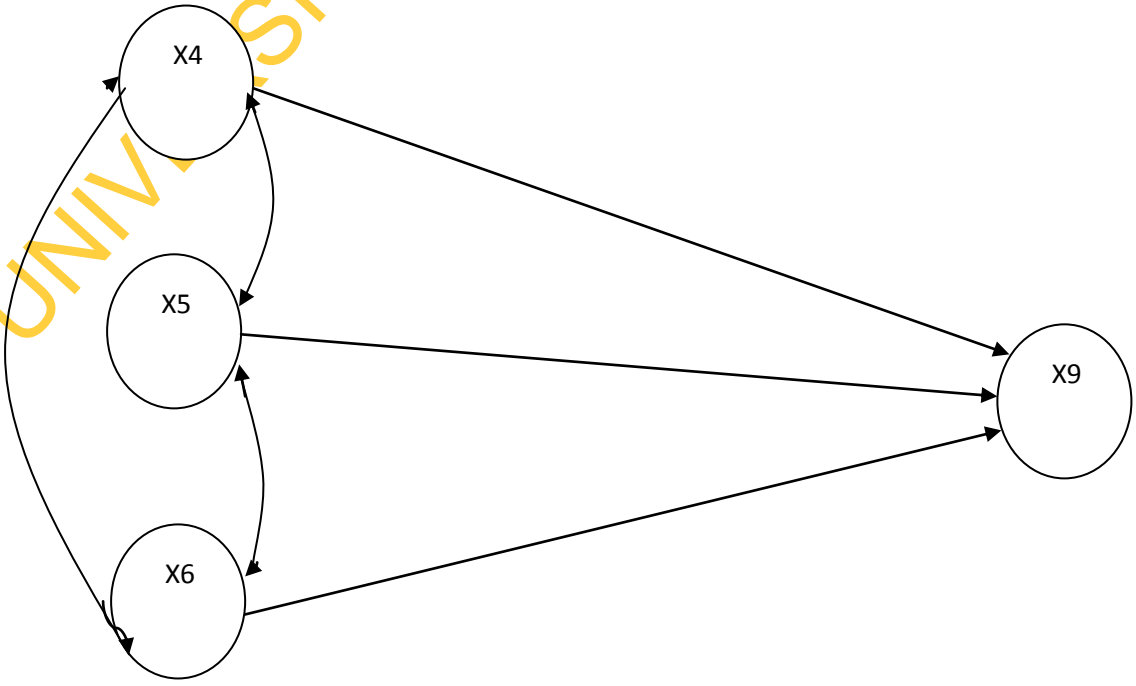


Figure 3.2: Hypothesized Causal linkages of Variables X4, X5, X6, X10

It is logical to assume that (X_4), parents' socio economic status (X_5) government /nongovernment involvement and (X_6) parental support could influence the kind of school environment(X_{10}) and the choice of career that could be available to the female student. (Eccles, 1993).

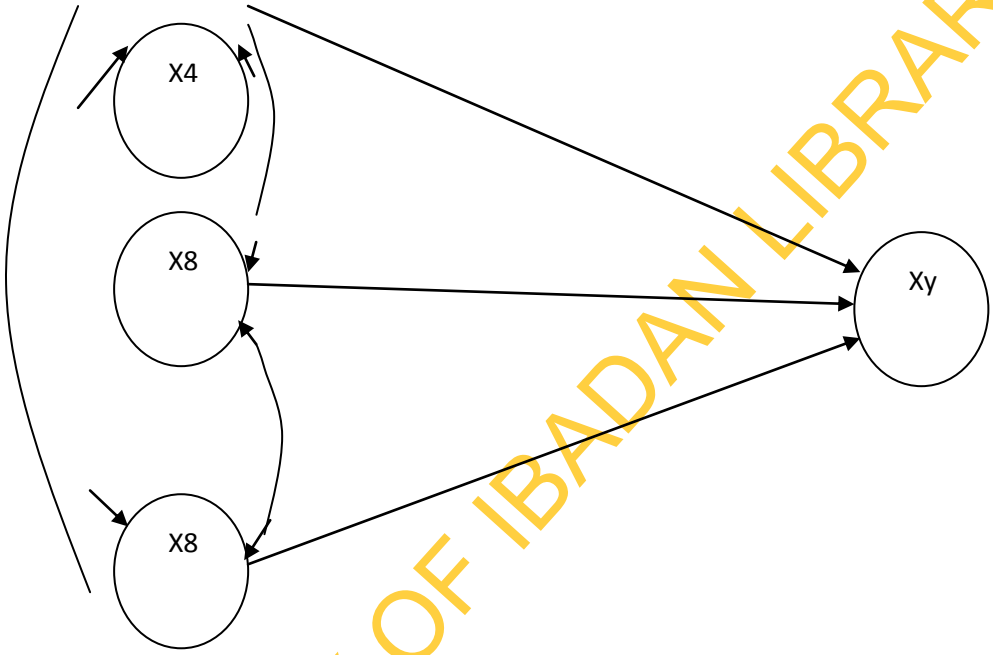


Figure 3.3 Hypothesized causal linkages of Variables X4, X7, X8, and Xt

Logical assumption could postulate that (X_4) parents' SES, (X_8) feminine inclination, (X_t) socio cultural values may have effect on female student's enrolment (X_y). Previous findings have shown that there is a strong correlation between parent income and parental support while the support given at home will influence the interest, inclination and choice of career (Stromquist, 1989; Meena, 1994; Osokoya, 2008).

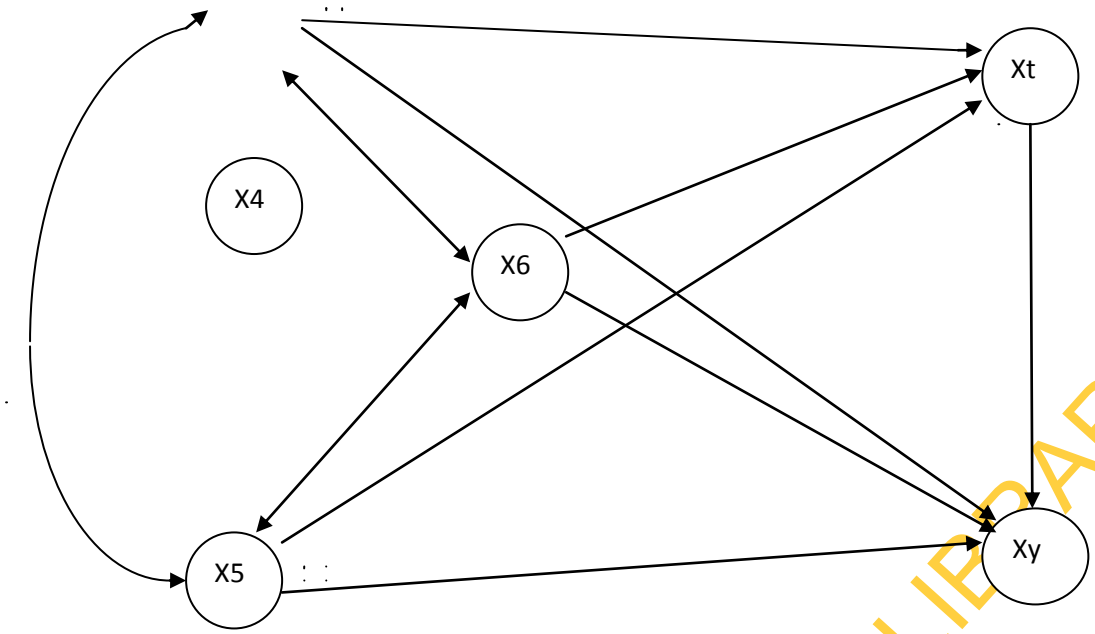


Figure 3.4 Hypothesized Causal Linkages of Variables X4, X5, X6, X9, and Xy

Considering the linkages between (X_4) parents' SES, (X_5) government & non-governmental involvement (X_6) parents' support & involvement and (X_t) socio cultural value. it might be logical to postulate that variables X_4, X_5, X_6, X_9 may have effect on enrolment (X_y). Available research indicate that gender roles and expectations are embedded in the cultural expectations of females (Yang, 1986, & Burleson, 2003) while parental support have effects on the social or societal orientation of the female (Davson, 1989; Colclough, 1994 & Christopher, 2002).

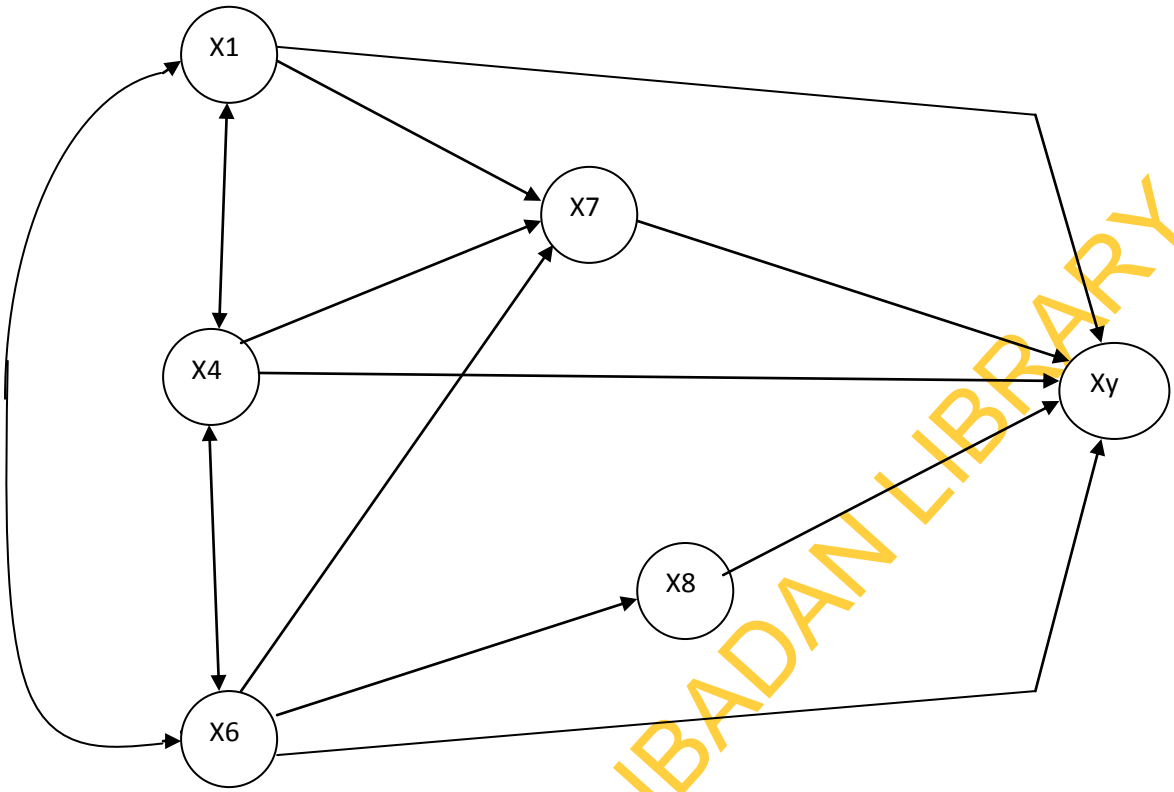


Figure 3.5: Hypothesized causal linkages of variables X_1, X_2, X_3, X_4, X_5, X_6, X_7 and X_y

It is considered by logical assumptions that age (X_1), parents' income and occupation(X_4), parents' support (X_6), Role model/mentorship (X_7) and(X_8) feminine inclination would have influence on enrolment (X_y). Literature had established that these variables; self esteem, feminine inclination and role model with government policies could influence female students' enrolment (Lewis & Lockheed, 2006; Curt, 2011; Kaguma, 2009).

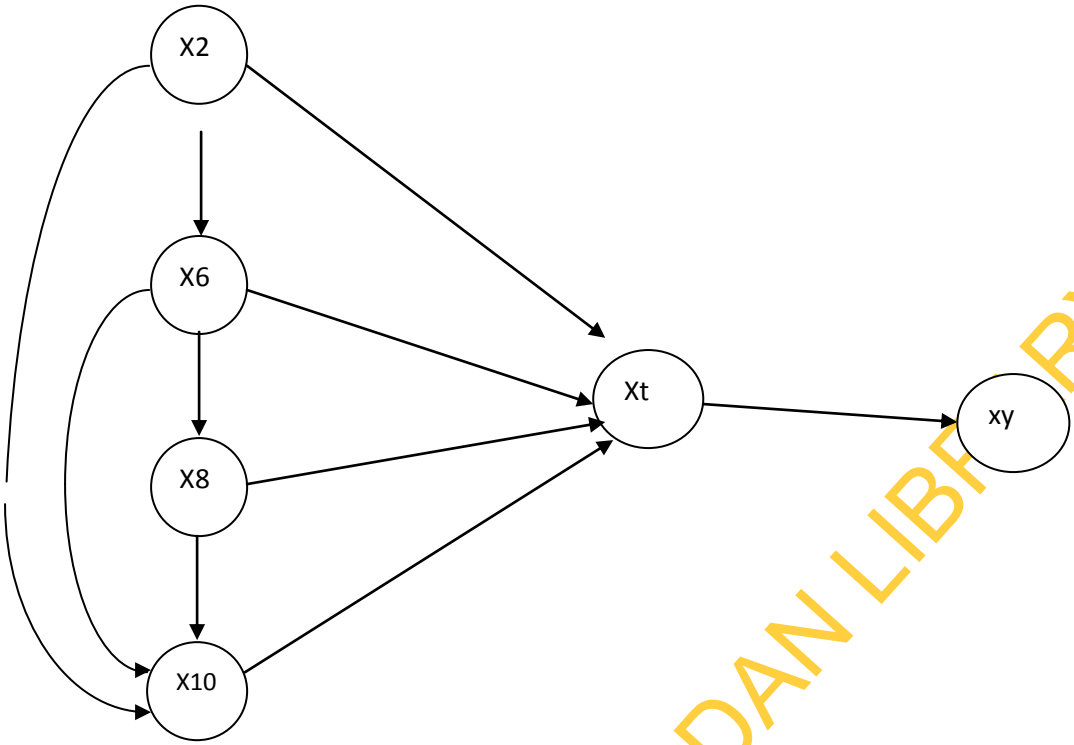


Figure 3.6: Hypothesized causal linkages of variables X_2, X_5, X_7, X_{10}, X_t, and Xy

Considering the linkages between mother's education (X_2), (X_5) government and non-governmental involvement, feminine inclination (X_8), school environment (X_9) (X_y) enrolment and (X_z) completion, it may be logical to postulate that variables X_2, X_5, 8_7, and X10 may have effect on enrolment X_t and completion Xy in the study. Previous findings have shown that mothers education and feminine inclination have effect on enrolment in education (Siragusa & Dixon, 2009; Ceci & Williams, 2007). It is then logical to state that enrolment would have causal effect on completion while school environment with government and non-governmental involvement in female education may have causal effect on enrolment and completion.

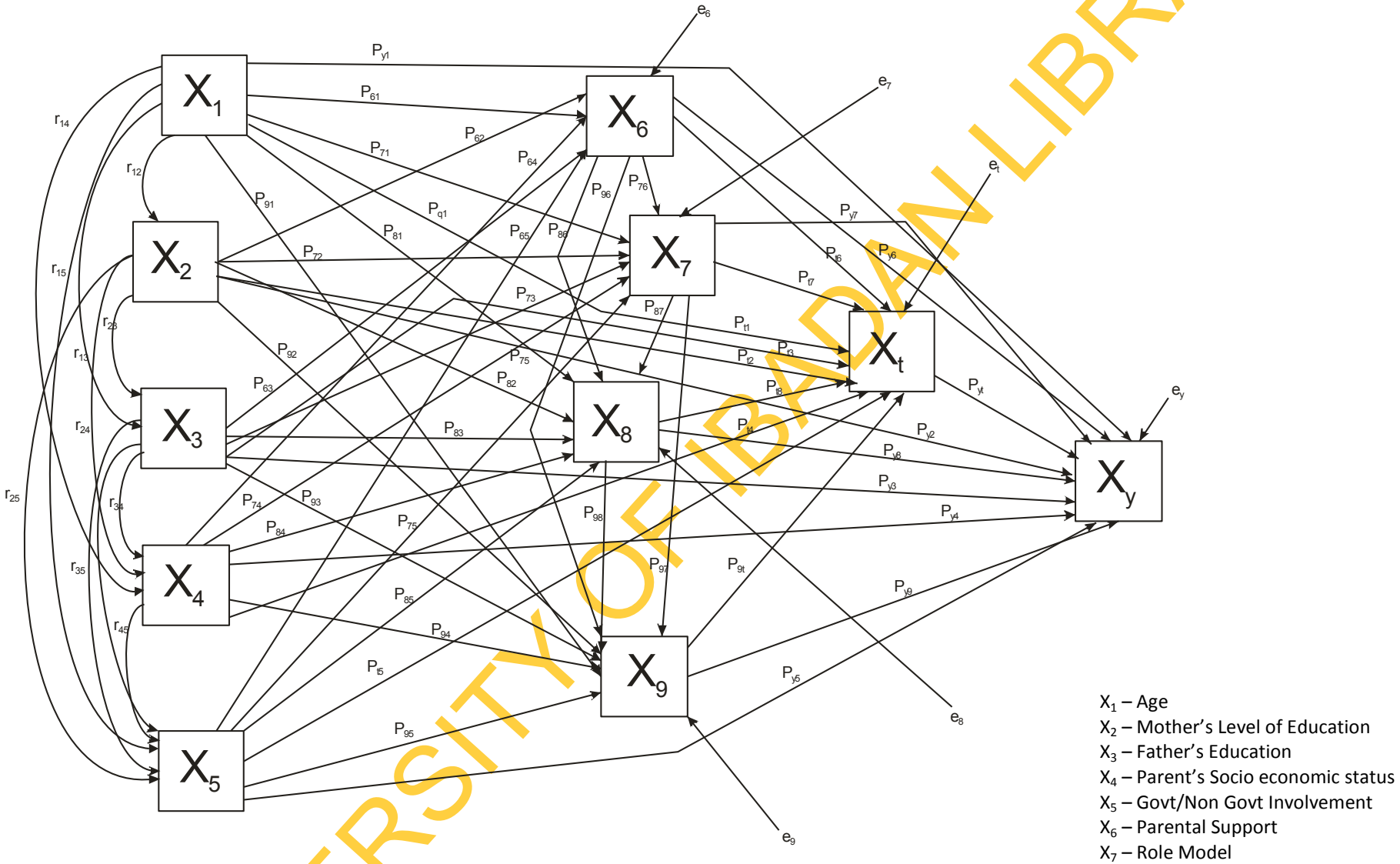
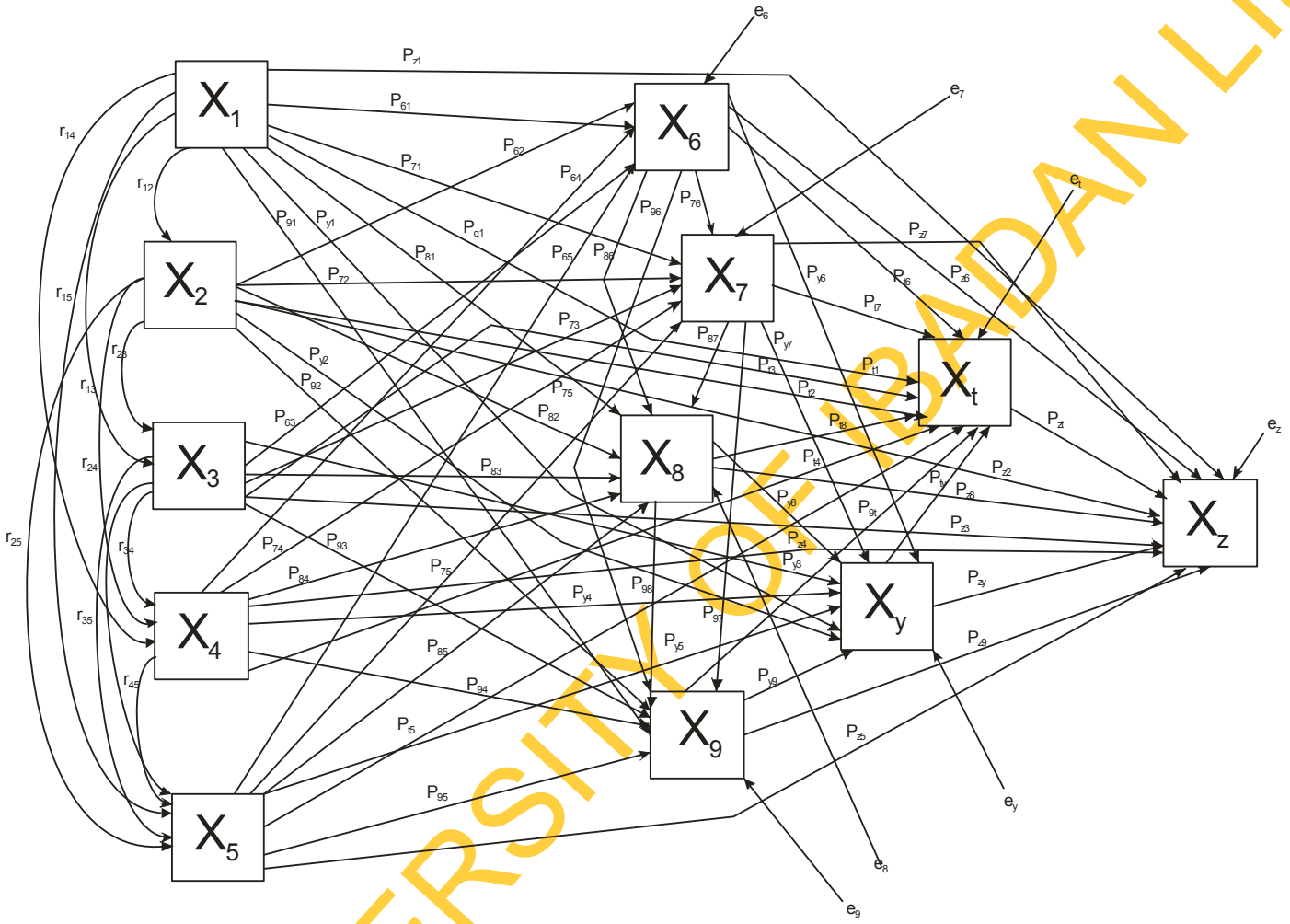


Figure 3.7: Hypothesized Model for the eleven Variables

X_1 – Age
X_2 – Mother's Level of Education
X_3 – Father's Education
X_4 – Parent's Socio economic status
X_5 – Govt/Non Govt Involvement
X_6 – Parental Support
X_7 – Role Model
X_8 – Femine Inclination
X_9 – School Involvement
X_t – Socio Cultural Value
X_y – Enrolment



X_1 – Age
X_2 – Mother's Level of Education
X_3 – Father's Education
X_4 – Parent's Socio economic status
X_5 – Govt/Non Govt Involvement
X_6 – Parental Support
X_7 – Role Model
X_8 – Feminine Inclination
X_9 – School Involvement
X_t – Socio Cultural Value
X_y – Enrolment
X_z – Completion

Figure 3.8: Hypothesized Model for the twelve Variables

Eight structural labelled 3.1to 3.8 were formed. Each equation corresponds to each dependent variable Xi (i =5, 6, 7, 8, 9, t, q and y)

$$X_5 = P_{51}X_1 + P_{52}X_2 + P_{53}X_3 + P_{54}X_4 + e_5 \quad \text{.....3.1}$$

$$X_6 = P_{61}X_1 + P_{62}X_2 + P_{63}X_3 + P_{64}X_4 + P_{65}X_5 + e_6 \quad \text{.....3.2}$$

$$X_7 = P_{71}X_1 + P_{72}X_2 + P_{73}X_3 + P_{74}X_4 + P_{75}X_5 + P_{76}X_6 + e_7 \quad \text{.....3.3}$$

$$X_8 = P_{81}X_1 + P_{82}X_2 + P_{83}X_3 + P_{84}X_4 + P_{85}X_5 + P_{86}X_6 + P_{87}X_7 + e_8 \quad \text{.....3.4}$$

$$X_9 = P_{91}X_1 + P_{92}X_2 + P_{93}X_3 + P_{94}X_4 + P_{95}X_5 + P_{96}X_6 + P_{97}X_7 + P_{98}X_8 + e_9 \quad \text{.....3.5}$$

$$X_t = P_{t1}X_1 + P_{t2}X_2 + P_{t3}X_3 + P_{t4}X_4 + P_{t5}X_5 + P_{t6}X_6 + P_{t7}X_7 + P_{t8}X_8 + P_{t9}X_9 + e_t \quad \text{.....3.6}$$

$$X_q = P_{q1}X_1 + P_{q2}X_2 + P_{q3}X_3 + P_{q4}X_4 + P_{q5}X_5 + P_{q6}X_6 + P_{q7}X_7 + P_{q8}X_8 + P_{q9}X_9 + P_{qt}X_t + e_q \quad \text{.....3.7}$$

$$X_y = P_{y1}X_1 + P_{y2}X_2 + P_{y3}X_3 + P_{y4}X_4 + P_{y5}X_5 + P_{y6}X_6 + P_{y7}X_7 + P_{y8}X_8 + P_{y9}X_9 + P_{yt}X_t + P_{yq}X_q + e_y \quad \text{.....3.8}$$

The above equations therefore make it necessary to run eight regression analysis in order to compute values of the path coefficients for the hypothesized model of female enrolment and completion. A regression was done for each variable in the model as a dependent variable on others which the model indicate is causative. The regression weights predicted by the model as recommended by some experts in causal modelling (Pedhazur, 1982; Tate, 1992; Kerlinger & Pedhazur, 1973), the path coefficient of 0.05 and above are considered significant and are so retained, the insignificant path are to be removed in order to produce the final model. This helps the researcher in trimming the paths to produce a more parsimonious models without much loss of information.

Validation and verification of the usefulness of the model

The original path coefficients are reproduced in the new model using normal equation. If the difference between the original and the reproduced correlations is minimal, it implies that the model is good and the original data are consistence with the new model.

CHAPTER FOUR

RESULTS

4.0 Introduction

This chapter presents the results of the data analysis. All the eight research questions raised in the study are answered. The results of the findings and discussions on the findings are also presented in this chapter.

4.1 Research Question One:

What is the joint contribution of the personal, home and social factors (age, father's education, mother's education, parents' socio economic status, parental support/ involvement, feminine inclination, traditional/cultural value, role model/mentorship school environment, government and non-governmental involvement) to female students' enrolment and completion in university education?

Table 4.1: Regression Summary involving Independent variables and female students' enrolment in university education

R= .529 R Square = .28 Adjusted R square = .27					
	Sum of Squares	df	Mean Square	F	Sig.
Regression	2622.045	9	291.338	26.465	.000
Residual	6737.119	612	11.008		
Total	9359.164	621			

The Table 4.1 shows that the multiple correlation coefficients R, indicating the relationship between the independent variables (Age, Mother's level of Education, Father's education, Parent's Socio economic status, Governmental and Non-Governmental Involvement, Parental Support, Role Model, Feminine Inclination, School Involvement, Traditional and Cultural Value) and Enrolment, is 0.529; adjusted R^2 equals 0.28. This implies that the independent variables account for only 27 per cent variation in Student enrolment. Further verification using regression ANOVA produced $F_{(9,612)}=26.461;P<0.05$. This implies that the independent variables were jointly contributed to female students' enrolment.

Table 4.2: Regression Summary involving Independent variables and female students' completion in university education

R=.449					
R Square = .202					
Adjusted R square = .189					
	Sum of Squares	Df	Mean Square	F	Sig.
Regression	1613.722	10	161.372	15.445	.000a
Residual	6383.918	611	10.448		
Total	7997.64	621			

The Table 4.2 also shows that the multiple correlation coefficients R, indicating the relationship between the independent variables (Age, Mother's level of Education, Father's education, Parent's income, Government and Non-Governmental Involvement, Parental Support, Role Model, Feminine Inclination, School Involvement, Traditional and Cultural Value, Enrolment) and Completion, is 0.449; adjusted R^2 equals 0.202. This implies that the independent variables account for only 18.9 per cent variation in Student's completion. Further verification, using regression ANOVA, produced $F_{(10,611)}=15.445;P<0.05$. This implies that the ten variables had count contribution to Female Students' Completion in University Education.

The results presented in Table 4.1 and Table 4.2 also shows that there are significant relationships among the variables influencing female students' enrolment and completion in southwest University in Nigeria. The result shows multiple correlation coefficients R, indicating the relationship between the independent variables and enrolment, to be 0.529 and adjusted R^2 equal 028.

Research Question Two:

What is the most meaningful causal model for providing an explanation of the enrolment and completion of female students in university?

Table 4.3: Extract of Path Coefficients (Beta Weights) and Zero order Correlations among variables in the Hypothesized Model on Enrolment

Path Ways	Beta Coefficients (Beta Weight value)	Zero Order Correlation (r value)	Remark
P_{61}	-.341	-.414	S
P_{62}	.050	.180	S
P_{63}	.081	.155	S
P_{64}	.142	.280	S
P_{65}	-.152	-.215	S
P_{71}	-.029	.075	NS
P_{72}	-.096	-.039	NS
P_{73}	.174	.100	S
P_{74}	-.088	-.147	S
P_{75}	.258	.301	S
P_{76}	-.117	-.175	S
P_{81}	-.032	-.122	S
P_{82}	-.125	-.082	S
P_{83}	-.017	-.024	NS
P_{84}	.035	.069	NS
P_{85}	-.075	-.079	NS
P_{86}	.253	.233	S
P_{87}	.191	.120	S
P_{91}	-.027	-.128	S
P_{92}	-.018	-.093	S
P_{93}	-.233	-.205	S
P_{94}	.087	.135	S
P_{95}	.075	-.048	NS
P_{96}	.198	.238	S
P_{97}	-.155	-.187	S
P_{98}	.136	.174	S
P_{t1}	.048	-.047	NS
P_{t2}	.010	-.010	NS
P_{t3}	-.009	-.037	NS
P_{t4}	-.082	-.012	NS
P_{t5}	.184	.131	S
P_{t6}	.240	.235	S
P_{t7}	-.011	-.034	NS
P_{t8}	.031	.109	S
P_{t9}	.288	.328	S
P_{y1}	.166	.225	S
P_{y2}	-.058	-.061	NS
P_{y3}	.074	.058	NS

P_{y4}	.008	-.138	S
P_{y5}	.248	.371	S
P_{y6}	-.105	-.290	S
P_{y7}	.291	.395	S
P_{y8}	-.074	-.102	S
P_{y9}	.000	-.153	S
P_{yt}	-.078	-.096	S

S= Significant Path; rij significant at P,0.05 and |Pji|≥0.05;

NS= Non-Significant Path

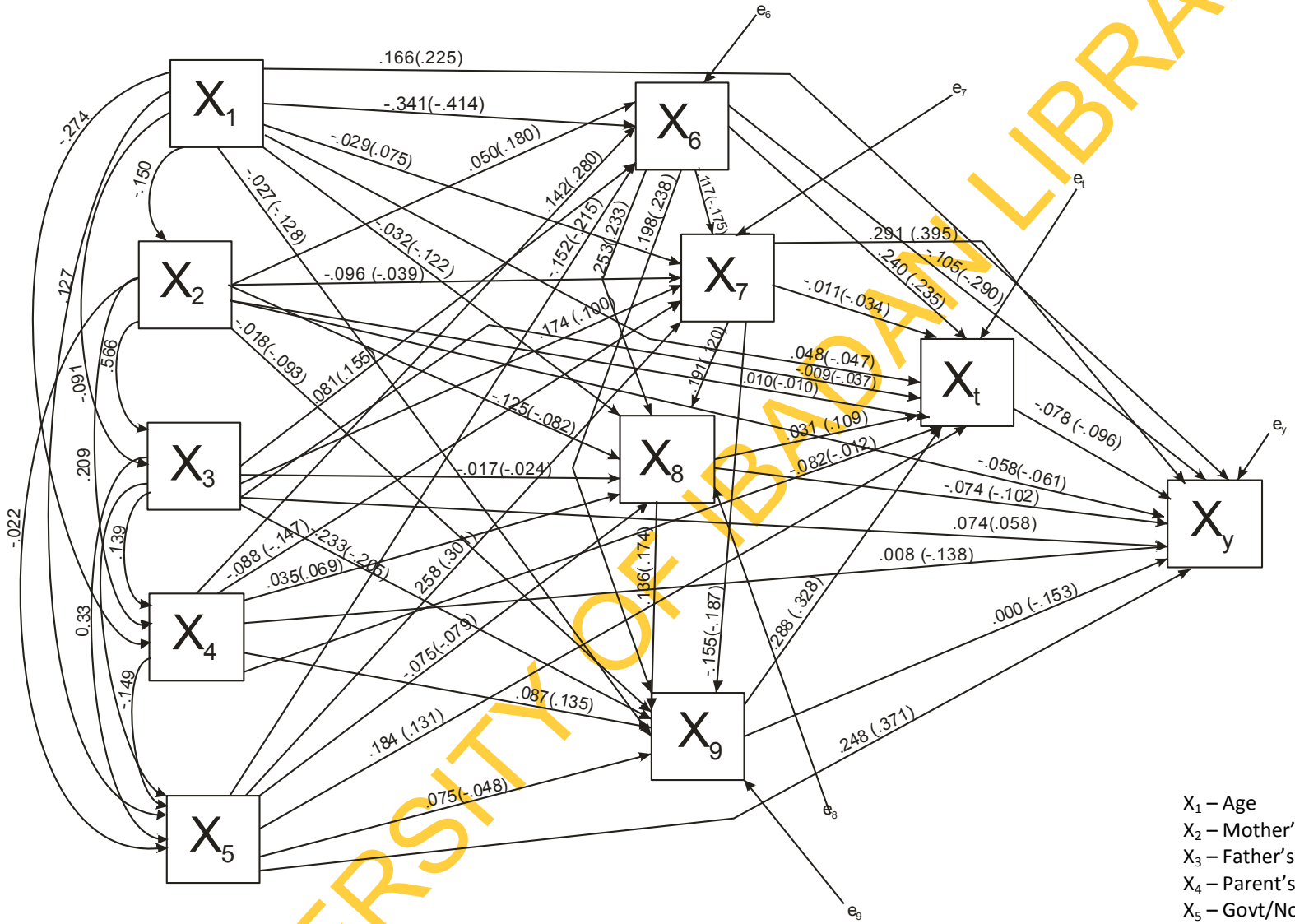


Figure 4.1: Hypothesized Recursive Path Model for the eleven Variables

X_1 – Age
X_2 – Mother's Level of Education
X_3 – Father's Education
X_4 – Parent's Socio economic status
X_5 – Govt/Non Govt Involvement
X_6 – Parental Support/ involvement
X_7 – Role Model
X_8 – Feminine Inclination
X_9 – School Environment
X_t – Socio Cultural Value
X_y – Enrolment

Table 4.4: Significant Path and their Path Coefficients (Beta Weights) on Enrolment

Path Ways	Beta Coefficients (Beta Weight value)	Zero Order Correlation (r value)	Remark
P_{61}	-.341	-.414	S
P_{62}	.050	.180	S
P_{63}	.081	.155	S
P_{64}	.142	.280	S
P_{65}	-.152	-.215	S
P_{73}	.174	.100	S
P_{74}	-.088	-.147	S
P_{75}	.258	.301	S
P_{76}	-.117	-.175	S
P_{81}	-.032	-.122	S
P_{82}	-.125	-.082	S
P_{86}	.253	.233	S
P_{87}	.191	.120	S
P_{91}	-.027	-.128	S
P_{92}	-.018	-.093	S
P_{93}	-.233	-.205	S
P_{94}	.087	.135	S
P_{96}	.198	.238	S
P_{97}	-.155	-.187	S
P_{98}	.136	.174	S
P_{t5}	.184	.131	S
P_{t6}	.240	.235	S
P_{t8}	.031	.109	S
P_{t9}	.288	.328	S
P_{y1}	.166	.225	S
P_{y5}	.248	.371	S
P_{y6}	-.105	-.290	S
P_{y7}	.291	.395	S
P_{y8}	-.074	-.102	S
P_{yt}	-.078	-.096	S

S= Significant Path; r_{ij} significant at P, 0.05 and $|P_{ji}| \geq 0.05$

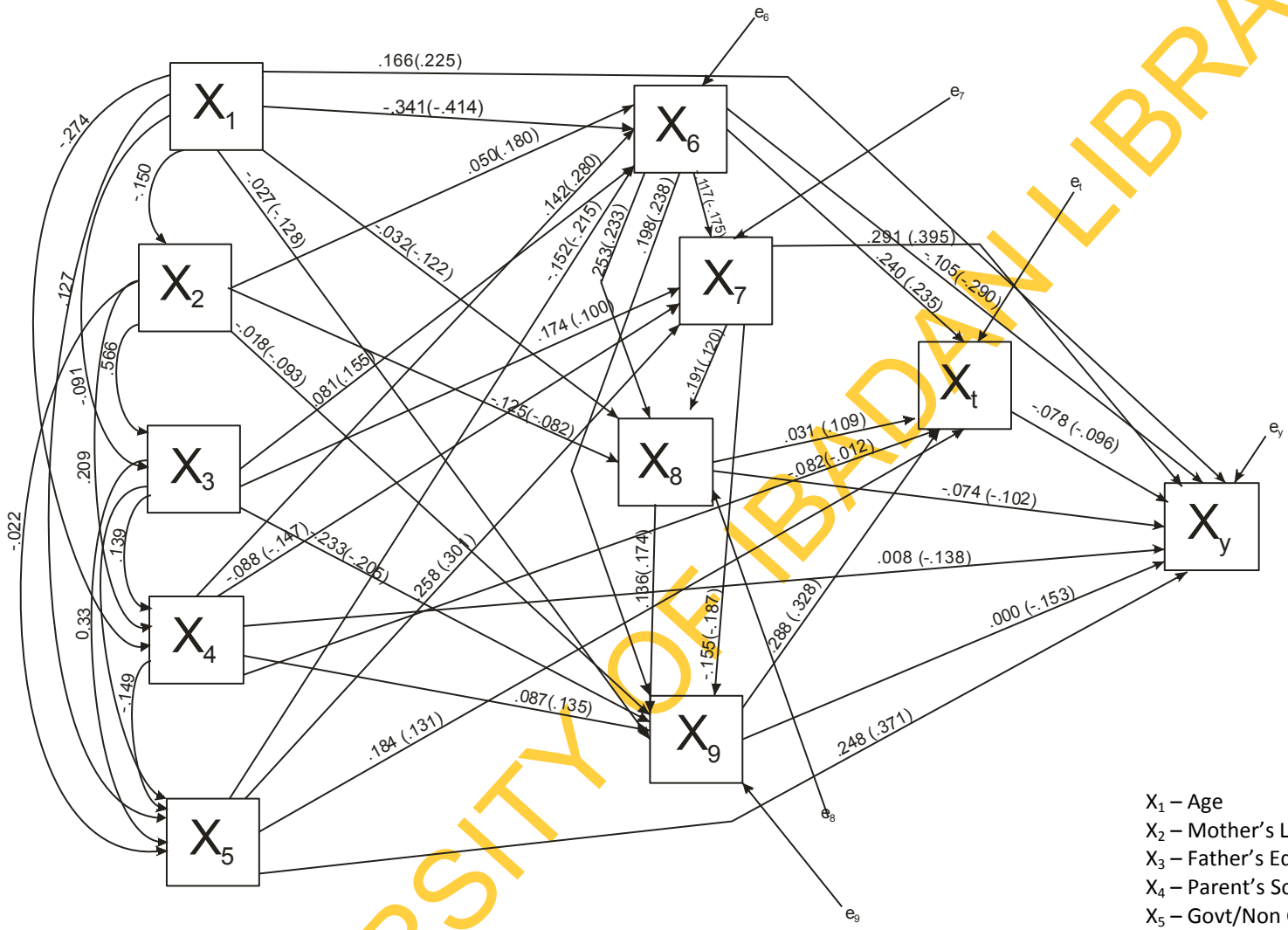


Figure 4.2: Validated Recursive path Model for the eleven Variables

X_1 – Age
X_2 – Mother's Level of Education
X_3 – Father's Education
X_4 – Parent's Socio economic status
X_5 – Govt/Non Govt Involvement
X_6 – Parental Support/ Involvement
X_7 – Role Model
X_8 – Feminine Inclination
X_9 – School Environment
X_t – Socio Cultural Value
X_y – Enrolment

The hypothesized path model on female students' enrolment adopted for this study is shown in Figure 4.1 and reproduced as Figure 4.2 with path coefficients and the zero-order correlation coefficients (in brackets). The paths were subjected to trimming exercise carried out based on the data analysed and result obtained (as shown in Table 4.3) to produce the most meaningful path model for female students enrolment as presented (in Figure 4.1). At the end of the trimming, the variables of no significant effects were removed. The variables of impacts are retained to produce a path model as in (Figure 4.2) to explain female student's enrolment in University. This study used two types of criteria to determine whether a path was significant or not. The usual three types of criteria that may be used in path trimming are:

i. Statistical Significance
ii. Meaningfulness
iii. Statistical significance and meaningfulness

This study used the third option of statistical significance and meaningfulness. These two criteria were applied to avoid the uncomfortable situation where some minute path coefficients were found to be significant because the analysis was based fairly on large sample (Kerlinger & Pedhazur, 1973, Cited in Utoh, 2006).

In this study, for meaningfulness, the absolute value of a path coefficient was taken to be at least 0.05 as recommended by land (1969) cited by Adeleke (2007). For the significance criterion, the choice of the investigation was zero order correlation significant at 0.05 alpha level. Based on the two criteria selected for this study, the term 'significance', therefore, connotes statistical significance as well as meaningfulness. The paths that were found not to be significant or meaningful were dropped after trimming to produce the following variables of impacts as value as in Table 4.4.

i. P_{61} (β = -0.341; rij significant at $P < 0.05$ and $/Pji/ \geq 0.05$), showing that age has significant causal on parental support.
ii. P_{62} ($\beta = 0.050$; rij significant at $P < 0.05$ and $/Pji/ \geq 0.05$), indicating that mother's level of education has a significant causal effect on parental support.
iii. P_{63} ($\beta = 0.081$; rij significant at $P < 0.05$ and $/Pji/ \geq 0.05$) which implies that father's level of education exerts significant causal influence on parental support.

iv. P_{64} ($\beta = 0.142$; rij significant at $P < 0.05$ and $/Pji/ \geq 0.05$), it shows that parent's socio economic status has a great significant causal effects on parental support.

v. P_{65} ($\beta = -0.152$; rij significant at $P < 0.05$ and $/Pji/ \geq 0.05$), which implies that Government and non-government involvement exerts significant causal effect on parental support.

vi. P_{73} ($\beta = 0.174$; rij significant at $P < 0.05$ and $/Pji/ \geq 0.05$) which shows that father's education has significant causal effects on role model.

vii. P_{74} ($\beta = -0.088$; rij significant at $P < 0.05$ and $/Pji/ \geq 0.05$) indicating that parent socio economic status exerts significant influence on role model.

viii. P_{75} ($\beta = 0.258$; rij significant at $P < 0.05$ and $/Pji/ \geq 0.05$) reveals that government and non-government involvement has a significant causal effect on role model.

ix. P_{76} ($\beta = -0.117$; rij significant at $P < 0.05$ and $/Pji/ \geq 0.05$) indicating that parental support has significant causal influence on role model.

x. P_{81} ($\beta = -0.032$; rij significant at $P < 0.05$ and $/Pji/ \geq 0.05$) which connotes that age has a significant causal effect on feminine inclination.

xi. P_{82} ($\beta = -0.125$; rij significant at $P < 0.05$ and $/Pji/ \geq 0.05$) revealing that mother's level of education exerts causal influence of feminine inclination.

xii. P_{86} ($\beta = 0.253$; rij significant at $P < 0.05$ and $/Pji/ \geq 0.05$) which implies that parental support has significant causal effects on feminine inclination.

xiii. P_{87} ($\beta = 0.191$; rij significant at $P < 0.05$ and $/Pji/ \geq 0.05$) which connotes that role model/mentorship has significant causal influence on feminine inclination.

xiv. P_{91} ($\beta = -0.27$; rij significant at $P < 0.05$ and $/Pji/ \geq 0.05$) revealing that age has causal significant effects on school environment.

xv. P_{92} ($\beta = -0.18$; rij significant at $P < 0.05$ and $/Pji/ \geq 0.05$) indicating that mother's level of education has significant causal effects on school environment.

xvi. P_{93} ($\beta = -0.233$; rij significant at $P < 0.05$ and $/Pji/ \geq 0.05$) which connotes that father's education has significant causal effects on school environment.

xvii. P_{94} ($\beta = 0.087$; rij significant at $P < 0.05$ and $/Pji/ \geq 0.05$) revealing that parents' socio economic status has significant causal influence on school environment.

xviii. P_{96} ($\beta = 0.198$; rij significant at $P < 0.05$ and $/Pji/ \geq 0.05$) indicating that parental support has significant causal effects on school environment.

xix. P_{97} (β = -0.155; rij significant at P < 0.05 and /Pji/ ≥ 0.05) which connotes that role model/mentorship has significant influence on school environment.

xx. P_{98} (β = 0.135; rij significant at P < 0.05 and /Pji/ ≥ 0.05) which shows that feminine inclination has significant causal influence on school environment.

xxi. P_{t5} (β = 0.185; rij significant at P < 0.05 and /Pji/ ≥ 0.05) which reveals that government and non-governmental involvement has significant effects on traditional and cultural value.

xxii. P_{t6} (β = 0.240; rij significant at P < 0.05 and /Pji/ ≥ 0.05) which reveals that parental support has great significant causal effect on traditional and cultural value.

xxiii. P_{t8} (β = 0.31; rij significant at P < 0.05 and /Pji/ ≥ 0.05) indicating that feminine inclination has significant effect on traditional and cultural value.

xxiv. P_{t9} (β = 0.288; rij significant at P < 0.05 and /Pji/ ≥ 0.05) which connotes that school involvement has significant causal influence on traditional and cultural value.

xxv. P_{y1} (β = 0.166; rij significant at P < 0.05 and /Pji/ ≥ 0.05) which reveals that Age has significant effect on enrolment.

xxvi. P_{y4} (β = 0.008; rij significant at P < 0.05 and /Pji/ ≥ 0.05) which shows that parent's socio economic status has a significant causal influence on enrolment.

xxvii. P_{y5} (β = 0.248; rij significant at P < 0.05 and /Pji/ ≥ 0.05) revealing that government and non-governmental involvement has a significant effects on enrolment.

xxviii. P_{y6} (β = -0.105; rij significant at P < 0.05 and /Pji/ ≥ 0.05) which shows that parental support has significant causal influence on enrolment.

xxix. P_{y7} (β = 0.291; rij significant at P < 0.05 and /Pji/ ≥ 0.05) which indicate that role model/mentorship has significant causal effect on enrolment.

xxx. P_{y8} (β = -0.074; rij significant at P < 0.05 and /Pji/ ≥ 0.05) which connotes that feminine inclination has significant effect on enrolment.

xxxi. P_{y9} (β = -000; rij significant at P < 0.05 and /Pji/ ≥ 0.05) which reveals that school environment has significant causal influence on enrolment.

xxxii. P_{yt} (β = -0.078; rij significant at P < 0.05 and /Pji/ ≥ 0.05) which implies that traditional and cultural value has significant influence on enrolment.

Research Question Three:

What is the most meaningful causal model for providing an explanation of female students' completion in university education?

Table 4.5: Extract of Path Coefficients (Beta Weights) and Zero order Correlations among variables in the Hypothesized Model on Completion

Path Ways	Beta Coefficients (Beta Weight value)	Zero Order Correlation (r value)	Remark
P_{61}	-.341	-.414	S
P_{62}	.050	.180	S
P_{63}	.081	.155	S
P_{64}	.142	.280	S
P_{65}	-.152	-.215	S
P_{71}	-.029	.075	NS
P_{72}	-.096	-.039	NS
P_{73}	.174	.100	S
P_{74}	-.088	-.147	S
P_{75}	.258	.301	S
P_{76}	-.117	-.175	S
P_{81}	-.032	-.122	S
P_{82}	-.125	-.082	S
P_{83}	-.017	-.024	NS
P_{84}	.035	.069	NS
P_{85}	-.075	-.079	NS
P_{86}	.253	.233	S
P_{87}	.191	.120	S
P_{91}	-.027	-.128	S
P_{92}	-.018	-.093	S
P_{93}	-.233	-.205	S
P_{94}	.087	.135	S
P_{95}	.075	-.048	NS
P_{96}	.198	.238	S
P_{97}	-.155	-.187	S
P_{98}	.136	.174	S
P_{t1}	.048	-.047	NS
P_{t2}	.010	-.010	NS
P_{t3}	-.009	-.037	NS
P_{t4}	-.082	-.012	NS
P_{t5}	.184	.131	S

P_{t6}	.240	.235	S
P_{t7}	-.011	-.034	NS
P_{t8}	.031	.109	S
P_{t9}	.288	.328	S
P_{y1}	.166	.225	S
P_{y2}	-.058	-.061	NS
P_{y3}	.074	.058	NS
P_{y5}	.248	.371	S
P_{y6}	-.105	-.290	S
P_{y7}	.291	.395	S
P_{y8}	-.074	-.102	S
P_{y9}	.000	-.153	S
P_{yt}	-.078	-.096	S
P_{z1}	-.191	-.301	S
P_{z2}	.051	.098	S
P_{z3}	-.010	.064	NS
P_{z4}	.007	.138	S
P_{z5}	-.110	-.116	S
P_{z6}	.234	.378	S
P_{z7}	-.007	-.035	NS
P_{z8}	.111	.202	S
P_{z9}	.025	.166	S
P_{zt}	.187	.242	S
P_{zy}	.156	-.036	NS

S= Significant Path; rij significant at P,0.05 and |Pji|≥0.05;
NS= Non-Significant Path

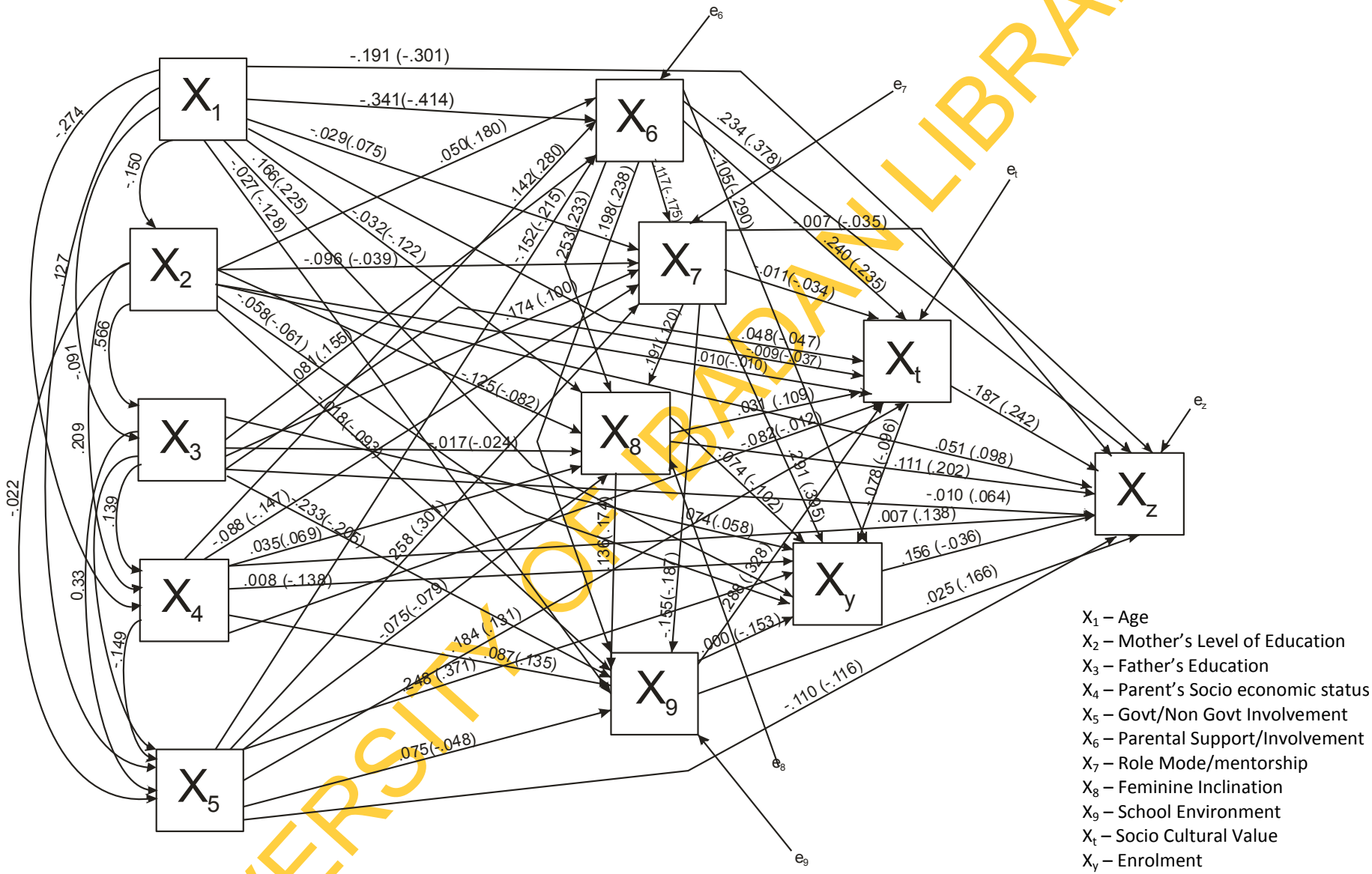


Figure 4.3: Hypothesized Recursive Path Model of Nine Variables

Table 4.6: Significant of Path Coefficients (Beta Weights) and Zero order Correlations among variables in the Hypothesized model on Completion

Path Ways	Beta Coefficients (Beta Weight value)	Zero Order Correlation (r value)	Remark
P_{61}	-.341	-.414	S
P_{62}	.050	.180	S
P_{63}	.081	.155	S
P_{64}	.142	.280	S
P_{65}	-.152	-.215	S
P_{73}	.174	.100	S
P_{74}	-.088	-.147	S
P_{75}	.258	.301	S
P_{76}	-.117	-.175	S
P_{81}	-.032	-.122	S
P_{82}	-.125	-.082	S
P_{86}	.253	.233	S
P_{87}	.191	.120	S
P_{91}	-.027	-.128	S
P_{92}	-.018	-.093	S
P_{93}	-.233	-.205	S
P_{94}	.087	.135	S
P_{96}	.198	.238	S
P_{97}	-.155	-.187	S
P_{98}	.136	.174	S
P_{t5}	.184	.131	S
P_{t6}	.240	.235	S
P_{t8}	.031	.109	S
P_{t9}	.288	.328	S
P_{y1}	.166	.225	S
P_{y4}	.008	-.138	S
P_{y5}	.248	.371	S
P_{y6}	-.105	-.290	S
P_{y7}	.291	.395	S
P_{y8}	-.074	-.102	S
P_{y9}	.000	-.153	S
P_{yt}	-.078	-.096	S
P_{z1}	-.191	-.301	S
P_{z2}	.051	.098	S
P_{z4}	.007	.138	S
P_{z5}	-.110	-.116	S
P_{z6}	.234	.378	S
P_{z8}	.111	.202	S
P_{z9}	.025	.166	S
P_{zt}	.187	.242	S

S= Significant Path; rij significant at P,0.05 and |Pji|≥0.05;

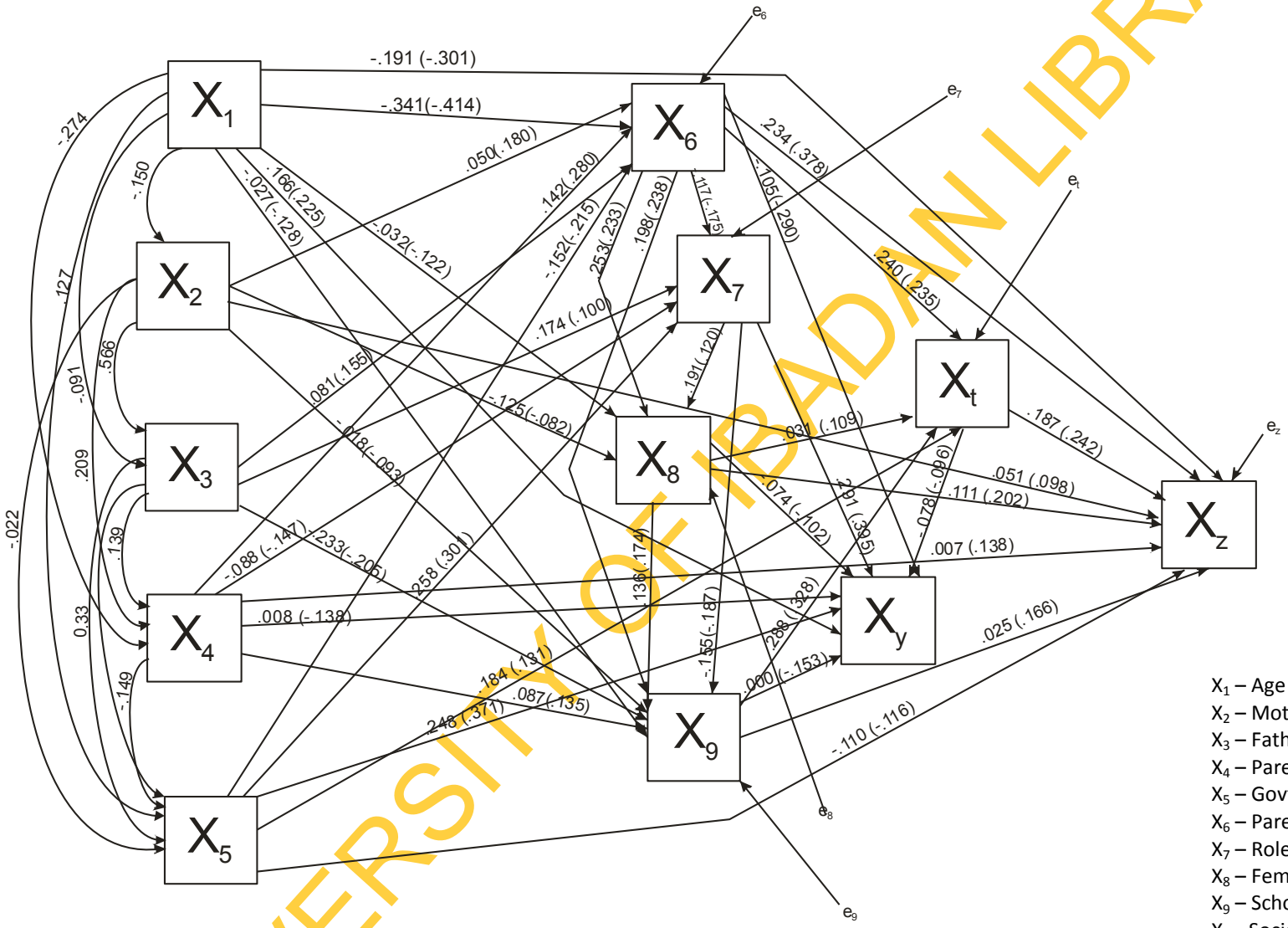


Figure 4.4: Validated Recursive path Model for the Twelve Variables

X_1 – Age
X_2 – Mother's Level of Education
X_3 – Father's Education
X_4 – Parent's Socio economic status
X_5 – Govt/Non Govt Involvement
X_6 – Parental Support Involvement
X_7 – Role Model/Mentorship
X_8 – Feminine Inclination
X_9 – School Environment
X_t – Socio Cultural Value
X_y – Enrolment
X_z– completion

The hypothesized path model on female Student's University Completion used in this study is shown in Figure 4.3 and reproduced as Figure 4.4 with the path coefficients and the zero-order correlation coefficients (in brackets). The paths were subjected to trimming exercise carried out based on the data analysed and results obtained (as shown in Table 4.5) to produce the most meaningful path model for female student's completion presented in Figure 4.4. At the end of the trimming, the variables of no significant effects were removed. The variables of impacts were retained to produce a path model (as in Figure 4.4) to explain the female student's university completion. This study used two types of criteria to determine whether a path was significant or not. The usual three types of criteria that may be used in path trimming are;

i. Statistical Significance
ii. Meaningfulness
iii. Statistical Significance

The study used the third option which was statistical significance and meaningfulness. These two criteria were applied to avoid the uncomfortable situation where some minute path coefficients were found to be significant because the analysis was based on fairly large sample (Kerlinger & Pedhauzer, 1973, cited in Utoh, 2006; Ogunsola, 2010).

In this study, for meaningfulness, the absolute value of a path coefficient was taken to be at least 0.05 as recommended by Land (2006), cited by Adeleke (2007). For the significance criterion, the choice of the investigator was zero order correlation at 0.05 alpha level based on the two criteria selected, for this study the term 'significance', therefore, connotes statistical significance as well as meaningfulness. The paths that were found not be significant or meaningful were dropped after trimming to produce the following variables of impacts as in Table 4.7.

1. $P_{61}(\beta = -0.341$; rij significant at $P < 0.05$ and $/Pji/ \geq 0.05)$, showing that age has significant causal effect on parental support.
2. $P_{61}(\beta = -0.050$; rij significant at $P < 0.05$ and $/Pji/ \geq 0.05)$ indicating that mother's level of education has a significant causal effect on parental support.
3. P_{63} $(\beta = 0.081$; rij significant at $P < 0.05$ and $/Pji/ \geq 0.05)$ which implies that father's level of education exerts significant causal influence on parental support.

4. P_{64} ($\beta = 0.142$; rij significant at $P < 0.05$ and $/Pji/ \geq 0.05$), it shows that parent's socio economic status has a great significant causal effects on parental support.
5. P_{65} ($\beta = -0.152$; rij significant at $P < 0.05$ and $/Pji/ \geq 0.05$), which implies that Government and non-government involvement exerts significant causal effect on parental support.
6. P_{73} ($\beta = 0.174$; rij significant at $P < 0.05$ and $/Pji/ \geq 0.05$) which shows that father's education has significant causal effects on role model.
7. P_{74} ($\beta = -0.088$; rij significant at $P < 0.05$ and $/Pji/ \geq 0.05$) indicating that parent socio economic status exerts significant influence on role model.
8. P_{75} ($\beta = 0.258$; rij significant at $P < 0.05$ and $/Pji/ \geq 0.05$) reveals that government and non-government involvement has a significant causal effect on role model.
9. P_{76} ($\beta = -0.117$; rij significant at $P < 0.05$ and $/Pji/ \geq 0.05$) indicating that parental support has significant causal influence on role model.
10. P_{81} ($\beta = -0.032$; rij significant at $P < 0.05$ and $/Pji/ \geq 0.05$) which connotes that age has a significant causal effect on feminine inclination.
11. P_{82} ($\beta = -0.125$; rij significant at $P < 0.05$ and $/Pji/ \geq 0.05$) revealing that mother's level of education exerts causal influence of feminine inclination.
12. P_{86} ($\beta = 0.253$; rij significant at $P < 0.05$ and $/Pji/ \geq 0.05$) which implies that parental support has significant causal effects on feminine inclination.
13. P_{87} ($\beta = 0.191$; rij significant at $P < 0.05$ and $/Pji/ \geq 0.05$) which connotes that role model/mentorship has significant causal influence on feminine inclination.
14. P_{91} ($\beta = -0.27$; rij significant at $P < 0.05$ and $/Pji/ \geq 0.05$) revealing that age has causal significant effects on school environment.
15. P_{92} ($\beta = -0.18$; rij significant at $P < 0.05$ and $/Pji/ \geq 0.05$) indicating that mother's level of education has significant causal effects on school environment.
16. P_{93} ($\beta = -0.233$; rij significant at $P < 0.05$ and $/Pji/ \geq 0.05$) which connotes that fathers' education has significant causal effects on school environment.
17. P_{94} ($\beta = 0.087$; rij significant at $P < 0.05$ and $/Pji/ \geq 0.05$) revealing that parents' socio economic status has significant causal influence on school environment.
18. P_{96} ($\beta = 0.198$; rij significant at $P < 0.05$ and $/Pji/ \geq 0.05$) indicating that parental support has significant causal effects on school environment.

19. P_{97} (β = -0.155; rij significant at $P < 0.05$ and $/Pji/ \geq 0.05$) which connotes that role model has significant influence on school environment.
20. P_{98} (β = 0.135; rij significant at $P < 0.05$ and $/Pji/ \geq 0.05$) which shows that feminine inclination has significant causal influence on school environment.
21. P_{t5} (β = 0.185; rij significant at $P < 0.05$ and $/Pji/ \geq 0.05$) which reveals that government and non-governmental involvement has significant effects on traditional and cultural value.
22. P_{t6} (β = 0.240; rij significant at $P < 0.05$ and $/Pji/ \geq 0.05$) which reveals that parental support has great significant causal effect on traditional and cultural value.
23. P_{t8} (β = 0.31; rij significant at $P < 0.05$ and $/Pji/ \geq 0.05$) indicating that feminine inclination has significant effect on traditional and cultural value.
24. P_{t9} (β = 0.288; rij significant at $P < 0.05$ and $/Pji/ \geq 0.05$) which connotes that school involvement has significant causal influence on traditional and cultural value.
25. P_{y1} (β = 0.166; rij significant at $P < 0.05$ and $/Pji/ \geq 0.05$) which reveals that Age has significant effect on enrolment.
26. P_{y4} (β = 0.008; rij significant at $P < 0.05$ and $/Pji/ \geq 0.05$) which shows that parent's socio economic status has a significant causal influence on enrolment.
27. P_{y5} (β = 0.248; rij significant at $P < 0.05$ and $/Pji/ \geq 0.05$) revealing that government and non-governmental involvement has a significant effects on enrolment.
28. P_{y6} (β = -0.105; rij significant at $P < 0.05$ and $/Pji/ \geq 0.05$) which shows that parental support has significant causal influence on enrolment.
29. P_{y7} (β = 0.291; rij significant at $P < 0.05$ and $/Pji/ \geq 0.05$) which indicate that role model/mentorship has significant causal effect on enrolment.
30. P_{y8} (β = -0.074; rij significant at $P < 0.05$ and $/Pji/ \geq 0.05$) which connotes that feminine inclination has significant effect on enrolment.
31. P_{y9} (β = -000; rij significant at $P < 0.05$ and $/Pji/ \geq 0.05$) which reveals that school environment has significant causal influence on enrolment.
32. P_{yt} (β = -0.078; rij significant at $P < 0.05$ and $/Pji/ \geq 0.05$) which implies that socio cultural value has significant influence on enrolment.
33. P_{zt} (β = -0.191; rij significant at $P < 0.05$ and $/Pji/ \geq 0.05$), showing that traditional and cultural value has significant causal effects on completion.

34. P_{z2} ($\beta = 0.051$; rij significant at $P < 0.05$ and $/Pji/ \geq 0.05$) showing that mother's level of education has significant causal influence on completion

35. P_{z4} ($\beta = 0.007$; rij significant at $P < 0.05$ and $/Pji/ \geq 0.05$) revealing that parent's socio economic status has significant effect on completion.

36. P_{z5} ($\beta = -0.110$; rij significant at $P < 0.05$ and $/Pji/ \geq 0.05$) which connotes that government and non-governmental involvement has significant causal influence on complement.

37. P_{z6} ($\beta = 0.234$; rij significant at $P < 0.05$ and $/Pji/ \geq 0.05$) which reveals that parental support has significant causal effect on completion.

38. P_{z8} ($\beta = 0.111$; rij significant at $P < 0.05$ and $/Pji/ \geq 0.05$) showing that feminine inclination has significant causal effect on completion.

39. P_{z9} ($\beta = 0.25$; rij significant at $P < 0.05$ and $/Pji/ \geq 0.05$) revealing that school environment has significant causal influence on completion.

40. P_{zt} ($\beta = 0.187$; rij significant at $P < 0.05$ and $/Pji/ \geq 0.05$) indicating that socio cultural value has significant causal effects on completion.

Research Question Four:

Are there significant differences between the hypothesized models and the reproduced causal models in relation to female students' enrolment and completion in university education? In order to verify the efficacy of the new model, and to identify the differences, the original and the reproduced correlation coefficients were compared and the discrepancies were found to be minimal for all the 56 coefficients (<0.05).

Table 4.7: The Original and the Reproduced Correlation Matrix for the Twelve Variables in the Model

	X1	X2	X3	X4	X5	X6	X7	X8	X9	Xt	Xy	Xz
X1	1	-0.15	-0.091	-0.294	0.127	-0.417	0.077	-0.122	-0.302	-0.097	0.23	-0.315
X2	-0.15	1	.566	0.209	-0.022	0.18	-0.038	-0.083	-0.093	-0.009	-0.061	0.098
X3	-0.091	.566	1	0.139	0.033	0.155	0.151	-0.014	-0.211	-0.039	0.072	0.066
X4	-0.294	0.209	0.139	1	-0.149	0.287	-0.147	0.071	0.138	-0.01	-0.142	0.144
X5	0.127	-0.022	0.033	-0.149	1	-0.215	0.3	-0.079	-0.048	0.131	0.371	-0.117
X6	-0.414	0.180	0.155	0.280	-0.215	1	-0.176	0.311	-0.044	0.156	-0.29	0.366
X7	0.075	-0.039	0.100	-0.147	0.301	-0.175	1	0.119	-0.199	-0.038	0.399	-0.037
X8	-0.122	-0.082	-0.024	0.069	-0.079	0.233	0.120	1	0.188	0.131	-0.112	0.223
X9	-0.128	-0.093	-0.205	0.135	-0.048	0.238	-0.187	0.174	1	0.252	-0.143	0.123
Xt	-0.047	-0.010	-0.037	-0.012	0.131	0.235	-0.034	0.109	0.328	1	-0.096	0.234
Xy	0.225	-0.061	0.058	-0.138	0.371	-0.290	0.395	-0.102	-0.153	-0.096	1	-0.038
Xz	-0.301	0.098	0.064	0.138	-0.116	0.378	-0.035	0.202	0.166	0.242	-0.036	1

Below Diagonal – Zero Order Correlation

Above Diagonal – Reproduced Correlation

In Table 4.7 above,

X_1 – Age

X_2 – Mother's Level of Education

X_3 – Father's Education

X_4 – Parent's Socio Economic Status

X_5 – Govt/Non Govt Involvement

X_6 – Parental Support/ Involvement

X_7 – Role Model/Mentorship

X_8 – Feminine Inclination

X_9 – School Environment

X_t – Socio Cultural Value

X_y – Enrolment

X_z – Enrolment

The Table shows the zero-order correlation (obtained from computerization) and the reproduced correlation (obtained through a manual computation). The zero-order correlation is presented in the diagonal below while the reproduced correlation is presented in the diagonal above.

Discrepancies between original and reproduced correlation in the model is presented in Table 4.8 below.

Table 4.8: Discrepancies between original and Reproduced Correlation in the Model

Correlation	Zero order	Reproduced	Difference
r_{16}	-0.414	-0.417	0.003
r_{17}	0.075	0.077	-0.002
r_{18}	-0.122	-0.122	0.000
r_{19}	-0.128	-0.302	0.174
r_{1t}	-0.047	-0.097	0.050
r_{1y}	0.225	0.230	-0.005
r_{1z}	-0.301	-0.315	0.014
r_{26}	0.180	0.180	0.000
r_{27}	-0.039	-0.038	-0.001
r_{28}	-0.082	-0.083	0.001
r_{29}	-0.093	-0.093	0.000
r_{2t}	-0.010	-0.009	-0.001
r_{2y}	-0.061	-0.061	0.000
r_{2z}	0.098	0.098	0.000
r_{36}	0.155	0.155	0.000
r_{37}	0.100	0.151	-0.051
r_{38}	-0.024	-0.014	-0.010
r_{39}	-0.205	-0.211	0.006
r_{3t}	-0.037	-0.039	0.002
r_{3y}	0.058	0.072	-0.014
r_{3z}	0.064	0.066	-0.002
r_{46}	0.280	0.287	-0.007
r_{47}	-0.147	-0.147	0.000
r_{48}	0.069	0.071	-0.002
r_{49}	0.135	0.138	-0.003
r_{4t}	-0.012	-0.010	-0.002
r_{4y}	-0.138	-0.142	0.004
r_{4z}	0.138	0.144	-0.006
r_{56}	-0.215	-0.215	0.000
r_{57}	0.301	0.300	0.001
r_{58}	-0.079	-0.079	0.000
r_{59}	-0.048	-0.048	0.000
r_{5t}	0.131	0.131	0.000

r_{5y}	0.371	0.371	0.000
r_{5z}	-0.116	-0.117	0.001
r_{67}	-0.175	-0.176	0.001
r_{68}	0.233	0.311	-0.078
r_{69}	0.238	-0.044	0.282
r_{6t}	0.235	0.156	0.079
r_{6y}	-0.290	-0.290	0.000
r_{6z}	0.378	0.366	0.012
r_{78}	0.120	0.119	0.001
r_{79}	-0.187	-0.199	0.012
r_{7t}	-0.034	-0.038	0.004
r_{7y}	0.395	0.399	-0.004
r_{7z}	-0.035	-0.037	0.002
r_{89}	0.174	0.188	-0.014
r_{8t}	0.109	0.131	-0.022
r_{8y}	-0.102	-0.112	0.010
r_{8z}	0.202	0.223	-0.021
r_{9t}	0.328	0.252	0.076
r_{9y}	-0.153	-0.143	-0.010
r_{9z}	0.166	0.123	0.043
r_{ty}	-0.096	-0.096	0.000
r_{tz}	0.242	0.234	0.008
r_{yz}	-0.036	-0.038	0.002
Total Difference = 0.534 **Mean Difference = 0.010**			

Results from Table 4.8 shows that the pattern of the correlation in the observed data is consistent with the data in the new models; the total difference being 0.534 and the mean difference, 0.010. It holds that there is no significant difference between the zero order and reproduced correlation. This result shows that the correlated and the coefficients in the new models (Figures 4.2 and 4.4) can be taken to be the most meaningful causal models that can best explain Female students' enrolment and Female students' completion in tertiary institution in Southwest Nigeria. The models are therefore considered fit and adequate in explaining the causal effects of psychosocial factors on enrolment and completion of female students investigated by the researcher.

Research Question Five:

What proportion (in percentages) of the total effect of the personal, home and social factors is direct and indirect on the enrolment of female students in university?

Table 4.9 shows the decomposition of the total effects of psychosocial factors into direct and indirect effects according to Kerlinger and Pedhazur (1973)'s principle.

Table 4.9: Proportion of Total Effects of the Independent Variables that are Direct and Indirect on Enrolment

Criterion		Total Effect	%	Direct Effect	%	Indirect Effect	%
	V_1 -V_t	(A)		(B)		(C)	
X_y Adj. R^2= .285	V1	0.225	11.911	0.116	6.141	0.109	5.770
	V2	0.061	3.229	0.058	3.070	0.003	0.159
	V3	0.058	3.070	0.074	3.917	0.016	0.847
	V4	0.138	7.305	0.008	0.424	0.13	6.882
	V5	0.371	19.640	0.248	13.129	0.123	6.511
	V6	0.29	15.352	0.105	5.558	0.185	9.794
	V7	0.395	20.911	0.291	15.405	0.104	5.506
	V8	0.102	5.400	0.074	3.917	0.028	1.482
	V9	0.153	8.100	0	0.000	0.153	8.100
	Vt	0.096	5.082	0.078	4.129	0.018	0.953
	Total	1.889	100	1.052	55.691	0.837	44.309

Note: Total Effect = Original Correlation

Direct Effect = Path Coefficient

Indirect Effect = Total Effect – Direct Effect

In Table 4.9,

V_1 – Age

V_2 – Mother's Level of Education

V_3 – Father's Education

V_4 – Parent's Socio Economic Status

V_5 – Govt/Non Govt Involvement

V_6 – Parental Support/ involvement

V_7 – Role Model/Mentorship

V_8 – Feminine Inclination

V_9 – School Environment

V_t – Socio Cultural Value

Furthermore,

- Total Effect (TE) describes original correlation obtained from correlation matrix;
- Direct Effect (DE) describes the path coefficients obtained from regression analysis which gives the beta (β) weight; and
- Indirect Effect (IE) describes the difference between total effect and direct effect

The Table, therefore, presents total (direct and indirect) effects of the ten independent variables (V_1 - V_t) on the criterion variables which is Female Students' Enrolment. The percentage of total direct effect attributed to the ten independent variables is 55.69% while percentage of indirect effect is 44.31%. Generally, all the ten independent variables contributed a total of 28.5% (Adjusted R square= .287) to the total variance observed on female student enrolment.

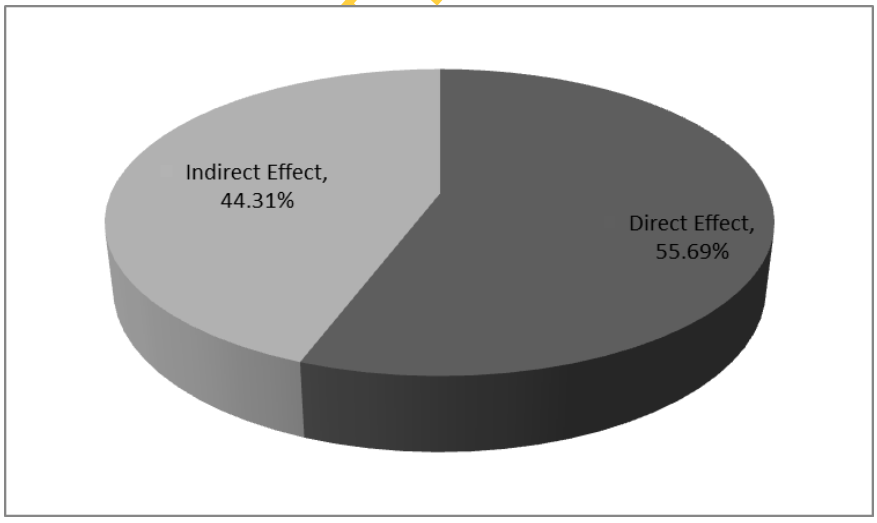


Figure 4.5: Proportions of Total Effects of the independent variables that are direct and indirect on Female students' completion

Figure 4.5 is the pictorial presentation through pie chart showing the proportions of total effects of the independent variables that are direct and indirect on female students' enrolment. It is observed from this pie chart that the proportion of the direct effects is greater that the indirect effects. This result implies in line with experts' assertion that it is better for factors to directly affect the dependent variable than for the effects to be indirect (Asher, 1976; Kerlinger & Pedhazur, 1973; Nile, 1922; Pedhazur, 1997).

Research Question Six:

What proportion (in percentages) of the total effects of the personal, home and social is direct and indirect on the completion of female students in university?

Table 4.10 shows the decomposition of the total effects of psychosocial factors into direct and indirect effects according to Kerlinger and Pedhazur (1973)'s principle.

Table 4.10: Proportion of Total Effects of the Independent Variables that are Direct and Indirect on Completion

Criterion		Total Effect	%	Direct Effect	%	Indirect Effect	%
	$V_1 - V_y$	(A)		(B)		(C)	
X_z Adj. R^2= .230	V1	0.301	16.948	0.191	10.755	0.11	6.194
	V2	0.098	5.518	0.051	2.872	0.047	2.646
	V3	0.064	3.604	0.01	0.563	0.054	3.041
	V4	0.138	7.770	0.007	0.394	0.131	7.376
	V5	0.116	6.532	0.11	6.194	0.006	0.338
	V6	0.378	21.284	0.234	13.176	0.144	8.108
	V7	0.035	1.971	0.007	0.394	0.028	1.577
	V8	0.202	11.374	0.111	6.250	0.091	5.124
	V9	0.166	9.347	0.025	1.408	0.141	7.939
	Vt	0.242	13.626	0.187	10.529	0.055	3.097
	Vy	0.036	2.027	0.156	8.784	0.12	6.757
Total		1.776	100	1.089	61.318	0.687	38.682

Note: Total Effect = Original Correlation

Direct Effect = Path Coefficient

Indirect Effect = Total Effect – Direct Effect

In Table 4.10,

V_1 – Age
V_2 – Mother's Level of Education
V_3 – Father's Education
V_4 – Parent's Socio Economic Status
V_5 – Govt/Non Govt Involvement
V_6 – Parental Support/Involvement
V_7 – Role Model/Mentorship
V_8 – Feminine Inclination
V_9 – School Environment
V_t – Socio Cultural Value
V_y – Enrolment

Furthermore,

- Total Effect (TE) describes original correlation obtained from correlation matrix;
- Direct Effect (DE) describes the path coefficients obtained from regression analysis which gives the beta (β) weight; and
- Indirect Effect (IE) describes the difference between total effect and direct effect

The Table, therefore, presents total (direct and indirect) effects of the eleven independent variables (V_1 – V_y) on the criterion variable which is Female Students' Completion. The percentage of total direct effect attributed to the eleven independent variables is 61.32% while indirect effect is 38.68%. Generally, all the eleven independent variables contributed a total of 23.0% (Adjusted R square= .230) to the total variance observed on female students' completion.

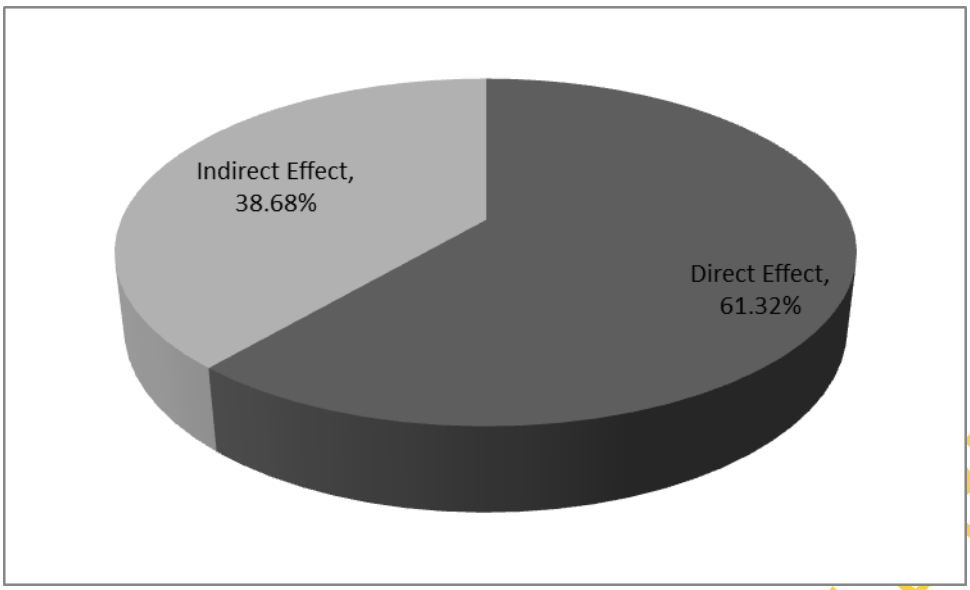


Figure 4.6: Proportions of Total Effects of the independent variables that are direct and indirect on Female students' completion

Figure 4.6 is the pictorial presentation through pie chart showing the proportions of total effects of the independent variables that are direct and indirect on female students' completion. It is observed from this pie chart that the proportion of the direct effect is greater that the indirect effect.

Research Question Seven:

What are the significant pathways indicating direct and indirect effect of the ten independent variables on female students' university enrolment?

Table 4.11: Significant Pathways indicating Direct and Indirect Effects of Independent Variables on Enrolment

Normal Equation	Direct Path	Indirect Paths
r_{1y}	P_{y1}	11:P_{61},P_{y6};P_{61},P_{6t},P_{yt};P_{81},P_{y8};$P_{81},P_{98},P_{y9},P_{yt}$;$P_{91}$, P_{y9};P_{91},P_{9t},P_{yt};P_{61},P_{76},P_{7};$P_{61},P_{76},P_{87},P_{y8}$;$P_{61},P_{76},P_{87}$, P_{t8},P_{yt};$P_{61},P_{76},P_{86},P_{96},P_{y9}$;$P_{61},P_{76},P_{86},P_{96},P_{t9}$, P_{yt};
r_{2y}	-	10:P_{82},P_{y8};$P_{82},P_{98},P_{y9},P_{yt}$;$P_{62}$, P_{y6};P_{92}, P_{y9};P_{62}, P_{6t} P_{yt};P_{62},P_{76},P_{7};$P_{62},P_{76},P_{87},P_{y8}$;$P_{62}$, P_{76}, P_{87}, P_{t8},P_{yt};$P_{62},P_{76},P_{86},P_{96},P_{y9}$;$P_{62},P_{76},P_{86},P_{96},P_{t9}$, P_{yt}
r_{3y}	-	9:P_{63}, P_{6y};P_{63},P_{6t}, P_{yt};P_{73},P_{y7};P_{93},P_{9y};P_{93},P_{9t},P_{yt};P_{63},P_{76},P_{7};$P_{63},P_{76},P_{87},P_{y8}$;$P_{63}$, P_{76}, P_{87}, P_{t8},P_{yt};$P_{63},P_{76},P_{86},P_{96},P_{y9}$;$P_{63},P_{76},P_{86},P_{96},P_{t9}$, P_{yt}
r_{4y}	P_{y4}	9:P_{94},P_{y9};P_{94},P_{t9},P_{yt};P_{t4}, P_{yt};P_{74},P_{y7};P_{64},P_{76},P_{7};$P_{64},P_{76},P_{87},P_{y8}$;$P_{64}$, P_{76}, P_{87}, P_{t8},P_{yt};$P_{64},P_{76},P_{86},P_{96},P_{y9}$;$P_{64},P_{76},P_{86},P_{96},P_{t9}$, P_{yt}
r_{5y}	P_{y5}	9:P_{t5}, P_{yt};P_{65},P_{y6};P_{65},P_{t6},P_{yt};P_{57},P_{y7};P_{65},P_{76},P_{7};$P_{65},P_{76},P_{87},P_{y8}$;$P_{65}$, P_{76}, P_{87}, P_{t8},P_{yt};$P_{65},P_{76},P_{86},P_{96},P_{y9}$;$P_{63},P_{76},P_{86},P_{96},P_{t9}$, P_{yt}
r_{6y}	P_{y6}	6:P_{t6},P_{yt};P_{76},P_{y7};P_{76},P_{87},P_{y8};$P_{76},P_{87},P_{98},P_{y9}$;$P_{76},P_{87},P_{98},P_{t9},P_{yt}$;$P_{76}$, P_{87},P_{t8},P_{yt}
r_{7y}	P_{y7}	3:P_{87}, P_{y8};P_{87}, P_{8t}, P_{ty};$P_{87},P_{98},P_{t9},P_{yt}$
r_{8y}	P_{y8}	2:P_{98},P_{y9};P_{98}, P_{t9}, P_{yt}
r_{9y}	P_{y9}	1:P_{t9}, P_{yt}
r_{ty}	P_{yt}	-

The Hypothesized model in Figure 4.2 presents paths which exert both direct and indirect effects on Completion. Table 4.11 presents both direct and indirect paths that indicate significant effects. Along with the hypothesized paths indicating causality of Enrolment among female students, there are 32 pathways through which all the predictors V_i (i=1 – t) caused variation on the dependent variable (Female enrolment) out of which 8 indicated direct effects while 60 indicated indirect effects.

Research Question Eight:

What are the significant pathways indicating direct and indirect effects of the eleven independent variables on female students' university completion?

Table 4.12: Significant Pathways indicating Direct and Indirect Effects of Independent Variables on Completion

Normal Equation	Direct Path	Indirect Paths
r_{1z}	-	17:$P_{61},P_{76},P_{87},P_{t8},P_{zt}$;$P_{61},P_{76},P_{87},P_{98},P_{z9}$;$P_{61},P_{76},P_{87},P_{98},P_{t9},P_{zt}$;$P_{61},P_{76},P_{87},P_{z8}$;$P_{81},P_{98},P_{y9},P_{yt},P_{zt}$;$P_{81},P_{t8},P_{zt}$;$P_{91},P_{z9}$;$P_{91},P_{t9},P_{zt}$;$P_{y1},P_{yt},P_{zt}$;$P_{61},P_{z6}$;$P_{61},P_{96},P_{t9},P_{z9}$;$P_{61},P_{96},P_{z9}$;$P_{61}P_{68},P_{z8}$;$P_{61},P_{68},P_{t8},P_{zt}$;$P_{61},P_{6y},P_{ty},P_{zy}$;$P_{62},P_{76},P_{97},P_{9z}$;$P_{62},P_{76},P_{97},P_{t9},P_{zt}$
r_{2z}	P_{2z}	17:P_{82},P_{z8};P_{82},P_{t8},P_{zt};$P_{82},P_{98},P_{t9},P_{zt}$;$P_{82},P_{98},P_{z9}$;$P_{62},P_{76},P_{87},P_{y8},P_{z8}$;$P_{62},P_{76},P_{87},P_{t8},P_{z8}$;$P_{62},P_{76},P_{86},P_{96},P_{z9}$;$P_{62},P_{76},P_{86},P_{96},P_{t9},P_{zt}$;$P_{62},P_{z6}$;$P_{92},P_{zt}$;$P_{92},P_{t9},P_{zt}$;$P_{62},P_{96},P_{t9},P_{z9}$;$P_{62},P_{96},P_{z9}$;$P_{62},P_{68},P_{z8}$;$P_{62},P_{68},P_{t8},P_{zt}$;$P_{62},P_{6y},P_{ty},P_{zy}$;$P_{62},P_{76},P_{97},P_{9z}$;$P_{62},P_{76},P_{97},P_{t9},P_{zt}$
r_{3z}	-	14:P_{63},P_{6z};P_{63},P_{6t},P_{zt};P_{93},P_{9z};$P_{93},P_{9t},P_{yt},P_{zt}$;$P_{63},P_{76},P_{87},P_{y8},P_{z8}$;$P_{63},P_{76},P_{87},P_{t8},P_{zt}$;$P_{63},P_{76},P_{86},P_{96},P_{z9}$;$P_{63},P_{76},P_{86},P_{96},P_{t9},P_{zt}$;$P_{63},P_{96},P_{t9},P_{z9}$;$P_{63},P_{96},P_{z9}$;$P_{63},P_{68},P_{z8}$;$P_{63},P_{68},P_{t8},P_{zt}$;$P_{63},P_{6y},P_{ty},P_{zy}$;$P_{63},P_{76},P_{97},P_{9z}$;$P_{63},P_{76},P_{97},P_{t9},P_{zt}$
r_{4z}	P_{z4}	14:P_{94},P_{z9};$P_{94},P_{t9},P_{yt},P_{zt}$;$P_{64},P_{76},P_{87},P_{y8},P_{z8}$;$P_{64},P_{76},P_{87},P_{t8},P_{zt}$;$P_{64},P_{76},P_{86},P_{96},P_{z9}$;$P_{64},P_{76},P_{86},P_{96},P_{t9},P_{zt}$;$P_{64},P_{96},P_{t9},P_{z9}$;$P_{64},P_{96},P_{z9}$;$P_{64},P_{68},P_{z8}$;$P_{64},P_{76},P_{97},P_{9z}$;$P_{64},P_{76},P_{97},P_{t9},P_{zt}$;$P_{64},P_{68},P_{t8},P_{zt}$;$P_{64},P_{6y},P_{ty},P_{zt}$;$P_{y4},P_{zt}$
r_{5z}	P_{z5}	9:P_{t5},P_{zt};P_{65},P_{z6};P_{65},P_{t6},P_{zt};$P_{65},P_{76},P_{87},P_{y8},P_{z8}$;$P_{65},P_{76},P_{87},P_{t8},P_{zt}$;$P_{65},P_{76},P_{86},P_{96},P_{z9}$;$P_{65},P_{76},P_{87},P_{y8},P_{z8}$;$P_{65},P_{76},P_{87},P_{t8},P_{zt}$;$P_{65},P_{76},P_{86},P_{96},P_{z9}$;$P_{65},P_{76},P_{86},P_{96},P_{t9},P_{zt}$;$P_{65},P_{96},P_{t9},P_{z9}$;$P_{65},P_{96},P_{z9}$;$P_{65},P_{68},P_{z8}$;$P_{65},P_{76},P_{97},P_{9z}$;$P_{65},P_{76},P_{97},P_{t9},P_{zt}$;$P_{65},P_{68},P_{t8},P_{zt}$;$P_{65},P_{6y},P_{ty},P_{zy}$
r_{6z}	P_{z6}	13:P_{t6},P_{yt};$P_{76},P_{87},P_{98},P_{z9}$;$P_{76},P_{87},P_{98},P_{t9},P_{zt}$;$P_{76},P_{87},P_{y8},P_{z8}$;$P_{76},P_{87},P_{t8},P_{zt}$;$P_{76},P_{86},P_{96},P_{z9}$;$P_{96},P_{t9},P_{z9}$;$P_{96},P_{z9}$;$P_{68},P_{z8}$;$P_{76},P_{97},P_{9z}$;$P_{76},P_{97},P_{t9},P_{zt}$;$P_{68},P_{t8},P_{zt}$;$P_{6y},P_{ty},P_{zy}$
r_{7z}	-	7:P_{87},P_{y8};P_{87},P_{8t},P_{zt};$P_{87},P_{98},P_{t9},P_{yt}$;$P_{87},P_{y8},P_{z8}$;$P_{87},P_{t8},P_{zt}$;$P_{97},P_{9z}$;$P_{97},P_{t9},P_{zt}$;$P_{y7},P_{ty},P_{zt}$
r_{8z}	P_{z8}	2:P_{98},P_{y9};P_{98},P_{t9},P_{zt}
r_{9z}	P_{z9}	1:P_{t9},P_{yt}
r_{tz}	P_{zt}	-
r_{yz}	-	-

The Hypothesized model in Figure 4.4 presents paths which exert both direct and indirect effects on Completion. Table 4.12 presents both direct and indirect paths that indicate significant effects. Along with the hypothesized paths indicating causality of Completion among female students, there are 40 pathways through which all the predictors V_i (i=1 – y) caused variation on the dependent variable (Female completion) out of which 7 indicated direct effects while 94 indicated indirect effects.

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4.3 Summary of Findings

In order to satisfy the main purpose of this study, eight research questions were raised and investigated at 0.05 alpha level of significance. The summary of findings are as follows:

1. The ten factors influencing female student's enrolment in university (Age, Mother's Education, Father Education, Parent's Socio Economic Status, Government and Non-governmental involvement, Parental Support, Role Model/Mentorship, Feminine Inclination, School Environment and Socio Cultural value) had joint significant contribution (at $P < 0.05$) with only 27 percent variant among them. This implies that all the tested factors of female students' enrolment are predictors of female students' enrolment in university education.
2. Direct and indirect paths significant at $P < 0.05$ and $/Pij/ \geq 0.05$ were observed to have significant causal effects on female students' enrolment in the university.
3. Direct and indirect paths significant at $P < 0.05$ and $/Pij/ \geq 0.05$ were observed to have significant path coefficients on female students' completion in university.
4. The pattern of correlation in the observed data is consistent with the new models thereby making the models to be considered fit and tenable in explaining the causal interactions between the independent variables and female students' enrolment and completion in university education. This implies that the linkages in the paths are real representing a true phenomenon that explains enrolment and completion of female students in University education in southwest Nigeria.
5. The percentage of direct effects (55.6%) and indirect effects(44.3%) are observed as causal effects of female students' enrolment in university.
6. The percentage of direct effects (67.3%) and indirect effects (38.6%) of variables on completion of female students in University education.

7. Sixty-two pathways, where 8 and 54 respectively exerts direct and indirect causative effects on female students' enrolment in southwest Nigeria university.
8. One hundred and three Pathways, where 7 and 96 exert direct and indirect causative effects on female students' completion of University education in southwest Nigeria.
9. The statistical/records on female students enrolment in the courses examined revealed low enrolment and graduation records showed that some female students do not complete the courses earlier enrolled for especially engineering.

CHAPTER FIVE

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the discussion of findings in this study, as well as the conclusion drawn from such findings. Attempts are also made to present appropriate recommendations, point out some of the limitations to the study, and make suggestions for future research works.

5.2 Discussions of Findings

Research Question One

Research question one states: How significantly have the personal, home and social factors (age, father's education, mother's education, parents' socio-economic status, parental support/involvement feminine inclination, socio-cultural value, role model/mentorship, school environment, government and non-governmental involvement) contribute to female students' enrolment in university education?

The first research question aimed at finding out how the eight indices (age, father's education, mother's education, parents' income/occupation, parental support/involvements feminine inclination, traditional/cultural value, role model, school environment, government and non-governmental involvement) had contributed as predictors of criterion variable (female students' university enrolment) investigated during the study.

Findings from the correlation coefficient of these female students' enrolment factors as shown in Tables 4.1 and 4.2 reveal that factors have contributed greatly as true determinants of female students' enrolment in university education. The fact that none of the ten indices of female students' enrolment is at variance with any within the group, in the finding further strengthens the fact that they are strong predictors of female enrolment in University. These findings are consistent with Mbughuni (1993) and Meena (1996) who affirm that mother's education and parental income are factors which lead to parental support for female education especially at the university level. According to them, the parental support would lead to the enrolment of a girl-child in University education. Researchers, such as Osokoya (2002) and Opaluwah (2007) also included feminine inclination and interest with role model as determinants of female enrolment in university education. It is believed that a family that cherishes good

education would give adequate support to a female child; however, this could also form the interest and the inclination of the girl child. This is an indication that family support is a strong determinant of female enrolment in universities.

Similarly, the plausible collaboration of governmental and non-governmental involvement will favour more enrolment of females in university education. FAWE (2001) reports show that parental and governmental support will go a long way in influencing the choice of females to enrol in those university courses. Consequently, the family and the society of the girl-child have a lot to play in forming her attitude toward having, or not having, university education, as well as her choice of career, after all the education achieved would not be needful in the kitchen. The report is in swift support with Meena (1996) that: societal values affect female education. Meena (1994) and Osokoya (2002), therefore, recommend that early marriages should be disallowed for females, to allow them concentrate on higher education. Elegbede (2012) linked the problems of school environment with social factors and said repetition of grade level and hostility of teachers can inhibit female students' enrolment in schools.

Research Question Two

Research question two states: What is the most meaningful causal model for providing an explanation of the enrolment of female students in the university?

The second research question sought to find the most meaningful causal model for providing an explanation of the enrolment of female students in University. Results from the validated recursive model (Figure 4.4) show significant path from age to parental support, parental support to feminine inclination, parents' income to role model, parents' level of education to school environment, school environment to traditional/cultural values and traditional/cultural values to enrolment of female in university. Moreover, findings from the validated recursive model also revealed that there is no significant path from age to role model from mother's education to role model, school environment to government and non-governmental involvement, age to role model, age to traditional and cultural value. Consequently, the variables that are not significant had no direct boosting effects on female enrolment. The implication of these findings are very appealing in the search for higher enrolment of female students in universities.

Effects of mother's education and parents' income on parental support

The causal effect of family background on parental support, as observed in this study (Figure 4.1), brings to light the common perceived influence of the family on individual and especially on female higher education in Nigeria. Previous findings by King and Hill (1998) observed that the level of education of a mother has direct and indirect influence on the type of education that she would be willing to offer her female children. Similarly, Meena (1996) and Kitetu (2001) observed that women with higher education, most times, allow their children to enjoy good and quality higher education. It can also be deduced from the findings that parents with good education have the tendency to have positive influence on their children's university enrolment which can invariably lead to even higher degrees and completion in school.

Findings from this work also indicate significant effects of parents' income on parental support for their female children. This further corroborates Williams' (1986) and Saani's (2001) attempts to link parental income with multiple intelligence and education. Other researchers, including the World Bank (2002) and Schultz (1998), hold that higher education enrolment attainment and completion is closely linked with how well parents' income can cater for the education needs of their wards.

Effects of Age, Family income on Cultural value

Findings from the study (Figure 4.2) also reveal significant paths from age to family background and traditional/cultural value. The implication of the findings highlights the causal effects of both age and family income on the traditional/cultural values orientation of the female students. Findings also reveal that parents with tolerant cultural value tend to produce children who would tolerate the rigours of university education.

Effects of Parental support, Government and non-governmental involvement on female students enrolment.

Evidence from this (Figure 4.2) study has shown that parental support for female education exerts great influence of the enrolment of females in higher education. The results corroborate previous research findings that had laid claim on the fact that, parental background, gender roles, poverty, lack of support, socio-economic status of the family, that is, the atmosphere of every family, directly or indirectly dictate the educational pattern of every child, especially the girl-

child (Stromguist, 1989; Alele, 1986; FAWE, 2005; Meena, 1994; Osokoya, 2009). The home environment, thus, has a major role to play in the life of any female adult.

Results of findings, therefore, suggest that parental support would enhance a fast growth in female enrolment at the university level. It also revealed that not so much has been done by the government in supporting higher enrolment of females in universities, particularly in southwest Nigeria. Also, non-governmental organizations have not been so much involved in supporting the enrolment of females at the university level.

Effect of Feminine inclination and Cultural and Traditional values on Female Enrolment in University

The revealed significant effect of feminine inclination on female enrolment in universities (as revealed in Figure 4.2) made public, once again, the noble role of social factors in female life. The culture and tradition of any society, often than not exert, great influence on the people in the society. The study outcome attests to previous studies that had indicated a link between feminine inclination and social beliefs (Stromquist, 1989) from time immemorial, cultural factors exert direct and indirect influences on young girls and adults choices in education, the society dictates what the child thinks right or wrong and could make choices available only in some areas. While the society has seen some subject as men reserve, some subjects have been tagged feminine (Meena, 1996; Omoruyi, 2011 & Osokoya, 2009). The result is also in agreement with the social feminists' school of thought, that says the patriarchal nature of the society is been reinforced by the school since the school is also an extension of the society and whatever social structure is the school directly or indirectly key into the structure thereby forming structure for the school.

Effect of Feminine Nature and Inclination on Enrolment

The results from Figure 4.2 further establish the predictive effect of feminine inclination on female enrolment in university has been earlier established by empirical evidences. In this study, feminine inclination is noted to be connected with female enrolment in university. This is in agreement with Omoruyi (2011) who affirms that female students enrol in courses where they have their interest and affinity. In other words, the choice of enrolling in any particular course depends on the choice the female students make themselves. These choices stem from home

factors that form their inclination and interest which will later promote their choice for enrolment.

Effect of school environment and Home factors enrolment

The revealed significant effects of school environment on enrolment (as revealed in Figure 4.2) made public, once again, the role of school factors on female students enrolment. The school environment exerts great influence on enrolment. The study outcome asserts previous results that indicate a link between the school environment, and home factors with enrolment factors (Odejide, 2003). There is some evidence suggesting that the competing forces of home and school differentially influence female university enrolment. Alao and Ajayi (1989) found that schools' inputs, such as school facilities, the quality of teachers, the curriculum, differential treatment of boys and girls were positively associated with students' achievement in school.

Research Question Three

Research question three states: What is the meaningful causal model for providing an explanation for female students' university completion?

The third research question attempted to find the most meaningful casual model for providing an explanation for the female students' university education completion. Results from the validated recursive model (Figure 4.4) provide significant paths from age to parental support, parental support to feminine inclination age to feminine inclination age to enrolment, mother's education to enrolment, government and non-governmental involvement to enrolment, school environment to enrolment, traditional and cultural values to enrolment and enrolment to completion. The implication of those findings are very important for consideration in working for higher enrolment of young females and females' completion in university. Findings from the validated recursive model that are different from the ones discussed under research question two are hereby discussed as below.

Effects of Age and Feminine inclination on completion.

Findings from the validated recursive model in Figure 4.4 reveal that age and feminine inclination exerted significant effects on female students' completion in university. This result underscores the importance of age at enrolment in university. As earlier asserted by Huebler (2008), this has predictive effects on female enrolment and the possible rate of completion. The outcome of this result is also confirmatory of previous studies, which assert that age at enrolment

in university bears a strong positive significance on the survival of the female students toward the completion of university education (*ibid*). By this result also, it becomes evident that age is not a predictor of completion but a strong predictor of enrolment in university, as a child of 13 years would not be admitted in school. The implications of the findings suggest the need for a level of maturity before considering enrolment at university. According to Osokoya (2003), age is believed to have effect on the level of maturity of the individual in a university since this factor would allow for the level of tolerance and perseverance that would be needed for survival in school.

The noted effect of feminine inclination was made evident in this study. Most students were in different fields of study because of their interest in those fields; the age had influence on courses students were inclined toward.

Effects of Parental support and feminine inclination on female University completion.

Findings from this study (Fig 4.4, Table 4.6) have established the significant effects of parental support on University completion in Southwest Nigeria. The result affirms the position of former researchers which hold that parental support is strongly correlated with university completion. Since the major home factor is the parental involvement in the university education of the female child. When money is provided, and clothing and materials are given, female children would concentrate more on their studies (Fapohunda, 2011).

The outcome of this study was expected because the findings corroborated previous assertions which hold that when parents are involved in their children's schooling, they get better grades, score higher in tests, and drop out less often, as well as have better attendance records, higher aspirations, and more positive attitude about higher education (Stromquist, 1989; Brown, 2006).

A thought-provoking aspect of these findings is the significant effect of feminine inclination on completion and this is expected judging from logical reasoning and it was found with William's (1986) study which asserts that female students apply for higher education due to their interest and self-esteem. This study is in agreement with the study by Klasen (2002), which found that there is significant difference in interest and self-esteem among males and females who get admitted into the university. It was found that female, students who are naturally inclined to higher education and have high self-esteem, do well and also complete their

university education. It appears, then, that feminine inclination exerts great influence on completion of female students in university education.

Effects of parents' education, parents' income, traditional and cultural values on completion

Results from the validated recursive model in Figure 4.4 and in Table 4.6 established significant effects of parents' education on the enrolment and completion of their girls' university education. By implication, female students whose parents have higher education are likely to have higher education themselves.

The outcome of this result is confirmatory of the earlier studies on female higher education. For example, studies have shown that a strong relationship exists between parents' education and that of their wards (Ruble & Martin, 1999). Results from the study of Rury (1984) show that parental education and family socio-economic position may have, to a large extent, influenced female educational attainment. The socio-economic position of the family of the female student measures the parental education and occupational status of the parents. It, therefore, becomes evident that family background has significant correlation with university completion. This corroborates the assertion of Behraman (1990).

There is also causal relationship between traditional/cultural values and completion of university education, as shown in Figure 4.4 and Table 4.6. This is also in line with previous research, such as Nisen and Muller (1993) that: area of residence and social class affect enrolment and attainment in education. Children living in urban areas are more likely to be under the influence of less traditional lifestyles which may influence enrolment and completion in university education. Family and cultural background serve as a source for the preferences that individuals have for their educational choices and attainment. In families with higher parental socio-economic status and advance societies, goals other than family building, such as having a career might be well emphasized (Schultz, 2002). The study is also in line with that of Patrinos (2008): children with less traditional lifestyle may be influenced to have smaller family size and prolonged education (Stronquist, 1989).

Effects of Enrolment on completion

By this result in Figure 4.4 again, it becomes evident that enrolment exerts great significant effect in completion. The outcome of the findings was expected and postulated in the recursive hypothesized model in Figure 4.3. Several studies have corroborated the predictive nature of students' enrolment on completion (Stronquist, 1989; 1995; Meena, 2002; 2009; Oshokoya, 2002). Logical reasoning also supports the relationship, as there cannot be a completion before its take-off. So, for there to be a completion of any student's university education, there must have been an enrolment into a university of choice. However, it might be true to say that not every student would end up graduating. This was the case of a 500 level, Mechanical Engineering female student at OAU, who just moved to the social sciences because she could no longer cope in Engineering. The fact that she had stayed for five years pursuing engineering did not mean she could complete it, she would have been the only female student in engineering for the past five years at OAU.

Research Question Four

Research question four states: Are there significant differences between the hypothesized models and the reproduced causal model in relation to female students' enrolment and completion in University education?

The forth research question attempted to find out if there was significant differences between the hypothesized models and the reproduced causal models in relation to female students enrolment and completion in University education. Result from Table 4.7, showing the pattern of correlation in the observed data, is consistent with the reproduced data, thereby indicating no significant difference. It follows than that the pattern of the correlation in the observed data is consistent with the new models, as presented in Table 4.8. The models are therefore considered plausible in explaining the causal interactive influence of home, personal and social factors on enrolment and completion of female students in university education in Southwest Nigeria that the researcher investigated from the findings. It is observed that the total difference (0.527) and mean difference (0.010) are minimal, approximately zero, and less than 0.05, showing that the correlated and path coefficients in the new model (Figures 4.2 & 4.4) can be taken to be the most meaningful causal models. These observations indicate empirical figures that make the new models to be considered fit and tenable in explaining the causal interactions

between the independent variables and female students' enrolment/completion in university education.

The implications of the observations stipulate that the linkages in the paths of the models are real; and that the paths traced true to the phenomena in explaining students' enrolment and completion in university. Furthermore, the variables that were found to have significant and insignificant effects of female students' enrolment and completion of university education (as discussed in Chapters 2 and 3) can be accepted to be backed up with authentic empirical data that were generated from the models. Consequently, the model is, hence, considered tenable, fit, acceptable and scientific in explaining the causal interactions between all the independent variables that were investigated in the study to be exerting significant effects on female students' enrolment and completion in university education in Southwest Nigeria.

Research Question Five

Research question 5 states: What proportion (in percentages) of the total effects of the personal, home and social factors is direct and indirect on the enrolment of female students in university?

Research question five sought to investigate what proportion (in percentage) of the total effects of the factors is direct and indirect on female students' enrolment. Findings (Table 4.9) show the direct (55.69%) and indirect (44.31%) causal effects of the personal, home and social variables (age, mother's education, father's education, parents' income, government and non-government involvement, parental support, role model, feminine inclination school environment, traditional cultural beliefs) on enrolment of females. Results from the study also show that all the nine variables contributed (R square= .287) to the total variance on female enrolment in university. It is observed that in the model, the direct effects are greater in proportion than the indirect effects, an indication that most variables are true predictors of female enrolment. Since the magnitude of the beta weights were considered to be directly proportional to the degrees of effects of the variables, the variables have causal effects on female enrolment in University. The outcome of this result is confirmatory of the earlier studies, and the fact that these psychosocial variables (Meena, 1994; Osokoya, 2002; 2008; FAWE, 2005) personal factors (Stromquist, 1989) and social factors (Ajzen & Fishbein, 1980; Eagly & Chaiken, 1998; Eccles, 1993; Nelson, 2001; Taylor, 2001) are predictors of female students' enrolment in university.

Research Question Six

Research question six states that: What proportion (in parentages) of the total effect of the personal, home and social factors is direct and indirect on the completion of female students in university.

Research question six sought to investigate what proportion (in percentage) of the total effect of the ten variables is direct and indirect on female university completion. Findings (Table 4.10) show the direct (61.32%) and indirect (38.68%) causal effects of the personal, home and social variables (age, mother's education, father's education, parents' income, government and non-governmental involvement, parental support, role model, feminine inclination, school environment, traditional cultural beliefs and enrolment) on female student's completion of university education. Results from the study also show that all the eleven variables contributed a total of adjusted (R square=0.230) to the total variance of the female students' completion of university education. It is noteworthy that in the model, the direct effects are greater in proportion than the indirect effects, findings which show that most of the variables are true predictors of female students' completion of university education in southwest Nigeria. Since the magnitude of the beta weights were considered to be directly proportional to the degrees of the effect of the personal, home and social variables, the variables have causal effects on female students' completion in university several studies attesting to significant effects of age and parental socio-economic status (Ajsen & Fishbein, 1980; Eagly & Chaiken, 1998; Eccles, 1993), traditional/cultural values and school environment (Alele, 1869; Meana, 1996; Osokoya, 2008), feminine inclination and role model (Ceci *et al*., 2007), school environment (Ajzen & Fishbein, 1980; Eagly & Chaiken, 1998; Eccles, 1993; Nelson, 2001; Taylor, 2001) have corroborated the predictive nature of these variables of female completion of university education.

Research Question Seven

Research question seven states: What are the significant pathways indicating direct and indirect effects of the ten independent variables on female students' university enrolment?

Research question seven was employed to find out what significant pathways are indicating direct and the indirect effect of the ten variables on female students' enrolment in university.

Results from the validated model (Figure 4.2) and from Table 4.11 indicate 32 pathways where 8 and 60 respectively exert direct and indirect causative effects on female students'

enrolment in universities in Southwest Nigeria. Findings from the study show that all the ten variables (age, father's education, mother's education, parents' income/ occupation, parental support/ involvement, feminine inclination, traditional/cultural value, role model, school environment, government and non-government involvement) caused either direct or indirect effects on the dependent variables in the path model. Although experts on statistical analysis assert that it is better for variables of interest in any investigation to directly affect the dependent variable than for the effects to be indirect (Asher, 1976; Pedhauzer, 1961), the significant effects of the sixty variables (in indirect paths), and the other eight variables (in direct paths), cannot be ignored.

The outcome of this study is quite interesting when conceptualizing the causal effects exerted by the ten independent psychosocial factors in contributing to females' university enrolment. By this result again, it becomes evident that the variables that could not exert direct effect on the enrolment of female students made indirect causal effects to establish the beauty and verity mode analysis. This implies that there was no variable among the ten that could be ignored as contributing nothing in improving enrolment among females. Role model and age have no significant effects on female enrolment but significant effects on feminine inclination which invariably has significant effects on enrolment. The predictive effects of age and role model cannot be undermined as they have causal effects on feminine inclination to make it exert significant effects on female students' enrolment in university education. Although these two variables (age and role model) are not direct precursors of feminine inclination, it is a major predictor, as observed in the study.

Research Question Eight

Research question eight states: What are the significant pathways indicating direct and indirect effects of the eleven variables on female students' completion in university?

Research question eight was raised to examine the significant pathways indicating direct and the indirect effects of the variables on female completion in university in southwest Nigeria. Results from the validated model and from Table 4.11 respectively exert direct and indirect causative effects on female students' completion in Southwest Nigeria. Findings from this study show that all the eleven variables (age, mother's education, father's education, parents' income, government/non-governmental involvement, parental support, role model feminine inclination, school environment, traditional/cultural values and enrolment) caused either direct or indirect

effects on the dependent variables in the path model. In spite of the assertion of experts on statistical analysis, it is better for variables of interest in any investigation to directly affect the dependent variable than for the effects to be indirect (Asher, 1976; Blahock, 1961; Wolfle, 2003). The significant effects of the ninety-four variables (in indirect paths) on the other seven variables (in direct paths) cannot be overlooked. By this result from the study, it is quite evident that the causal imparts made by the personal, home and social factors on female students' completion made for the significant effects observed to make them predictors of completion. The outcome again makes it apparent that the variables that could not exert direct effects on completion made indirect effects to establish the beauty and verity of the path model analysis. This implies that there was no variable among the eleven that could be ignored as contributing nothing in promoting completion of female students in university education.

5.3 Conclusion

Ten predictors of female enrolment are observed to be valid predictors of female students' enrolment and completion in university. All the personal, home and social variables exert significant effect on enrolment and completion of female students in a path model. The pattern of correlation in the observed data is consistent with new models, thereby, making the model to be fit and tenable in explaining the causal effects of personal home and social variables on female enrolment and completion. The proportion of the total direct effects is greater than that of the indirect effects of the personal, home and social variables on enrolment and completion of female students in university. This shows that most of the variables are determinants of enrolment and completion of students. Most of the pathways of the variables exert direct and indirect effects on both the enrolment and completion of female students in university in a path model, an indication that all the variables are determinants of enrolment and completion.

Findings from this study showed that female enrolment and completion has improved slightly over the years with higher female enrolment in masculine field of study. It was also revealed that most females who enrolled in universities had some female role models and mentors who their female students aspire to be like. The plausible nature of healthy socio economic status of the female student was brought to the fore in this study. Results have shown that despite low enrolment of female students in some university courses, some female students do not complete the programme earlier enrolled for in southwest universities.

Good parental support is considered very essential to enable female students enrol in university and also stay on till completion. Appropriate steps should also be taken by policy makers to work on higher enrolment of females in university and other tertiary institutions in a way to prepare the country for a better future that is full of opportunity for all its citizens.

5.4 Implication of the study

The study has several implications which include the verity that the study has shown that the ten examined indices are true predictors of female students' enrolment which should be improved upon by all stakeholders. Moreover, the study also reveals the personal, home and social factors that are predictors of female students' enrolment which could improve higher attendance in schools/institutions.

Findings from the home factors reveal that every female who has parental support is likely to enrol in universities and also complete university education. This has serious implications on the parents, on one hand, and on the nation at large. As a matter of fact, the findings appear raising an alarm to the nation and parents to rise up to the challenge of female higher education.

It is noteworthy to point out that this study has identified the personal, home and social factors of female students' enrolment and completion and the need to consider these predictors of female university education, to maintain and improve on what we have presently, and to discourage non completion of university with its gross consequences on the female students. The study, therefore, raises challenges to policy makers to take note of these variables that can improve enrolment and completion of female students in university. It has also provided empirical basis for asserting the predictive effects of socio-economic status of parents on enrolment and completion of females in university education.

This study may empower the stakeholders in education, social workers parents and policy makers who have the responsibilities of educating the younger ones. It may also sensitize parents, guardians, religious leaders, government and non-governmental organizations, and even females themselves, in order to get acquainted with these predictors of female enrolment and completion in university.

It is important to note the effectiveness and the usefulness of path analytic technique in providing meaningful explanation of personal, home and social phenomenon, in tracing the paths of the joint effects of such variables in an efficacious approach. The knowledge of the most

meaningful causal model and inter-causal linkages are important tools for all the agencies that work for higher female involvement in education especially at the university level.

5.5 Limitations to the study

In spite of its uniqueness, the study has a number of limitations. One of these limitations is its reliance of self-reporting Scale to collect data for analysis. Although the study included a measure meant to avoid bias responding that was suggested by Linden *et al*. (1986) which is always common in a self-report study like this research work. Paulhus (1991) describes bias responding as a systematic tendency to present oneself favourably in a self-report survey research. Nevertheless, self-report questionnaire gives rooms to test-takers to systematically represent themselves with an excessive positive bias (Paulhus & Chibanall, 2002).

These limitations notwithstanding, the results of the study cannot be invalidated because it has laid a groundwork upon which other research could be carried out. The findings could be generalized because the data collected could be said to apply to the generality of undergraduate female students in Nigeria. The sampled population could also be taken to have possessed the characteristics of the target population.

5.6 Recommendations

The following recommendations are hereby made, based on the findings of the study.

Parental care and role model with mentorship are central to female enrolment and completion rate in education, especially at the university level.

- It is, therefore, recommended that parents should be educated on the need to educate their children irrespective of gender, especially at the tertiary level of education.
- Schools should encourage students to have role models and mentor; teachers should also mentor their students.
- The insignificant position of government and non-governmental organizations revealed in this study calls for appropriate attention. Government at all levels, nongovernmental organizations and policy makers should make female education a priority in Nigeria. Also, they should make jingles that will help to give a good direction to females concerning their education. There should be subsidy for female education at the tertiary level.

- The subtle and covert gender stereotype should be eradicated; the traditional or cultural belief that relegates female to the background should also be eradicated.

5.7 Contributions to Knowledge

This study has made significant contributions to knowledge in a number of ways.

- It employed path analytical model to investigate the personal, home and social variables and more demographic characteristics than commonly selected in a combinatorial approach with ten predictors of female students' completion of university education in a single study.
- It provided empirical data to equip educators that have the duty of moulding lives on areas to look into when trying to help females in making choices in their career.
- The study tried to fill an identified gap in research. Previous studies tend to be specialities on female university education. This study, however, has provided empirical data to establish the predictive characteristics of home, personal and social factors on female students' enrolment and completion in university.
- The study employed descriptive survey to collect data for statistical analysis. No doubt, the study has opened up new areas where experiment research could be employed to generate findings to better the lots of females in Nigeria.

5.8 Suggestions for Further Research

The researcher suggests the following areas for further investigation:

1. This study has focused on Southwestern Nigeria. It is suggested that a possible replication of this study be undertaken in all the other remaining five zones in the country.
2. The study has been limited to only universities. Other tertiary levels of education, such as the polytechnic, monotechnic, and some special colleges of education, could be investigated.
3. There could be a study that would cover the periods between 2010 till date, in order to see how females are progressing towards the achievement of the millennium development goal 3 of 2015 deadline.

4. The contributions of government and non-governmental organizations to the enrolment and completion of female students in engineering courses in southwest geo-political zone, Nigeria from 2000 – 2015 could also be examined.

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APPENDIX

QUESTIONNAIRE ON ENROLMENT AND COMPLETION OF FEMALE UNIVERSITY EDUCATION

UNIVERSITY OF IBADAN
FACULTY OF EDUCATION
DEPARTMENT OF TEACHER EDUCATION

Introduction:

Dear respondent, the current study attempts to find out some of the psycho-social factors that exert influences on enrolment and completion of female university education in southwest Nigeria. The scales below are designed to elicit responses from you which shall be strictly treated only for research purposes. You are therefore requested to please supply the information required honestly and truthfully. Since your responses would be treated with utmost confidentiality.

Department:……

Faculty:……..……...

University:……

SECTION A: DEMOGRAPHIC CHARACTERISTICS

INSTRUCTION: Kindly tick right (✓) the appropriate option that best describes you in the following

1. Gender: Male ( ) Female ( )
2. Age: 16-20 ( ) 21-25 ( ) 26-30 ( ) 31-35 ( ) 36-40 ( )
3. Parent's Marital Background
   Monogamous Family ( )
   Polygamous Family ( )
   Divorced/Separated ( )
4. Father's Level of Education: PhD ( ) Master ( ) First Degree ( ) HND ( ) NCE ( ) OND ( ) SSCE ( ) Others ( )
   Mother's Level of Education: PhD ( ) Master ( ) First Degree ( ) HND ( ) NCE ( ) OND ( ) SSCE ( ) Others ( )
5. Father's Occupation: Civil Servant ( ) Self Employed ( ) Farmer ( ) Private Organization ( ) Others ( )
6. Mother's Occupation: Civil Servant ( ) Self Employed ( ) Farmer ( ) Private Organization ( ) Others ( )
7. Father's Income per month 1,000-10,000( ) 10,000-50,000 ( ) 50,000-100,000() 100,000 and above ( )
8. Mother's Income per month 1,000-10,000 ( ) 10,000-50,000 ( ) 50,000-100,000( ) 100,000 and above ( )

9. Marital Status: Married ( ) Single ( ) Divorce ( ) Separated ( )
10. Religion: Christianity ( ) Islam ( ) Other ( )

SECTION B: MENTORSHIP AND ROLE MODEL SCALE

Kindly tick as appropriate using the following:

VT means Very True T means True RT means Rarely True NT means Not True

		VT	T	RT	NT
1.	Men are better achievers than women in their careers				
2.	Male mentors like to impact into their student's life more than Female				
3.	I have a role model I'm aspiring to be like in this field				
4.	Mentorship in university education favour male students over females				
5.	I will perform better in studies if I have female role models in my university				
6.	I wish I could be like my role model or mentor				
7.	My role model is an achiever too and I'm proud of her.				
8.	Mentoring should be improved upon in my school				
9.	My mentor is guiding me on the right direction and path to follow				

SECTION C: FEMININE INCLINATION SCALE

Kindly tick as appropriate using the following:

VT means Very True T means True RT means Rarely True NT means Not True

		VT	T	RT	NT
1.	I like to help my friends solve their problems				
2.	I like to go through evidence to solve problems				
3.	I enjoy books and television programs on scientific subjects				
4.	I enjoy reading and writing books, articles, essay or play than any other things				
5.	I prefer calculation than reading books				
6.	I can pass any of the technical courses				
7.	I can study beyond first degree				
8.	I am a straight first class student				
9.	I'm really enjoying this course I am studying				
10.	I have always known I would be the best in this field				
11.	This course is not the best for me				
12.	My parents are instrumental to my loving this course				

SECTION C: PARENTAL INVOLVEMENT SCALE

Kindly tick as appropriate using the following:

VT means Very True T means True RT means Rarely True NT means Not True

		VT	T	RT	NT
1.	My parents want me to have a university education				
2.	My father is not in support of my university education				
3.	I pursued higher degree on my own will				
4.	My parent feel I should end my education at the SSCE level				
5.	My parent feel I should go for courses that are feminine				
6.	I got the support of my parent to go for any course				
7.	I was aided at home by my parents because they are educated				
8.	My parent do not have high expectation for me				
9.	I had to go into business to get university degree				
10.	I don't like science oriented subjects but my parents encouraged me				
11.	My parent send all of us to school both male and female				
12.	Home chores something make me tired and this has adverse after on my output in school				
13.	I have too much role at home than my male siblings				
14.	My parent cherished good university education				
15.	My level would have been higher than this if my parents had supported me				
16.	At home when I need to study or complete some homework my parent always give me privacy and silence required				
17.	My parents help me with some difficult assignments				
18.	I get enough financial support from home				
19.	It is like taking after parent in this course				

SECTION D: PARENTS SOCIOECONOMICS STATUS

		VT	T	RT	NT
1.	My father earns a good salary each month				
2.	My mother supports my father with her salary				
3.	I think my parents are comfortable				
4.	My parents built the house we live in				
5.	I think my parent gave birth to too many children				
6.	My parents can sufficiently pay my school bill without asking for external assistance				
7.	I have had to stay at home sometimes during school because of money				
8.	My needs were always ready before resumption				

SECTION E: SCHOOL ENVIRONMENT

Kindly tick as appropriate using the following:

VT means Very True T means True RT means Rarely True NT means Not True

		VT	T	RT	NT
1.	School environment is often hostile to female nature				
2.	The mistakes of female students are overblown in schools				
3.	Some courses are just for male students				
4.	Male lecturers do not understand the nature of female students				
5.	Gender discrimination is still in place in our institution				
6.	Student prefer male lecturers to female lecturers				
7.	There is enough protection for female students in my school				
8.	Facilities and amenities provided my campus are suitable for females' comfort				
9.	Majority of the policies in the campus do not really favour female students				
10.	Lecturers do not give enough praises to female achievements				
11.	Lecturers think females are less intelligent than males				
12.	Punishment are not equally served by male and female students in Schools				
13.	There is enough protection for female students in my school				
14.	There is enough hostel accommodation				
15.	Female students are exposed to assaults in my school				

SECTION F: SOCIO CULTURAL SCALE

Kindly tick as appropriate using the following:

VT means Very True T means True RT means Rarely True NT means Not True

		VT	T	RT	NT
1.	My society favour males than females				
2.	Women are not normally recognized in the community				
3.	Females constitute a good percentage of the decision making body of our community				
4.	Women are relegated in the community because only few are rich				
5.	The society gives room for women's for monumental achievement				
6.	Women face difficult challenges in their academic pursuit				
7.	Community should have scholarship for female students to encourage them				
8.	Community should allow women to own land and build houses				
9.	I get enough support from the society in quest for my academic progress				
10.	Government should eradicate gender stereotypes in the curriculum				
11.	The society does not encourage female to go into some courses				
12.	Some discipline had been tagged masculine by the society				
13.	My society encourages women to be Engineers				
14.	My society encourages female to be teacher				

SECTION G: GOVERNMENT/NON-GOVERNMENT INVOLVEMENT

Kindly tick as appropriate using the following:

VT means Very True T means True RT means Rarely True NT means Not True

		VT	T	RT	NT
1.	Government has a law which says no to sexual harassment in schools				
2.	There is free education for female in university to encourage them				
3.	Female students enjoy subsidy on university education than male students				
4.	I am satisfied with the level of government involvement in female education				
5.	Government sensitizes the public on the education of females				
6.	Non-government organization should be more involved in female education				
7.	Non-government organization gives scholarship to females in my school.				

APPENDIX II

LIST AND PERCENTAGE OF FEMALE ADMITTED STUDENTS FROM YEAR 2001 TO 2010

UNIVERSITY OF IBADAN ENROLMENT DATA FOR FACULTY OF SCIENCE

Year	Number of Female Students	Total Number of Students Admitted	% of Female Students
2001	311	958	32.46
2002	159	526	30.23
2003	279	916	30.46
2004	368	1060	34.72
2005	385	1071	35.95
2006	330	911	36.22
2007	318	829	38.36
2008	823	3582	26.03
2009	1034	3162	30.15
2010	1201	3429	33.53

Source: Academic Planning Unit of University of Ibadan

Appendix 2.2 University of Ibadan Enrolment Data for Faculty of Law

Year	Number of female students	Total number of students admitted	% of female students
2001	82	167	49.10
2002	26	91	28.57
2003	44	128	34.38
2004	56	156	35.90
2005	62	144	43.06
2006	85	168	50.60
2007	12	45	26.67
2008	321	672	47.77
2009	341	638	53.45
2010	294	657	44.75

Source: Academic Planning Unit of University of Ibadan

Appendix 2.3 University of Ibadan Enrolment Data for Faculty of Education

Year	Number of female students	Total number of students admitted	% of female students
2001	773	1623	47.63
2002	604	1368	44.15
2003	653	1351	48.33
2004	781	1485	52.59
2005	622	1198	51.92
2006	670	1234	54.29
2007	672	1250	53.76
2008	1462	3383	43.22
2009	1642	3178	51.67
2010	1559	3259	47.84

Source: Academic Planning Unit of University of Ibadan

Appendix 2.4 University of Ibadan Enrolment Data for Faculty of Engineering/Technology

Year	Number of female students	Total number of students admitted	% of female students
2001	67	506	13.24
2002	46	323	14.24
2003	55	410	13.41
2004	76	506	15.02
2005	62	407	15.23
2006	74	419	17.66
2007	83	386	21.50
2008	235	1818	12.93
2009	321	1467	21.88
2010	263	1583	16.61

Source: Academic Planning Unit of University of Ibadan

Appendix 2.5 University of Ibadan Enrolment Data for Faculty of Agriculture

Year	Number of female students	Total number of students admitted	% of female students
2001	193	563	34.28
2002	97	314	30.89
2003	225	559	40.25
2004	255	650	39.23
2005	306	701	43.65
2006	261	589	44.31
2007	263	600	43.83
2008	821	2210	37.15
2009	921	2026	45.46
2010	762	1756	43.39

Source: Academic Planning Unit of University of Ibadan

Appendix 2.6 Obafemi Awolowo University Enrolment Data for Faculty of Science

Year	Number of female students	Total number of students admitted	% of female students
2001	210	735	28.57
2002	264	777	33.98
2003	329	715	46.01
2004	0	0	0.00
2005	313	842	37.17
2006	229	721	31.76
2007	347	911	38.09
2008	338	944	35.81
2009	256	980	26.12
2010	308	860	35.81

Source: Planning, Budgeting and monitoring information system, Obafemi Awolowo University, Ile Ife

Appendix 2.7 Obafemi Awolowo University Enrolment Data for Faculty of Law

Year	Number of female students	Total number of students admitted	% of female students
2001	117	344	34.01
2002	122	272	44.85
2003	109	265	41.13
2004	0	0	0.00
2005	144	276	52.17
2006	0	0	0.00
2007	146	273	53.48
2008	157	320	49.06
2009	165	355	46.48
2010	151	325	46.46

Source: Planning, Budgeting and monitoring information system, Obafemi Awolowo University, Ile Ife

Appendix 2.8 Obafemi Awolowo University Enrolment Data for Faculty of Education

Year	Number of female students	Total number of students admitted	% of female students
2001	210	479	43.84
2002	183	406	45.07
2003	126	295	42.71
2004	0	0	0.00
2005	184	426	43.19
2006	89	231	38.53
2007	186	464	40.09
2008	189	408	46.32
2009	207	436	47.48
2010	186	395	47.09

Source: Planning, Budgeting and monitoring information system, Obafemi Awolowo University, Ile Ife

Appendix 2.9 Obafemi Awolowo University Enrolment Data for Faculty of Engineering/Technology

Year	Number of female students	Total number of students admitted	% of female students
2001	140	839	16.69
2002	123	912	13.49
2003	187	817	22.89
2004	0	0	0.00
2005	157	813	19.31
2006	62	470	13.19
2007	108	629	17.17
2008	78	508	15.35
2009	103	682	15.10
2010	78	470	16.60

Source: Planning, Budgeting and monitoring information system, Obafemi Awolowo University, Ile Ife

Appendix 2.10 Obafemi Awolowo University Enrolment Data for Faculty of Agriculture

Year	Number of female students	Total number of students admitted	% of female students
2001	177	375	47.20
2002	204	405	50.37
2003	208	450	46.22
2004	0	0	0.00
2005	259	495	52.32
2006	307	774	39.66
2007	250	600	41.67
2008	420	983	42.73
2009	327	759	43.08
2010	302	652	46.32

Source: Planning, Budgeting and monitoring information system, Obafemi Awolowo University, Ile Ife

Appendix 2.11: Adekunle Ajasin University Enrolment Data for Faculty of Science

Year	Number of female students	Total number of students admitted	% of female students
2001	1363	3749	36.36
2002	424	1155	36.71
2003	292	828	35.27
2004	1113	3231	34.45
2005	292	828	35.27
2006	229	721	31.76
2007	347	911	38.09
2008	338	944	35.81
2009	1194	3538	33.75
2010	1210	3554	34.05

Source: Academic Planning Unit of Adekunle Ajasin University Akungba Akoko

Appendix 2.12: Adekunle Ajasin University Enrolment Data for Faculty of Law

Year	Number of female students	Total number of students admitted	% of female students
2001	150	421	35.63
2002	38	90	42.22
2003	32	96	33.33
2004	96	347	27.67
2005	32	96	33.33
2006	0	0	0.00
2007	146	273	53.48
2008	157	320	49.06
2009	107	357	29.97
2010	101	339	29.79

Source: Academic Planning Unit of Adekunle Ajasin University Akungba Akoko

Appendix 2.13: Adekunle Ajasin University Enrolment Data for Faculty of Education

Year	Number of female students	Total number of students admitted	% of female students
2001	1770	3522	50.26
2002	441	940	46.91
2003	444	931	47.69
2004	1208	2396	50.42
2005	184	426	43.19
2006	89	231	38.53
2007	186	464	40.09
2008	189	408	46.32
2009	1106	2289	48.32
2010	1194	2599	45.94

Source: Academic Planning Unit of Adekunle Ajasin University Akungba Akoko

Appendix 2.14: Adekunle Ajasin University Enrolment Data for Faculty of Engineering/Technology

Year	**Number of female students**	**Total number of students admitted**	**% of female students**
2001	140	839	16.69
2002	123	912	13.49
2003	187	817	22.89
2004	0	0	0.00
2005	157	813	19.31
2006	62	470	13.19
2007	108	629	17.17
2008	78	508	15.35
2009	103	682	15.10
2010	78	470	16.60

Source: Academic Planning Unit of Adekunle Ajasin University Akungba Akoko

Appendix 2.15: University of Ado Ekiti Enrolment Data for Faculty of Science

Year	Number of female students	Total number of students admitted	% of female students
2001	566	1497	37.81
2002	513	1484	34.57
2003	472	1454	32.46
2004	0	0	0.00
2005	432	1365	31.65
2006	664	2099	31.63
2007	635	2020	31.44
2008	0	0	0.00
2009	1141	3287	34.71
2010	1096	3016	36.34

Source: Academic Affair, Ekiti State Univeristy, Ado-Ekiti

Appendix 2.16: University of Ado Ekiti Enrolment Data for Faculty of Law

Year	Number of female students	Total number of students admitted	% of female students
2001	128	340	37.65
2002	151	369	40.92
2003	143	368	38.86
2004	0	0	0.00
2005	116	318	36.48
2006	101	297	34.01
2007	89	257	34.63
2008	0	0	0.00
2009	0	0	0.00
2010	123	330	37.27

Source: Academic Affair, Ekiti State Univeristy, Ado-Ekiti

Appendix 2.17: University of Ado Ekiti Enrolment Data for Faculty of Education

Year	Number of female students	Total number of students admitted	% of female students
2001	225	466	48.28
2002	411	835	49.22
2003	728	1384	52.60
2004	0	0	0.00
2005	1016	1806	56.26
2006	617	1049	58.82
2007	1138	1983	57.39
2008	0	0	0.00
2009	2040	3694	55.22
2010	2345	4358	53.81

Source: Academic Affair, Ekiti State Univeristy, Ado-Ekiti

Appendix 2.18: University of Ado Ekiti Enrolment Data for Faculty of Science Engineering/Technology

Year	Number of female students	Total number of students admitted	% of female students
2001	129	1258	10.25
2002	108	1137	9.50
2003	84	1095	7.67
2004	0	0	0.00
2005	51	875	5.83
2006	35	532	6.58
2007	24	474	5.06
2008	0	0	0.00
2009	25	480	5.21
2010	23	449	5.12

Source: Academic Affair, Ekiti State Univeristy, Ado-Ekiti

Appendix 2.19: University of Ado Ekiti Enrolment Data for Faculty of Agriculture

Year	Number of female students	Total number of students admitted	% of female students
2001	87	237	36.71
2002	98	290	33.79
2003	118	366	32.24
2004	0	0	0.00
2005	189	555	34.05
2006	187	536	34.89
2007	160	465	34.41
2008	0	0	0.00
2009	320	791	40.46
2010	297	724	41.02

Source: Academic Affair, Ekiti State Univeristy, Ado-Ekiti

Appendix 2.20: University of Lagos Enrolment Data for Faculty of Science

Year	Number of female students	Total number of students admitted	% of female students
2001	250	801	31.21
2002	273	779	35.04
2003	401	893	44.90
2004	323	723	44.67
2005	321	824	38.96
2006	410	920	44.57
2007	347	911	38.09
2008	338	944	35.81
2009	342	973	35.15
2010	410	920	44.57

Source: Academic Planning Unit of University of Lagos

Appendix 2.21: University of Lagos Enrolment Data for Faculty of Law

Year	Number of female students	Total number of students admitted	% of female students
2001	106	356	29.78
2002	132	349	37.82
2003	201	430	46.74
2004	102	440	23.18
2005	98	370	26.49
2006	121	423	28.61
2007	156	342	45.61
2008	162	444	36.49
2009	171	355	48.17
2010	142	433	32.79

Source: Academic Planning Unit of University of Lagos

Appendix 2.22: University of Lagos Enrolment Data for Faculty of Education

Year	Number of female students	Total number of students admitted	% of female students
2001	132	421	31.35
2002	192	420	45.71
2003	151	324	46.60
2004	172	432	39.81
2005	184	450	40.89
2006	118	360	32.78
2007	201	520	38.65
2008	234	533	43.90
2009	193	436	44.27
2010	186	447	41.61

Source: Academic Planning Unit of University of Lagos

Appendix 2.23: University of Lagos Enrolment Data for Faculty of Engineering/Technology

Year	Number of female students	Total number of students admitted	% of female students
2001	120	821	14.62
2002	110	843	13.05
2003	193	817	23.62
2004	210	921	22.80
2005	157	813	19.31
2006	62	470	13.19
2007	108	629	17.17
2008	119	611	19.48
2009	183	682	26.83
2010	105	470	22.34

Source: Academic Planning Unit of University of Lagos

Appendix 2.24: University of Lagos Enrolment Data for Faculty of Agriculture

Year	Number of female students	Total number of students admitted	% of female students
2001	323	760	42.50
2002	349	751	46.47
2003	311	630	49.37
2004	317	710	44.65
2005	321	711	45.15
2006	321	692	46.39
2007	342	711	48.10
2008	341	772	44.17
2009	391	801	48.81
2010	432	890	48.54

Source: Academic Planning Unit of University of Lagos

Appendix 2.25: Olabisi Onabanjo University Enrolment Data for Faculty of Science

Year	Number of female students	Total number of students admitted	% of female students
2001	603	1423	42.38
2002	611	1521	40.17
2003	572	1820	31.43
2004	561	1723	32.56
2005	612	1423	43.01
2006	606	2009	30.16
2007	635	1723	36.85
2008	598	1823	32.80
2009	1141	3287	34.71
2010	1096	3016	36.34

Source: Academic Planning Unit of Olabisi Onabanjo University, Ago Iwoye

Appendix 2.26: Olabisi Onabanjo University Enrolment Data for Faculty of Law

Year	Number of female students	Total number of students admitted	% of female students
2001	162	430	37.67
2002	173	452	38.27
2003	210	521	40.31
2004	214	621	34.46
2005	189	521	36.28
2006	211	532	39.66
2007	241	731	32.97
2008	222	643	34.53
2009	302	684	44.15
2010	234	568	41.20

Source: Academic Planning Unit of Olabisi Onabanjo University, Ago Iwoye

Appendix 2.26: Olabisi Onabanjo University Enrolment Data for Faculty of Education

Year	Number of female students	Total number of students admitted	% of female students
2001	225	466	48.28
2002	411	835	49.22
2003	728	1384	52.60
2004	923	2102	43.91
2005	1016	1806	56.26
2006	541	1049	51.57
2007	1138	1983	57.39
2008	1611	3210	50.19
2009	1260	2231	56.48
2010	2345	4358	53.81

Source: Academic Planning Unit of Olabisi Onabanjo University, Ago Iwoye

Appendix 2.25: Olabisi Onabanjo University Enrolment Data for Faculty of Engineering/Technology

Year	Number of Female Students	Total number of students admitted	% of female students
2001	101	1258	8.03
2002	211	1137	18.56
2003	84	1095	7.67
2004	157	1284	12.23
2005	140	903	15.50
2006	193	972	19.86
2007	241	1243	19.39
2008	136	1372	9.91
2009	234	1354	17.28
2010	291	1723	16.89

Source: Academic Planning Unit of Olabisi Onabanjo University, Ago Iwoye

Appendix 2.25: Olabisi Onabanjo University Enrolment Data for Faculty of Agriculture

Year	Number of female students	Total number of students admitted	% of female students
2001	102	321	31.78
2002	121	290	41.72
2003	118	366	32.24
2004	172	382	45.03
2005	149	555	26.85
2006	192	536	35.82
2007	160	465	34.41
2008	342	836	40.91
2009	567	1320	42.95
2010	331	724	45.72

Source: Academic Planning Unit of Olabisi Onabanjo University, Ago Iwoye

APPENDIX III

PROFILE OF RESPONDENTS

This section presents the distribution of respondents by Universities and also the demographic features of the respondents, such as age, gender, marital status, parents' level of education and socio-economic status.

A total of 622 questionnaires were distributed to the respondents in the six universities of southwest Nigeria which aimed at collecting data from female undergraduates in five and four hundred level of the departments selected.

Data were also collected from the six universities on enrolment and graduation for the period under investigation that is 2001 to 2010.

Table below gives a breakdown of the pattern of response from each of the universities.

Faculty

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Law	207	33.3	33.3	33.3
	Education	164	26.4	26.4	59.7
	Agriculture	176	28.3	28.3	88.0
	Engineering	37	5.9	5.9	93.9
	Sciences	38	6.1	6.1	100.0
	Total	622	100.0	100.0	

University

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	University of Ibadan	184	29.6	29.6	29.6
	Olabisi Onabanjo university	115	18.5	18.5	47.9
	University of Lagos	84	13.5	13.5	61.4
	Ekiti state university	93	15.0	15.0	76.4
	Adekunle Ajasin university	89	14.3	14.3	90.7
	Obafemi Awolowo University	57	9.2	9.2	100.0
	Total	622	100.0	100.0	

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	622	100.0	100.0	100.0

Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	16 - 20	237	38.1	38.1	38.1
	21 - 25	306	49.2	49.2	87.3
	26 - 30	50	8.0	8.0	95.3
	31 - 35	16	2.6	2.6	97.9
	36 - 40	13	2.1	2.1	100.0
	Total	622	100.0	100.0	

Parent's Marital background

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Monogamous family	469	75.4	75.4	75.4
	Polygamous family	117	18.8	18.8	94.2
	Divorced/Separated	36	5.8	5.8	100.0
	Total	622	100.0	100.0	

Father's level of education

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	PhD	104	16.7	16.7	16.7
	Master	170	27.3	27.3	44.1
	First degree	173	27.8	27.8	71.9
	HND	39	6.3	6.3	78.1
	NCE	10	1.6	1.6	79.7
	OND	24	3.9	3.9	83.6
	SSCE	53	8.5	8.5	92.1
	Others	49	7.9	7.9	100.0
	Total	622	100.0	100.0	

Mother's level of education

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	PhD	33	5.3	5.3	5.3
	Master	99	15.9	15.9	21.2
	First degree	192	30.9	30.9	52.1
	HND	81	13.0	13.0	65.1
	NCE	62	10.0	10.0	75.1
	OND	30	4.8	4.8	79.9
	SSCE	57	9.2	9.2	89.1
	Others	68	10.9	10.9	100.0
	Total	622	100.0	100.0	

Father's occupation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Civil servant	219	35.2	35.2	35.2
	Self employed	227	36.5	36.5	71.7
	Farmer	27	4.3	4.3	76.0
	Private organisation	103	16.6	16.6	92.6
	Others	46	7.4	7.4	100.0
	Total	622	100.0	100.0	

Mother's occupation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Civil servant	232	37.3	37.3	37.3
	Self employed	284	45.7	45.7	83.0
	Farmer	17	2.7	2.7	85.7
	Private organisation	54	8.7	8.7	94.4
	Others	35	5.6	5.6	100.0
	Total	622	100.0	100.0	

Father's income per month

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1,000 - 10,000	36	5.8	5.8	5.8
	10,000 - 50,000	32	5.1	5.1	10.9
	50,000 - 100,000	125	20.1	20.1	31.0
	100,000 and above	429	69.0	69.0	100.0
	Total	622	100.0	100.0	

Mother's income per month

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1,000 - 10,000	51	8.2	8.2	8.2
	10,000 - 50,000	93	15.0	15.0	23.2
	50,000 - 100,000	280	45.0	45.0	68.2
	100,000 and above	198	31.8	31.8	100.0
	Total	622	100.0	100.0	

Marital status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Married	66	10.6	10.6	10.6
	Single	531	85.4	85.4	96.0
	Divorced	17	2.7	2.7	98.7
	Separated	8	1.3	1.3	100.0
	Total	622	100.0	100.0	

Religion

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Christianity	515	82.8	82.8	82.8
	Islam	103	16.6	16.6	99.4
	Other	4	.6	.6	100.0
	Total	622	100.0	100.0	

APPENDIX 4: Letter of Introduction from Each University

UNIVERSITY OF IBADAN, IBADAN, NIGERIA

DEPARTMENT OF TEACHER EDUCATION

Head of Department
Francis A. ADESOJI
Professor of Science Education/Curriculum & Instruction
B.Sc (Hons.) Chemistry Education (Lagos)
M.A. Ph.D (Curriculum Studies in Science Education (Ife)
TRN, FMSTAN

GSM: +234(0) 8033727326
234(0) 7054025538
E-mail: francisadesoji@yahoo.com

18th June, 2014.

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.....

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Dear Sir,

LETTER OF INTRODUCTION
KAYODE-OLAWOYIN OMOLOLA BOSEDE (MATRIC NO. 147860)

This is to introduce the above named **Ph.D** student of the Department of Teacher Education, University of Ibadan. She is embarking on educational research which necessitates collection of information from your University.

Kindly assist her with regard to her request, which will enable her complete her research work.

Thanks for your cooperation in advance.

Professor F.A. Adesoji

HEAD OF DEPARTMENT
Department of Teacher Education
University of Ibadan

UNIVERSITY OF IBADAN, IBADAN, NIGERIA

DEPARTMENT OF TEACHER EDUCATION

Head of Department
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M.A. Ph.D (Curriculum Studies in Science Education (Ife)
TRN, FMSTAN

GSM: +234(0) 8033727326
234(0) 7054025538
E-mail: francisadesoji@yahoo.com

18th June, 2014.

The Director of Academic planning
Academic planning Unit
Vice Chancellor's Office
Adekunle Ajasin University
Akungba – Akoko, Ondo State

DIRECTORATE ACADEMIC PLANNING UNIT ADEKUNLE AJASIN UNIVERSITY AKUNGBA
DATE 18/11/2015

Dear Sir,

LETTER OF INTRODUCTION
KAYODE-OLAWOYIN OMOLOLA BOSEDE (MATRIC NO. 147860)

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Department of Teacher Education
University of Ibadan

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GSM: +234(0) 8033727326
234(0) 7054025538
E-mail: francisadesoji@yahoo.com

18th June, 2014.

The Director,
Planning and Budgeting
and Monitoring Information
System, Obafemi Awolowo University, Ile-Ife

Dear Sir,

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KAYODE-OLAWOYIN OMOLOLA BOSEDE (MATRIC NO. 147860)

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Thanks for your cooperation in advance.

Mr Mobolaji
fna ph
7/11/15

Professor F.A. Adesoji

HEAD OF DEPARTMENT
Department of Teacher Education
University of Ibadan

DIRECTOR OF PLANNING
BUDGETING MONITORING/MANAGEMENT
INFORMATION SYSTEM UNIT
OBAFEMI AWOLOWO UNIVERSITY
ILE-IFE

Our Vision:
To be a world-class institution for academic excellence

Our Mission:
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* To produce graduates who are worthy in character and sound judgement.
* To contribute to the transformation of society through creativity and innovation.

UNIVERSITY OF IBADAN, IBADAN, NIGERIA

DEPARTMENT OF TEACHER EDUCATION

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GSM: +234(0) 8033727326
234(0) 7054025538
E-mail: francisadesoji@yahoo.cor

18th June, 2014.

DIRECTOR OF ACADEMIC AFFAIRS, EKITI STATE UNIVERSITY OF ADO - EKITI.

Dear Sir,

LETTER OF INTRODUCTION
KAYODE-OLAWOYIN OMOLOLA BOSEDE (MATRIC NO. 147860)

This is to introduce the above named **Ph.D** student of the Department of Teacher Education, University of Ibadan. She is embarking on educational research which necessitates collection of information from your University.

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Department of Teacher Education
University of Ibadan

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234(0) 7054025538
E-mail: francisadesoji@yahoo.com

18th June, 2014.

THE STATE OFFICER
NATIONAL BUREAU OF
STATISTICS.
EKITI STATE.

Dear Sir,

LETTER OF INTRODUCTION
KAYODE-OLAWOYIN OMOLOLA BOSEDE (MATRIC NO. 147860)

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Thanks for your cooperation in advance.

Professor F.A. Adesoji

HEAD OF DEPARTMENT
Department of Teacher Education
University of Ibadan


UNIVERSITY OF LAGOS
UNIVERSITY of LAGOS


THE NIGERIAN ACADEMY OF ENGINEERING
E-mail: info@nae.org.ng website: www.nae.org.ng


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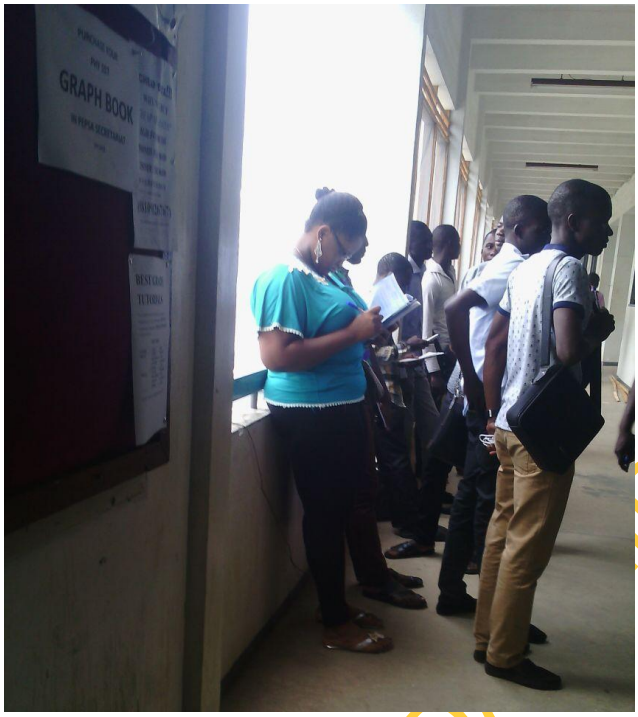

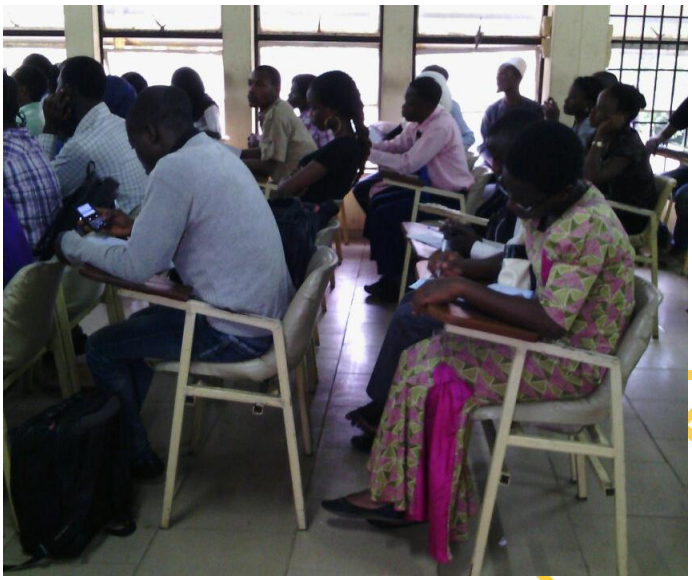

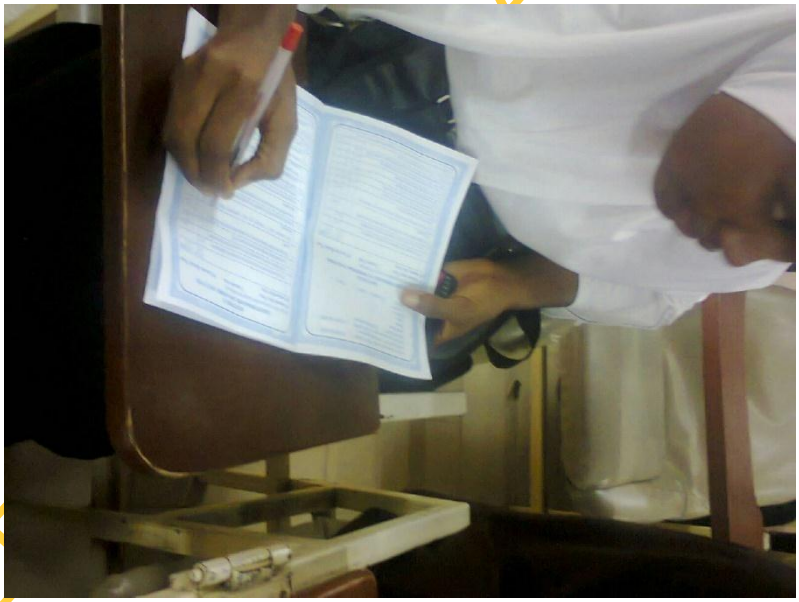


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EBONYI STATE UNIVERSITY
ABAKALIKI