

Gender Imbalance in Higher Education: Social, Cultural and Economic Implications

Nasir Mahmood¹ & Tooba Saleem¹

¹Dean & Professor, Faculty of Education Allama Iqbal Open University, Islamabad

²Lecturer, Secondary Teacher Education Department, Allama Iqbal Open University Islamabad

Corresponding Author's Email: mahsir1@gmail.com

ABSTRACT

The increased female enrollment trend at higher education level is encouraging as females comprise more than 50% of the population hence social development is impossible without women empowerment. But at the same time, this leads to imperative societal changes in basic social institutions, workplace environment and job conditions etc. In this context, this study intends to brainstorm the probable transformations in social, cultural and economic spheres of life. The study was designed using mixed-methods research approach and carried out in two phases. In phase-I, interviews were conducted from sociologists, anthropologists, educationists and gender specialist working in universities and other relevant institutions to encompass the social, cultural and economic implications. The generated data was used to identify the themes, sub-themes and indicators leading to the development of survey questionnaire "Gender Imbalance Implications Questionnaire" (GIHQ). In phase-II, we collected data from a representative sample of university students (N=2885) teachers (N=557) from 12 universities of Punjab. The findings inferred the information about the nature of societal, cultural and economic transformations envisioned by the participants of the study and the relevance of socio-economic, academic and family factors for the anticipated transformations and policy implications.

Keywords: *women and higher education, gender roles, gender and society, gender imbalance*

Introduction

There has been a substantive increase in access to higher education since the establishment of the Higher Education Commission (HEC) in 2002. The increase

can be observed in both male and female enrollment (Figure 2) at bachelor and higher level. Figure 1, shows the increase in enrollment by public, private, and distance mode between years 2002-08.

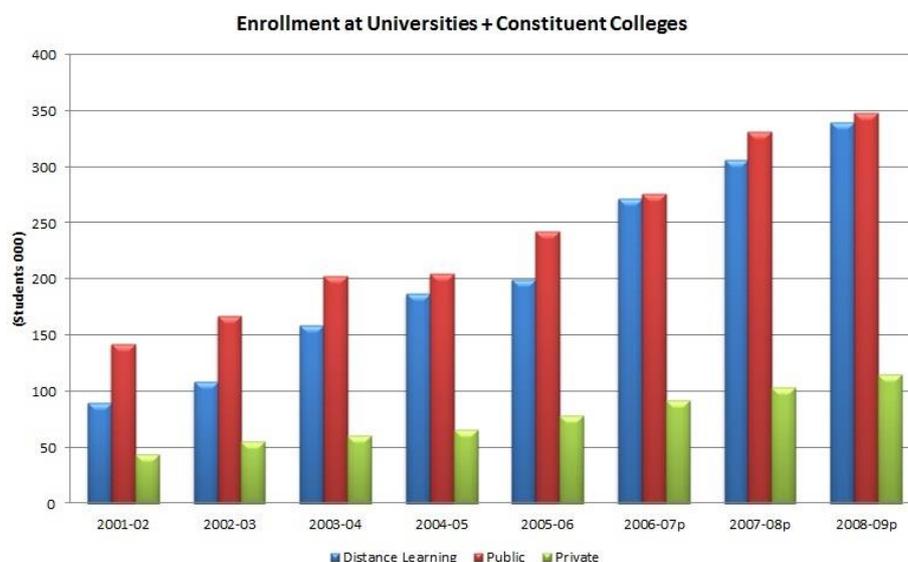


Figure 1: Enrollment trend in higher education between 2002-2008

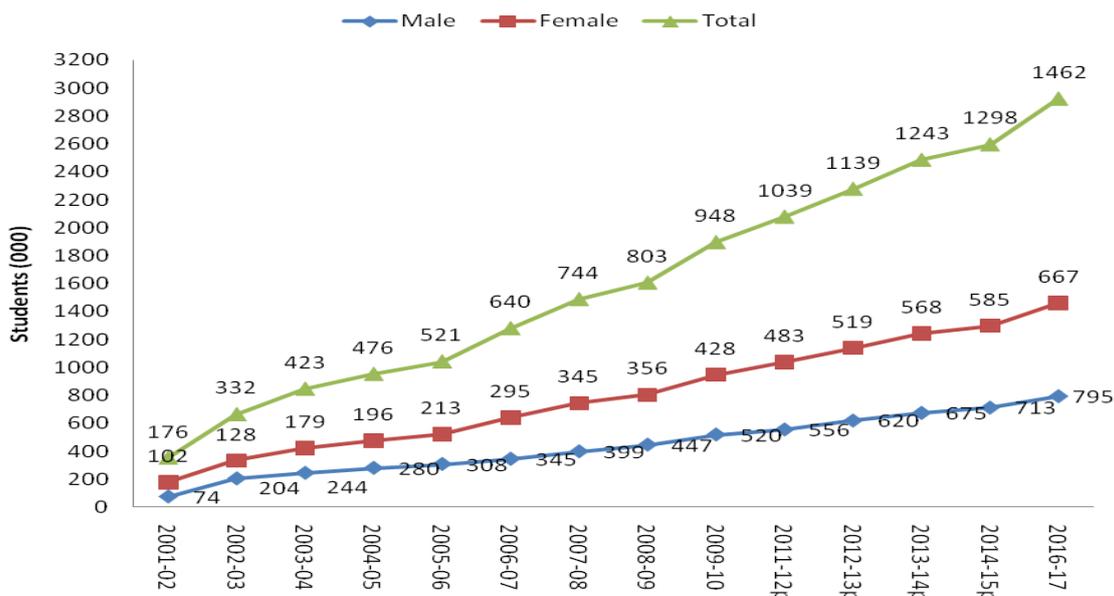
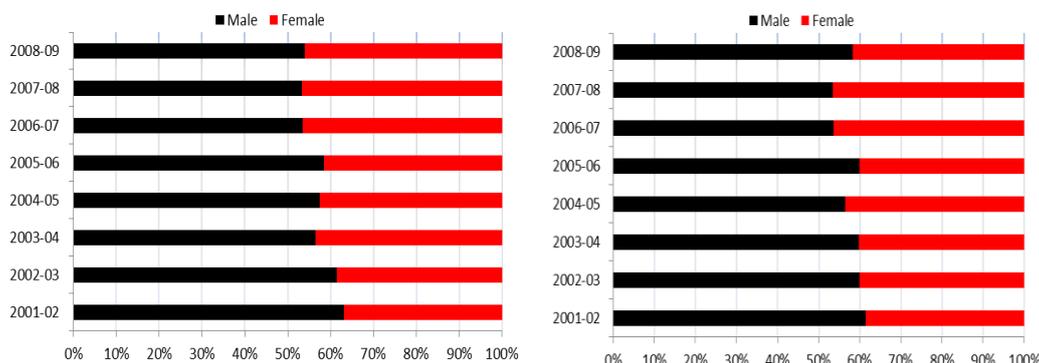


Figure 2: Enrollment trend in higher education between 2002-2017

Females have a relatively larger share in this increased enrollment as compared to male students. The increase in female net enrollment is 182,448 at bachelor and 63,619 at the master level between 2001

and 2008. The gap between male and female enrollment has reduced to 8% in 2008 as compared to 26% in 2001 at bachelor level and 22 % in 2001 at master level to 16% in 2008 (HEC, 2014).



Bachelors

Masters

Figure 3: Students Enrolment in Universities by Access and Gender

If the increase in enrollment is further deciphered, it is visible that female enrollment has overtaken male enrollment in social sciences, life sciences, humanities, and languages. Unfortunately, national enrollment data by disciplines is not available, but enrolment trends in the University of Punjab can be assumed as a case. The percentage of female students enrolled in social sciences, art and humanities, economics and management sciences, education, Islamic studies, life sciences, health sciences and pharmacy is 52%, 62%, 53%, 81%, 56%, 75%, 76%,

and 72% respectively in the University of Punjab (University of Punjab, 2018).

Several countries (i.e., India, Cambodia, Thailand & Vietnam) in the Asia-Pacific region and Europe (i.e., Norway, Sweden) have already been through this transition of gender shift in higher education and experienced social, cultural and economic transformations as in society. These models are valuable in understanding the expected changes in Pakistani society. There are five basic institutions of a society. These institutions are based on family, education, religion, economics and

politics. These five institutions affect every individual's life by influencing their beliefs and behaviors. Each of these institutions serves by fulfilling society's essential needs and specific goals for the overall society. All must coincide or work harmoniously to make a society. Many countries like Thailand, Malaysia, Norway, Sweden, India, and several African countries have experienced their social, cultural, economic, religious, and political transformations resulting from the reduced gender gap in society.

Research Objective

The major objective of the research was to examine the social, cultural and economic implications of female influx in universities and to produce empirical evidence about the ongoing changes in the primary social institutions, workplace environment and job conditions, etc. The above-stated objective was pursued through the following research questions.

Research Questions

1. What are the implications of higher enrollment of females for the job market?
2. What kind of change is expected in marriage age, partner selection priorities, managing home, sharing family responsibilities, etc. resulting from higher female enrollment in universities?
3. What kind of transformation in family life is perceived and experienced by students and teachers due to females entering universities?

In this regard, the study findings might also help enlist the significant societal transformations ongoing or likely to occur in the future. The research findings informed about institutional adaptations required by the universities and the transformations expected in social institutions like family and strategies, which may increase the awareness among stakeholders in society. It was also intended to generate evidence-based data for higher education institutions (HEIs) to

establish a conducive environment for female students and introduce policies and corresponding measures to increase gender parity. The significance of women empowerment is fully clear from the policy statement made at the Beijing Platform for Action, the "Beijing+5 Declaration and Resolution", the Millennium Declaration, the Convention on the Elimination the Cairo Programme of Action, All Forms of Discrimination against Women. The promotion of gender equality as one of the eight MDG goals, is the key for achieving the other seven goals (UNFPA, 2005). The government of Pakistan has shown great concern in empowering women as being a signatory to all such international commitments.

Women are encouraged to participate in every walk of life, and university education is not an exception. The increase in female net enrollment is 182,448 at bachelor and 63,619 at the master level between 2001 and 2008. The gap between male and female enrollment has reduced to 8% in 2008 as compared to 26% in 2001 at bachelor level and 22% in 2001 at master level to 16% in 2008 (HEC, 2014).

Although compiled information at the national level is not available on the proportion of female students in social sciences. However, the data from University of the Punjab alone can be used to know the trend in female enrollment. The percentage of females enrolled in social sciences, art and humanities, economics-management sciences, education, Islamic studies, life sciences, oriental learning, and pharmacy is 53%, 68%, 53%, 86%, 74%, 84%, 61%, and 61% respectively in University of the Punjab (University of Punjab, 2018). This transformation has social, cultural, and economic implications that require us to be cognizant of these implications and prepare ourselves accordingly. Countries in the Pacific region and Scandinavia have already been through this phase in which females are more educated than men. The

government in these countries had to make social adjustments like family laws, the establishment of child care facilities in various organizations, and awareness about changed/switched gender roles.

The cultural changes like the acceptability of working women at the workplace, respect of working women in society, rights at the workplace, mobility and security of women, honorable work environment having equal opportunity and making work and a home environment supportive for women are few of many changes on the board as a result of more women graduating from universities and entering jobs. Similarly, economic changes like undifferentiated wages, the flexibility of work hours, breaking of stereotypes related to designated jobs for males and females, etc. Pakistan is also about to enter the same phase, if not already entered and it is dire need to conduct an exploratory study to gather information on expected social, cultural and economic changes likely to occur as a result of shift in more female entering university education.

It is expected that findings can enlighten the up-coming social, cultural, and economic challenges to our academia, policymakers, and social institutions. If used intelligently, the findings can help us pre-empt challenges and put in place measures to assure social stability and smooth transition in the restructuring of our public, social and civil society institutions through devising informed policies and practicable implementation plans backed by professional Human resource and finances.

The output of this research can also be helpful to inform the universities, think tanks, and policymakers about measures needed to amicably handle the societal transformation resulting from gender imbalance in university enrollment for the benefit of the societal (family, culture, employees) and academic institutions. A brief review of the literature here seems appropriate to understand the context of the study.

Review of Literature

The debate on the gender equality and imbalance with in higher education not just lies being entering in the higher education, getting degrees, jobs and career development opportunities but more important is that whether men and women perceived to be equal or different in terms of their gender specific prescribed roles and responsibilities in their social cultural contexts is a question of considerable interest. Many theorists worked on the theoretical perspective of gender and gender role (Bem, 1981; Chodorow, 1989; Eagly, 1987) in the past. A brief of which is described below. Gender roles are "socially and culturally defined prescriptions and beliefs about the behavior and emotions of men and women" (Anselmi & Law 1998, p. 195). Many theorists believed that perceived gender roles as the bases for the development of gender identity. Prominent psychological theories related to gender roles and identity development comprises object-relations theory by Chodorow (1989) evolutionary theory by Buss (1995) and Shields (1975) gender schema theory by Bem (1981 & 1993) and social role theory by Eagly (1987).

Evolutionary theories about gender development are basically grounded in genetic bases of difference between men and women. Functionalists (Shields 1975) proposed that men and women are evolved differently hence to fulfill different functions necessary for their survival. These evolutionary-based theories shared some similarities with essentialist and maximalist perspectives. Alice Eagly (1987), however, presented another view of gender development, based on socialization and suggested the gender division of labor and societal expectations are based on stereotypes produce gender roles. Further distinguishing the agentic and communal facet of gender-stereotyped characteristics he pointed that communal role is characterized by the attributes, such as nurturance and emotional

expressiveness, commonly associated with domestic activities, thus generally associated with women. On the other hand, the agentic role is characterized by attributes such as assertiveness and independence, commonly associated with public activities, and thus, connected with men. Behavior is strongly influenced by gender roles when cultures endorse gender stereotypes and form firm expectations based on those stereotypes (Eagly, 1987). Stereotypes are "overgeneralized beliefs about people based on their membership in one of many social categories" (Anselmi & Law 1998, p. 195). Gender stereotypes vary in four dimensions: role behaviors, physical characteristics, traits and occupations (Deaux & Lewis, 1983).

Based on similar dimensions of gender-based stereotyped beliefs Talcott Parsons in America developed a model of the nuclear family in 1955, he compared a strictly traditional view of gender roles (from an industrial-age American perspective) with a more liberal view. He contrasted and illustrated the extreme positions on gender roles. Model A described the complete segregation of male and female roles, while Model B described the complete disbanding of gender roles.

However, these structured positions become less a liberal-individualist society, and the actual behavior of individuals is usually somewhere between these poles. According to the interactionist approach, roles (including gender roles) are not fixed but are constantly negotiated between individuals. Gender roles can influence all kinds of behaviors, such as choice of clothing, choice of work, and personal relationships, e.g., parental status, etc. (Brockhaus, 2001). With the rise of the New World, the roles are now changing and even reversing. Once, the husbands were typically working farmers - the providers. Wives typically cared for the home and the children (Espenshade & Thomas, 1985; Hawke & Lucy, 2007).

The 21st century has observed gender roles shift due to change in family structures, education, media, and earning patterns in families (Dunleavy, 2007). Further, due to female influx in higher education is changing the family structures meanwhile number of single-mother or single-father households is also increasing. Additionally, fathers are also becoming more involved in sharing the child rearing responsibilities (Eagly, 2004). Moreover, based on the theoretical and historical review of problem there is given an ample evidence of the empirical research work done in the international and national perspective specifically included those countries have experienced or experiencing the phenomenon of gender imbalance and their likely implications with due importance of the contextual factors and their depiction in Pakistan.

Synthesis of Empirical Research and Gaps in Previous Research

Every society consists of some fundamental institutions that help to define the general beliefs, acceptable and non-acceptable behavior patterns. The five fundamental institutional parts of society including family, education, economics, religion, and professional life areas basically affect every individual's life. Each of these institutions serves by fulfilling society's essential needs and specific goals for the overall society. All must coincide work harmoniously to make society (Hodgson, 2006). Many countries like Thailand, Malaysia, Norway, Sweden, India, and several African countries have shared their social, cultural, economic, religious, and political transformations resulting from the reduced gender gap in their society and its potential depictions in the social, cultural and economic perspective of social setup.

Social Impact Family is one of the basic and most essential unit of society. The changes in family dynamics that can be associated with the education of female due to which the shackles of stereotype submissive role of female have changed as

reported in different research since female participation in higher education has increased (Chayovan, 1996). There is reported increase in female share in family decision making regarding the age of marriage and choice of life-partner (Nath, 2013; Phananimamai, 1997), the choice and timing of children (Phananimamai, 1995), future security (Lindberg, Riis, & Silander, 2011; Mugisha, 2005), keeping their own name after marriage and property ownership (Phananimamai, 1997). The countries have amended their laws and policies towards fair laws respecting women's rights (Phananimamai, 1997; Nath, 2013; Lindberg, Riis, & Silander, 2011; Mugisha, 2005; Reynolds, 1999). There has been fertility decline since more women started entering the professional life which has improved per-child spending on education (Kanjapanan, 1985; Chamrathirong, 1984; Kuandachakupt, 1994), freedom of movement beyond family (Chamrathirong, 1984; Rabibhadana, 1984) and decrease in parents' preference for male child (Inglehart, 1997). However, a research that was conducted in Malaysia, reported that a woman's role is more expected to orient towards family matters rather than self-fulfillment. Family is always given priority when she has to make a choice between career and family, the (Abdullah, Noor & Wok, 2008). The women's involvement in higher education is highly attributed to the women empowerment, in this context, (UNESCO, 1995) presented some significant indicators of empowerment entailing the social-cultural and economic perspective that empowerment is a complex issue with varying interpretations in different societal, national and cultural contexts. At the level of the individual woman and her household: (Medel-Anonuevo & Bochynek., 1995) "Participation in crucial; decision-making processes; Extent of sharing of domestic work by men; Extent to which a woman takes control of her reproductive functions and decides on family size; Extent to

which a woman is able to decide where the income she has earned will be channeled to; Feeling and expression of pride and value in her work; Self-confidence and self-esteem; And ability to prevent violence (p. 9)

Cultural Impact Culture typically encompasses ways of knowing, thinking, perceiving, creating, evaluating, interacting, and doing (Dillman, Smyth & Christian, 2009). Social change pursued consistently result in cultural transformation over a longer period of time. Females have clearer perception of career vs family and there has been acceptance of managing both by sharing family responsibilities (Abdullah, Noor & Wok, 2008; Nath, 2013; O'Neil, & Bilimoria, 2005; Curtis, 2006), independent mobility of female in society (Ng, & Chakrabarty, 2005; Noor, 2001; Perry-Jenkins, & Folk, 1994; NCWA, 1995) and higher divorce rates and its public acceptance has gradually increased (Andrew, Phananimamai, & Poapongsakorn, 1987; Nath, 2013; O'Neil, & Bilimoria, 2005). There social roles of females and males were redefined (Dillman, Smyth & Christian, 2009), role description shifted (Dillman, Smyth & Christian, 2009), and personal space recognition has been formally accepted in many cultures (Greenberger & O'Neil, 1993).

Economic Impact The greater financial autonomy leading to an improved role in decision making is one of the consequences of a larger number of females joining the job market. There has been a substantial increase in the women's share in high paying jobs (Andrew, Koo, Ogawa, Phananimamai & Sigit, 1986), flexible work hours (Pitcher, 2007) for the female employees to avoid for family-job conflict. The female staff remains unable to observe office timing strictly, and it is generally observed that those ladies have to leave the office during working hours off and on. This is the reason why there exists a general opinion of management

that the female staff adversely affects the output of an organization. Despite these developments, the pay gap between males and females is still a reality, although it is shrinking (Evers, Livernois & Mancuso, 2006). The rise in the country's workforce due to female participation has generally evoked the thought for non-discriminatory wages for both (Mahatthanasomboon, 1983). In a survey Murtaza (2012) reported that educated women have control over their earnings and it develops their confidence and provides basis for self expression and personal development. It improves their financial independence socio-economic status of their family.

There is very less formal published data available in Pakistan on the subject but many of the above-stated changes resemble kind of social, cultural economic transformation silently underway in our society. It is expected that this change will pick up speed gradually, and addressing it through informed policy is the need of the hour.

Methodology

The study used a mixed-methods approach to answer the main research questions, sequential exploratory design was employed, and the quantitative data results assisted in the interpretation of qualitative findings:

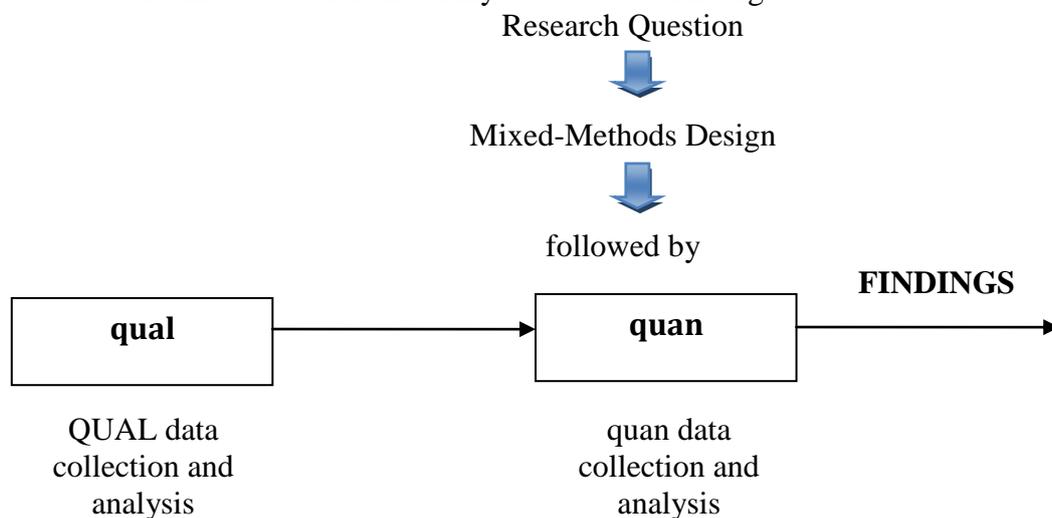


Figure 4: qual → quan sequential exploratory design (adapted from Creswell, 2003)

In a sequential exploratory mixed-methods design, the qualitative dimension is primary and is used to generate theory or specific theoretical constructs. The quantitative component is used in the service of the qualitative in that it “tests out” ideas generated from the qualitative component. (Hesse-Biber, 2010).

As, the proposed study was intended to explore and examine the social, cultural and economic implications of gender imbalance in higher education across the different study disciplines in the province of Punjab. So, first, it was needed to brainstorm the probable transformations in social, cultural, and economic spheres of life. Therefore, we necessarily used a mixed-method approach. In the first phase

of the study, we used the grounded theory approach in order to generate the possible social, cultural and economic explanations of the gender imbalance in our social setting we began our inquiry "on the ground" prior to building theoretical insights (Marshall & Rossman, 2016).

Hence, we conducted inductive interviews; the intent was to explore the phenomenon from the perspective of gender specialists, anthropologists, sociologists, educationists to understand the anticipated changes in social, cultural, and economic spheres of our lives mediated by the gender imbalance in universities.

Then, in Phase II to examine the social, cultural and economic implications of the study, the generated data was used to

identify the themes, subthemes and indicators leading to the development of survey questionnaire to collect the data from a large number of university students (a sample representative of the population) and employees.

Sampling and Study procedure

As the study was designed in following phases:

Phase I-- The phase I was exploratory in nature and used grounded theory approach, so the sample was purposive, and a total of 10, sociologists, anthropologists, educationists, employees, and gender specialists were selected purposively for semi-structured interviews.

Phase II-- A large representative sample of N= 2885 (Male= 739; Female= 1726) enrolled students and N= 557 (Male= 297; Female= 216) faculty members was drawn from the faculty of: Social Sciences, Art and Humanities, Management Sciences and Physical Sciences were selected using multi-stage stratified proportionate

sampling technique from (public and private sector) universities of the Punjab. In addition to this, the sample was selected using the following layers;

1. Purposive selection of 10 universities from Punjab province (7 Public and 3 Private having at least 50% of the listed faculties and at least one women university from the public sector)
2. At the second stage of sampling, a proportionate sample of students was drawn based on the different levels of degree programs that have been offered in different universities under different faculties.

As the total number of students selected from different universities was almost 3000, so, this large sample size limits the margin of sampling error to 3% or below. More description and characteristics of sampled respondents are given in the table1 below.

Table 1

Characteristics of the Selected Sample

Characteristics	Teachers (N=557)	% age who responded	Students (N=2885)	% age who responded
1. University Sector	555*	99.6	2874*	99.6
Public	443	79.5	2211	76.6
Private	112	20.1	663	23.0
2. Study Discipline	472*	84.7	2379*	82.5
Physical Sciences	111	19.9	337	11.7
Management Sciences	92	16.5	470	16.3
Social Sciences	161	28.9	975	33.8
Arts & Humanities	108	19.4	597	20.7
3. Gender	513*	92.1	2465*	85.4
Male	216	38.8	739	25.6
Female	297	53.3	1726	59.8
4. Age(in years)	414*	74.3	1860*	64.5
20-25	44	7.9	1743	60.4
26-30	121	21.7	78	2.7
31-35	135	24.2	25	.9
36-40	63	11.3	5	.2
41-45	24	4.3	4	.1
46-50	15	2.7	2	.1
Above 50	12	2.2	3	.1
5. Marital Status	504*	90.5	2383*	82.6
Married	296	53.1	218	7.6
Unmarried	195	35.0	2134	74.0

	Divorced	13	2.3	31	1.1
6.	Highest Qualification	374*	67.1	2130	73.8
	Graduation	14	2.5	968	33.6
	Master	131	23.5	822	28.5
	MPhil/PhD	229	41.1	340	11.8
7.	Job Status	**		2231	77.3
	Doing Job	-	-	1912	66.3
	Not doing Job	-	-	319	11.1

Note: * Total number of respondents **All teachers are considered with on job status

Instrumentation

Following tools were developed and used in this research study.

Semi-structured Interview Schedule

Semi-structured Interview Schedule was developed for expert sociologists, anthropologists, educationists, and gender specialists from academia and development sector. This tool was conducted in Phase I. Their expert opinion, observations and experiences about social, cultural and economic transformation formed the basis to develop the constructs and tool framework for empirical examination of these aspects in the context of Pakistan. The instrument development procedure of Gender Imbalance Implications Questionnaire (GIIQ) is described below:

Development of Gender Imbalance Implications Questionnaire (GIIQ)

1. Firstly, the theoretical domains of gender imbalance at higher education in different institutions of society were drawn through the in-depth interviews, and the condensed description from the interview data was used to confine

the specific transformations under each construct.

2. As a result of open and axial coding of interviewed data condensed through in phase 1, major constructs and sub-constructs were formed.
3. Under each sub-construct relevant indicators were drawn to measure each sub-construct tangibly.
4. Against each indicator, statements were developed. All statements were developed on a format of close-ended questionnaire items that responded against a six-point scale of agreement.

The total number of statements was confined to the questionnaire of 71 statements almost equally distributed in the number of sub-constructs under each specific domain under research.

The major themes for survey tools were identified from interviews of sociologists, anthropologists, educationists, employees, and gender specialists to formulate tool framework for this study.

Table 2

Framework of “Gender Imbalance Implications Questionnaire” (GIIQ)

Major Constructs/ Scales	Sub-constructs/sub-scales	Sample Items
1.Social Impact Female participation in higher education is resulting in decreased family stereotypes about submissive role of female in family decision making, a change in the perceived age of marriage and choice of life-partner, choice and timing of children, future security,	-Woman’s Say in Decision Making (WSDM) <i>n= 2</i>	69. My opinion is given worth in the household decision making.
	-Equal Opportunities for Education/ Career and Social Networking (EO) <i>n=8</i>	70. Male are preferred for jobs/ leadership positions. 20. I am free to choose my friends.
	-Decreasing the Submissive Role of woman in Family Decision Making (SR in DM) <i>n=2</i>	24. Decision making about financial matters is better to be done by male family members.
	-Age of Marriage Increase	26. Early age marriage decisions lead to a

keeping their own name after marriage and property ownership. There has been fertility decline since more women started entering the professional life, which has improved per-child spending on education, freedom of movement beyond family, and decrease in parents' preference for a male child.

2. Cultural Impact

Culturally the observable transformation in thinking and behavior patterns of society resulting in females with clearer perception about the career vs. family, acceptance of managing and sharing family responsibilities by male and female both, independent mobility of female in society and higher divorce rates and its public acceptance has gradually increased. The social roles of females and males were redefined, role description shifted, and personal space recognition has been formally accepted in many cultures.

3. Economic Impact

The greater financial autonomy leading to an improved role in decision making is one of the consequences of a larger number of females joining the job market. There has been a substantial increase in the women's share in high paying jobs, flexible work hours for female employees to avoid family-job conflict. The female staff remains unable to observe office timing strictly, and it is generally observed that those ladies have to leave the office during working hours off and on. Despite these developments, the pay gap between male and female is shrinking.

(AM) $N=3$

-Choice of Life-Partner (LP) $n=4$

-Future Security (FS) $n=4$

-Property Ownership (PO) $n=3$

-Decreased Preference of Parents for a male child (PMC) $n=3$

-Clearer Perception about Career vs. Family (CvsF) $n=4$

-Acceptance of Managing/ Sharing Family Responsibilities (SR) $n=8$

-Functional Independent/ Independent Mobility of Female (FI) $n=4$

-Higher Divorce Rate/ Public Acceptance of Divorce (HDR) $n=2$

-Personal Space Recognition/ Freedom of Expression (PSR) $n=8$

-Social Acceptance of Co-Education increasing (CoE) $n=3$

-Flexible Working Hours (FWH) $n=4$

-Effect on the output/ production of an organization (EPO) $n=3$

-Salary Gap (Gender disparity) (SG) $n=2$

-An Increase in the Socio Economic Status of Family (ISES) $n=4$

challenging married life.

28. Male and female both should have the freedom to choose the life partner independently.

33. Investment in any form (plots, price bonds etc.) is essential for better future.

38. Only a man can handle the property ownership matters.

39. Male offspring are more important for the future of a family.

41. At least one male child completes a family.

55. I would not mind to cook food whenever needed.

5. Household workload/ family are the responsibility of a woman.

59. Travelling alone is no more problematic for woman.

60. I don't allow my sister/daughter/wife to travel alone.

8. Whatever the circumstances, a woman should not file divorce.

9. I don't allow my spouse/family to use my phone/ laptop without my permission.

15. There should be separate universities for girls and boys.

16. Studying/ working in co-gender environment is challenging.

42. Typical (8:00 am to 5:00 pm) working hours schedule in jobs doesn't suit a woman.

47. Males are more outcome oriented / productive for an organization.

49. Male and female employees with same job positions are not paid equally.

51. Two member family (male-female) income contributes towards improving the socio-economic status of a family.

52. Economic contribution from female side is important for improving the socio-economic status of their family.

Note: n = Total number of items under each sub-construct

The details listed under each construct in Table 3.2 were aligned with objectives to ensure the collection of information central to draw information on each objective.

Survey Questionnaire for university students and teachers

At phase II the data was collected from university students and teachers of

sampled universities, though a self-constructed "Gender Imbalance Implications Questionnaire" (GIQ). The survey questionnaire consisted of 71 scaled items. The responses were collected on six-point scale of agreement.

Validity and Reliability of the Gender Imbalance Implications Questionnaire

After developing the survey questionnaire, pilot testing was done, and expert opinion was taken from the faculty members of

Allama Iqbal Open University (AIU) Islamabad in order to ensure the content validity of the questionnaire. Seven items were excluded from the questionnaire during tool validation process. Further, scale reliability coefficient was found credible (Abell, Springer & Kamata, 2009). Hence, the overall Cronbach's alpha (α) reliability value for the scale was found (for teachers N= 557) .796; (for students N= 2885) .713 for 66 items.

Table 3

Cronbach's alpha (α) Reliability Values for Gender Imbalance Implications Scale

#	Sub-Scales	Item serial number (N=Items)	α (Teachers)	α (Students)
1.	Cultural Implications (CI)	1,3-16, 55-60, 62-65, 67,68,71 (N=28)	.625	.516
2.	Social Implications (SI)	17-41, 61,66, 69,70 (N=28)	.632	.568
3.	Economic Implications (EI)	42-45, 48, 49, 51-54 (N=10)	.660	.585
	Total	(*total N =66)	.796	.713

Note: N= Total number of items, α = Cronbach's alpha presented along with their specific interpretations as per analysis.

Analysis and Results

We performed an objective-wise analysis .The results of the sampled data have been

Table 4

Descriptive Analysis of Gender Imbalance Implications Subscales Data of Teachers and Students

Sub-scales	Score Range			M	SD	Skewness	Kurtosis
	Low	Medium	High				
Teachers (N=557)							
Culture (28 items)	28-56	57-112	113-168	101.40	10.78	-.069	.000
Social (28 items)	28-56	57-112	113-168	111.06	12.59	-.014	-.086
Economic(10 items)	10-20	21-40	41-60	38.91	7.21	-.343	0.061
Students (N=2885)							
Culture (28 items)	28-56	57-112	113-168	100.40	10.185	.005	-.108
Social (28 items)	28-56	57-112	113-168	109.55	12.87	.291	.387
Economic(10 items)	10-20	21-40	41-60	39.08	7.15	-.001	-.005

Note. N= No. of respondents, M= Mean score SD= Standard deviation

Economic Implications

Table 5

Gender-wise Mean-Score Comparison of Gender Imbalance on Job Market

Job Market (n=8)	Gender	N	M	SD	t	df.	p
Students	Male	739	26.75	4.72	1.37	2463	.169

	Female	1726	26.46	4.69			
Teachers	Male	216	26.46	4.52	-1.76	511	.079
	Female	297	27.19	4.64			

Note. n = total number of items in the subscale, N = total number of students and teachers, SD = Standard Deviation, df = Degree of Freedom, p = Value of Significance ($p < 0.05$)

The skewness and kurtosis values (+1 to -1) ensured the conditions of normality of data distribution to perform statistical analyses. An independent sample t-test was conducted to compare the gender-wise mean scores of students and teachers on the subscale of job market. It is found that there is no significant difference at ($p < 0.05$) between the mean scores of male (students $M=26.75$; $SD=4.72$ & teachers $M=26.46$; $SD=4.52$) and female ($M=26.46$; $SD=4.69$ teachers $M=27.19$; $SD=4.64$)

regarding the ongoing job market demands, as the given values shown in table 5. The mean scores of the male and female students and teachers show a slightly positive endorsement towards keeping flexible working hours and females' contribution to improve the productivity of an organization and their share to improve the socio-economic status of their families while working.

Social and Cultural Implications

Table 6

Change in Marriage age, Partner selection priorities, and Sharing of family responsibilities due to Gender Imbalance

Kinds of Social and Cultural Transformations	N	M	SD
1. Age of Marriage ($n=3$)	2885	13.08	3.56
2. Choice of Life Partner ($n=4$)	2885	15.35	3.39
3. Sharing of Family Responsibilities ($n=7$)	2885	23.78	3.65

Note. n = total number of items in the subscale, N = total number of students SD = Standard Deviation

The descriptive measures (Mean and Standard Deviation) were used to assess the overall transformations in the three subscales of gender imbalance implications questionnaire on a six-point scale of agreement. The first subscale "Age of Marriage" contains the items about the beliefs of respondents for the decision of marriage while keeping the appropriate age, education, and career as priorities. Hence, the descriptive values for the first subscale show slightly positive responses towards these socio-cultural transformations ($M=13.08$; $SD=3.56$) hence changing the traditional Asian views about one of the most important institutions of social life. Secondly, there can also be observed the value of mean ($M= 15.35$; $SD=3.39$) above than average (i.e.12.00) depicts an increased tilt towards the freedom of choosing a life partner for

both male and female with giving least importance to the cast, age an ethnic standards of society. Thirdly, there is also found an above-average value ($M= 23.78$) on the third subscale shows an acceptance towards sharing the gender-specific family responsibilities.

Discussion and Implications

The purpose of the study was to examine the changes in the social, cultural, and economic beliefs and practices as perceived, experienced, and anticipated by the students, civil society, and employees due to increased number of females entering higher education institutions. The findings of the study implicate an important contribution towards envisioning the ongoing paradigm shift in this context and suggesting a way forward to cope up with the challenges under this domain.

Female Influx in Universities, Job Market Demands, and Economic Development

The findings of this study explored the students' and teachers' beliefs regarding the ongoing job market demands, salary gap, and the effect of being male or female on the outcomes or production of an organization. Further, an endorsement towards keeping flexible working hours and females' contribution to improve the productivity of an organization and their share to improve the socio-economic status of their families while working is substantiation towards breaking the stereotyped gender-specific roles segregation, the agentic and communal dimensions of gender-specific roles and behaviors were a more prevalent family model in the past. The typical agentic attributes such as assertiveness and independence, commonly associated with public activities, and thus, connected with men are now weakening, and females' contributions at work and to raise the status of their family have now been recognized. In this context, the Eagly's social role theory (1987) suggested that the gender-wise division of labor and societal expectations behaviors and attitudes are strongly influenced by gender roles, and the way cultures endorse gender stereotypes and form firm expectations based on those stereotypes (Eagly, 1987). On the other hand, the communal role that is characterized by attributes, such as nurturance and emotional expressiveness, was commonly associated with domestic activities and generally associated with women. However, due to the larger number of females entering the higher education institutions, they are now more exposed to the different institutions of the society, and the stereotyped beliefs about the fragility of women have now been disbanding. Subsequently, the sharp difference between gender-wise segregation in the agentic and communal roles of males and females resulting into reducing the typical concepts e.g., male should be paid higher than the female,

earning money to run the economic matters of the family is the sole responsibility of male family members, discouraging working women and rejection of economic contribution from the female side, etc. The more important aspect is that these progressive beliefs are prevailing with equal admiration in both male and female students and teachers.

However, the encouragement of these beliefs for a female entering in higher education and looking for more opportunities and endeavors for their careers is still not very open and there is still a reluctance towards acknowledging their economic contribution and appreciation of the society to opt for the available opportunities without labeling them acceptable or not acceptable for women. For instance, in one of the interviews we had conducted, one educationist highlighted the fact that the career opportunities for female students are not limited, but their societal acceptance for opting for these opportunities as a female is not encouraging. Similar findings were revealed from the other research conducted by Smith and Lucena (2016) that So, it's not the academic institutions that are solely responsible for transforming the stereotypical beliefs and practices of people in society, but other relevant government departments should take play their role to entail the gender mainstreaming in the provincial departments as well as approaching the grass-root level to redress gender issues that hinders the female entering into the economic activity. In this context, "The Gender Reforms Action Plan" (GRAP) is a product of the global, national and local commitments of the government to redress gender issues. It focuses primarily on institutional change for achieving gender equality. It is expected to catalyze actions entailing gender mainstreaming in the provincial departments. The findings of this research can contribute as fruit for thought for these departments to initiate

new programmes or engulf the gender related issues in the existing policies of these programmes. Moreover, studies about human development have found a strong relationship between women's education and international development. Based on the findings of our study, the participants endorsed the females' contribution to enhancing the productivity of an organization and their share to improve the socio-economic status of their families while working. Akbulaev and Aliyeva(2020) also determined a positive correlation between gender equality and economic growth of a state. In particular, the researchers seeking the factors explaining the rates of development found women's education one of the major factors behind social and economic development, (Stephan, 2002) has been shown to have a positive correlation (David & Gatti, 1999; Elizabeth and Hill, 1998). According to notable economist Lawrence Summers, "investment in the education of girls may be the highest-return investment available in the developing world" (Elizabeth & Hill, 1998). Pakistan and India share the same socio-cultural beliefs and stereotyped behaviours here taking the case of one of the states of India, "Kerala" as an example, the state with the highest female literacy rate of 91.98%, where 26.9% of female students likely to pursue higher education, while men are less likely at 19.3% (Ministry of Human Resource Development, India, 2013). The GDP of this state is ranked 11th out of all Indian states.

Women Voice, Identity and Independence

The descriptive analysis of the transformations in social and cultural beliefs and practices due to the female influx in higher education reveals the acceptance of independent decision making regarding the age and preferences while getting married. The acceptance of independence is not only for males but also for the females; they tend to be receptive and passive in making such

decisions in the context of Asian culture. The highest female literacy rate of 91.98% in one of the Indian states "Kerala" while comparing with the overall female literacy rate at 65.46%, (Consensus, 2011) can be seen as their higher participation in different endeavors of life e.g., autonomy in academia and the arts, politics, administration, social reform and festivals comparative to the rest of country's women (Nayar, 1989). These women also have the power to inherit the land and choose their spouse, which provides Kerala with one of the lowest early marriage rates in India (population connection, 2012).

The strongest connection between the educational impact on social systems is the low fertility rate in Kerala (population connection, 2012). Moreover, the sharp line between the household responsibilities, which were once associated with the male and female gender, has now been getting blurred; for example, the concept of sharing responsibilities of cooking and laundry. According to Cornish, Walls, Ndirangu et al. (2019) reported that economic interventions play an important role in supporting women's economic empowerment and in influencing gender norms, but men's roles and women's social empowerment and additional income was reported to reduce relationship tensions.

Hence, it can be concluded that the ongoing social, cultural and economic societal transformations or which are likely to occur in future inform the policy makers, sociologists, gender specialists and anthropologists to prepare the individuals for the required adaptations to dealing with upcoming changes in family structures, job market requirements and cultural beliefs. Further, ongoing government initiatives and currently working departments can directly provide a source of linkage among the various institutions of our society as an essential need of the time.

References

- Abdullah, K., Noor, N. M. & Wok, S. (2008). The perceptions of women's roles and progress: A study of Malay women. *Social Indicator Research*, 89, 439-455.
- Allen, M., & Castleman, T. (2001). Fighting the pipeline fallacy. In A. Mackinnon (Ed.), *Gender and the Restructured University: Changing Management and Culture in Higher Education* (pp. 151-165). Buckingham, UK: Society for Research into Higher Education & Open University Press.
- Akbulaev, N., & Aliyeva, B. (2020). Gender and economic growth: Is there a correlation? The example of Kyrgyzstan. *Cogent Economics & Finance*, 8(1), 1758007.
- Andrew, M. D. B., Koo, S. S., Ogawa, N., Phananimamai, M. & Sigit, H. (1986). *Population growth and economic development: Lessons from selected Asian countries*. New York: Policy Development Studies, United Nations Fund for Population Activities.
- Andrew, M., Phananimamai, M. & Poapongsakorn, N. (1987). *Households and their characteristics in the Kingdom of Thailand: Projections from 1980 to 2015 using HOMES*. Honolulu: East-West Population Institute.
- Brockhaus (2001). *Enzyklopädie der Psychologie. Geschlechterrollen*.
- Carolyn Medel-Anonuevo and Bettina Bochynek. (1995). The international seminar on women's education and empowerment. (Eds.) In *Women, Education and Empowerment: Pathways towards Autonomy*. (pp. 5-22).
- Chamrathirong, A. (1984). The evidences from marriage culture. In *Perspectives on the Thai Marriage*, edited by Aphichat Chamrathirong. Bangkok: Institute for Population and Social Research, Mahidol University.
- Chayovan, N. (1996). *The status of Thai women: Group perspectives*, IPS No. 238/ 96. Bangkok: Institute of Population Studies, Chulalongkorn University.
- Consensus (2011). *Literacy in India*. All India Survey on Higher Education 2011-12 Provisional. Ministry of Human Resource Retrieved from: <https://www.census2011.co.in/literacy.php>
- Cornish, H., Walls, H., Ndirangu, R., Ogbureke, N., Bah, O. M., Tom-Kargbo, J. F., ... & Ranganathan, M. (2019). Women's economic empowerment and health related decision-making in rural Sierra Leone. *Culture, Health & Sexuality*, 1-18.
- Curtis, J. W. (2006). Balancing work and family for faculty: Why it's important. Retrieved from: <http://www.aaup.org/publications/Academy2004/04nd/04ndcurt.htm>
- David, and Roberta Gatti (1999). *Gender Inequality, Income, and Growth: Are Good Times Good for Women?* Washington D.C.: The World Bank.
- Dillman, D., Smyth, J. & Christian, L. (2009). *Internet, mail and mixed-mode surveys: The Tailored Design Method* (3rd ed.). Hoboken, NJ: John Wiley & Sons, Inc.
- Dunleavy, M.P. (2007). *A Breadwinner Rethinks Gender Roles*. The New York Times. https://en.wikipedia.org/wiki/Gender_role
- Eagly, A. H. (2004). Prejudice: Toward a more inclusive understanding. In A. H. Eagly, R. M. Baron, & V. L. Hamilton (Eds.), *The social psychology of group identity and social conflict: Theory, application, and practice* (pp. 45-64). Washington, DC, US: American Psychological Association. doi:10.1037/10683-003

- Espenshade, Thomas J. (1985). Marriage Trends in America: Estimates, Implications, and Underlying Causes. *Population and Development Review*, 11 (2), 193–245. doi:10.2307/1973487. JSTOR 1973487.
- Greenberger, E. & O'Neil, R. (1993). Spouse, parent, worker: Role commitments and role related experiences in the construction of adults' well-being. *Developmental Psychology*, 29, 181-197.
- Gender Roles and Stereotypes - Theory, Family, Development, Women, and Theory. Retrieved on May 30, 2017 from:<http://family.jrank.org/pages/686/Gender-Gender-Roles-Stereotypes.html>
- Guest, Philip & Tan, J. (1994). Transformation of marriage patterns in Thailand, IPSR Publication No. 176. Bangkok: Institute for Population and Social Research, Mahidol University.
- Hawke, Lucy. (2007). Gender Roles Within the American Marriage: Are They Really Changing? ESSAI.
- Higher Education Commission . (2016). Enrollment trend in higher education between 2002-2008. <http://www.hec.gov.pk/InsideHEC/Divisions/QALI/Others/Pages/Enrollment.aspx>
- Higher Education Commission . (n.d.). Enrollment trend in higher education between 2002-2017 <http://www.hec.gov.pk/english/universities/Pages/test-page.aspx>
- HEC (2018). Students Enrolment in Universities by Access and Gender. Retrieved from: <http://www.hec.gov.pk/InsideHEC/Divisions/QALI/Others/Pages/EnrollmentbyGender.aspx>
- Hesse-Biber, S. N. (2010). Mixed methods research: Merging theory with practice. New York: Guilford Press.
- Hodgson, G. M. (2006). What are institutions? *Journal of Economic Issues*, XL(1), 1-25. <http://www.hec.gov.pk/InsideHEC/Divisions/QALI/Others/Pages/Enrollment.aspx>
- Inglehart, R. (1997). Modernization and post-modernization: Cultural, economic and political change in 43 societies. Princeton: Princeton University Press.
- Kanjanapan, W. (1985). A study on the relationship between fertility behavior and size, structure and functions of the family in Thailand, Publication No. 92. Bangkok: Institute for Population and Social Research, Mahidol University.
- King, Elizabeth M., and M. Anne Hill. (1998). *Women's education in developing countries barriers, benefits, and policies*. Baltimore: Published for the World Bank [by] the Johns Hopkins University Press,
- Kuandachakupt, S. (1994). Family size and education. In Family size and family welfare in Thailand. Honolulu: East West Center.
- Lindberg, L., Riis, U. & Silander, C. (2011). Gender equality in Swedish Higher Education: Patterns and shifts, *Scandinavian Journal of Educational Research*, 55(2), 165-179.
- Mahatthanasomboon, P. (1983). Male-female wage differentials in urban labor market. Bangkok: Metropolis. Master's thesis, Economic Department, Thammasat University.
- Mugisha, C. H. (2005). Gender imbalance in secondary schools. Retrieved from www.fmreview.org/FMRpdfs/FMR22/FMR2216.pdf
- Murtaza, K. F. (2012). Women empowerment through higher education in Gilgit-Baltistan. *International Journal of Academic Research in Business and Social Sciences*, 2(9), 343-367.

- Nath, K. (2013). Education and empowerment of women: A case study of India. Retrieved from www.womensglobalconnection.org
- National Commission on Women's Affairs (NCWA) (1995). Thailand's report on the status of women and platform for action 1994. Paper prepared for the Fourth World Conference on Women, Beijing, The People's Republic of China, 4-15 September 1995.
- Nayar, P.K. (1989) Kerala women in historical and contemporary perspective. *Women and Population Dynamics*. Retrieved from: <https://www.ncbi.nlm.nih.gov/nlmcatalog/101053100>
- Ng, C. W., & Chakrabarty, A. S. (2005). Women managers in Hong Kong: Personal and practical agendas. *Asia Pacific Business Review*, 11, 163-178.
- Noor, N. M. (2001). Work, family and well-being: Challenges of contemporary Malaysian women. Kuala Lumpur: IIUM Press.
- O'Neil, D. A., & Bilimoria, D. (2005). Women's career development phases – idealism, endurance, and reinvention. *Career Development International*, 10, 168-189.
- Perry-Jenkins, M. & Folk, K. (1994). Class, couples and conflict: Effects of the division of labor on assessments of marriage in dual-earner families. *Journal of Marriage and the Family*, 56, 165-180.
- Phananiramai, M. (1995). The extended structure of families in Thailand. Paper presented at the annual seminar of the project Promotion of Analysis and Consideration of Population Consequences of Development Planning and Policy in Thailand. Bangkok: Thailand Development Research Institute.
- Phananiramai, M. (1997). Population changes and economic development in Thailand: Their implications on women's status. *TDR Quarterly Review*, 12(3), 15-26.
- Pitcher, G. (2007). Fewer UK graduates expect to benefit from flexible working than in China or the US. Retrieved from <http://www.personneltoday.com/hr/fewer-uk-graduates-expect-to-benefit-from-flexible-working-than-in-china-or-the-us/>
- Population connection (2012). Kerala: A Model Case for Education (n.d.). *Population Education*. Retrieved from https://populationeducation.org/sites/default/files/kerala_a_model_case_for_education.pdf
- Rabibhadana, A. (1984). Kinship, marriage, and the Thai social system. In *Perspectives on the Thai Marriage*, edited by Aphichat Chamrathirong. Bangkok: Institute for Population and Social Research, Mahidol University.
- Reynolds, A. (1999). Women in the legislatures and executives of the world: Knocking at the highest glass ceiling, *World Politics*, 51, 547-572.
- Smith, J. M., & Lucena, J. C. (2016). How do i show them i'm more than a person who can lift heavy things?"the funds of knowledge of low income, first generation engineering students. *Journal of Women and Minorities in Science and Engineering*, 22(3), 199-221.
- Stephan, K. (2002). Low Schooling for Girls, Slower Growth for All? Cross-Country Evidence on the Effect of Gender Inequality in Education on Economic Development. *The World Bank Economic Review*, 16 (3), 345-373.
- The World Bank. "Gender in East Asia and Pacific", Social Development. The World Bank, 2013. Web. March 2015. Gender Equality and Discrimination in Asia and the Pacific Asian Development Bank.

Retrieved from:
https://en.wikipedia.org/wiki/Gender_studies
 The World Bank (2013). Gender in East Asia and Pacific. Retrieved from:
http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/EASTASIAPACIFICEXT/EXTEAPREGTOPSOCDEV/0,,contentMDK:20327365~menuPK:502969~pagePK:34004173~piPK:34003707~theSitePK:502940,00.html#EAP_approach

University of the Punjab (2018). Fact book: University of the Punjab 2018. Lahore: Punjab University Press.
<http://pu.edu.pk/downloads/Fact-Book-2018.pdf>

Acknowledgment:

This study was funded by Higher Education Commission Pakistan, under the National Research Program for Universities (NRPU) Grant No. F.20-3376/R & D/ HEC/14239