

Political Economy of Gender Equality: Case Study of Pakistan

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Abstract

In the present study an attempt has been made to examine the impact of socio political and economic factors on gender equality in education and employment in Pakistan during 1980 to 2012. An ARDL bond test approach employed to see the long run relationship between the variables but Wald test f statistics left the inconclusive results. Finally, The OLS estimation has been done for the empirical analysis, which found that Urbanization, Economic Growth and Foreign Direct Investment jointly with better law and order situation have positive influence while , remittances, have negative affect on the status of women in Pakistan, This suggests that economic and political factors jointly affect the status of women in Pakistan. The study also found that improving the level of gender equality in education and employment would lead toward economic growth.

Keywords: Political Economy, Gender Equality, Women Empowerment, Education, Employment
Field of Research: Gender and Development

1. Introduction

"There is now a shared understanding within the development community that development policies and actions that fail to take gender inequality into account and fail to address disparities between males and females will have limited effectiveness and serious cost implications." World Bank (2003a)

Promotion of gender equality became extensively known ingress element of enhancing socio economic and human development around the world.

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Gender equality gives equal rights and responsibilities to all human beings regardless of their biological status of being men and women². Gender equality can be seen in multiple dimensions including Economic, Social, Political and Demographic, but the most propelling cost of Gender inequality is seen in production due to underutilization of female in formal work, inequality in education and economic opportunities.

Gender Equality is main pillar of achieving holistic development gains in a country, it have many socio political and economic gains. *"Greater gender equality can enhance productivity, improve development outcomes for the next generation, and make institutions more representative."* (World Development Report, 2012)

According to World Bank³ productivity can be enhanced if disparities between male and female are diminished by giving them equal access in all spheres, like equality in quality education can directly improve growth (Klasen, 2002; Dollar and Gatti, 1999) giving women access to resources like equality in economic opportunities and employment foster growth (Klasen and lammana, 2008), this will assure to get their skills utilized in productive activities.(World Bank, 2012)

World bank also emphasizes that giving a decision making power at household level is crucial for improving not only the status of women today but also for next generation, giving authoritative control over resources at household make the women aware to spend over them and on their children's benefit, which will give greater health and educational outcomes(World Bank, 2012).World Bank also emphasized that the role of female in decision making process is progressive for policy choices and makes institutions more representative.Empirical evidence also show that giving priority to gender equality in education and other social sector determinants have various impacts on growth process at household and societal levels.

For example gender equality in education has demographic transition effect, Evidence show that female education is inversely related with fertility rates, higher female education tends to lower fertility which reduces the dependency burden and increases the share of labor force which fosters economic growth. (Chen, 2004)

² Human Development Programme

³ World Development Report, 2012

Globally many improvements have been made in arena of gender equality and many gaps have been reduced.

Women make almost half of the globe and we can observe the significant share of the women in almost every sector like, education, agriculture, industry, manufacturing etc. According to World Bank, 40 percent global labor force is comprised of women, from whom 43 percent of the world's agriculture labor force is female labor and almost half of the university students, are girls.⁴This shows a significant improvement in female labor force participation.

Gender inequality is recognized as serious problem over the globe, some improvements in gender equality is seen in many countries, like female labor force participation is increased, number of female students is also increased and share of female labor in agriculture sector is significant, but situation is still alarming in developing countries in the capacity of access and opportunities. Despite these improvements situation of gender equality is still alarming in the developing countries. Evidence show that in many developing countries huge inequalities exists between men and women in equal rights and opportunities context (Kirti and Tisdell, 2003) and status of women is vulnerable relative to men in developing countries. (Dollar and Gatti, 1999)

Gender inequality became a dilemma for developing countries; Pakistan is special case of high gender inequality and discrimination. It is on the top second worst country ranking on 135th out of 136 countries for overall gender inequality ranked by *Global Gender Gap Index* (The global gender gap report, 2013)

In Pakistan gender inequality can be observed in almost all spheres of life like, education health employment and political representation. Situation of female is very much alarming in these sectors, especially in education. Female comprises of half of its total population but it displays a very gloomy picture of Pakistan in world. Role of female in Pakistan's Growth is nominal. According to labor force survey of Pakistan, Pakistan's female literacy rate for 10 years and above is 48.1% and female labor force participation rate is 21.5% in 2012-13. From which 30 % are below matric. Only 3.8% females are having degree and above.

⁴ World Development Report, 2012

According to a report released by *Basic Education Coalition*, the young people of the world comprises of more than 1.5 billion, half of which are girls, this makes the largest portion of the young people ever in the history. Worlds out of school youth is 130 million people from which 70 percent are girls. Due to gender inequality 3.4 million girls are absent world's primary schools*.

The present study aims to assess the level of gender equality in health education, employment and political participation at broader level by taking into consideration some political and economic factors influencing gender equality in Pakistan.

This issue needs to reinvestigate and address because female comprises almost half of the Pakistan's population, so this makes a large proportion of the globe that indicates the inclusion of women in whole process of development and decision making about their own future is mandatory. Peaceful democratic and harmonious society urges the equal participation of women in development process. But women facing many hurdles regarding participating in economic activities, without improving equality this objective cannot achieved. Everyone is claiming about demographic dividend, which 15 years are already passed, and still we don't see any improvement, policies are still on the way, needs to think what would happen after 2050? So there is dire urge to focus more on female and enhance their capabilities by empowering them for inclusive growth. There is extensive body of literature available on this issue, Pakistan is worst in gender equality, so this study would be a significant contribution in existing literature. The main objectives of the present study are as under.

1.1 Objectives

Main objective of the study is to make an in-depth analysis by examining the impact of socio political and economic factors on each dimension of gender equality in Pakistan, sub objectives are as under:

1. To examine the impact of socio-economic and political factors on gender equality in education
2. To examine the impact of socio-economic and political factors on gender equality in employment

1.2 Statement of the Problem

Situation of Women in all over the world is vulnerable, and alarming in Pakistan particularly. Pakistan is lagging behind in women empowerment and performing worst in gender equality almost in all spheres like health, education, employment and legal rights. There is ample requisite for examining the matter of gender equality in Pakistan as women are facing serious challenges of discrimination, neglect and injustice in participating economic activities like. There is need to explore socio political and economic factors that hinders gender equality in Pakistan.

A large number of studies have been done on the issue of gender equality and they explored the different factors effecting gender equality and status of women in Pakistan. In the era of more globalized and competitive world, women are facing more challenges to enter in the market due to discrimination and ignorance, because advanced technologies requires advancement of knowledge and skills, but the situation of female in country like Pakistan is pathetic because female of Pakistan is not well equipped with advanced knowledge and skills, they get typical education and confined to typical employment and having poor health due to lack of awareness and have low decision making power which leads to confined them discriminated. The present study is an attempt to recognize those factors that hinders the status of female in Pakistan, either these factors have positive or negative influence on gender equality in Pakistan by developing an empirical model using time series approach from 1970 to 2012 for country specific case of Pakistan.

1.3 Significance

Female comprises almost half of the total population of the world, this makes the largest proportion of working force with respect to income and employment generation, but the situation of women is very pitiable due to inequality in almost all spheres of life in almost every country and in Pakistan specifically, status of women displays a very gloomy picture of Pakistan in world showing second worst country in overall gender equality. Role of female in Pakistan's Growth is nominal. According to labor force survey of Pakistan, Pakistan's female literacy rate for 10 years and above is 48.1% and female labor force participation rate is 21.5% in 2012-13. From which 30 % are below matric. Only 3.8% females are having degree and above.

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The rationale behind choosing this topic is pivots in the eternal relationship between gender equality and economic growth. It is impossible to imagine the growth of any country without the development of human capital. Thus for the overall economic development and poverty reduction in Pakistan gender equality and women empowerment is necessary. There is extensive stock of literature is available on the issue of gender equality but the work done in this area according to my knowledge is scattered. A very few studies employed the in-depth analysis and studied the behavior and magnitude of socio-political and economic factors and their relative and absolute effect in detail. By using updated and extended data this study will fill this gap and makes an attempt to explore the political and economic factors of gender equality.

2. Literature Review

An extensive stock of literature is available on the issue of Gender equality. Importance of women empowerment is recognized by past few centuries, but female are still suffering from social exclusion and injustice. I would recall the notion of "*AmartyaSen's 100 million missing women*". He claimed that "millions of women are missing from the society on the basis of social exclusion and inequality". I want to replace this claim in Pakistan too. The situation of socio political factors is still alarming in many countries of the world especially on female side due to inequality. Developing countries are the special case of low literacy and low female labor force participation, low life expectancy and injustice in female side. Recent literature on the issue of gender equality and political and economic factors influencing it is given as under.

2.1 Gender Inequality

Kiriti and Tisdell (2003) were in quest of exploring the prominent factors influencing gender inequality poverty and human development in Kenya employing descriptive method for different periods till 2000. The empirical evidence exhibits a continue increase in Kenya's poverty and gender inequality.

They examined multiple aspects of gender inequality including education, employment and political participation. The empirical results suggest that women are highly discriminated in education and health indicating low literacy and life expectancy.

Szabova (2011) assessed existing gender based indices and tried to form a new gender inequality index. The researcher suggested to include some new indicators of gender inequality and developed a new index whose name is gender inequality index. GII measures new aspects of gender inequality and disadvantages to women which were not included in the previous measures. The researcher argues that GII gives a complete picture of gender inequality.

Chen (2004) studied the role of information and communication technology in improving Gender equality. He used panel data and adopted OLS and IV method in country fixed effect. Their result indicates that there is significant positive relation between ICT and gender equality in education and employment and there is bidirectional relationship between gender equality and development.

2.2 Economic Aspects of Gender Inequality

The motive behind every economic activity is ultimately human development through various channels, either directly or indirectly, through employment generation, health facilitation or giving opportunities, education is key to achieve all these targets.

It is necessary for human development and subsequently for economic growth. This debate is prevalent in the history of economic thought. Gender inequality is core problem of the low level of education. This issue is part of debate from ages and still an alarming issue of the world today, it discussed many a times in history by many researchers.

Barro (2013) investigated the role of education as a major determinant of economic growth. They distinguished between quality and quantity of education. They employed neo classical growth framework for empirical estimation. Their sample size consists of 100 countries covering the time period of 1960 to 1995 and researcher made a decade wise analysis.

His findings indicate that education has positive impact on growth at starting level of adult males at higher and secondary levels, which show that educated male, are complementary for application of new technologies. Similar estimation done for female also, but results are opposite showing that link between growth and female education is insignificant, which postulates those females are not utilized in the labor market of several economies.

Benavot (1989) examined the impact of gender differences in educational expansion on growth of a nation. The researcher used multiple regression models for panel of 96 countries from 1960 to 1985. The main focus of the study was to estimate the effects of Primary secondary and tertiary level gender differences in education on economic growth. The researcher found tertiary and secondary level are less effective and the most prominent level is primary in developing countries. The findings of the study show that girls at primary level causing economic enlargement as compared to boys in poor and less developed countries.

Hassan and Cooray (2013) made an attempt to study the Gender effectiveness of education on economic growth. Theoretical grounds of their study meet with the endogenous growth theories. They employed extreme bounds analysis for Asia, using unbalanced panel data. They found that there exist a gender gap, female education is less effective for economic growth at all levels, but when they employed neoclassical type models, their findings are slight different, these results are consistent with the robust growth effects of male and female enrolment at primary and secondary levels.

Tansel and Gangor (2012) have conducted a study on the relationship between economic development and education taking into consideration the gender affects for Turkey. They used pooled, province level data; their sample consists of 1975 to 2000. They used OLS and 2SLS techniques. They tested the separate effects of male and female education on economic growth. Their results are opposite for less developed and developed provinces.

In the developed provinces only the male education is significant and in less developed provinces only female education is statistically significant indicating that less number of women are participating in school attainment at average level failed to impacting the development. It also shows that very small number of opportunities are available for more educated workers in the less developed areas of Turkey.

In a nutshell, gender gap in education is adversely and significantly effecting the productivity in all provinces of turkey including developed and less developed ones.

Kaur and Letic (2012) investigated the impact of female education on economic growth through human capital and fertility rates. India and Niger were taken as sample in the under discussion study. they gave descriptive and theoretical illustration of the topic buy using the time period between 1990 and 2010. In both countries cases, they found that female education is significantly effecting economic growth by lowering fertility rate and enhancing the quality of human capital, but both countries exhibit social and cultural discrepancies in case of female education. The authors also pose their result in favor of positive impact of female education on economic growth directly and indirectly.

Dahal (2011) investigated the link between gender equality in education and economic growth in case of Nepal using district level data of 75 districts of Nepal for the year 2001. The researcher used Cobb Douglas production function and employed OLS method for estimation. He found an obvious negative impact of gender inequality on district level GDP per capita of Nepal.

Klasen and Lamanna (2008) conducted a similar study on gender inequality in education and employment for developing countries by using panel data. They have updated their previous work by extending the data. The data period covers from 1960 to 2000 for cross country regression. They used multiple regressions for estimations. Their results show that economic growth is on slower pace due to gender gap in education and employment, considerably increasing effects on growth difference among different regions, like Middle East, North Africa and South Asia.

Klasen and Lamanna (2003) studied the inequality in education and employment in gender perspective in the Middle East and North Africa. They used panel data estimation for update of previous studies on education from 1960 to 2000. They also estimated the magnitude of the effects of different indicators on actual growth. They found low gender gap in East Asia and Pacific. They also found that gender gap in employment is adversely affecting the growth as compared with gender gap in education.

Knowles et al. (2002) attempted a very useful study on educational gender gaps and economic development.

They saw the separate effects of male and female education by employing neoclassical growth model. Their major objective was to estimate the long run effects of female and male schooling on labor productivity at average level. They used cross country micro and macro data and employed OLS and 2SLS techniques. . The data comprises of five yearly intervals ranging from 1960 to 1990. As for as results are concerned, role of female education is robust with different sensitivity analysis, confirming the World Bank's claim about the importance of female education.

Klasen (2002) examined the link between gender inequality in education and economic growth between 1960 and 1990. Cross country and panel regression analysis were used in his study. He found the direct and indirect effects of gender inequality on economic growth through increasing the inequality lowering the quality of human capital directly and through lowering the investment and population growth indirectly. There are also differences in annual per capita growth rates due to differences in gender gaps among different regions.

Psacharopoulos (1985) examined the returns of education by increasing sample size through inclusion of more country cases covering 45 countries from *world development report*. The new update on evidence from cross country analysis reveals that returns are higher in the field of education with low per capita. There are number of reasons for low earning of women, but in case of developing countries, rate of return for women education is higher, which he claims might be an underestimation because common calculation is applied ignoring the probability of more educated women participation in labor force.

2.3 Political Factors of Gender Inequality

Existing literature and empirical evidence show that there are significant role of institutions in improving gender equality. Iversen and Rosenbulth (2006) empirically examined the household division of labor and gender gap. The sample involved in their study comprised of ten advance democracies for the year 1996. Their major objective was to analyze the variation in gender division of labor and gender voting gap. The empirical evidence is showing variation in gender gap among different countries.

The results also show that female are highly discriminated by institutions at household level, that hinder their abilities to get prescribed skills for taking part into equal distribution of work at household level. A strong impact of working women in voting behavior is also seen at party platforms.

2.4 Gender Gap in Pakistan

Gender gap is the most common hindrance of Pakistan's economic growth because composition of population of Pakistan is almost equal numbers of females and male. The number of female in total population is reaching the level as that of man.

But due to inequality, discrimination and exclusion and some cultural and religious disparities women are still lagging behind than men. Female literacy rate in Pakistan is too low as compared to other developed and developing countries. This issue still needs to be addressed.

Pervaiz et al. (2011) examined the link between gender inequality and economic growth in Pakistan for the time period of 1972 to 2009. They used composite index of gender inequality. The evidence shows that there exist a significant negative relationship between gender inequality and economic growth in Pakistan.

Kakar et al. (2011) tried to investigate the long run relation between expenditures on education and economic growth in Pakistan. The time period involved in the study was from 1980 to 2009. Co integration and Error Correction models were used in this study. The empirical findings show the presence of long run relationship between education and economic growth. Quality of education has positive impact on productivity and efficiency of labour force and positively affects the process of economic development. These are only long run implications, education have insignificant relation with economic growth in the short run.

Akram et al. (2011) examined the relationship between gender equality and economic growth in Pakistan. The sample covers the range from 1972 to 2010. They used OLS and co integration analysis. Their results demonstrate that biasedness of gender in education laid negative impact on economic growth.

They also found that this biasedness is much harmful for economic growth as compared to primary and secondary levels.

Afzal et al. (2010) made an effort to present the link between school education and economic growth in the short as well as long run in case of Pakistan. ARDL Bounds Testing Approach to Co integration were employed for empirically estimation covering the data period from 1970-71 to 2008-09 on annual bases. The findings of their study show that there exists Co integration between school education and economic growth. There is also bidirectional positive long run relation between school education and economic growth in Pakistan, and the opposite case is for the short run.

Fatima (2010) has conducted a multipurpose study on the importance of female education and its role in the development of a nation. Their study identified some important barriers to the female education in Pakistan from which low investment in this sector are on the top. They also examined the effects of female contributions in the labor force. They identified the existing opportunities for female in Pakistan. They applied OLS technique for estimation, by using time series data from 1980 to 2006. Sources of data were IFS and Economic survey of Pakistan. Their results postulate that Female education and GDP growth are not linked with each other.

The quality of female education is low, and it also have an impact on the enrolment of female education at primary and secondary levels, which results in low female labor force participation and increases unemployment rate in Pakistan.

Easterly (2001) examined the link between growth and development in case of Pakistan. He presented a description of several social and political indicators on the basis of existing literature. His findings show that Pakistan is underperforming in these indicators namely, education, health, gender equality, political instability, corruption etc. He purposes an illustrative argument in the case of Pakistan, high social polarized society cannot solely developed by increase in its growth rate; it also needs other social and institutional progress.

2.5 Conclusion

From the aforesaid discussion it is concluded that gender equality serve as essential component of development.

Evidence show that, a country cannot grow faster without having adequate allocation and distribution of public service deliver to all members of society whether it is male or female. Recent literature on the issue of gender equality is very relevant and beautifully described the problem, however some basic shortcomings exists which need to be addressed in future researches. The present study would be a comprehensive in nature because the work done upto now is scattered in this area, is an effort to fill these gaps by including some political and economic factors which hinders gender equality in Pakistan by using updated set of available data over the time period of 1980 to 2012.

3. Theoretical Framework

Gender equality is being the interest of researchers of social sciences and it took more importance with the passage of time. Many movements for gender equality started in the world and ultimately it becomes a separate subject namely gender and development and being taught in universities with the name of Gender Studies. But all these efforts seem meaningless especially in developing countries. Situation of the women is worst; picture in Pakistan is gloomier for female. According to *world gender gap report, 2013* Pakistan is on 135th number out of 136 countries in gender inequality.

The present study is an effort to identify those factors which hinders the development of women in Pakistan whether those factors are socio political or economic. This is tested on the bases of theory of Gender empowerment approach. It stresses upon the equality of male and female at all levels.

“The empowerment approach views the issue of women’s gender subordination within this complex socio-political, economic, and cultural context. It therefore understands that the solutions proposed need to be accordingly sophisticated” (Tasli, 2007)

The empowerment is not a very complex phenomenon, it is intended to involve those actors of society in decision making process who are ignored because of their weakness of power to act and respond. It is “bringing people who are outside the decision-making process into it” (Rowlands, 1995).

3.1 Economic Development

Economic Development is key determinant of gender equality. Dollar and Gatti(1999) and Chen (2004) empirically found that economic development is key contributor of gender equality. Easterly (1997) also found that positive association exists between economic development and gender equality. Economic development raises the income level; Because People with higher income have more access to goods and services that promote awareness about health and lives healthier life. Income has also positive impact on employment, with the increased level of production leads to increase in aggregate demand and increase in economy size which generates new opportunities and demand for labor would also rise that lead to increase in level of employment and that increases the demand for female and increases the equality of male and female in labor market.

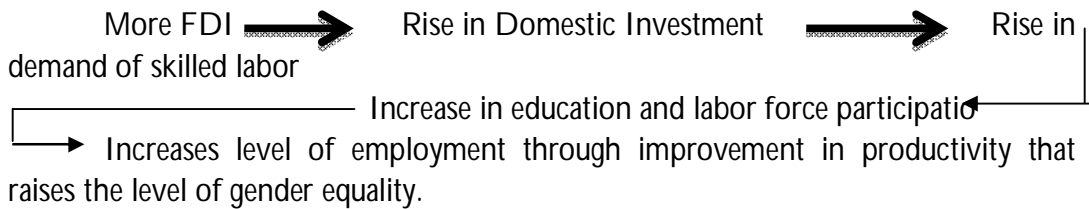
3.2 Information and Communication Technology

Information and communication technology is expected to have positively linked with women empowerment in all fields. The existence of information and communication technologies and their usage narrows the geographical boundaries and spread more information to globalized world which reduces the uncertainties and also reduces transaction cost, resultantly competitiveness would raise in global market .It encourages women to acquire education through distant learning programs that reduces transportation cost and makes education easily available for women in rural areas. High level of female education improves gender equality. Chen (2004) also found that ICT is key contributor of improving the level of gender equality.

3.3 Foreign Direct Investment

Foreign direct investment is a measure of foreign ownership of productive assets, such as factories, mines and land. Increasing foreign investment can be used as one measure of growing economic globalization .FDI stimulates domestic investment which increases demand for inputs and consumption resultantly demand for skilled labor would also rise.

This would work as motivation to invest in human capital that leads to increase in education health investment and condition of human capital would improve. Consequently productivity and efficiency of labor would rise that lead to increased employment level and lessen the gender bias.



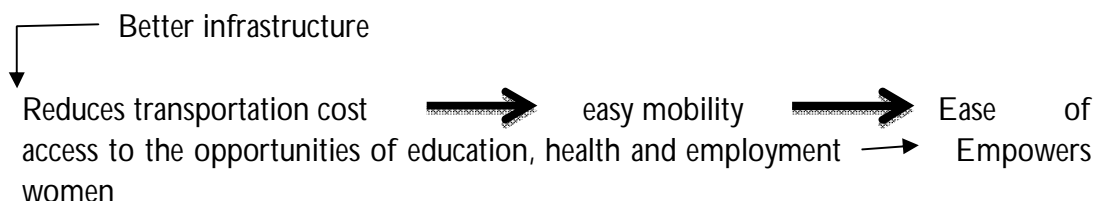
Eastin and Parakash (2013) included FDI in their model as important determinant of gender equality.

3.4 Population Growth

Population growth is expected to have negative relation with gender equality and it would appear with negative sign in our model. It affects the status of women in various channels. As population increases, it expands the family size and number of dependents also increases which leads towards low priority for women in education because female education is comparatively considered costly because for female education transportation cost is also involved, so level of female education would decline with the rise in population growth that leads to inequality among male and female.

3.5 Infrastructure

Infrastructure works as backbone of any development process. It serves as basic instrument for operationalization of communities and societal movement. Better physical infrastructure leads to better access and it enhances women abilities grow and make them easy to move in society. so for the present study positive sign is expected for infrastructure and all sub categories of gender equality.

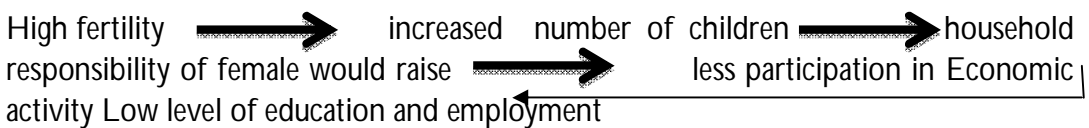


3.6 Urbanization

Urbanization gives choice and makes easy movement because there are more facilities of transportation, educational institutions, hospitals etc. in cities as compared to villages that motivate women to work more independently as compared to rural areas and hence discourages the gender bias.

3.7 Fertility

Fertility is expected to have inverse relationship with gender equality. High fertility leads to high population growth which enhances dependency ratio and in turns lowers the income, so with limited resources parents prefer the education for boys over girls for economic and old age safety concerns which creates the wedge between their economic and social activities.

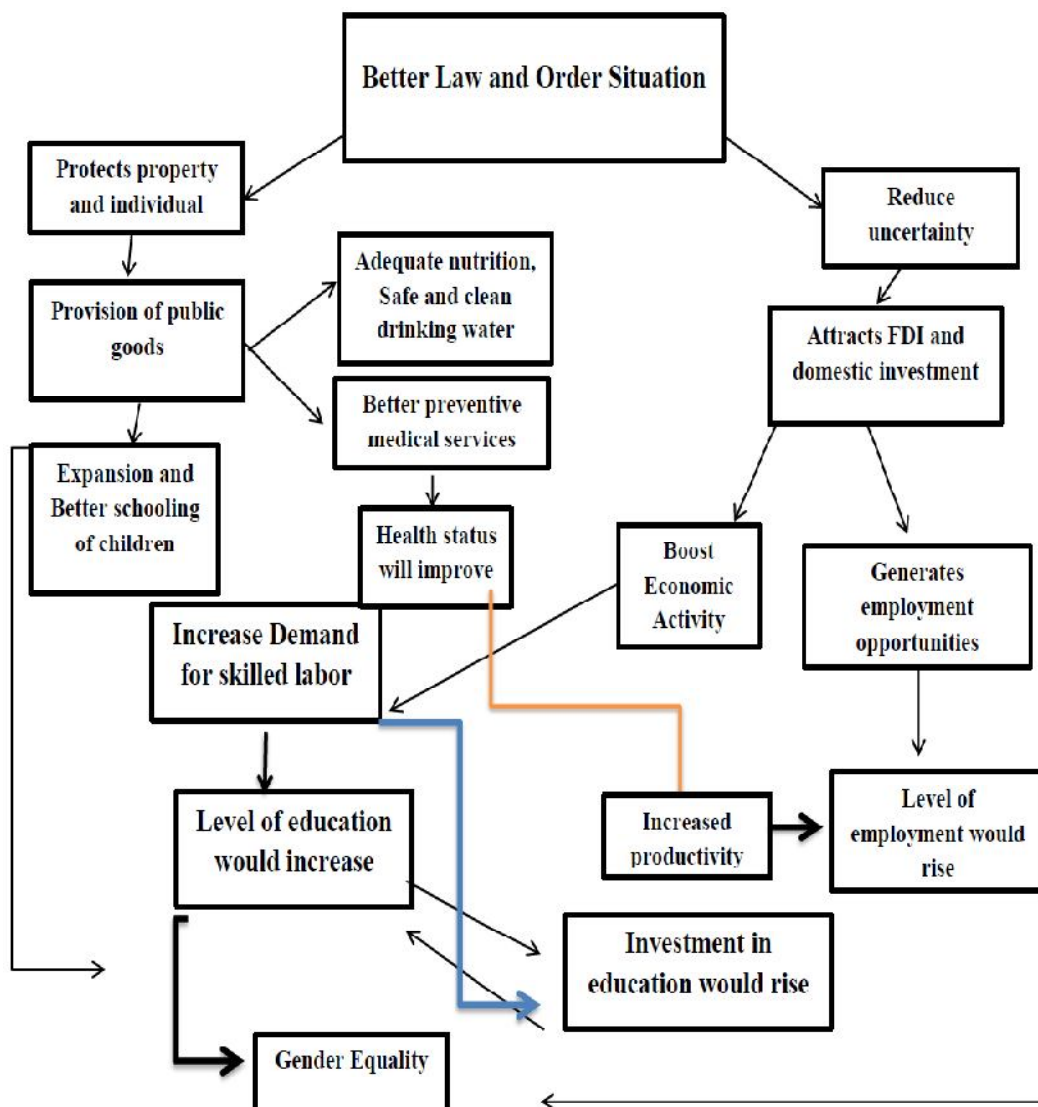


3.8 Corruption

Corruption appears as inversely related with gender equality. Because it misallocates the resources and loses the confidence of institutions, uncertainty would raise and that reduces the investment and outcomes that lead to lower quality of services, insecurity would increase that all leads to lower the participation of female in economic activity which reduces the gender equality.

3.9 Law and Order

Better law and order has positive effect on gender equality. It appears with positive sign with gender equality in our model



4. Methodology

4.1 data and Variable

Time series data from 1980 to 2012 is collected mainly from World Bank (WDI) and international country risk guide.

4.2 Dependent Variable

Dependent variable of the present study is Gender equality which incorporates the different dimensions of gender equality taking into consideration the United Nations definition of Gender Equality that is "Gender equality means that all human beings, regardless of sex, have equal rights, responsibilities and opportunities in life and enjoy equality in law and in fact in both the public and private sphere.

It requires that the different needs, priorities, circumstances and aspirations of women and men be considered, valued and favored equally"⁵

Gender Equality in Education

Gender equality in education is measured by taking different proxies for education, for example:

- Ratio of female to male primary, enrollment (%)
"Ratio of female to male primary enrollment is the percentage of girls to boys enrolled at primary, level in public and private schools"⁶

Gender Equality in Employment

Gender equality in employment is measured by labor force participation rate. "Labor force participation rate is the proportion of the population ages 15 and older that is economically active: all people who supply labor for the production of goods and services during a specified period".

- Ratio of female to male labor force participation

4.3 Independent Variables

To capture the independent effect of some key variables, the present study incorporated some political, social and economic variables that have independent influence on gender equality.

⁵Human Development Programme: Gender definitions:http://www.spc.int/hdp/index.php?option=com_content&task=view&id=31&Itemid=45. Retrieved on Feb 17, 2014

⁶(World Bank) <http://data.worldbank.org/indicator/SE.ENR>

Corruption, it is root cause of all evils, it misallocates the resources and loses the confidence of institutions, uncertainty would raise and that reduces the investment and outcomes that lead to lower quality of services, insecurity would increase that all leads to lower the participation of female in economic activity which reduces the gender equality. The data on corruption is taken from ICRG 1980-2012.

We also use **law and order** situation as independent variable which is very important factor of determining the level of gender equality.

Because bad law and order situation is major obstacle of development process. It not only hinders the domestic development plans but it also discourages the external resources like, FDI and foreign aid etc. The country with better law and order situation is good player of working in the development of social sector which improves the level of gender equality. The Data on law and order is taken from ICRG for the years 1980-2012.

In the Present study some economic variable are also controlled. We control for country's level of **Per capita Income**. People with higher income have more access to goods and services that promote awareness about health and lives healthier life. Income has also positive impact on employment, with the increased level of production leads to increase in aggregate demand and increase in economy size which generates new opportunities and demand for labor would also rise that lead to increase in level of employment and that increases the demand for female labor which increases the equality of male and female in labor market. Per capita income is measured as per capita income at PPP at constant 2005 prices

For the present study we also use Foreign **Direct Investment as % of GDP**. FDI has it positive and Negative impacts on Gender equality.

It creates employment opportunities for female and contrary to it; it reduces the govt. revenue which limits the states' ability to invest in social sector and women specifically.⁷

⁷ (Eastin and Prakash, 2013)

"Foreign direct investment are the net inflows of investment to acquire a lasting management interest (10 percent or more of voting stock) in an enterprise operating in an economy other than that of the investor. It is the sum of equity capital, reinvestment of earnings, other long-term capital, and short-term capital as shown in the balance of payments. This series shows net inflows (new investment inflows less disinvestment) in the reporting economy from foreign investors".⁸The data on Foreign Direct Investment as % of gdp is drawn from World Bank WDI from 1980-2012.

We included **population growth** because Population growth is expected to have negative relation with gender equality a.

It affects the status of women in various channels. As population increases, it expands the family size and number of dependents also increases which leads towards low priority for women in education because female education is comparatively considered costly because for female education transportation cost is also involved, so level of female education would decline with the rise in population growth that leads to inequality among male and female. World Bank defines population growth as:

"Population growth (annual %) is the exponential rate of growth of midyear population from year t-1 to t, expressed as a percentage".⁹ The data on population growth is obtained from World Bank (WDI) from 1980-2012.

We added **urbanization** as control variable in our model considering the fact that urbanization gives choice and makes easy movement because there are more facilities of transportation, educational institutions, hospitals etc. in cities as compared to villages that motivate women to work more independently as compared to rural areas and hence discourages the gender bias. Urbanization is measured as: **Urban population (% of total)** which is defined as:

"Urban population refers to people living in urban areas as defined by national statistical offices.

It is calculated using World Bank population estimates and urban ratios from the United Nations World Urbanization Prospects".¹⁰ Data on urban population (% of total) is obtained from World Bank (WDI) for the period 1980-2012.

⁸(World Bank)<http://data.worldbank.org/indicator/BX.KLT.DINV.CD.WD/countries>

⁹(world bank) <http://data.worldbank.org/indicator/SP.POP.GROW>

Information and communication technology is expected to have positively linked with women empowerment in all fields. The existence of information and communication technologies and their usage narrows the geographical boundaries and spread more information to globalized world which reduces the uncertainties and also reduces transaction cost; resultantly competitiveness would rise in global market that creates employment opportunities for female. ICT increases the level of education of women by allowing various types and levels of education through distance learning. ICT also changes people's attitude towards equality of male and female. (Chen, 2004)¹¹ ICT is measured as

Internet Users (per 100 people)

"Internet users are people with access to the worldwide network".¹²

Mobile Cellular Subscriptions (per 100 people)

"Mobile cellular telephone subscriptions are subscriptions to a public mobile telephone service using cellular technology, which provide access to the public switched telephone network. Post-paid and prepaid subscriptions are included".¹³

4.4 The Model

$$G_E(G_{edu}, G_{Emp},) = \beta_0 + \beta_1 x + \varepsilon$$

4.4.1 Dependent Variable

Dependent variable is gender equality which captures different dimensions of gender equality. United Nations defines gender equality as "Women's and men's rights, responsibilities and opportunities will not depend on whether they are born male or female." For in-depth analysis

¹⁰ (World Bank)<http://data.worldbank.org/indicator/SP.URB.TOTL.IN.ZS>

¹¹ (Chen, 2004)

¹²<http://data.worldbank.org/indicator/IT.NET.USER.P2>

¹³ (World Bank)<http://data.worldbank.org/indicator/IT.CEL.SETS.P2>

Where GE = Gender Equality

GE = Equality in (education+ Health+ Employment+ Political participation)

Education= proxy for education is ratio of male to female literacy rate, ratio of male female enrollment rate at all levels.

Employment= is measured by ratio of male to female labor force participation.

4.4.2 Independent Variables

X is set of independent variable

$X = (\text{pol} + \text{Eco})$

Pol = corruption, law and order

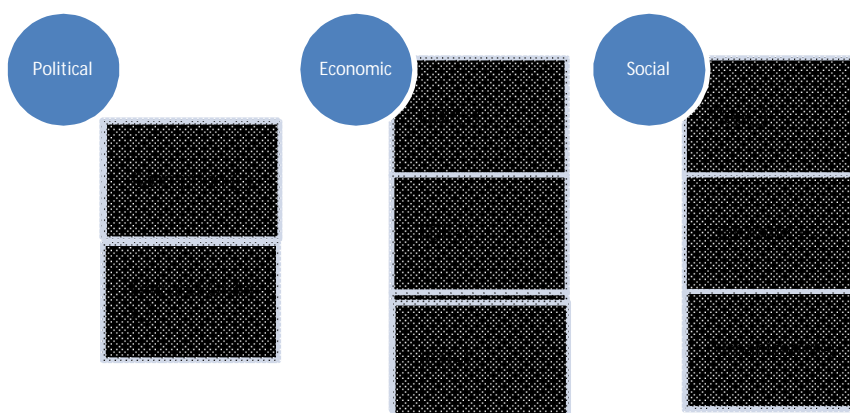
Eco = Growth, FDI, population growth, urbanization, ICT, population sex ratio

Student Ratio it = $\beta_0 + \beta_1 \log(\text{per capita real GDP}) + \beta_2 (\text{Youth Sex Ratio it}) + \beta_3 (\text{FDI}) + \beta_4 (\text{urbanization})$

(Ratio of Labor Force Activity Rate it) = $\beta_0 + \beta_1 \log(\text{per capita real GDP}) + \beta_2 (\text{Youth Sex Ratio it}) + \beta_3 (\text{FDI}) + \beta_4 (\text{urbanization})$

4.4.3 Control Variables

We included ICT and Law and Order as control variable in each equation.



4.5 Descriptive Statistics

Variable	Mean	Median	Maximum	Minimum	Std. Dev.
LF	18.43996	17.52701	29.43305	8.02	5.605461
ENRP	65.04179	63.47819	87.218	50.096	12.59009
POPG	2.544794	2.589605	3.416965	1.685114	0.630839
POPM	51.72118	51.67497	52.28598	51.35535	0.267458
POPF	48.27882	48.32503	48.64465	47.71402	0.267458
POPR	0.933494	0.935173	0.947217	0.912559	0.009976
POPRATIO	5.063667	5.208	6.535	3.347	1.161353
INT	2.33377	0.002992	9.9637	0	3.403359
MOB	11.15947	0.052042	66.76881	0	21.81669
TEL	1.751542	1.817986	3.603785	0.376432	1.102662
GDPG	4.900152	4.846581	10.2157	1.014396	2.238006
GDP_PC_PPP	1810.836	1799.283	2401.661	1231.787	343.2705
FDI	0.953999	0.641482	3.668323	0.102667	0.872592
REM	4.835727	4.761859	10.24763	1.453638	2.304909
UPOP	3.382579	3.384311	4.570125	2.564262	0.667537
CORP	1.672664	1.958333	3	0.244792	0.614963
L_O	2.287879	2	3.916667	0.375	0.833292

Data on dependent variable which is gender variables shows the significant variations over the different time periods, like ratio of female to male primary enrolment ranges from 50 to 87 percent. Standard deviation is 12.59, which shows female enrolment in primary education increased significantly over the specified time period. Similarly enrolment in secondary and tertiary education also shows that number of female enrolment is increased over the different time periods but if we see the outcome of education over the specified time period in Pakistan, data show that slight variation in literacy rate which is ranging from 63 to 90, and on the average female to male literacy is 64 percent which is varied by 8 percent in the specified time span showed by standard deviation. Ratio of female to male Labor force participation rate ranging from 17 to 29 percent, and standard deviation show that female labor force participation is increased slightly under the prescribed time period. The major variation made in ICT and GDP PPP during the sample period.

5. Results and Discussion

In the present study ratio of female to male primary school enrolment and labor force participation rate (%) are used as measure of gender equality in education and employment respectively. An Autoregressive distributed lag ARDL for bound test approach is intended to apply followed by Baharam et al. (2008).

First of all the present research employed the unit root test to check the stationary series for fulfilling the preconditioning of ARDL model, no variable should be I(2). Because all the variables are not stationary at the same level, ARDL approach would be appropriate for this kind of stationary series of I(0) and I(1)

5.1 Unit Root Test

Null Hypothesis: D(LN_ENRLP) has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic based on SIC, MAXLAG=8)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	4.952891	0.0004
Test critical values:		
1% level	3.661661	
5% level	2.960411	
10% level	2.619160	

The result of unit root indicates that our dependent variable enrlp is stationary at first difference after taking the log of all variables, same unit root procedure employed on all variables, which confirmed that no variable is containing I(2).

5.2 Var Lag Order Selection

Criteria

Endogenous variables: LN_ENRLP LNFDI LNGDPG

LNTOP LN_CORP LNLO

Exogenous variables: C

Date: 03/28/14 Time: 05:55

Sample: 1 33

Included observations: 31

Lag	LogL	LR	FPE	AIC	SC	HQ
0	11.25403	NA	2.87e-08	-0.338970	-0.061424	-0.248497
1	137.3457	195.2386*	9.00e-11*	-6.151333*	-4.208511*	-5.518021*
2	172.5034	40.82840	1.26e-10	-6.096996	-2.488900	-4.920847

The unrestricted var test employed for lag selection criteria, which suggest that variables are significant at one lag.

5.3 Ardl Test

Dependent Variable: D(LN_ENRLP(-1))
 Method: Least Squares
 Date: 03/28/14 Time: 05:25
 Sample (adjusted): 3 33
 Included observations: 31 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.182205	0.57445	0.317180	0.7546
LN_ENRLP(-1)	-0.019280	0.068578	-0.281141	0.7816
D(LNFDI(-1))	-0.014503	0.012443	-1.165591	0.2582
LNFDI(-1)	0.020597	0.014522	1.418317	0.1723
D(LNGDPG(-1))	0.008142	0.009697	0.839587	0.4116
LNGDPG(-1)	0.003205	0.013254	0.241833	0.8115
D(LNTOP(-1))	0.009996	0.070057	0.142678	0.8880
LNTOP(-1)	-0.017083	0.089430	-0.191021	0.8505
D(LN_CORP(-1))	0.024406	0.023135	1.054929	0.3047
LN_CORP(-1)	-0.010634	0.019990	-0.531972	0.6009
D(LNLO(-1))	0.026663	0.021742	1.226357	0.2350
LNLO(-1)	-0.018071	0.016244	-1.112482	0.2798
R-squared	0.401471		Mean dependent var	0.017432
Adjusted R-squared	0.054954		S.D. dependent var	0.018431
S.E. of regression	0.017917		Akaike info criterion	-4.921439
Sum squared resid	0.006100		Schwarz criterion	-4.366347
Log likelihood	88.28230		Hannan-Quinn criter.	-4.740493
F-statistic	1.158591		Durbin-Watson stat	2.561011
Prob(F-statistic)	0.374566			

5.4 Bounds Test for Cointegration Analysis Based on the Equation

Critical Value Lower Bound	Value Upper Bound Value	
1%	3.74	5.06
5%	2.86	4.01
10%	2.45	3.52
Computed F-statistics: 4.371263 (significant at 0.05 marginal level)		

5.5 Wald Test: Equation: Untitled

Test Statistic	Value	df	Probability
F-statistic	3.507207	(12, 19)	0.0073
Chi-square	42.08648	12	0.0000

Wald test (F-statistics) was employed to obtain the long run coefficient. The obtained F-statistics value is 3.50 which lie between lower bound value and upper bound value at 5% level. This result left us with inconclusive decision whether or not; there exist long run relationship among variables. Here we cannot proceed further to cointegration because nor can Johnson technique be employed due to unfulfillment of the condition of all variable stationary at the same level, neither ARDL. The best solution would be OLS estimates, and here we apply it.

5.6 Ols Estimates Table.1

Independent Variables	Dependent Variable: Ratio of female to male enrollment rate at primary level (%)		
	R1	R2	R3
GDP (PC)	0.017267 (0.0006)*	0.022 (0.000)*	0.0028 (0.694)
FDI	0.912 (0.0225)*	0.62 (0.08)*	1.5083 (0.0015)
Urban POP	6.857 (0.000)*	5.7566 (0.000)*	7.0080 (0.0000)
Sex ratio	-1155.17 (0.0000)*	-1099.697 (0.000)*	-836.84 (0.000)
Law and Order		1.3009 (0.0057)*	
ICT			0.067 (0.0227)

- At 1% level of significance

This table presents the OLS results of estimating gender equality in education where dependent variable is ratio of female to male primary enrolment. In all three regressions, GDP per capita FDI population sex ratio and urbanization entered as independent variables, while Law and order situation and ICT as control variables.

The estimation results postulate that coefficients of all variables are highly significant and theoretically consistent with their signs. For instance GDP per capita is positively and significantly related with enrolment ratio of female over male, as theoretically confirmed that GDP per capita this is consistent with earlier study.(Chen, 2004) and FDI also exhibits positive and significant relation with primary school enrollment of female, because generally it is considered that FDI creates more employment opportunities both for male and female which raises the income level and raises the female enrolment.Urbanization also show positive relationship with school enrolment in Pakistan, which also confirmed by earlier theories and empirical work of Chen (2004) and Eastin and Paraksh (2013)

Sex ratio is highly significant and showing negative relation with girls' school enrolment, this indicates as number of female rises in total population, opportunities available for girls would be insufficient to fulfill the increased demand which results in their low preference, resultantly enrolment would decrease. Chen (2004)

ICT are considered to be very important factors affecting the level of gender equality. These variables are also statistically significant with positive signs proven by empirical evidence and earlier work of Chen (2004) empirically.

Law and Order situation is also showing positive impact on the level of female enrolment, and inclusion of this variable show that coefficients are more significant which exhibits that better law and order situation increases the incidence of female to male enrolment at primary level.

5.6 Table 2

Independent Variables	Dependent Variable: Ratio of female to male labor force participation rate (%)		
	R1	R2	R3
GDP(PC)	0.0208 (0.0002)*	0.0193 (0.0010)*	0.0133 (0.1)***
FDI	-0.8375 (0.0483)*	-0.748 (0.0892)*	-0.528 (0.2953)
UrbanPOP	1.2533 (0.0780)**	1.596 (0.0631)**	1.327 (0.0637)**
Sex ratio	-456.1418 (0.0011)*	-473.43 (0.0010)*	-290.74 (0.1)***
Law and Order		-0.4055 (0.0045)*	
ICT			0.034 (0.28)

Table 2 presents the OLS results of estimating gender equality in employment where dependent variable is ratio of female to male labor force participation rate (%).

In all three regressions, GDP per capita FDI population sex ratio and urbanization entered as independent variables, while Law and order situation and ICT as control variables. The results for this regression indicate that all variables are statistically significant. GDP

GDPPC has positive impact on labor force participation rate through decreasing the wage gap between male and female. The coefficients also show the positive sign and p value is significant at 99 percent confidence level. This is also confirmed by earlier study of Eastin and Paraksh (2013). Similarly Urban population which is taken as the percentage of urban population in total population has significant positive impact on gender equality in employment which postulates that as the percentage of urban population rises in total population, ratio of labor force participation rate is also increased, this is also confirmed by present study because coefficient of urbanization shows positive sign and significant at 95 % level, this is consistent with earlier study of Chen (2004).

Coefficient of globalization which is FDI is significant but having negative sign which shows that with the increase in FDI inflows female labor force participation rate declined for the underlying period, this is inconsistent with Chen (2004) mainly due to the reason that globalization increases competitiveness which increases the demand of skilled labor, and generally female labor consists of unskilled labor, so there demand would decline which effects the labor force participation rate.

Law and Order situation has also significant impact on female labor force participation rate, Bad law and order situation negatively affects the labor force participation rate and decreases the employment opportunities for female.

6. Conclusion

The core purpose of the present study was to examine the impact of Socio-Political and Economic factors on gender equality in education and employment in Pakistan from 1980 to 2012. The ARDL bond testing approach employed which gave inconclusive result for the long run relationship among regressors. Then OLS estimates were employed to examine the behavior of different factors effecting gender equality. The OLS estimates suggests that economic growth is most influential factor of improving gender equality while other Social and Political determinants also effects significantly the level of gender equality in Pakistan.

The empirical evidence suggests that, GDP per capita FDI and Urbanization are most significant contributors of improving the level of gender equality in education and employment in Pakistan, while ICT and Law and order situation also affects the status of women in both sectors.

This suggests that, in Pakistan situation of women is vulnerable in education and employment mainly due to economic constraints and political environment. A political and economic factor jointly hinges the status of women in Pakistan during the underlying period.

In a nutshell, empirical evidence found that gender equality in education and employment are key drivers to economic growth as women are almost half of the total population. Gender inequality in education and employment will exerts adverse effects on the overall growth process. So it can be concluded that political and economic factor jointly hinges the status of women in Pakistan during the underlying period.

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