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Socio-Economic Well-Being and Women Status in Pakistan: An Empirical Analysis

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Abstract
This study has analyzed the effect of socioeconomic well-being on women's status in case of Pakistan. To overview the women's status in case of Pakistan, a comprehensive index is constructed by using social, economic and political status of women. This study follows the methodology of United Nations Development Program (UNDP) gender inequality index. Globalization, financial development, economic deprivation, secondary school enrollment and human development index have some selected explanatory variables, whereas gender inequality index (women's status) is dependent variable. The data has been used from the period of 1980 to 2014. Following the properties, differentiation of the data, Augmented Dickey-Fuller (ADF), Philips-Perron (PP) and Dickey-Fuller Generalized Least Squares (DF-GLS) unit root tests have been applied to check the stationarity of the variables. All variables have different order of integration, which support for Autoregressive Distributed Lag (ARDL) for observing the co-integration between the variables of the model. VECM model is used for short-run relationship of the variables. The findings of this study approve the presence of co-integration among the selected variables of the model. The results of the study illustrate that globalization has significant and negative long run relationship with women's status. This explains that by increasing the globalization the level of women's status is falling in Pakistan. The long run results reveal that economic deprivation is negatively related to gender inequality index which shows that by rising economic deprivation women's status also rise in Pakistan. The secondary school enrollment and human development index have a positive relation to the women's status, it explains by educating society and by increasing the human development the women's status can be improved. Economic deprivation has a significant and negative relationship with gender inequality index in Pakistan. This reveals that when level of economic deprivation decreases, more women join the labor force and this increase the overall women's status in case of Pakistan. The financial development has negative and insignificant relation to the gender inequality index. The study suggests that for attaining the desired level of women's status, Pakistan should improve its socioeconomic structure.

Keywords: gender inequality, socioeconomic well-being, Pakistan.
JEL Codes: D63, A14

I. Introduction

"No nation can rise the height of glory unless their women are side by side with them…It is Crime against humanity that our women are shut up with in four walls of the houses as prisoners. There is no sanction anywhere for the deplorable condition in which our women have to live" (Muhammad Ali Jinnah, 1944).

"The expansion of assets capabilities of poor people to participate in, negotiate with, influence, control and hold accountable institutions that affect their lives" (World Bank, 2000).

Empowering women is a complex and multi-dimensional issue and its definition vary from society to society. Normally, women's status refers to the sense of self-growth among women, ability to choose from available choices and opportunities, the influence of societal changes and power to control their lives outside and inside the house. This phenomenon depends on the structural transformation of a society which is based on educational opportunities, labor reforms, control over fertility, decision making rights, access to resources and decision about the reproductive process. Planning Commission, Government of Pakistan (2000) mentions that access to options, decision making power, education and resources, information, control and authority over one's own life are the main indicators of women's status in Pakistan. Being the half part of each country, women have a more valuable part in economic growth and development. Women can display and freely build up their maximum capacity as hardworking, talented and productive workers, care givers, mothers and frequently more responsible chief of the family unit than men (King and Mason, 2001; Sen, 1999; UNIFEM, 2008).

Women status deals with their lives irrespective of differences between urban and rural women life style. Feminist economists point out patriarchal structure which propagates gender inequality. To overcome this situation, women must challenge prevailing power relations and change or eliminate patriarchal institutions from society (Parpart (1993); Elson (1991) and Marchand and Parpart (1995). The institutional development improves economic role of women (Morrisson and Jutting, 2004, 2005). The societies must put attention on the improvement of institutions to establish equal opportunities and rights for both women and men. In developing countries, the main reason of persisting discrimination against women is the overall social, institutional setting and cultural practices such as traditions, laws, norms and codes of conduct (World Bank, 2001). Educated women can make a great contribution to the development of a country and family. Therefore, women's education has been a major target for both government and civil society. They not only improve half of human capital, but also enhance personal satisfaction towards their family. Education works as an effective device of progress for women's status in society. The disparity among both genders is reduced and the condition of women in the family and society has improved in recent years (Suguna, 2011).

In the recent era, a large proportion of the female population is on high positions in occupational fields, trade unions, politics and academic world (Glenn, 2009). But the gender discrimination still prevails and in many parts of the world women are dominated by the men. The inequalities between men and women are partly reasonable regarding to human capital, but these differences cannot illuminate the whole of the wage gap between genders and in many cases, men and women are the same but a woman earns less than a man (Levin, 2003). Besides some social elements affecting on the gender wage gap, globalization also has a narrow effect on the gap (Schimmel and Pech, 2004). Becker (1971) point out that during long run competition, discrimination could not persist between men and women. Hence, in the long run, it is expected that with rising competition in international trade discrimination eliminates between men and women and will increase job opportunities for women in export-oriented industries (Wood, 1991). Economic globalization increases the development of the economy as well as many open opportunities for women in the labor market. An economic atmosphere characterized by free market principles, motivates economic growth and competition, improving the living standard of all people by giving them educational and occupational opportunities by raising their income (Bhagwati, 2004; Dollar and Kraay, 2002). Economic development should encourage government for higher expenditures on education, health and other services for women (United Nations Development Fund for Women, 2000).

The life of women in Pakistan is controlled by patriarchal society. Such societies do not provide equal rights to women. Traditionally, a Pakistani woman develops her status from her family. Differences exist between women and men in health, education, income opportunities, employment, personal security, control over assets and participation in the politics. According to the Gender Development Index (GDI), Pakistan ranked at 147 out of total countries (Rehman and Naoroze). There are cultural and social norms and values which have a strong influence on the position of women in any society (Klein and Nestvogel, 1992). Generally, Pakistani society is male obsessed, but patriarchal structure across the whole country is not uniformed. Gender inequality is deep-rooted and violation of legislative law for

securing women's rights is widespread. In all spheres of life, women are dominated by men and they have full control over high positions of power (Madhani, 2007). Pakistan is among those countries which have broadest gender gap and inequality among women and men in all affairs of life (UNICEF, 2006). According to the world economic forum, in five different areas female have succeeded in achieving equality with male in 58 countries such as health, educational attainment, well-being, economic opportunities, economic participation and political participation and out of 58 countries Pakistan ranked at 56th. Participation of female average annual growth rate in labor force was 15.9 percent in the period of 2003-04 and has risen to 18.9 percent during the period of 2005-06 (Economic Survey 2005-06). Under such scenario, Pakistan is an interesting case study. This study helps policy makers to set reasonable solution of the problem. The motive of this study is to analyze the socioeconomic well-being that captures the women's status in Pakistan. Gender inequality index is used to measure the women's status and the variables such as globalization, human development index, economic deprivation, secondary school enrollment and financial development have been used to measure the socioeconomic well-being. This sort of work is scarcely done in the context of Pakistan; therefore, this research has contributed towards respective literature.

II. Literature Review

Since 1980, women's status has become an active area of research. A bulky amount of studies has been conducted on this issue. Some of the important and most relevant are taken here as a literature review. Goldin (1994) explores that when women education increase, particularly at secondary level, they will be able to work more in high-status occupations. Naqvi and Shahnaz (2002) describe that the different demographic, human capital and socioeconomic factors affect female participation in the labor force. Graham (2008) examines the affiliation between women empowerment and education. . The results of this study indicate that education increases the women's self-confidence, knowledge, understanding and awareness about equity. Siddiqui and Siddiqui (1998) examine the role of women in the labor market relative to male income. The participation of female labor force has increased due to the entry of women in the labor force and technological improvement in the labor market. Malik and Courtney (2010) examine the role of higher education participation in women's empowerment in case of Pakistan. A major finding of this study is that female participation in higher education empowers them and simultaneously it influences on a number of biased practices and thus effect changes for the betterment.

Sadaquat and Sheikh (2011) analyze the low participation in the labor market of female in Pakistan is due to cultural, traditional values, religious, the colonial ideology and the development of social institution that restrict women to participate in the labor market. The results show that female are facing market discrimination and low status and low paid jobs are given to them. Mostly women are working in unorganized sectors. Women play the double role of home and workplace that's why they are interested in low productivity, low income and unsecure employment sectors. The findings also denote that both in urban and rural areas the unemployment rate of female is greater than that of men. Chaudhary et al., (2012) investigate that how women's awareness about their rights, women's overall development and economic empowerment can be supportive in attaining the empowerment of women. For empirical analysis Gender empowerment measure (DEM) is used to measure the women empowerment.

Duflo (2012) describes that women empowerment and economic development are closely linked in two different directions. The one direction is that development alone plays a vital role in decreasing down the inequality among women and men while in the second direction as women empowerment increases economic empowerment also increases. This study provides the confirmation on both directions of relationship of empowerment of women and economic development. First, it shows that lack of opportunity and poverty increase the inequality among women and men. When economic development decreases the poverty, the women's condition will improve in two senses: on one side when poverty declines the women empowerment increase including everyone, and on the second hand, when gender inequality decline poverty also drops. But only economic development is not enough to reduce the inequality between men and women.

Neumayer and Soysa (2011) analyze the hypothesis that higher the women's social and economic rights in foreign countries which are interconnected through foreign direct investment (FDI) and trade. The results of the study show that globalization has a beneficial impact on social and economic rights of women. The higher social and economic right spreads into higher domestic rights in the countries which are connected via trade and FDI. Richards and Gelleny (2007) investigate the association between the economic globalization and women's status. . The findings of this study illustrate the relationship between women's status and economic globalization fluctuates by type of globalization, by type of status and era. Moreover, economic globalization improves the women's status. Gray et al., (2006) examine how do increasing levels of interconnectedness internationally influence women's economic, political and social

situation? The findings show that increase in international ties open different ways to improve the standard of life and women's status.

Meyer (2003) analyses the effect of economic globalization on work-related gender discrimination and inequality. The results of this study illustrate that economic globalization declines the occupational gender discrimination and inequality. Trade liberalization increases the work opportunities for both male and female in this gender inequality will decrease. Moghadam (1999) analyses the impact of globalization on women's participation in the labor force and mobilization power of women. The results of the study show that globalization is contributing in women empowerment.

Jalal-ud-Din and Khan (2008) examine the social, cultural and economic constraints of women's status in distract Mardan, North West Frontier Province in Pakistan during 2006. The finding of the study show that women's status is worse than men because of low literacy rate, less education opportunities for women, awareness about their rights, poor economic condition, lack of skills and insecurity at work places. Men have more power in decisions relating to family, selection of the male partner and household expenditures. Faridi et al., (2009) examine the various demographic and socioeconomic factors which affect the participation of female in labor force. The findings of this study show that educational attainment level is one of the very significant factors of female participation in the labor force. Participation in the labor force of female raises as education level increases. The study also illustrates that education is a very important tool for a better employment opportunity for women.

Chaudhry and Nosheen (2009) analyses the main factors of women empowerment in Southern Punjab of Pakistan. To measure women empowerment a cumulative index has been constructed by using four indicators such as family decision making, personal autonomy, political autonomy and domestic and economic decision-making power. The empirical finding of the study shows that women's empowerment is considerably affected by social-cultural norms of the society, education, access to media, participation in the labor market and family decisions. The major finding of the study is that participation in household activities is the main factor e the women empowerment.

III. Economic Model

An economic model is based on theoretical concept which represents the economic process on which a set of different variables is used in quantitative and logical reasons. Economic modeling is at the heart of economic theory. To organize the analyst's views economic modeling provides a logical pattern. The economic model helps the economist logically resolves complicated chains of cause and effect; from this they can analyze the influence between the various interrelating elements in an economy. Normally, in the existence of some abstractions and assumptions, an economic model embodies real economic conditions of different economies. These abstractions and assumptions rely upon the reason for which the economic model has been built. The main motive of the development of an economic model is to estimate and forecast. The forecasting authority, simplicity and realism of assumptions and provided information describe the rationality of an economic model.

This research analyses the effect of socioeconomic well-being of women's status in Pakistan. To measure the women's status various measures have been used. Education of women is the most general indicator to measure the women status [Suguna (2011), Malik and Courtney, (2010); Graham, (2008); Sathar and Mason, (1993)]. Human Development Index (HDI) in which three dimensions include (education, life expectancy and income) has been used to measure the inequality among men and women (Schuler, 2007). Gender equality is closely related to the female labor force participation [Saddiqui and Saddiqui (1998); Naqvi and Shahnaz (2002)]. Secondary school enrollment of female, participation of female in labor force and overall women's development raises the women empowerment (Chaudhary et al., 2012). Globalization and interrelation of different countries play a very important role to enhance the women empowerment and also increase the share of female in labor market [Gray et al., (2006); Meyer (2003) Neumaya and Soysa (2011); Richards and Gelleny (2007); Ali (2015); Audi and Ali (2016); Ali (2018)].

Following the previous literature, the functional form of our model become as:

$$GII_t = f(GLOB_t, HDI_t, ED_t, SSE_t, FD_t)$$

GII = Gender Inequality Index
GLOB = Globalization
HDI = Human Development Index
ED = Economic Deprivation
SSE = Secondary School Enrollment

FD = Financial Development

For analyzing the effect of social and economic well-being on women's status following models can be used.

$$GII_t = \alpha_0 GLOB_t^{\alpha_1} HDI_t^{\alpha_2} ED_t^{\alpha_3} SSE_t^{\alpha_4} FD_t^{\alpha_5} e^{t\alpha_6}$$

e = shows the log base

The log form of the model given as follows:

$$LGII_t = \alpha_t + \alpha_1 LGLOB_t + \alpha_2 LHDI_t + \alpha_3 LED_t + \alpha_4 LSSE_t + \alpha_5 LFD_t + e_t$$

The motive of this research is to estimate the effect of socioeconomic well-being on women status of Pakistan over the period of 1980 to 2014.

III.I. Gender Inequality Index

Gender Inequality remains a noteworthy hindrance to human advancement. Women and girls have made significant steps since 1990, however, they face still gender inequality. In this study gender inequality index is estimated by using the methodology of HDR (2010) through Gender Inequality Index:

$$GII = [(EPf/EPm) \times (PPf/PPm) \times (SPf/SPm)]1/3$$

Where EPf and EPm represents the Economic Participation of female and male respectively, PPf and PPm represents the Political Participation and Decision Making of female and male while SPf and SPm represents Social participation of female and male respectively.

The data of the indicators used in the construction of Gender Inequality Index (GII) are collected from 50 years' statistics of Pakistan, Economic survey of Pakistan (various issues), PSLM (various issues), National Assembly of Pakistan database and Pakistan civil services website. Geometric mean has been used to calculate the index.

III.II. Human Development Index

To reveal the most vital aspect of human development, the Human Development Index was developed by Mahbub-UL-Haq in United Nations Development Program 1995. This index consists of three important indicators: life expectancy which represents healthy and long life; attainment of education which shows knowledge and GDP in real term which represents the living standard of people (UNDP, 1995).

HDI=f (life expectancy, education, GDP)

III.III. Economic Deprivation

The economic deprivation index is constructed on the basis of Misery Index, which was developed by Arthur Okun in 1960. He constructed the Misery Index by adding the annual rate of inflation and adjusted rate of unemployment and it is used to analyze the economic well-being of any country.

MI = Inf + Une

Where MI represents the misery index, 'Inf' is the inflation measured by the Consumer Price Index and Une indicates the unemployment rate which consists of all people of sixteen-year-old and above during the estimated period (International Labor Organization).

III.IV. Globalization Index

The aim of Globalization Index is to measure the interactions among different countries in the whole world. This globalization index is constructed by using three indicators such as political, economic and social.

Globalization = (social variables, economic variables, political variables)

III.V. Data source

In this study time series data have been used from 1980 to 2014 in case of Pakistan. The data of the indicators used in the construction of Gender Inequality Index (GII) are collected from 50 years' statistics of Pakistan, Economic survey of Pakistan (various issues), PSLM (various issues), National Assembly of Pakistan database and Pakistan civil services website. The data on Secondary school enrolment and financial development is collected from WDI. The data of the indicators used in the construction of economic deprivation are collected from Economic Survey.

IV. Econometric Methodology

Empirical studies highlight when time series data are used, the unit root problem will occur and this problem makes spurious regression. Different unit root tests are available which solving the problem of a unit root. In this study Philips Perron (PP), Augmented Dickey-Fuller (ADF) and DF-GLS unit root tests are applied for this purpose.

IV.I. Augmented Dickey-Fuller (ADF) Test

ADF (1981) is followed functional form:

$$\Delta Y = \alpha + \varphi Y_{t-1} + \sum_{i=1}^{m} \beta_t \Delta Y_{t-1} + V_t$$

$$\Delta Y = \varphi Y_{t-1} + \sum_{i=1}^{m} \beta_t \Delta Y_{t-1} + V_t$$

$$\Delta Y = \alpha + \beta_t + \varphi Y_{t-1} + \sum_{i=1}^{m} \beta_t \Delta Y_{t-1} + V_t$$

Vt is white noise error term in the above equations. Following hypothesis are developed for ADF.

Null hypothesis: There is a unit root.

$$H_0 : \varphi = 0$$

Alternative hypothesis: There is no unit root.

$$H_1 : \varphi \leq 0$$

If we reject the null hypothesis the series will be stationary while if we accept the null hypothesis the series is non-stationary.

IV.II. Phillips and Perron (PP) Unit Root Test

The null hypothesis of both unit root tests such as ADF and PP have same asymptotic distributions and normalize biased statistics.

Following equation is used for testing the null hypothesis of this test:

$$Y_t = \alpha + \rho Y_{i-1} + \varepsilon_i$$

IV.III. DF-GLS Unit Root Test

Elliott et al. (1996) develop, test with the help of Generalized Least Square approach (GLS). This test is the modified form of Dickey Fuller test. It is the best approach for small size data than the DF, PP and ADF tests. It also, in case of unidentified trend and mean DF-GLS unit root approach has good predicting power.

IV.IV. Autoregressive distributed lag (ARDL) approach to co-integration

Pesaran and Smith (1998), Pesaran and Pesaran (1997) and Pesaran et al., (2001) have presented the ARDL to check the co-integration among variables. This technique is more preferable than the traditional methods. The basic advantage of ARDL approach is that it does not concern with variables' order of integration. "ARDL, can be used whether the variables are I(0), I(1) or fractionally co-integrated" (Pesaran and Pesaran 1997). Additionally, ARDL mix as well as the same order of integration which is not possible in case of traditional approaches. ARDL approach is also applied on general model because it itself specifies the number of lags of the data. ARDL technique can also be used to estimate Error Correction Model (ECM). "Error Correction Model (ECM) provides a short run adjustment with long run equilibrium by retaining the long turn information" (Pesaran and Shin, 1999). Before applying ARDL bound testing approach, order of integration must be checked. To verify the stationarity of the variables different unit root tests have been applied. If stationary is not checked by the unit root test, then spurious regression occurs. The ARDL bound testing approach depends on the assumption that there must be no variable with order of integration I (2). If it is so, the estimated value of the F - statistic is invalid. Therefore, all variables must have zero and one order of integration.

We can estimate ARDL equation by appropriate lag length is selected, following different lag length criterion such as Schwartz Bayesian or Schwartz Bayesian. Following equation is used to estimate the long run relationship of variables.

$$\Delta \ln Y_t = \delta_1 + \varphi \delta_2 t + \delta_3 \ln Y_{t-1} + \delta_4 \ln X_{t-1} + \delta_5 \ln Z_{t-1} .....$$
$$+ \sum_{h=1}^{p} \delta_h \Delta \ln Y_{t-h} + \sum_{j=0}^{p} \lambda_j \Delta \ln X_{t-j} + \sum_{k=0}^{p} \phi_k \Delta \ln Z_{i-k} + ... + v_{it}$$

IV.V. Error Correction Model

Coefficient of Error Correction teat describes that how much speed of short run to converge into long equilibrium. The absolute value of ECM tells the speed of adjustment to return towards long run equilibrium. For this purpose, following equation is used:

$$\Delta \ln Y_{it} = \beta_1 + \beta_2 t + \sum_{h=1}^{p} \beta_h \Delta \ln Y_{it-h} + \sum_{j=0}^{p} \gamma_j \Delta \ln X_{t-j} + \sum_{k=0}^{p} \phi_k \Delta \ln Z_{it-k} + \omega ECT_{t-1} + u_t$$

ω indicates the speed of adjustment.

V. Empirical Results and Discussion

Descriptive statistics represent the chronological properties of data and it is shown in Table-1.

Table 1 Descriptive statistics

Variables	GII	GLOB	HDI	ED	SSR	FD
Mean	0.664690	47.68765	0.411678	75.75953	830244.9	24.12865
Median	0.671845	51.01071	0.389491	46.37691	896344.5	24.55221
Maximum	0.854855	67.13156	0.517833	244.8240	1429530.	29.78608
Minimum	0.534409	27.85192	0.319307	11.38723	224628.0	15.96633
Std. Dev.	0.099499	12.20837	0.066314	72.30527	412033.4	3.444004
Skewness	0.236027	-0.152479	0.345600	1.138425	-0.170555	-0.766522
Kurtosis	1.784686	1.797807	1.693795	2.976465	1.495760	3.367544
Jarque-Bera	2.4789542	2.2433305	3.184897	7.560878	3.469512	3.624411
Probability	0.289542	0.325741	0.203427	0.022813	0.176443	0.163294
Sum	23.26416	1669.068	14.40871	2651.583	29058570	844.5028
Sum Sq. Dev.	0.336605	5067.508	0.149518	177753.8	5.77E+12	403.2795
Observation	35	35	35	35	35	35

Descriptive statistics has been used overview these properties. Kurtosis and Skewness explain the normalization of the data. Table 1 shows the descriptive statistics of all variables: Gender Inequality Index, Globalization, Human Development Index, Economic Deprivation, Secondary School Enrollment and Financial Development. The estimated results show that the gender inequality index has the mean value (0.664), globalization (47.688), human development (0.412), economic deprivation (75.759), secondary school education (830244.9) and financial development has (24.129). The estimated results reveal that globalization, secondary school education and financial development are negatively skewed whereas gender inequality index, human development index and economic deprivation are positively skewed. The value of kurtosis for all variables is positive and the probability values of estimated kurtosis and skewness are insignificant so we reject null hypothesis which means the data of all variables is normally distributed.

The correlation matrix of all variables in the model is represented in Table-2. The results in Table 2 reveal that the gender inequality index has negative and significant correlation with the globalization, human development index, economic deprivation and secondary education, whereas it has significant and positive correlation with the financial development in the case of Pakistan. Globalization has significant and positive correlation with the human development index, economic deprivation and enrollment of secondary school, but it has a negative and significant correlation with financial development. The human development index has significant and positive correlation with economic deprivation and enrollment of secondary school but negative correlation with financial development. Economic deprivation has significant and positive correlation with enrollment in secondary school, but the significant and negative correlation with financial development. Enrollment in Secondary school has significant and negative correlation with financial development. The overall results of correlation matrix reveal that all the selected variables have significant correlation with each other which increase the importance of the study.

Table 2

	GII	GLOB	HDI	ED	SSR	FD
GII	1.00000					
GLOB	-0.981875 (-29.76)***	1.000000				
HDI	-0.961645 (-20.14)***	0.954469 (18.38)***	1.000000			
ED	-0.846244 (-9.12)***	0.878413 (10.56)***	0.933618 (14.97)***	1.000000		
SSR	-0.976893 (-26.26)***	0.985630 (33.52)***	0.942595 (16.21)***	0.84720 (9.14)***	1.000000	
FD	0.35497 (2.15)**	-0.449902 (-2.89)***	-0.426598 (-2.71)**	-0.613879 (-4.47)***	-0.420273 (-2.66)**	1.000000

Note: The asterisks ***, ** and * denote the significant at 1%, 5% and 10% levels, respectively

Table 3

At level			
Variables	ADF	PP	DF-GLS
LGII	-1.359778	-1.359778	0.579251
LGLOB	-1.688777	-4.124810**	0.942723**
LHDI	0.099853	0.224860	0.772007
LED	1.066417	1.066924	-0.976915
LSSR	-2.552825	-2.449921	-1.364501
LFD	-0.372237	-0.829782	-1.316007
At 1st difference			
ΔLGII	-5.493197***	-5.493197***	-5.206246***
ΔLGLOB	-5.961945***	-5.961945***	-5.792330***
ΔLHDI	-7.976576***	-8.148240***	-0.484103***
ΔLED	-5.242725***	-5.243002***	-5.320019***
ΔLSSR	-5.419692***	-5.507115***	-5.503629***
ΔLFD	-4.560347***	-4.555639***	-4.519689***

Generally, in case of time series data, spurious regression occurs due to non-stationary of the data. Stationary is the sufficient and necessary condition to the check the co-integration between the variables. Phillips Perron PP), Augmented Dickey-Fuller (ADF) and Dickey- Fuller Generalized Least Square (DF-GLS) tests have been applied to check the stationarity of the variables. The outcomes of unit root tests of all variables are presented in Table 3. The estimated consequences of ADF and DF-GLS tests indicate that all variables: inequality index, globalization, human development index, economic deprivation, secondary school education and financial development are non-stationary at level while globalization is stationary at a level according to Phillips –Perron. All variables are stationary at 1st difference through PP, ADF and DF-GLS. Overall results describe that there is mix order of integration which is reasonable to apply ARDL bound testing approach to co-integration.

It is essential to verify the order of integration before using the ARDL approach which is used to check the co-integration among the variables (Sezgin and Yildirm, 2003; Quattara, 2004). Table-4 represents the lag selection criteria of all variables. According to the results of all criterions, the optimal lag length is 1 except one criterion: Akaike information.

Table 4

VAR Lag Selection Criteria						
Endogenous variables: GII GLOB HDI ED SSR FD						
Sample: 1980 2014						
Lags	LogL	LR	FPE	AIC	SC	HQ
0	-551.8184	NA	55756647	34.86365	35.13847	34.95474
1	-358.0435	302.7733*	3036.826*	25.00272	26.92649*	25.64039*
2	-319.1191	46.22270	3265.019	24.81994	28.39267	26.00420
3	-273.5582	37.01819	3910.360	24.22239*	29.44407	25.95323
*indicates lag order selected by the criterion						

For examining the co-integration between gender inequality index, globalization, economic deprivation, secondary school education, human development index and financial development ARDL bounds testing technique has been applied. Table-5 represents the results of ARDL bounds testing technique.

Table 5

ARDL Bound testing approach		
Dependent Variable GII ARDL(1,3,1,0,3,0)		
Critical values	F-Statistics 5.023901	
	Lower Bound	Upper Bound
95%	2.62	3.79
90%	2.26	3.35

The calculated value of the F - statistic (5.023901) is larger than the value of the upper bound (3.79) at the 5 % level. Therefore, Null hypothesis of no co-integration is rejected, which approves co-integration between the selected variables of the model. The estimated F-statistic has verified the existence of co-integration among gender inequality index, globalization, human development index, secondary school enrollment, economic deprivation and financial development in the case of Pakistan.

The estimated long-run findings are described in Table 6. The coefficient of globalization shows the negative and significant relationship between globalization and women's status. This reveals that in the long run by increasing the level of globalization the status of women comes down. The results show that 1 percent increase in globalization decreases 0.5237 percent women status in Pakistan.

Table 6

ARDL Long Run Results ARDL (1,3,1,0,3,0) Dependent Variable LGII Time Period 1980- 2014			
Variables	Co-efficient	Standard-error	T-statistics(prob)
LGLOB	-0.523735	0.168338	-3.111213(0.0060)
LHDI	0.586061	0.111636	5.249733(0.0001)
LED	-0.029052	0.013005	-2.234031(0.0384)
LSSR	0.225053	0.054251	4.148369(0.0006)
LFD	-0.043478	0.026444	-1.644186(0.1175)
C	0.090055	0.090055	2.329655(0.0317)

There is a positive and significant relationship between women's status and human development index. This reveals that by increasing human development index the level of women status increase in Pakistan. The estimated results show a 1 percent increase in human development causes (0.586) percent decrease in gender inequality and this

association is significant at the 1 percent level. Jutting (2008) also finds the same type of results. Economic deprivation has negative and significant relationship with women's status in the context of Pakistan. The calculated outcomes show that 1 percent increase in economic deprivation brings (0.029) decrease in women's status at 5%. This reveals that when level of economic deprivation decreases, more women join the labor force and this increase the overall women's status in case of Pakistan. These results are supported by Jayaweera (1997), as they find that social structure and norms restrict women to participate in the labor market in many Asian countries. But it is less economic resources to encourage women to participate in the labor market. Enrollment of Secondary school has a positive and significant effect on women's status. These findings point out that as the level of education rise the overall women's status have also risen. The results reveal that 1 percent change in enrollment of secondary school changes (0.225) percent in women's status. Malik and Courtney (2010); Faridi et al., (2009) and Graham (2008) also argues that the increase in enrollment in secondary and higher education increases the status of women in society. Educated women are more aware about their rights and duties. Women empowerment increases the economic development (Duflo, 2012; Avornyo, 2013). The coefficient of financial development has an insignificant and negative relationship with women's status. The overall long run results show that human development index and secondary school education play a significant role in women status of Pakistan. Whereas in long run globalization, financial development cannot play an important role in women's status in case of Pakistan.

Table 7

Error Correction Results for the selected ARDL Model
ARDL (1,3,1,0,3,0)
Dependent variable is DLGII
Time Period 1980-2014

Variables	Co-efficient	Standard error	T-statistics (prob)
DLGLOB	0.274817	0.109875	2.501178**
DLHDI	0.336194	0.107176	3.136851***
DLED	-0.024623	0.012531	-1.964871**
DLSSE	0.114651	0.040999	0.0306**
DLFD	-0.036849	0.024829	-1.484112
CointEq(-1)	-0.847522	0.172154	-4.923045***
R-squared	0.703865	Adjusted R-squared	0.489989
F-statistic	3.291001	Durbin-Watson stat	1.972205
Prob(F-statistic)	0.010387		

Table-7 shows the short run dynamic of the model. The estimates show that globalization has positive coefficient and significant effect on women's status. This reveals that in short, globalization encourage women's status in case of Pakistan. The human development index has positive and significant relationship with women's status. This point out that in short run women status can be improved by improving the human development index in case of Pakistan. The results show that enrollment in secondary school has a significant and positive coefficient in case of Pakistan. Financial development has a negative and insignificant effect on women's status. Economic deprivation has a significant and negative impact on women. This highlights that by decreasing economic deprivation more women join the labor force which enhances the overall women's status in Pakistan. The short run outcomes show that globalization and human development index are more valuable to reduce the gender inequality and for improving women's status in case of Pakistan. The values of ECM show the speed of adjustment from long run too short and it is theoretically correct. The negative and significant coefficient (-0.847) shows that 84 percent variation in the last year is corrected in the next year. The results tell that there is a need of one and half year to converge from short run to long run.

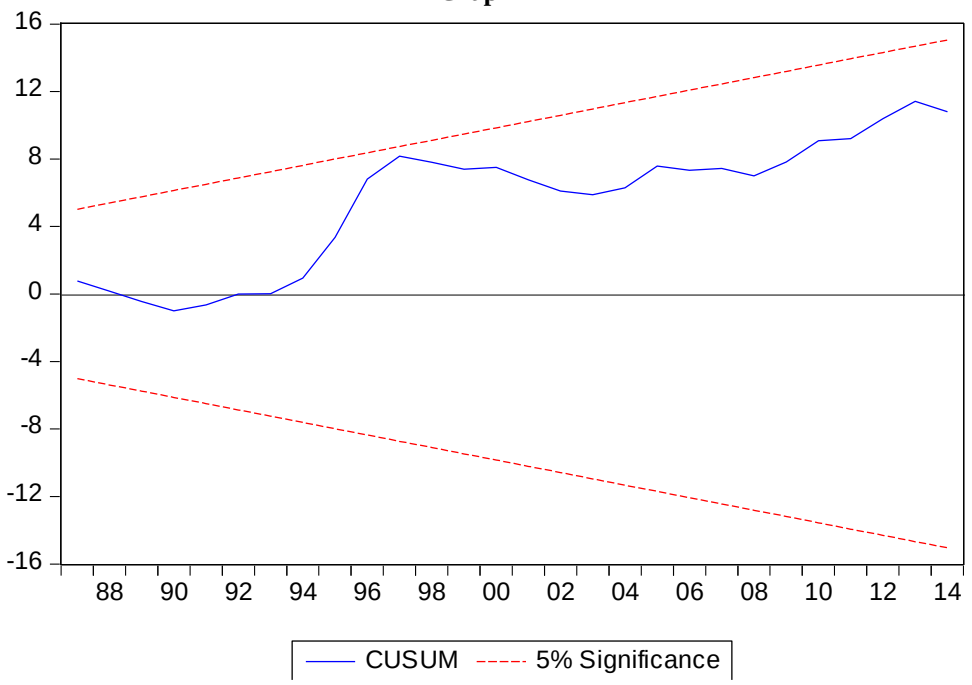
Table 8

Test statistics	F-statistics	Probability value
LM Test: Breusch-Godfrey Serial Correlation	1.560853	0.2283
Heteroscedasticity Test: Breusch-Pagan-Godfrey	0.924443	0.4794

Table-8 shows the results of two diagnostic tests such as LM test and Heteroscedasticity test. P-values of both tests are greater than the 0.05 which indicate that there is no problem of heteroscedasticity and serial correlation.

To test the stability of the ARDL coefficients, CUSUM is utilized which test the stability by testing the structural break. In the CUSUM test, the null hypothesis is that all the coefficients of variation are stable. To make graph of the CUSUM observation, break points is used. If the line of CUSUM test finds under 5% critical bounds, then the coefficients of the variables are stable.

Graph-1



Above graphs of CUSUM is drawn against the break-even points. The null hypothesis can be rejected, if the line of CUSUM test rests under the 5% critical bounds. It can be seen that in the above graph of CUSUM line labels between the 5% significant critical bounds which specifies that the coefficients of this study are stable.

V Conclusions and Policy Implications

The main purpose of this research is to examine the effect of socioeconomic well-being on women's status in Pakistan for the period of 1980 to 2014. To overview the status of women a gender inequality index is developed in case of Pakistan, which has three main dimensions like social, economic and political. Globalization, human development index, economic deprivation, secondary school education and financial development are selected independent variables. Unit root tests such as Phillips-Perron (PP), Augmented Dickey-Fuller (ADF) and Dickey-Fuller Generalized Least Squares (DF-GLS) are used for examining non-stationary problem. Autoregressive Distributed Lag (ARDL) model has been applied to analyzing the co-integration between the variables and VECM model is applied for short run results. The long run results of the model describe that globalization has a significant and negative effect on women's status. The long run results describe that the human development index and secondary school education have a positive and significant impact on women's status. Economic Deprivation has a significant and negative relationship with women's status. Financial development has negative, but insignificant relation with women's status. The estimates show that globalization has positive coefficient and significant relationship with women's status. This reveals that in short, globalization encourage women's status in case of Pakistan. The human development index has significant and positive effect on women's status. This point out that in short run women status can be improved by improving the human development index in case of Pakistan. The results show that enrollment in secondary school has a significant and positive coefficient in case of Pakistan. Financial development has a negative and insignificant relationship with gender inequality index. Economic deprivation has a negative and significant effect on women's status. The ECM has the theoretically correct sign. The estimated value of ECM reveals that there is a need of one and half year to converge from short run to long run. On the basis of the above mentions results following guidelines are

suitable for improving women's status in Pakistan. The human development index is playing an important role in improving women's status in Pakistan. Human development index comprises of health, education and income. The government must focus on the human development by making the appropriate policies for education, health and income. These policies may also help in bringing equality in gender and enhance women empowerment in Pakistan. There should be a great need to arrange awareness and training programs to make women aware about their rights. Our customs, society and traditions deprive girls and women from basic education. It is a greater need to increase the literacy rate among women in Pakistan. In rural areas to make meaningful learning for girls, educators need to create a sense of urgency at the governmental level. The government also should provide work opportunities to the rural women, there should be established in various domestic industries publicly and privately. In this way, they can earn income for themselves and for their family According to the report of the Human Rights Commission of Pakistan, different economic empowerment programs for women are introduced by both civil society and government for women. There is a need to acknowledge them.

References

Avornyo, R. (2014). Rural Women's Role in the Socio-Economic Growth and Well-being of Ghana: A Case Study of Women Operating within the Informal Sector. *Journal of Global Initiatives: Policy, Pedagogy, Perspective*, *8*(1), 7.

Ali, A. (2015). *The impact of macroeconomic instability on social progress: an empirical analysis of Pakistan* (Doctoral dissertation, National College of Business Administration & Economics Lahore).

Ali, A. (2018). Issue of Income Inequality under the perceptive of Macroeconomic Instability: An Empirical Analysis of Pakistan. *Pakistan Economic and Social Review*, 56(1), 121-155.

Audi, M., & Ali, A. (2016). A Causality and Co-integration Analysis of Some Selected Socio-Economic Determinants of Fertility: Empirics from Tunisia. Bulletin of Business and Economics (BBE), 5(1), 20-36.

Becker, G. (1971). S. 1971. The Economics of Discrimination.

Bhagwati, J. (2004). *In defense of globalization: With a new afterword*. Oxford University Press.

Bukhari, S. A. G. (2012). Role of Women in the Development of Islamic Civilization, *Jihāt al-Islām*, 5(2), 7-18.

Chaudhary, A. R. and Chani, M. I. and Pervaiz, Z. (2012). MPRA Paper No. 37784, posted 1. April 2012.

Chaudhry, I. S., & Nosheen, F. (2009). The determinants of women empowerment in Southern Punjab (Pakistan): An empirical analysis. *European Journal of Social Sciences*, *10*(2), 216-229.

David L. R. and Gelleny, R. (2007). Women's Status and Economic Globalization. *International Studies Quarterly*, 51, 855–876.

Dollar, D., & Kraay, A. (2002). Growth is Good for the Poor. *Journal of economic growth*, *7*(3), 195-225.

Duflo, E. (2012). Women Empowerment and Economic Development. *Journal of Economic Literature*, 50(4), 1051–1079.

Elson, D. (1991). Labor Markets as Gendered Institutions: Equality, Efficiency and Empowerment Issues. *World Development*, 27(3) 611-627.

Faridi, M. Z. Chaudhry, I. S and Anwar, M. (2009). The Socio-Economic And Demographic Determinants Of Women Work Participation In Pakistan: Evidence From Bahawalpur District. *A Research Journal of South Asian Studies* 24(2), 353-369.

Glenn, E. N. (2009). *Unequal freedom*. Harvard University Press.

Goldin, C. (1994). *The U-shaped female labor force function in economic development and economic history* (No. w4707). National Bureau of Economic Research.

Gray, M. M., Kittilson, M. C., & Sandholtz, W. (2006). Women and globalization: A study of 180 countries, 1975–2000. *International Organization*, *60*(2), 293-333.

Hakim, A. and Aziz, A. (1998). Socio-cultural, Religious, and Political Aspects of the Status of Women in Pakistan. *The Pakistan Development Review*, 37, 727-746.

Jalal-ud-Din, M. and Khan, M. (2008). Socio-Economic and Cultural Constraints of Women In Pakistan With Special Reference To Mardan District, Nwfp Province. *Sarhad J. Agric.* 24(3)

Jayaweera, W. (1997). Women, Education and Empowerment in Asia. *Gender and Education*, 9(4), 411-424.

Jutting, C. M. (2004). The impact of social institutions on the economic role of women in developing coutries. Oecd development centre. Working Paper No. 234

Jutting, C. M. (2005). Women's discrimination in developing countries: A new data set for better policies. *world development* , 33(7) 1065-1081.

Jütting, J. P. Morrisson, C. Dayton-Johnson, J. and Drechsler. D. (2008). Measuring Gender (In) Equality: The OECD Gender, Institutions and Development Data Base, *Journal of Human Development*, 9(1), 65-86.

Klein, H. G., & Nestvogel, R. (1992). *Women in Pakistan: General Conditions, Approaches and Project Proposals for the Development and Vocational Qualification of Women in the Province of Punjab*. Vanguard Books.

Levin-Epstein, J. (2003). Welfare women and health: the role of Temporary Assistance for Needy Families.

Madhani, N. (2007). Career development in management at a Pakistani university: Is gender a factor. *Gender and education in Pakistan*, 216-36.

Malik, S., & Courtney, K. (2011). Higher education and women's empowerment in Pakistan. *Gender and Education*, *23*(1), 29-45.

Mason, E. k. (2001). *Engendering development: through gender equality in rights, resources and voice.*

Meyer, L. B. (2003). Economic globalization and women's status in the labor market: A cross-national investigation of occupational sex segregation and inequality. *The Sociological Quarterly*, *44*(3), 351-383.

Moghadam, V. (1999). Gender and globalization: Female labor and women's mobilization. *Journal of world-systems research*, *5*(2), 366-389.

Moreau, M. J. (1990). Empowerment through Advocacy and Consciousness Raising: Implications of a Structural Approach to Social Work. *Journal of Sociology and Social Welfare*, 17(2), 53-67.

Murphy-Graham, E. (2008). Opening the black box: Women's empowerment and innovative secondary education in Honduras. *Gender and Education*, *20*(1), 31-50.

Naqvi, Z. F., Shahnaz, L., & Arif, G. M. (2002). How do women decide to work in Pakistan?[with comments]. *The Pakistan development review*, 495-513.

Neumayer, E. and De Soysa, I. (2011). Globalization and the Empowerment of Women: An Analysis of Spatial Dependence via Trade and Foreign Direct Investment. *World Development*, 39(7), 1065–1075.

Pakistan Economic Survey 2005-06.

Parpart, J. L. (1993). Who is the other? Apostmodern Feminist Critique of Women and Development Theory and Practice. *Development and change*, 24(3) 439-464.

Parpart, M. H. (1995). *Feminism/Postmodernism/Development* .

Pesaran, M. H., & Shin, Y. (1997). *An Autoregressive Distributed Lag Modelling Approach to Coin& tegration Analysisp* (No. 9514). Cambridge Working Papers in Economics.

Pesaran, M. H., & Smith, R. P. (1998). Structural analysis of cointegrating VARs. *Journal of Economic Surveys*, *12*(5), 471-505.

Pesaran, M. H., Shin, Y., & Smith, R. J. (2001). Bounds testing approaches to the analysis of level relationships. *Journal of applied econometrics*, *16*(3), 289-326.

Pesaran, M. H., Shin, Y., & Smith, R. P. (1999). Pooled mean group estimation of dynamic heterogeneous panels. *Journal of the American Statistical Association*, *94*(446), 621-634.

Rahman, M. H., & Naoroze, K. (2007). Women empowerment through participation in aquaculture: Experience of a large-scale technology demonstration project in Bangladesh.

Richards, D. L., & Gelleny, R. (2007). Women's status and economic globalization. *International Studies Quarterly*, *51*(4), 855-876.

Sathar, Z. A. and Kazi, S. (2000). Women's Autonomy in the Context of Rural Pakistan. *The Pakistan Development Review* 39(2), 89–110.

Sathar, Z.A. & Mason, K.O. (1993). How female education affects reproductive behaviour in urban Pakistan. Asian and Pacific Population Forum, 6(4), 93–103.

Schimmel, B., & Pech, B. (2004). Corruption and Gender, Approaches and Recommendations for TA.

Sen, A. 1999. Development as Freedom. Oxford: Oxford University Press.

Siddiqui, R., Siddiqui, R., & Akhtar, M. R. (1998). A Decomposition of Male-Female Earnings Differentials [with Comments]. *The Pakistan Development Review*, 885-898.

Suguna, M. (2011). Education and women empowerment in India. *International journal of multidisciplinary research*, *1*(8), 198-204.

United Nations Development Fund for Women report (UNIFEM), 2000.

United Nations Development Fund for Women report (UNIFEM), 2008.

United Nations Development Programme (UNDP). 1995. Human Development Report 1995: Gender and Development. New York and Oxford: Oxford University Press.

Wood, A. (1991). How much does trade with the South affect workers in the North? *The World Bank Research Observer*, *6*(1), 19-36.

World Bank 2000. World Development Report 2000: Attacking Poverty. New York: Oxford University Press.

World Bank. 2001b. World Development Report 2001: Attacking Poverty. New York: Oxford University Press.