Impact of Globalization on Female Labor Force Participation in the SAARC Region

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Abstract
The active participation of females in the labor market is crucial for the rapid growth of any economy. The female labor force participation rate varies across countries due to different factors and it is essential to quantify the impact of these factors on female labor force participation in SAARC region. This study aims to investigate the effect of globalization as measured by foreign direct investment (FDI), trade openness (TOP) and urbanization (URBAN) on female labor force participation (FLFP) for a period of 1990-2010 in SAARC region. For empirical investigation of this study, Panel Fixed Effect and Panel Random Effect models have been used. The findings of the study showed that female’s labor force participation has positively and significantly associated with FDI and URBAN, while it was negatively and significantly with TOP. The increased trade openness creates a competitive environment for the residents of developing economies, and hence, they engage in boosting their skills and avoiding to participate in labor market. Findings of this study clearly showed that urbanization and FDI played key role on the female labor force participation decision and had an increasing trend in the SAARC region. Hence, for the productive use of FDI, The government should ensure a secure and profitable environment for the investment and should also create job opportunities so that desired the level of economic growth can be achieved and knowledge of qualified women can be tapped.

Keywords: Female’s Labor Force Participation, Globalization, Panel of SAARC Region.

I. Introduction
Women are a valuable source and equally productive as men in any given society. Participation of women in the economic activity strengthens the development of a country because their active participation ensures several economic and social benefits. Data with reference to South Asian countries shows a relatively bleak picture of women’s labor force participation. World Bank report shows that after the recovery in global financial crisis the South Asian region has showed high and sustained growth of 9.2% in 2010 and this increased growth was attributed to increased labor productivity i.e.6.4%
during 2007-2011, whereas employment level grew at only 1% during that period. The main reason behind this phenomenon was the slowdown in female labor participation. The condition was more severe in India where female labor participation dropped from 49.4% in 2004/05 to 37.8% in 2009/10 for rural and from 24.4% to 19.4% for urban females. Due to increased gender disparities in the region, the vulnerable employment rate reached 83.8 per cent for South Asian women versus 75.5 per cent for men (ILO, 2012).

There are several possible factors that affect the female labor force participation rate that is the “proportion of the female population ages 15 and older that are economically active” (WDI, 2012). However in this paper we focus on the question that how globalization affects the female labor force participation in the SRRRC region?

Globalization is a phenomenon that is understood in terms of greater world integration change of ideas in various social, economical, technical, political and cultural spheres. In the economic area, factors of production (capital and labor), trade and FDI are playing major role to globalize the whole world. Research also indicates that during the last two decades are so the world has witnessed the process of globalization through an increased degree of market openness and integration (Nissanke and Thorbecke 2005). It has also been argued that there is particular definition of globalization for the present study. We have operationalized globalization in terms of FDI, Trade Openness and URBAN.

Various factors have been identified for the active participation of women in labor force. Studies have documented some individual factors that help women join labor force. For instance education of women, attitude of family, easy access to workplace and conducive environment have been supported by many studies (Azid, Aslam& Omer 2001; Blau & Kahn 2003; Caucutt, Guner & Knowles, 2002; Shannon& Kidd, 2003; Naqvi & Shahnaz, 2002).

South Asian countries provide mix results on female labor force participation. In some countries it has increased, for instance in Pakistan and Nepal, whereas in others it has decreased for example in Bangladesh and India (ILO 2012). In this study we have tried to make an argument that above mentioned macro level factors (FDI, TOP, URBAN) may have enhanced women’s participation due to various reasons.

When countries are economically dependent on each other, whether those interdependency occurs due to increased international trade or due to capital flows, the process of globalization takes place. Globalization usually has a more strong impact on the labor markets of developing countries as these countries mostly lack in domestic funds for the development therefore, through economic integration with the rest of the world through FDI & other capital flows the S-I gaps tend to fill up.

It has been revealed that increased openness and FDI have led to an increase in the female’s participation in developing countries with possible channels for that scenario. International Corporations work in a highly competitive environment and try to reduce their total cost of production. They do it by hiring the cheaper labor i.e. females from developing economies. Due to gender discrepancies in developing countries, women
might be prepared to work at lower wages and without joining a labor union. Therefore, exporting and multinational firms are more likely to employ women (Çagaty and Berik, 1990; Anderson, 2005).

To the best of our knowledge no single study was found analyzing the impact of globalization on female’s participation in the SAARC region. Through this study we investigate the impact of trade openness, worker’s remittances and foreign direct investment (FDI), as three measures of globalization on female labor force participation in a sample of 5 SAARC countries i.e. Pakistan, India, Bangladesh, Sri Lanka and Maldives for a time period of 1990-2010.

The paper is divided into different sections. Section 1 contains Introduction, followed by literature review in Section 2. Section 3 incorporates theoretical framework. Data and Methodological issues are discussed in Section 4. Descriptive analyses of variables in Section 5. Results and discussion has been incorporated in Section 6. Finally section 7 includes conclusion and policy implications of the study.

II. Literature Review

Cooray, Gaddis, and Wacker (2012) used panel data on female’s participation for 80 developing countries from ILO’s 2009 from years 1980-2005 to estimate the impact of globalization as measured by the Trade/GDP and FDI/GDP on the female’s participation. The results of the study showed that trade openness and FDI both negatively impact female’s participation in contrast to the previous literature which was of the view that globalization tended to increase female’s participation by enhancing the business opportunities. The negative impact on female’s participation is higher among young groups, as globalization opens a skill premium age providing a window for the young women to invest more on their education and, hence, not join the labor force. Empirics also suggest that the impact of FDI on female’s participation also depended on the structure of the economy. In an agrarian economy having surplus laborers, FDI negatively impacts female’s participation as exporting and multinational companies usually employ male labor; but if the economy is more industrialized the smaller the pool of (male) surplus labor becomes, the multinational and exporting firms might demand more female labor.

Maqsood and Ullah (2012) used data from International Labor Organization (ILO) and World Development Indicators (WDI) for FDI and female’s participation from 1972-2010 in Pakistan. Co-integration test, OLS estimation was applied to estimate the effect of workers’ remittances and foreign direct investment on the female’s participation in the labor force. It was found that female labor force participation decreased with remittances and increased with FDI in both short and long run. The findings of this study clearly mentioned that FDI created job opportunities for less qualified women as compared to remittances which were spent on the durable goods.

Gaddis and Pieters (2012) checked the effect of trade liberalization on the female labor force participation by using pooled data of nationally representative household survey for 1987-1994. By applying TSLS, the researcher estimated that there was a rapid increase in female labor force participation as a result of trade liberalization because it created job opportunities for females. Evidences showed that with the reduction in non-
tariff barriers and 54.9 to 10.2 percent in nominal tariffs increased the female labor force participation from 46 to 53 percent. It was also found that male unemployment played a role as a push factor and trade liberalization as pull factor for women to participate in the labor market.

Gray et al. (2006) used panel data for 180 countries from 1975-2005 to empirically analyze that how globalization affected the economic, social and political conditions of women. In this paper globalization was measured in terms of international trade, foreign direct investment, membership in the UN and World Bank, and ratification of the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) that significantly affected women’s levels of life expectancy, literacy, and participation in the economy and parliamentary office. Throughout the models, ratification of CEDAW played important role in changing the lives of women. It was stated that institutions and cultural norms were mutually dependent as participation in the international organizations and making conventions for women’s equality change attitudes and norms and the women’s promoting culture led to change the institutions. It was also examined that with globalization the income generating opportunities increased for women.

Amuedo-Dorantes and Pozo (2012) measured the impact of the amount of remittances and uncertainty in remittance income in the labor supply decision of remittance receiving households on the basis of national representative survey in Mexico since 2000-2005. In this study the researcher applied OLS technique on variables and found that with larger amount of remittances people have to move towards luxuries instead of work i.e., lessen their working hours. It was also found that with high uncertainty in remittance, both men and women increased their working hours but the increment in women working hours was more than men. The reason behind was, as women do not work at their full potential so high uncertainty leads them to increased their working hours more than men as later had less flexibility in the working hours.

Funkhouser (2006) used panel data from a nationally representative household survey for 1998-2001 in Nicaragua and check the effect of international migration and remittances on the household labor income and poverty in the sender country. It was found that, as compared to non migrant households, households with migrants had low participation rates particularly among younger adults in the labor market so having less labor income. Households with migrants were less likely to be poor because of receipt of remittances.

Acosta (2007) used panel data for 15000 El Salvador households from nationally representative survey in 2000. 2SLS, Probit and Tobit model were used to analyze the effect of international migration and remittances on the labor supply decision and entrepreneurial activities. In this study, researcher found that remittances reduced the labor force participation rate that differed by gender and increased the self employment activities among remittance receiving households. Specifically the researcher found that females from the remittance receiving households were more likely to less participate in the labor force than men. Evidence showed that in urban areas 42.2% females from migrant households quit the job while only 9% males tended to quit the labor market. It
was also seen that the overall working hours of both men and women reduced due to remittances.

Jadotte (2009) found that how the international migration and remittances impacted the labor market outcomes of remittance receiving households in the republic of Haiti by using data of Haitian Living Conditions Survey containing data on 7,186 households. Zero-altered negative binomial and 2SLQ used for estimation and the results suggested that all the models used in the study to assess the impact of migration and remittance on labor decisions of recipient households showed that remittance income negatively impacted the labor market outcomes of both male and female i.e. reducing their working hours and, also, the overall labor participation. However the empirics did not support the theoretical base that female labor was more sensitive to remittance income.

Binzel and Assaad (2011) used parametric and non-parametric techniques on cross sectional data from the Egypt Labor Market Panel Survey 2006 to find out whether the male family member migrating abroad forced the females left behind (both in rural and urban areas) to increase their labor participation or led them to further reduce their labor participation. The results of the study were in line with the previous literature that remittance income was responsible for reducing the wage work of females both in rural and in urban areas. However women in rural areas with an international migrant were engaged in non-wage work. The reason behind, the rural emigrant family women have to replace the male migrant.

Aboohamidi and Chidmi (2013) employed data from 1990-2008 and by using pooled model, the female labor force participation and its relationship with other factors was estimated for four countries. Fixed and random model demonstrated that high fertility and per capita GDP reduced the female ratio in labor force but this ratio increased because of urbanization and high literacy rate. But the opposite results found by the study of Kemal and Naci (2009) for Turkey that migration from rural to urban areas declined female labor force participation. There were many factors behind this decline as rural women labor had fewer skills that market required, low level of schooling years, or increment in the school enrollment.

Theoretical Framework

Theoretical framework of the study is drawn upon two conflicting assumptions: 1) female labor force participation increases with trade liberalization and Foreign Direct Investment (FDI), 2) labor force participation decreases with the increase trade liberalization and FDI. Two models are developed and data was statistically tested to examine which model really fitted to explain the effect of globalization on female labor force participation.

Fig 1: Trade Urbanization and FDI are significantly associated with female participation

Trade openness and FDI create job opportunities for the females in developing countries as these international corporations work in a highly competitive environment, want to reduce total cost. So, they do it by hiring cheaper female labor from developing countries. Due to gender discrepancies, females in developing regions prefer these jobs and hence, increase their participation.
Gaddis and Pieters (2012) through his study supported the view. The researcher estimated that there was a rapid increase in female labor force participation as a result of trade liberalization because it created job opportunities for females.

Fig 2: Trade and FDI are negatively associated with Female participation

With the opening up of borders, international corporations build up a highly competitive and sophisticated environment in the developing economies. To compete with international corporations these economies are forced to boost up their human capital. Globalization opens a skill premium age and provides them a window to enhance the capabilities of their human capital. Under this scenario the females in developing countries tend to increase their educational skills and hence, reduce their labor participation.

The findings of Cooray, Gaddis and Wacker (2012) were in line with the above view. They estimated the impact of globalization as measured by the Trade/GDP and FDI/GDP on the female’s participation. The results of the study showed that trade openness and FDI both negatively impact female’s participation. The negative impact on female’s participation was higher among young groups as globalization opened a skill premium age providing a window to the young women to invest more on their education and, hence, not to join the labor force.
III. Data and Methodology

The main objective of this study is to investigate the impact of globalization indicators on female’s labor force participation. For this purpose, trade openness (TOP), foreign direct investment (FDI) and urban population as percentage of total population (URBAN) have been taken as independent variables; while female’s labor force participation (FLFP) has been taken as dependent variable. Data on TOP, FDI and URBAN has been taken from World Development Indicators (WDI) and FLFP has been collected from International Labor Organization (ILO) from 1990 to 2011 for the SAARC region countries. Countries have been selected on the basis of availability of data. After collection of data on these variables, Panel Fixed Effect and Panel Random Effect models have been estimated and the basic model is as under for empirical investigation:

\[ FLFP = f(TOP, FDI, URBAN) \]

Where; FLFP is female labor force participation measured as % of females ages 15 and above and who are economically active. TOP is trade openness measured as exports plus imports in which both exports and imports are taken as % of GDP. Here the data on exports and imports only excludes compensation of employees i.e. factor services, investment income and transfer payments. FDI is foreign direct investment taken as % of
GDP and defined as net inflow of the investment in any economy; URBAN is urban population as % of total population.

IV. Results and Discussions

Description of all the variables is given in Table 1, which shows trends, deviations and range of all the variables. This table gives a brief look on the variables used and will help readers to understand empirical portion of this study.

Table 1: Descriptive analysis

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Median</th>
<th>Maximum</th>
<th>Minimum</th>
<th>Std. Dev.</th>
<th>Skewness</th>
<th>Kurtosis</th>
<th>Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLFP</td>
<td>38.29429</td>
<td>38.10000</td>
<td>62.90000</td>
<td>12.80000</td>
<td>14.65431</td>
<td>-0.001492</td>
<td>2.055158</td>
<td>105</td>
</tr>
<tr>
<td>FDI</td>
<td>1.542575</td>
<td>1.116129</td>
<td>7.892811</td>
<td>0.004491</td>
<td>1.526443</td>
<td>1.934119</td>
<td>7.070491</td>
<td>105</td>
</tr>
<tr>
<td>TOP</td>
<td>63.27337</td>
<td>41.30519</td>
<td>170.4314</td>
<td>15.23902</td>
<td>45.81542</td>
<td>1.167339</td>
<td>3.085551</td>
<td>105</td>
</tr>
<tr>
<td>URBAN</td>
<td>26.16578</td>
<td>26.60700</td>
<td>39.99400</td>
<td>15.04100</td>
<td>6.585819</td>
<td>-0.235664</td>
<td>2.161969</td>
<td>105</td>
</tr>
</tbody>
</table>

The mean of FLFP showed that on average there were 38 percent of females which were participating in labor market in SAARC region with minimum value of 12 percent and maximum of 63 percent. FDI ranged from zero to 8 percent as compared with GDP of SAARC region and TOP average value was 63 percent showed trade as % of GDP. SAARC region was not much urbanized because most of the countries were developing and its range was from 15 to only 40 percent of SAARC population was living in urban areas.

To investigate the relationship between female labor participation and globalization, panel fixed effect and random effect models were used for panel data analysis. To verify the validity of fixed and random effect model, this study used Hausman Test and this test showed that there was no difference among both the models and Hausman confirmed that Random Effect model was comparatively better for this case. Here is detailed discussion on all findings of our study.

Table 2: Correlated Random Effects - Hausman Test

<table>
<thead>
<tr>
<th>Test cross-section random effects</th>
<th>Test Summary</th>
<th>Chi-Sq. Stat</th>
<th>Chi-Sq. d.f.</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross-section random</td>
<td>7.361159</td>
<td>3</td>
<td>0.0612</td>
<td></td>
</tr>
</tbody>
</table>

Cross-section random effects test comparisons:

<table>
<thead>
<tr>
<th>Variable</th>
<th>Fixed</th>
<th>Random</th>
<th>Var(Diff.)</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FDI</td>
<td>1.029464</td>
<td>1.185466</td>
<td>0.004790</td>
<td>0.0242</td>
</tr>
<tr>
<td>TOP</td>
<td>-0.210652</td>
<td>-0.207177</td>
<td>0.000016</td>
<td>0.3903</td>
</tr>
<tr>
<td>URBAN</td>
<td>1.053595</td>
<td>0.983872</td>
<td>0.001080</td>
<td>0.0338</td>
</tr>
</tbody>
</table>

As Table 2 showed the validity of Panel Random Effect model through Hausman Specification test at 5% level of significance, so we used Panel Random Effect Model for further empirical investigation of our study objectives. Secondly, sign of coefficients in
both fixed and random effect models are same. Table 3 given below showed the results of Panel Random Effect Model in detail.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>22.46677</td>
<td>5.303093</td>
<td>4.236540</td>
<td>0.0001</td>
</tr>
<tr>
<td>FDI</td>
<td>1.029464</td>
<td>0.509112</td>
<td>2.022079</td>
<td>0.0459</td>
</tr>
<tr>
<td>TOP</td>
<td>-0.210652</td>
<td>0.025162</td>
<td>-8.371796</td>
<td>0.0000</td>
</tr>
<tr>
<td>URBAN</td>
<td>1.053595</td>
<td>0.205212</td>
<td>5.134168</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

The coefficients of both the fixed effect and random effect models showed the estimated values for all variables. All the variables were significant at 5% level of significance. Results of panel estimation showed that FDI was positively and significantly contributing in female’s labor force participation. Its coefficient was 1.03 and was significant at 5% level. TOP (trade openness) was negatively and significantly associated with female labor participation. The estimated value of trade openness coefficient was -0.2107 i.e. female labor participation decreased by 21 percent on a one percent increase in trade openness. On the basis of results some logical inferences could be drawn as opening the borders for international corporations developed a highly competitive and sophisticated environment in the developing economies. We got the empirical support to our results from the work of Cooray, Gaddis and Wacker (2012) who showed that trade openness has a negative impact on female’s decision of labor participation by providing a window to the young women to invest more on their education and hence not to join the labor force.

In this model it was also noted that the most influential and high intensity variables was urbanization which was major contributor in female labor force participation and its value was also significant. This result was strongly supported by previous literature that urbanization provided more opportunities for female to enhance their capabilities. Awareness was another factor along with opportunities and if these facilities would be provided in rural areas then this might enhance female labor force participation in coming years.

Overall the estimated model was good fit which was shown by R-square value 0.71, Adjusted R-square 0.70, overall goodness of the model shown by F-statistics which was 84.13 and there was no autocorrelation problem detected in this model shown by Durban Watson Statistics.

V. Conclusion and Policy Recommendations

Empirics of the study are in line with hypothesis that female participation in labor market is positively and significantly associated with FDI and urbanization, while negatively and significantly with TOP. Urbanization and FDI are positively contributing because FDI is in services, pharmaceuticals and telecommunication sector or supposition where they can easily generate employment opportunities for females. On the other hand,
increased trade openness creates a competitive environment for the residents of developing economies and hence they engage in boosting their skills and avoiding to participate in labor market.

Findings of this study clearly show that urbanization and FDI play a key role on the female labor force participation decision and have an increasing influence in the SAARC region. Hence, for the productive use of FDI, government should have to ensure a secure and profitable environment for the investment and also have to create job opportunities so that desired level of economic growth can be achieved and knowledge of qualified women can be tapped. Along with it the Government should take bold steps to increase the level of FDI. At initial stages trade openness will reduce the female labor participation, but on later dates we will have qualified and competent human capitals that will be a source to speed up the development pace of the economy.

References


