Chapter-II

REVIEW OF RELATED STUDIES

2.1.0 INTRODUCTION

'Review of related studies' is an essential aspect of research which helps a researcher to avoid duplications while conducting research. It helps a researcher starting from finding a problem for conducting research to till reporting the results of the research. This chapter of the present study aimed at finding out or identifying the studies that relate to the gender discrimination in educational practices of higher education institutions of north-east India. Only a few studies have been conducted relating to the area of present study. Some of the studies relating to the area of the present study are given under these heads:

1) Studies conducted in the area of practice of gender discrimination in higher education institutions in North-East India level
2) Studies conducted in the area of practice of gender discrimination in higher education institutions in national level (India level)
3) Studies conducted in the area of practice of gender discrimination in higher education institutions in international level (World level)

2.2.0 STUDIES CONDUCTED IN THE AREA OF PRACTICE OF GENDER DISCRIMINATION IN HIGHER EDUCATION INSTITUTIONS IN NORTH-EAST INDIA LEVEL

Dhar (2015) conducted a study entitled "Gender Inequality in Education, Health and Employment in North-East India".

Objective of the study was to analyze gender inequality in education in North-East India.

Methodology of the study:

The study was based on secondary data collected from various official websites of Govt. of India like Census of India, National Family Health Survey, and National Sample Survey Office etc. Percentage, frequency and simple tables were used to analyze the data.

Major findings of the study:

1) Eight sister states of North-East India (i.e. Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura) practice substantial inequalities in education, employment, and health based on gender, and
2) There exists a considerable gender gap in enrolment, which is notably high in case of higher education. Enrolment of women in higher education is poor compared to men.

Mahanta and Nayak (2013) conducted a study entitled "Gender Inequality in North East India".

Objective of the study was to analyze the status of gender inequality in North East India.

Methodology of the study:

The study was based on secondary sources of data. The extent of gender gap in north eastern region has been examined in four fundamental areas like economic participation and opportunity, education, health and political participation using the indicators like work participation rate (WPR), literacy rate, enrollment ratio, sex ratio, infant mortality rate (IMR) , life expectancy at birth and political participation.

Major finding of the study:

The finding of the study revealed that women are relatively disempowered and enjoy somewhat lower status than that of men in the region. Gender gap exists in terms of access to education, employment and health. Among the northeastern states, Meghalaya, Manipur and Mizoram show relatively lesser degree of gender inequality in terms of work participation, literacy, infant mortality and sex ratio. The situation is however adverse in case of Tripura, Assam and Sikkim.

Thiyam (2011) made a study entitled "A case study of working women in Manipur University".

The main objectives of the study:

1) To explore the problem of the working women of Manipur University in getting salary.
2) To find out the varied role played by working women in the Manipur University.

3) To ascertain the problems of working women regarding their duties in office, family and community , and
4) To study the difference in experience among the working women.

Methodology of the study:

For the study, the investigator selected a sample of 90 women working in Manipur University on the basis of stratified random sampling techniques. Primary data were collected through a self developed questionnaire. Percentage method was used for analyzing the data.

Major findings of the study:

1) 65.6% of the women employees face the problem of not having separate common room for male and female in their institution.
2) 50% of the women employees do not get residential accommodation facilities.
3) 47.8% of the women employees are not satisfied with their present salary they get.
4) 33.3% of the women employee have to perform domestic chores alone.

Laitonjam (2009) made a study on Analysis of the problems faced by the women teachers of government colleges in Manipur.

The objectives of the study:

1) To find out the level of problems of women teachers relating to social status.
2) To find out the level of administrative and infrastructural problems of women teachers.
3) To find out the remedial measures in order to solve different problems of women teachers.

Methodology of the study:

For analysis and interpretation, simple percentage, mean average and graphical representation statistic techniques were used.

Major findings of the study:

1) 94% of the women teachers were not satisfied with the existing condition of the college building.
2) 82 % of the women teachers expressed the bad facility of the college library.

3) Women teachers have the privilege of enjoying the high academic status and it was found to be 70.50%, while 29.50% did not have.

Golmei (2008) conducted a study entitled "Women Education and Employment in Imphal West District of Manipur".

The main objectives of the study:

1) To study the development of women's education in Imphal west district.
2) To find out the number of women employees.
3) To find out the status of women in Imphal west district.
4) To examine the progress of women education and employment.

Major findings of the study:

1) In Imphal west district of Manipur, women are participating in the field of education as that of their male counterparts.
2) Number of women employees has been increased in the district both in the state govt. job and central govt. job.
3) The employed women expressed their opinion of satisfactory which were equivalent to their educational qualification with the job they handled, and
4) The employed women were received co-operation and help from all the family members as well as from their colleagues.

Dkhar (1991) conducted a study entitled "A study of the development of higher education in Meghalaya".

Objective of the study was to analyze the pattern of enrolment, staffing, provision of facilities and the type of courses offered in higher education.

Methodology of the study:

The sample of the study comprised all the 26 colleges in the state of Meghalaya. The relevant data were collected using questionnarie developed by the investigator. Mostly, qualitative techniques were used to analyse the data, including percentage.

Major finding of the study:

The finding of the study revealed the total number of students enrolled in colleges and university departments rose from 9,666 in 1974 -1975 to 14,614 in 1988-89. Humanities subjects accounted for the highest proportion of student enrolment at all stages. The proportion of male students was slightly higher than female enrolment.

Liankhuma (1989) conducted a study entitled "A study of the development of women's education in Mizoram".

The objective of the study was to study the status of women in Mizoram with regard to opportunities for education

Methodology of the study:

Historical and analytical method of research was adopted. Frequencies and percentage were used apart from qualitative analysis.

Major findings of the study:

1) The girl students were not entitled to receive merit scholarships during the British Period in Mizoram, and
2) Literacy percentage of girls rose from 0.14% in 1901 to 54.9% in 1981. The enrolments of girls have likewise made tremendous progress during this period.

2.3.0 STUDIES CONDUCTED IN THE AREA OF PRACTICE OF GENDER DISCRIMINATION IN HIGHER EDUCATION INSTITUTIONS IN NATIONAL LEVEL (INDIA LEVEL)

Goswami (2013) conducted a study entitled "Persistent Inequalities: Gender Discrimination in interior Rural India".

The main objective of the study was to find out in details the nature of gender discrimination at interior household in interior rural Bengal.

Methodology of the study:

For the purpose of the study small scale field survey was conducted among 100 rural women of interior villages of East Midnapore district of West Bengal State in India.

The respondents were randomly selected. They were interviewed using semi-structured questionnaire designed for the purpose with semi -participant observation method. Informal and formal interview methods have been used.

The findings of the study:

The finding of the study revealed that at rural Bengal, 50% women are illiterate, 20% have only alphabetical knowledge, and remaining 30% are literate up to class six. In these families, most male members are literate and educated.

Raj and **Shanmugam (2013)** made a study entitled "Gender Bias in Higher Education -A Case Study of Mysore Medical College".

The objectives of the study:

1) To study gender bias in higher education in Karnataka, and
2) To examine gender bias in Medical Education in Mysore District.

Methodology of the study:

The study was based on secondary sources from Mysore Medical College, Mysore. Information about specific parameters outlined in the objectives was collected for the period 2005-2010. 't' test and ANOVA were used for analysis of the data.

Major findings of the study:

1) Percentage share of female students in MBBS degree is declined from 82.14% to 40.35% in the year 2009-10.
2) Percentage share of female students in PG course is increased from 66.66% to 81.63% in the year 2009-10.
3) The enrollment of male and female students for the MBBS degree in the year 2005-06 got increased at 55% to 71% in the year 2009-10. Whereas the female students is about 45% declined up to 29% in the year 2009-10.
4) The enrollment of male and female students for the PG course in the year 2005-06 is 60% which declined to 55% in the year 2009-10. Whereas for the enrollment of female students it is about 40% in the period 2005-06 which increased up to 45% in the year 2009-10.
5) There is a significant difference between the enrollment of male and female for MBBS degree and also for the PG course for the study period.

Gupta and **Sharma (2002)** made a study on Women Academic Scientists in India.

The objectives of the study:

1) To analyze the experiences of women faculty members in elite institutes of science and technology, and
2) To understand the nature of the dual burden faced by women

Methodology of the study:

Considering a small number of women faculty members in technology institutes and universities, a total of four institutes of higher learning and research in technology and science were selected for this study. They were: the Indian Institute of

Technology (IIT), Delhi; the Indian Institute of Technology (IIT), Kharagpur; Jadavpur University (JU); and the University of Roorkee (UOR). The data were collected using triangulation - that was a combination of questionnaires, interviews, case studies and unobtrusive methods.

Major findings of the study:

1) Women academics in the four institutes constitute only 7 percent of the total faculty members in science and engineering. Half of the women are at a lower level in the professional hierarchy. Of all the women included in the sample, 50 percent are lecturers or assistant professors (the entry level) and the other 50 percent are readers, associate professors or professors (middle or high level). In the four institutes surveyed, certain branches of engineering, such as Mechanical Engineering, do not have any women faculty members.
2) There were only eight women heads of department. There were no women Deans in any institute, and a woman Director is almost unthinkable.
3) Women faculty members are quite isolated in their work environment.

Clara (1997) conducted a study entitled "Returns on investment in female higher education in Kerala"

Objectives of the study:

1) To make a comparison between the cost and returns of investment in higher education for male and females,
2) To analyse the factors that are responsible for educated unemployment women in Kerala.

Methodology of the study:

The sample comprised 300 male and female graduates taken from colleges of Calicut University. The sample was selected using random technique. The data were collected through direct survey method using quetionnaire. The cost benefit technique was used as a practical way of asssessing and evaluating the economic viability of investment projects.

Major findings of the study:

1) The internal rate of return calculated was higher for male graduates as compared to their female counterparts in all categories , and

2) The educated unemployment in Kerala has increased substantially. There is an absence of diversification of courses to meet the changing needs.

Das (1996) conducted a study entitled "Creativity and gender differences among collegiates".

Objective of the study was to find out the diference in creative ability between male and female collegiates of Kurukshetra University.

Methodology of the study:

The sample comprised 50 male and 50 female college students belonging to 16-40 years who belonged to middle socio-economic status group. The tool used to measure creativity was the Wallach – Kogan Test of creativity. The collected data were treated using ANOVA.

Major finding of the study:

The major finding of the study was that there was no significant difference in the creativity of collegiates on the basis of gender.

Sobha, Ramamohan, and **Reddy (1995)** conducted a study entitled "A study of problems faced by girl students in women's polytechnics".

Objectives of the study:

1) To identify various problems faced by women students,
2) To study the intensity of problem faced by them, and
3) To compare the intensity of the problems as expressed by women students studying in different courses.

Methodologgy of the study:

The sample comprised 58 students of diploma in pharmacy, 71 students of diploma in electronics and communication engineering, and 34 students of diploma in computer programe and commercial practice of Shri Padamavati Women's polytechnic. A check list consisting of 6 problems such as financial, infrastructure, psychological, administrative, personal and other associated problems were used for eliciting information. The collected data were treated qualitatively.

Major findings of the study:

1) Irrespective of the nature of the technical courses, all students faced financial problems in their education ,

2) Majority of the students had stated infrastructure facilities to be of least hindrance to their education,
3) Around 57% of students expressed psychological problems to be moderate problem,
4) Administrative problems were expressed to be a moderate one by 65% of the students ,
5) More than 65% of the students indicated personal problems to be moderate ,and
6) Interaction with teachers, medium of instruction, non existence of guidance and counseling, difficulty in procurement of textbooks in the market, absence of follow-up of the laboratory experiments and lack of prescribed textbooks for the courses were associated problems for the students in all three courses i.e. diploma in pharmacy, diploma in electronics and communication engineering, and diploma in computer programe and commercial practice.

Chandrakumar and **Arockiasamy (1994)** conducted a study entitled "Gender differences in the value orientation among the college students".

Objctive of the study was to examine gender differences in the value orientation of the college students.

Methodology of the study:

The sample consisted of 1050 under graduate students from various Colleges of Madurai Kamaraj University who were selected randomly. There were 691 men students and 359 women students out of total sample, 306 students were from 1st year, 372 were from 2nd year and 372 were from 3rd year. The Rokesch Value Survey Scale and a personal information schedule were administered on the students. The collected data were treated statistically.

Major findings of the study:

1) The female students had little better value orientation than the male students, the mean score for all the items for the female students was little higher than the male students. Both the male and female groups had shown a very moderate preference for certain value, and
2) Gender did not influence the value orientation of the college students' ambition and honesty.

Nayer and **Usha (1991)** conducted a study entitled "Measures to increase participation of girls and women in vocational, technical and professional education in India".

Objectives of the study:

1) To study the policy framework for enhancing the vocational, technical and professional capacities of women in India, and
2) To identify some innovative programmes and successful initiatives being carried out for possible replication /adaptation in like contexts.

Methodology of the study:

The methodology comprised analysis of primary and secondary data using both qualitative and quantitative techniques. Four Indian states were selected for field observation and in depth analysis covering high literacy – Taminadu and Maharastra and low literacy - Andrapradesh and Rajasthan. Field observation forms a substantive part of the methodology for studying the process of policy implementation in its broader socio cultural, economic and political matrix.

Major findings of the study:

1) Policy gains of Indian women are substantial but there are serious implementation gaps. The policy of undifferentiated curricula gets diluted in action. Gender stereotyping of vocational, technical and professional courses continues both within the formal and non formal sectors of education and training. Gender stereotypes are harder to break for men,
2) Low participation of women in formal and non formal training needs more in depth work, and
3) Gender sensitization of planners and curriculum developers can yield positive results in breaking gender stereotypes and getting girls and women to enter nontraditional vocations. Career guidance and counseling are needed not only for girls, but also for the teachers and parents as well.

Sachdev (1986) conducted a study entitled "A critical study of teaching in higher education in Bombay with special reference to Physics".

Objectives of the study:

1) To evaluate teachers on seven criteria as perceived by students, viz., (a) commitment to teaching, (b) commitment to discipline, (c) presentation of

content, (d) student directedness, (e) academic climate in the class, (f) classroom procedure, and (g) personal attributes,

2) To describe the college teachers with respect to attitudes to professional training, job satisfaction and research orientation , and
3) To describe students on the basis of their self ratings, performance at college tests and reactions to independent study and assignments.

Major findings of the study:

1) The majority of the students preferred the discovery- oriented style the most, and the control-oriented style the least. Girls preferred content oriented style over a sympathy oriented one. The reverse was the preference of the boys,
2) Male teachers had significantly more publications to their credit than female teachers , and
3) Male teachers' attitude to the profession was relatively more negative when compared with that of female teachers.

Verma (1985) conducted a study entitled "A comparative study of role conflict of male and female educational administrators in relation to their personality traits and adjustment".

Major objectives of the study:

1) To compare the role conflict of male and female educational administrators, and
2) To find out the relationship between personality traits and role conflict of educational administrators.

Methodology of the study:

The sample of the study consisted of 374 male and 83 female educational administrators selected from the five districts of Meerut division. The tools used to collect data were the role conflict scale for principals. Pearson's co-efficient of correlation, partial coefficients of correlation, multiple regression analysis and t-test were used for analysis of data.

Finding of the study:

Finding of the study was that the traits, less intelligence- more intelligence, tough minded- tender minded, placid-apprehensive, conservative-experimenting, group

dependent- self sufficient and relaxed- tense were significantly correlated at .01 level with role conflict in female educational administrators.

Gayathri (1983) conducted a study entitled "Educational orientations and related factors effecting the academic achievement of university students".

The main objective of the study was to examine the educational orientations and related factors effecting the academic achievement of university students.

Major findings of the study:

1) Educational orientations of students showed no variation by sex but by curricula. Science students expressed a stronger exploratory orientation than arts students, and
2) There were significant variations in students' perceptions of environment by boys and girls whereas there were no significant differences in students' perceptions of environment in the arts and science curricula.

Shanmugasundaram (1983) conducted a study entitled "An investigation into factors related to academic achievement among undergraduate students under semester system".

The objective of the study was to identify and assess the influence of certain factors on the academic achievement of undergraduate students.

Methodology of the study:

The sample consisted of 620 students -330 high achievers and 290 low achievers. They were in 20 colleges located in urban, semi-urban and rural areas within the jurisdiction of the Madras University. The statistics used in analyzing the data and hypothesis testing were mean, standard deviation, critical ratio, partial correlation, multiple correlation, and multiple regression.

Major findings of the study:

1) Women students had higher intelligence, greater achievement motivation and better study habits and they also performed academically better than men students,
2) Men students had better self concept but they also had greater anxiety and more adjustment problems than women students, and

3) The cumulative effect of the achievement- related variables upon academic achievement was higher among the women students than among the men students.

Malika (1981) conducted a study entitled "Analysis of student indiscipline in Indian higher education with special reference to the problem as it exists in Tamil Nadu".

The main objective of the study was to analyse student indiscipline in Indian higher education with special reference to the problem as it exists in Tamil Nadu.

Methodology of the study:

Variables that were determinants of student indiscipline were identified: attitude to activism, proness to political activism, academic moral, trust orientation, pressure due to socio-psychological problems, perception of teacher effectiveness, attitude to specific behavior problems of students, perception of the legitimacy of the need to act and percieved student norms. Ten tools were evolved to measure these variates and the required data were collected from 999 students selected from the college and university departments adopting the multiple random sampling technique.

Main finding of the study:

The main finding of the study was that men students had more favorable attitudes towards collective actions than women students and less favorable attitudes towards scholarship and authority.

2.4.0 STUDIES CONDUCTED IN THE AREA OF PRACTICE OF GENDER DISCRIMINATION IN HIGHER EDUCATION INSTITUTIONS IN INTERNATIONAL LEVEL (WORLD LEVEL)

Matope (2012) conducted a study entitled "Gender Discrimination in Educational Personnel: A Case Study of Gweru Urban District Secondary Schools, Zimbabwe".

Objective of the study was to examine Gender Discrimination in Educational Personnel.

Major finding of the study:

The finding of the study revealed that the policy on equal opportunities needs to be developed and be in line with the National Gender Policy (2004). There is a need to have more female in leadership posts. There is gender discrimination on recruitment, transfer, and promotions as evidence by the 58.8% of the participants who agreed

with the statement that recruitment is influenced by gender. Most of the documents at the Gweru Urban District office indicated that 70% of the administrative posts were occupied by male teacher.

Dobele, Thiele, Kopanidis and **Steel (2010)** undertook a study entitled "All things being equal: Observing Australian individual academic workloads".

The main objective of the study was to observe Australian individual academic workloads.

Methodology of the study:

A multiple case study method was used to observe individual academic workloads. Two regional universities were selected for this study on the basis of their senior staff profiles. Multiple sources of evidence were used to gather teaching and research workload data for all faculty members.

Major findings of the study:

1) Universities that are over-represented with females in senior academic positions when compared to the national average achieve equity in workload, and
2) Universities that are underrepresented with females in senior academic positions do not achieve workload equity with male academics producing more research and coordinating more teaching.

Dohherty and **Manfredi (2010)** conducted a study on "Improving women's representation in senior positions in universities".

The objective of the study was to explore similarities and differences between the career experiences and leadership styles of men and women in middle and senior level positions at one university.

Methodology of the study:

Indepth interviews were conducted with a quota sample of 53 men and women in order to explore their career experiences. In addition, 50 questionnaires were received from the sample in order to compare factual data about the participants' life histories and biographical circumstances.

Major finding of the study:

The major finding of the study revealed that women human capital and career progression to date are at least equal to those of men and that this has been achieved without women sacrificing a holistic family life.

Ewert (2010) made a study entitled "The determinants of gender inequality in higher education".

The objective of the study was to examine the determinants of gender inequality in higher education.

Finding of the study:

1) College experiences, particularly attendance patterns, social integration, and academic performance, do not merely mediate the effects of background characteristics and prior life course events on the likelihood of graduation but are independently consequential for the gender gap in graduation.
2) Women's lower interest and self-confidence in math partially account for the overrepresentation of men in engineering and related fields.

Richter and **Prummer (2010)** conducted a study on gender and collaboration patterns in distance education research.

The purpose of the study was to examine the associations between gender, collaboration and research methods in distance education research.

Methodology of the study:

The study was based on a review of 695 papers published in five prominent distance education journals between 2000 and 2008.

Major finding of the study:

Major finding of the study revealed that women are over represented in research areas such as learner characteristics, learner support or interaction, and communication in learning communities, while men are concerned with topics stereotypically associated with them: Technology and management.

Russel, Smyth, and **Connell (2010)** conducted a study having the tittle "Gender differences in pay among recent graduates: Private sector employees in Ireland".

The main objective of the study was to investigate the role of different factors in accounting for the differences in earnings among recent graduates working in the private sector in Ireland.

Finding of the study:

The finding of the study showed that three years after graduation there is a pay gap of 8 percent in hourly wages between male and female graduates in the private sector and 4 percent non –significant gap in the public sector, there are four main factors behind the pay gap in the private sector: first, differential returns to educational capital for male and female graduates; second, differential return to employment experience for male and female graduates; third, gender difference in the field of study, and differences in the rewards attached to these fields; fourth, working in female – dominated workplace, which has a negative influence on earnings for both men and women but predominantly affects women.

Virtanen and **Nevgi (2010)** conducted a study referring to a problem "Disciplinary and gender differences among higher education students in self regulated learning strategies".

The purpose of the study was to examine disciplinary and gender differences among higher education students in self regulated learning strategies.

Methodology of the study:

The sample consisted of 1248 undergraduate students at several Finnish Universities. Data were retrieved from the IQ Learn online self – assessment and tutoring system.

Finding of the study:

1) Female students scored moderately higher than male students on help seeking strategies, utility value and on performance anxiety.
2) Male and female students of behavioral sciences and female students of sciences scored highest consistently, and technology students, specially the male students, scored lowest.

Beth (2009) conducted a study on "An analysis of gender-based pay equity of instructional faculty members in the Virginia Community College System".

The main objective of the study was to examine salary, rank, highest degree earned and full or part time employment status.

Methodology of the study:

The population of this study included all instructional faculty members employed during academic year 2006-2007 in the 23 community colleges in the state of

Virginia. A quantitative analysis was conducted of the reported salaries of all full-time instructional faculty members in the Virginia Community College System in the fall of 2006.

The findings of this study:

1) Faculty members in Virginia Community College System overall were slightly more likely to be female, hold master's degree and hold assistant professor rank, and
2) Both male and female were equally likely to be employed as part-time faculty members in the Virginia Community College System.

Grebennikov and **Skaines (2009)** conducted a study entitled "Gender and Higher Education Experience: A Case Study".

The purpose of the study was to compare the assessment of various university services by male and female students.

Methodology of the study:

The research sample consisted of 9793 students who participated in three universities of Western Sydney surveys in 2004 and 2005.

The major findings of the study:

1) Female students place higher importance on the majority of the university's services than do male students, and
2) As female students advance through their studies, they appear more demanding about the quality of services, while male students remain comparatively tolerant.

Kim and **Brunner (2009)** conducted a study entitled "School administrators' career mobility to the superitendency: Gender differences in career development".

The main objective of the study was to investigate differences and/or similarities between women's and men's career mobility toward the superintendency in terms of career pathways and movement patterns, with specific attention to women's career pathways as they correspond with their aspiration to the superintendency.

Methodology of the study:

In this study of upper level educational administrators in the USA, typical career pathways were identified for four targeted groups of the study: men superintendents;

women superintendents; women central office administrators who aspire to the superintendency; and women central office administrators who do not aspire to the superintendency. Four pathways for each group were drawn by analyzing data related to survey respondents' professional experiences. Descriptive methods including frequencies and percentage were used for analysis of data.

Major finding of the study:

Major findings of the study revealed that career pathways for women in educational administration are different than those of men who typically become superintendents.

O'Daniels (2009) made a study on "Gender in community college administration"

The main objective of the study was to examine gender in community college administration.

Major findings of the study:

1) There were found to be very few leadership trait differences between the genders,
2) When leadership traits were analysed for correlations, males were found to be more creative with innovation and evaluating problems,
3) Females were found to be more principled and striving, and
4) Both genders were found to be more strategic.

Okunbor and **Agwubike (2009)** conduted a study entitled "Gender differences in forestalling anti social behaviors among student fitness aspirants and recreationists in Nigerian Universities."

The objective of the study was to investigate the prevalence of anti social behaviors in campuses of Nigerian universities.

Methodology of the study:

A total of 212 respondents participated in the study. Six universities were randomly selected while 50 students fitness aspirants and recreationists were drawn from each of these universities by cluster sampling.

Major finding of the study:

Major finding of the study revealed that no significant gender difference was observed among aspirants and recreationist participating in fitness and recreational

activities and the development of moral qualities among students in Nigerian Universities.

Zalevski and **Swiszczowski (2009)** conducted a study entitled "Gender and attitudes to enterprise: Survey of UK doctorate students in science, engineering and technology".

The main objective of the study was to investigate differences and similarities in career aspirations, attitudes to enterprise, and experiences/ opinions regarding setting up a business, among PhD students in SET (Science, Engineering and Technology) disciplines.

Methodology of the study:

A confidential online survey was distributed via email to all doctorate students in SET departments in the Yorkshire and Humber region, with on 8.6 percent return rate.

Major finding of the study:

The major finding of the study was that all respondents had a preference for work in academia, but men were more likely to indicate a preference for work in industry and women for work in the public sector. There were gender differences in students' attitude and knowledge of enterprise.

Nwadigwe (2007) conducted a study entitled "Unwilling brides: 'Phallic attact' as a barrier to gender balance in higher education in Nigeria".

The purpose of this study was to investigate the problem of sexual harassment in the Nigerian University system as a barrier to the educational advancement of women.

Methodology of the study:

Data was collected from female students selected from 14 faculties in two Nigerian Universities.

The major findings of the study:

1) There is a relatively high prevalence of sexual harassment in these universities and this affects female students adversely. The ripple effect is that women are not given a learning atmosphere conducive to enjoying academic freedom and optimizing their potential in educational development.

This contributes to widening the gaps between men and women in Nigeria ,and

2) The lack of adequate high-quality sex education in Nigeria increases the vulnerability of younger female students to sexual harassment.

García-Aracil (2007) conducted a study entitled "Gender Earnings Gap among Young European Higher Education Graduates".

Objective of the study was to examine the composition of the gender earnings gap among young European higher education graduates with a particular focus on competencies controlling for individual background and job characteristics.

Major findings of the study:

The finding of the study showed that overall the unemployment rate for women was 4.8% and 2.8% for men. There were gender-pattern exceptions in the unemployment rate. Women in the United Kingdom, Finland, and Norway were less likely to be unemployed than male graduates. On the other hand, the unemployment rate of female graduates in Italy and Sweden was three times as high as that of men. University education rather than other higher education studies yields a decrease in earnings differentials.

Naylor (2007) made a study on "Percieved barriers to female advancement in higher education".

Objectives of the study:

1) To examine the experience of male and female administrators in four comprehensive universities in Mississippi, and
2) To study the perceptions of male and female administrators about barriers that impact the career advancement of females into high level administrative positions.

The major findings of the study:

1) There is significant differences between genders in their perceptions of barriers to female mobility in the hierarchy of higher education institutions,
2) It revealed that despite the existence of national studies and legal efforts to combate gender inequity, females still are treated differently and advance less than their male counterparts, and

3) The study confirmed that organisational structure and environment have the capacity to influence the behavior and experience of women.

Pritchard (2007) conducted a study entitled "Gender inequality in British and German Universities".

The purpse of the study was to examine gender inequality in British and German Universities.

Methodology of the study:

The research uses existing data sets combined with theoretical constructs to investigate the reasons for gender inequality in Brtish and German higher education.

Major finding of the study:

The major finding of the study showed gender inequality exists within higher education in the UK and German. In the UK only 15.3% of professors in pre and post -1992 universities were women (2003), while in German only 8.6% attained the highest grade of professorship (2003).

Varma and **Hahn (2007)** conducted a study having problem "Gender differences in students experience in computing education in the United States".

The purpose of the study was to examine the problem of gender differences in students experience in computing education in the United States.

Methodology of the study:

The study was based on 150 in depth interviews with female and male students of five major ethnic/racial groups (white, black, Hispanic, Asian and American Indian).

Major finding of the study:

Major finding of the study revealed that there was significant difference between female and male students with respect to their perceptions of classes, teachers, and advisors. Both female and male students noted their dissatisfaction with teaching assistants.

Brink, Browns and **Waslander (2006)** undertook a study entitled "Does excellence have a gender ? A national research study on recruitment and selection procedures for professional appointments in the Netherlands".

The purpose of the study was to show the professional recruitment and selection procedures in relation to gender differences at Dutch universities.

The major findings of the study:

1) There is gender difference in selection and recruitment procedures. Although not in all disciplines, and
2) There was a disparity in the percentages of male and female applicants who were successful in the selection procedure.

Doherty and **Manfredi (2006)** examined a study on "Women's progression to senior positions in English Universities".

The purpose of the study was to explore the career routes and advancement procedures for both academic and support staff in English universities and the extent to which these might constitute barriers to progression.

Methodology of the study:

The study was conducted in four universities, two pre-1992 universities and two post 1992 universities, based in one region of England. Secondary data were collected in the form of equality monitoring statistics and documentation relating to the universities' advancement procedures. Primary data were collected through 26 semi structured interviews with senior people involved in decision making about promotions.

The major findings of the study:

1) Women are progressing well to the promoted lecture grade, but their careers stall beyond this level. Women's less developed research profile is the main impediment to them for gaining professorial status, and
2) Women are more reluctant than men to put themselves forward for advancement and they value work life balance.

Koyunco, Burke and **Fiksenbaum (2006)** conducted a study to a problem entitled "Work experience and satisfaction of male and female professors in Turkey: Signs to Progress"?

Objective of the study was to investigate work experience and satisfaction of male and female professors in Turkey.

Methodology of the study:

An anonymously completed internet based questionnaire was collected from 243 male and 165 female professors. Measures included personal demographic and work

situation characteristics, workholism components and validating job behaviors (e.g perfectionism) workaholism antecedents (e.g. beliefs and fears, organizational values), work and extra work satisfactions, and psychological well being.

Major finding of the study:

Major finding of the study showed that female and male professors were similar on workaholic behaviors, work and extra work satisfaction and psychological well-being, with one exception: female professors reported more psychosomatic symptoms.

Winchester, Lorenzo, Browning and **Chesterman (2006**) conducted a study entitled "Academic women's promotions in Australian universities".

The purpose of the study was to investigate the academic women's promotion in Australian Universities.

Methodology of the study:

The study uses three complementary approaches. Promotion policies and guidelines are examined using content analysis of documents from all Australian Universities. A sample of 17 universities was selected for interviews with key gatekeepers to examine promotions practice.

The major findings of the study:

1) Women experienced barriers in the promotion process including reticence in applying and stereotypically gendered notions of merit, and
2) Women remain under- represented at senior levels, comprising only 16% of the professoriate.

Arne (2005) conducted a study entitled "Gender differences in educational attainment: The case of doctoral degrees in Norway".

The purpose of the study was to examine the gender differences in educational attainment of doctoral degree in Norway.

Major finding of the study:

1) With regard to recruitment, a moderate gender difference is partly accounted for by men's higher grades, and

2) There is no overall gender difference in completion probabilities. Men, however seem more likely to drop out of their studies in applied fields, probably due to attractive opportunities in the non- academic labour market.

O'Brien and **Janssen (2005)** made a study entitled "Internships for women in higher education administration: Springboards for success"

The purpose of the study was to examine internships for women in higher education administration.

Finding of the study:

The finding of the study revealed that there is necesary for mentoring relationships for women in administrative positions.

Okpara, Squillace and **Erondu (2005)** conducted a study entitled "Gender differences and job satisfaction: A study of university teachers in the United States".

The purpose of the study was to examine the effects of gender on the job satisfaction of US academics.

Methodoly of the study:

The population for this study consisted of full time college and university teachers listed in the "Brain Track University Index Dictionary of the United State Colleges and Universities". A sampling technique was used to select the respondents surveyed for this study. A total of 1,100 quetionnaires were administered to respondents chosen from 80 universities. A total of 560 usable questionnaires were returned, giving a response rate of 51 percent.

Major findings of the study:

1) There are gender differences apparent in the job satisfaction levels of university teachers, and
2) Female faculties were more satisfied with their work and co- workers, whereas, their male colleagues were more satisfied with their pay, promotions, supervision, and overall job satisfaction.

Edward (2004) conducted a study entitled "A study of doctoral student-advisor satisfaction: Considering gender and ethnic grouping at a private research university".

The purpose of the study was to examine doctoral student-advisor satisfaction.
Methodology of the study:
The study used a descriptive qualitative and quantitative research design hinged to an exploratory methodology that examined the relationships that existed among a set of variables within a particular population of doctoral students. In this study the participants were secured from a population of 560 doctoral students enrolled in one discipline (Education) at a private research university; 220 surveys were returned for a 39 percent response rate.
Finding of the study:
The finding of the study was that female doctoral students had more negative perception of their relationship with their advisor than did their male counterparts and they were less satisfied with their current advisors and more likely to select a different advisor.

Cope (2003) made a study entitled "Gender differences in general academic achievement motivation, attribution factors, and career choices in mathematics and in science".
The purpose of the study was to determine the extent of gender differences in general and academic achievement motivation, attribution for success and career choices for math and science.
Methodology of the study:
Mean and Standard deviations analyses were used to identify the extent of gender differences in general and academic achievement motivation, attribution factors and career choices in mathematics and science, and Analysis of variance (ANOVA) and chi-square analyses were used to test the hypotheses.
The major findings of the study:

1) The level of academic achievement motivation was not significantly different among genders, and
2) Ability was the attribution factor most endorsed by the male responders for success in math and science,
3) Effort was the primary attribution factor most expressed by the female respondents for success in math and science.

Green and **Hill (2003)** conducted a study entitled "Sex and higher education: Do men and women attend college for different reasons?"

The objective of the study was to investigate whether male and female college students reported different reasons for attending college.

Methodology of the study:

Participants rated reasons for attending a university on a seven – point scale

The major findings of the study:

1) Female participants attend college for professional / academic preparation rather than non –professional reasons (e.g., to make friends), and
2) Women place a greater emphasis than do men on the importance of professional/ academic reasons for attending college.

Gunawardena (2003) studied on "Gender equity in higher education in Shri Lanka: A mismatch between access and outcomes".

The main objective of the study was to examine the gender equity in higher education through a non discriminatory educational policy.

Major findings of the study:

1) Half a century after the establishment of the first university in Sri Lanka, women students have secured a majority of enrolements except in engineering and related fields, and
2) University- educated women still continue to be unemployed for longer periods, employed in lower positions and face difficulties in gaining entry to management positions.

Clegg, Trayhurn and **Johnson (2000)** studied on "Not just for men: A case study of the teaching and learning of information technology in higher education".

The main objective of the study was to examine the teaching and learning of Information Technology in higher education.

Methodology of the study:

Methodology involved observations of the coaching styles of male and female tutors in computer laboratories. Thirty-four one-and-a half hour sessions were observed.

Major findings of the study:

1) Male tutors had more short interactions with female students.

2) Women tutors adopted a more active coaching style, which encouraged collaboration between students and greater peer interaction.

Jens-Christian (2000) conducted a study entitled "Same-Gender Relationships in Graduate Supervision".

Objective of the study was to examine same-gender relationships in graduate supervision.

Methodology of the study:

The data were drawn from a 1992 questionnaire study among all faculty members of the rank of assistant professor or higher at all four of Norway's universities. The analyses have been restricted to the humanities, the social sciences and the natural sciences.

The findings of the study:

1) Male faculty members supervise 54 per cent male students and 46 per cent female students. Their female colleagues supervise 38 per cent male students and 62 per cent female students. Same-gender tendency is higher among female faculty member (0.12) than among their male colleagues (0.04).
2) Most departments with a small minority of female faculty members are found in the natural sciences, while most balanced departments are found in the humanities and the social sciences.
3) There are significant differences in same-gender tendency between fields of learning as well as between departments with different proportions of female faculty members.

Kulis (1997) conducted a study entitled "Gender Segregation among College and University Employees".

Objective of the study was to examine Gender Segregation among College and University Employees.

Major finding the study:

The finding the study showed that there are major differences in the kinds of jobs that male and female college employees hold at the aggregate (national) level. More than a third (36 percent) of all female employees are concentrated in clerical positions, and 24 percent more occupy non faculty professional positions. In contrast,

the single largest category of employment for men is tenured faculty appointments, which are held by 25 percent of the men but only 6 percent of the women. Proportionally more of the men than of the women are found in top administrative, tenure-track, non-tenure-track, craft, and service jobs.

Shelburn and **Lewellyn (1995)** made a study entitled "Gender Bias in Doctoral Programs in Economics".

Objective of the study was to examine gender bias in doctoral programs in economics.

Methodology of the study:

Questionnaires were mailed to 469 men and 446 women with doctorates in economics earned between 1970 and 1989. This sample was randomly selected from the 1989 American Economic Association membership list.

Major findings the study:

1) Female students received less personal and professional support from their relationships with faculty than did men.
2) Women reported about the same number of close friendships as did their male counterparts, but their satisfaction levels with peer relationships were consistently lower than those of men. Women were less satisfied with intellectual/social contacts, respect for their abilities, office space, and opportunities to participate in class discussion and to ask questions in class.
3) Both men and women reported a desire to spend less time on administration and more on research.

Truman and **Baroudi (1994)** conducted a study entitled "Gender Differences in the Information Systems Managerial Ranks: An Assessment of Potential Discriminatory Practices".

Objective of the study was to examine the extent of treatment discrimination in a select group of IS managers by looking at the disparities in salaries and job level between men and women.

Methodology of the study:

The data were collected through mail surveys conducted by the Society for Information Management (SIM) in 1989, 1991, and 1993. Samples consisted of 487

subjects (1989), 513 subjects (1991), and 413 subjects (1993), representing 32 percent (1989), 31 percent (1991), and 18 percent (1993) response rates respectively. The samples represent IS executives who occupy positions from manager to CEO, and who are members of SIM. The questions were analyzed using MANOVA.

The findings of the study:

The findings of the study revealed that women receive lower salaries than men even when job level, age, education, and work experience are controlled.