



Shafaqat Ali¹, Muhammad Ibrahim², Muhammad Farhan Asif³, Qamer Zaman⁴, Jawad Rahim Afridi⁵

Abstract

Before the 1990s, Pakistan was an underdeveloped and underprivileged nation with poor economic progress. The expansion of the service sector in the 1990s changed all of this. The fact that the GDP growth rate enhanced as a consequence of a higher female labor force participation led to the possibility of drawing the conclusion that a greater number of women participating in the labor force contributes to an improvement in the economic advancement of countries. The objective of this study is to examine the interactional effect of women's education and area of residence on female labor force participation in Pakistan. The nature of this study is cross sectional and data was collected from Pakistan Demographic and Health Survey 2017-18. Binary logistic regression has been used to examine the interactional effect of women's education and area of residence. The results suggest that woman's level of education as well as the area of residence in which she lives has a supporting and considerable influence on her decision to participate in the labor market. It is possible for wives to work along with their husbands to help shoulder the financial burden of the family. It concluded that the association between women's education and FLFP is greater and more positive for women who are both highly educated and urban residents. This is in contrast to women who live in rural areas.

Keywords: Area of Residence, Women's education, FLFP, Pakistan

1. Introduction

When women have access to work and education possibilities, it helps to alleviate the poverty of households. It has a variety of good impacts for human capital and capacities within households (Dwyer and Bruce, 1988; Kabeer, 2003). In addition to the well-known fact that women constitute up over half of the world's population, there is also a compelling utilitarian argument for assuring their involvement in developmental processes: then that will contribute to the growth's inclusion by increasing the number of people who benefit from it (Kabeer, 2012). Female labor force participation (FLFP) rate is defined as "the percentage of employed female workers of all the females who were above the eligible age for employment" (Chen et al., 2014; Khan et al., 2020). The participation percentage of females in Pakistan is just 22.6 percent, while the participation rate of males in Pakistan is 84.7 percent, which is significantly lower than the rate of their counterparts from other countries (World Bank, 2020).

The rate of female headed households is 67.8 percent in the United States, 73.8% in Australia, 38.5% in Bangladesh, 60% in Korea, 85.3% in Nepal, 75.5% in Canada, 37.5% in Sri Lanka, 72.7% in Japan and 22.6% in Pakistan (World Bank, 2020). The Female Labor Force Participation rate (FLFP) is significant and positively effect by a wide range of factors, including the attitude of husband about female job, education level of women, the number of living children, the income of the household, and job satisfaction level.

However, job-related family constraints have a detrimental effect on FLFP (Afzal and Bibi, 2012; Asif et al., 2019). Women's labor force participation is also lowered by factors such as having an educated parent, being a married woman with education, living away from the district headquarters, having an unemployed spouse, and having considerable resources of one's own (Faridi and Rashid, 2014). Age of the women, the kind of family, the size of the family, the health of the spouse, whether or not purdah was observed, and the number of children are important factors of FLFP (Awan et al., 2015). A woman's level of education also has a beneficial influence on her ability to find gainful job. On the other hand, childcare responsibility, more duty time, and low wages affect FLFP negatively and vice versa (Hare, 2016). Further, politically connected women are more empowered to participate in FLFP and intra household decisions (Riaz and Pervaiz, 2018; Deinger, 2020; Senturk & Ali, 2021).

Education and employment levels are two of the most critical factors that might determine a woman's level of empowerment (Kabeer, 1997). These factors have the potential to elevate women's social standing and make them more eager to engage in decision-making within the context of their own households. In addition to this, it can contribute in the reduction of child mortality, fertility rates, impoverishment, and inequality between men and women by empowering women to better comprehend their rights and exercise authority over the resources available to them (Lupri, 1969; Chaudhury, 1978; Acharya et al., 2010; Ridley, 1959). In addition, women's achievements in education, improvements in economic and health mobility, as well as a greater awareness of the rights to which they are entitled, may all help women become more independent in society (Chaudhary et al., 2012; Audi & Ali, 2017; Rafique et al., 2020; Audi et., 2022).

In addition to research that already have focused at FLFP constraints on a nationwide and international scale, a number of researchers have investigated basic household production model, which itself is pertinent throughout this perspective. In addition to the standard labor supply theory, Becker (1965) investigated the home production model as well as the allocation of time for women. A rise in the rate of the market wage results in a decrease in the quantity of work done at home and has a mixed effect on the number of hours spent on leisure activities and market labor (Becker, 1965; Gronau, 1977). Chiappori (1992) brought forward a concept called the collective household, which served as a theoretical foundation for the investigation of FLFP.

The principle of time allocation serves as the foundation for Becker's model of household production. In order to make the most of their utility function, women split their time between the obligations of the home and the pursuits of the workforce. Having a higher level of education, on the other hand, was beneficial to women at both the workplace and at home. A upsurge in market salaries and earnings is one of the advantages that are provided to females by the market. Alternatively, non-market benefits, or

¹ Corresponding Author, National College of Business Administration and Economics, Lahore, Pakistan, gcsrshafaqatrao@gmail.com

² Department of Sociology, Kohsar University Murree, Pakistan

³ National College of Business Administration and Economics, Lahore, Pakistan

⁴ Literacy and Non-Formal Basic Education Department, Punjab, Pakistan

⁵ Department of Economics, University of Peshawar, Pakistan

household benefits, are advantages to one's self and one's family that arise from increased involvement activities of home (Becker 1965).

Women's age, her health, education, empowerment, number of children, wealth status, employment status, and gender of head of household, region of residence and ownership of land house considered crucial determinants that can influence FLFP (Conteras and plaza, 2010; Asif et al., 2017; Chen et al., 2014; Goksil, 2013; Hare, 2016; Awan et al., 2015; Riaz and Nadeem, 2019; Ashraf & Ali, 2018; Ali, 2015; Ali & Rehman, 2015). In Pakistan, gender norms unquestionably play a part in the restriction of women's engagement in the labor sector. These norms either require women to remain exclusively at home or confine their labor force participation to particular jobs that are deemed socially acceptable. Men are traditionally considered as the primary earners, and the majority of people believe that in times of high unemployment, companies should give preference to men for available positions; yet, this sentiment applies to women almost as much as it does to men. In a lot of different societal circumstances, working outside the house makes a woman less "respectable" than staying at home and raising a family (World Bank 2006). Because of the negative impact that this stigma has on the entire family, other decision-makers within the family, such as the husband of the woman and her in-laws, could make it more challenging for a woman to choose whether or not she will work outside the house.

In Pakistan, women's mobility might be limited by the lack of access to certain "suitable" or "safe" employment. According to the current body of research, women's restricted mobility outside the house as a result of cultural norms and worries about security has a significant impact on the percentage of women who participate in the labor force. Even if the working conditions themselves are regarded as safe and appropriate, the commute to and from work might result in a degree of exposure that exceeds what is considered acceptable. (Ali 2012, World Bank 2006; Ali et al., 2020; Ali & Senturk, 2019; Ali & Sajid, 2020). In Pakistan, most of a woman's working life is spent either in the house or at the farmlands. Their involvement in labor that takes place outside of these sectors, specifically in occupations that are formally recognized, is exceedingly low. It is likely that some types of labor done by Pakistani women are underreported, since it is probable that a substantial number of women are working in agriculture or performing informal work at home, both of which are not tallied and reported as kinds of employment (ADB, 2014). Using data from the Pakistan Demographic and Health Survey (PDHS) 2017-18, the purpose of this research is to evaluate the moderating influence of place of residence in conjunction with women's educational attainment on FLFP in Pakistan.

2. Literature Review

Both socioeconomic and demographic findings from Bahawalpur district in Pakistan was examined by Faridi et al. (2009). A field survey was carried out in the Bahawalpur area to collect the necessary data, and a simple random sampling strategy was utilized to choose the samples. A random sample consisting 164 female workers between the ages of 15 and 64 is taken from both urban and rural areas of the Bahawalpur district. Education levels make a difference and affect positively on whether or not a woman works, excluding the basic educational qualifications up to middle school. The research came to the conclusion that women falling into the age bracket of 15-24 years, having children in the age bracket of 0-2 years and 3-6 years, having household assets, and having a spouse who participated in economic activities all had a negative impact on the female's work participation in economic activities. On the other hand, having an educated husband had a significant and positive effect on the female's work participation in economic activities.

Conteras and plaza (2010) investigated the factors that determine female labor force participation in Chile as well as the influence those factors have. The data were acquired from a survey that was taken out by the International Social Survey Program (ISSP) and was carried out by Centro de Estudios Públicos. Participants in this study were required to be at least 18 years old and come from both rural and urban areas of Chile. The findings of the study revealed that a woman's level of education had a favorable influence on her likelihood of participating in the labor market, but the number of children she had had a negative influence on her likelihood of doing so. This study also investigated the cultural values that were shown to have a detrimental impact on the involvement of women in the job market.

Goksil (2013) investigates the influence of conservatism on the determination of whether or not a woman will participate in the labor force. Data from the Household Structural Survey were utilized for this article (2006). This poll has more than a hundred questions pertaining to the beliefs, routines, and organizational styles of Turkish families. The principal component analysis (PCA) is used to build three unique indices, and the responses provided by the husbands are taken into consideration at all times. The primary index, which is referred to as the conservatism index, is utilized in every section of the article. This index is broken down into two sub-indices, namely the religion index and the social norms index. The findings of this study indicate that a higher level of conservatism is associated with a lower FLFP.

Pakistani women's participation in the official work force was investigated by Khadim and Akram (2013). The characteristics of households and individuals of women aged 21-60 were analyzed using data from the Pakistan Social and Living Standard Measurement (PSLM) 2007-08. FLFP in the formal sector was analyzed using a binary logistic regression model. The findings demonstrated the strong and favorable impact of higher education or professional degree on female labor market participation. Those who are married, part of a large, multi-sister family, and reside in an urban region have a higher FLFP than those who are not. However, the odds of women working in the formal sector are lower when women are the head of the home, boys are present, and women are older. Chen et al. (2014) provided a description of the factors that had an influence on the percentage of Chinese women who participated in the labor force in urban and rural regions. These factors related to families and individuals. The China Health and Nutrition Survey 2006 served as the source for the data obtained. In order to investigate the parameters that are connected with female involvement in the labor force, we employed probit logistic regression. According to the findings, the level of significance of individual variables was higher for women who resided in urban regions, whereas the level of significance of family factors was higher for women who resided in rural areas. When formulating policy, this structural variation must be taken into account for optimal results.

The gender wage gap expands as the proportion of women in the labor force shrinks, according to research by Saure and Zoabi (2014), who argue that these trends are the result of increased international commerce in industries that rely heavily on female labor. Our analysis focuses on bilateral commerce between the United States and Mexico from 1990 to 2007. The analysis was performed using OLS. The regression results lend credibility to the notion that increased trading with developing countries tends to reduce the number of women willing to work in developed countries. Faridi and Rashid (2014) outlined the several aspects that have an impact on the proportion of educated women who are active participants in the labor force. The Multan District in Punjab, Pakistan, was the location of the primary data collection. In order to examine the data, the logit and probit models were implemented. We found that the degree of education had a favorable and substantial influence on the amount of women who participated in the labor force. The coefficients that represent age groups 25 to 29 and 30 to 34, husband's education, their income, marital status, family structure, and family expenditures have a positive and significant impact on FLFP. On the other hand, the coefficients that represent father's education, location, distance, husband's employment status and income, family expenditures, and ownership of assets significantly reduce FLFP.

Awan et al. (2015) described the determinants of rural women labor supply in agricultural sector in district Rajanpur. Data collected from 6 UCs out of 44 UCs, out of each UC two villages and 25 women in each UC above 18 years of age have been randomly selected. OLS have been used to analyze the data. Women age, family type, family size, husband's health status, purdah observed, source of income and number of children are statistically significant. Hare (2016) provided an explanation for the cause behind the decline in the number of married women participating in the labor force in China between the years 1991 and 2011. The data were gathered from the China Health and Nutrition Survey as well as the Longitudinal Survey, which were both conducted in China between the years 1991 and 2011. In order to investigate the influence that socioeconomic factors have on labor force participation, fixed effect regression was utilized. According to the findings; education has a beneficial effect on the number of jobs held by women. The burden of child care costs has a negative impact on women's ability to participate in the work force, and vice versa. Also having a detrimental impact on FLFP was the increased amount of the low wage and duty time.

Klasen (2019) investigated the factors that determine FLFP levels in less developed countries and discovered some interesting results. He suggested that improvements in economic conditions and educational opportunities for women should be encouraged in emerging nations in order to slow the rate of population growth caused by rising birthrates. He observed that the trend of FLFP was not uniform; for example, in emerging countries (such as those located in the Middle East) worsened. This practice was rising in developing nations like Latin America. The FLFP was affected by structural changes and economic structure, "Feminization U Hypothesis", gender norms and initial development conditions. Similarly, economic opportunity for women and economic structure profoundly influenced FLFP. However, FLFP was affected by employment status of women, conditions of household, breakdown of education in the terms of occupational barriers. Deinger (2020) conducted research to investigate the connection between politically empowered women and FLFP. According to the authors, in rural India over the past ten years. there has been a steady decline in education level of women, the, the fertility rate, income growth and the FLFP. The dataset of nationwide individual level was utilized in this article to investigate how random affiliation of village leadership for females affects their access to income and work opportunities as well as their level of empowerment in the household level. According to the findings, politically connected women appear to have a greater capacity to participate in the household decision making and also in FLFP.

Women's age, living children empowerment, residence region, education, residence location, household wealth status, women as household head, ownership of house and land, inflation rate, and many other indicators have been shown to be related to women's involvement in the labor force. However, some researchers have used the role of moderation in different contexts, such as job satisfaction (Nawaz and Abid, 2019), subject wellbeing and job performance (Butt et al., 2020), and turnover intention. There is no any study in the literature that investigated the moderating role of location of residence on FLFP (Zafar et al., 2021). In this study, we will specifically look at Pakistan to see how the place of residence effects FLFP in a moderating way.

3. Methodology

PDHS facilitates with the information from ever-married women of reproductive age (MWRA) between the ages ranging from 15 years to 49 years and provides information on a representative sample of the population's demographic, socioeconomic aspects and health. The PDHS 2017-18 dataset was used in this study in order to perform the analysis. The functional form of the model used to investigate the moderating effect of place of residence on FLFP was:

$$FLFP = \log(p/(1-p)) = \beta_0 + \beta_m M + \beta_e E + \beta_{me} (M \times E) + \beta_i X + e \dots (1)$$

In this study M represents the moderating role and E indicates the effect variable of interest, predictors are X_i and the moderation interaction can be seen as $M \times E$. FLFP is the outcome variable in the study. Women's age (WAGE) variable is classified in seven groups: 15 to 19, 20 to 24, 25 to 29, and so on. Four categories were constructed for the education of a woman and her husband (WEDU and HEDU) no education, primary, secondary, and higher education. It was determined that the husband's job (HEMP) fell into one of the following categories: professional, sales/services skilled or non-skilled, not working and agricultural. In order to avoid having an insufficient number of cells, the spouse's employment status was split into two categories, unemployed and employed. The classification of regions of residency (RR) were developed as Islamabad Capital Territory (ICT), Sindh, Punjab, Baluchistan, Khyber Pakhtunkhwa (KPK), FATA, Gilgit Baltistan (GB), Azad Jammu, and Kashmir (AJK). Principal component analysis was used to create the wealth index (WSH) by merging asset ownership, such as livestock and land with socioeconomic factors like sources of drinking water, household construction and sanitation facilities into five wealth quintiles: richest, richer, middle, poorer and poorest.

The NLC was a continuous measure of the total number of surviving children. There were two groups of women based on their childbearing histories, one with fewer than five children and the other with five or more children to prevent a low cell count. Two categories of HH were created, one for male HHs and one for female HHs, based on the gender of the person in charge of the home. There were four groups defined based on whether or not a woman had her own land or house (OLH). Land and homes are owned alone, jointly, or by husbands and their wives do not have any of these rights. Women's home and land ownership were

combined into two groups: those who did not own either and those who did (own land or houses alone, jointly, and individually and jointly with someone). The percentage and frequency distributions of categorical variables are provided. The statistical significance of the link between FLFP and socioeconomic characteristics was evaluated using a binary logistic regression analysis. Using Hayes' PROCESS macro, we bootstrapped and analyzed the effect of interactions (Hayes, 2012). Process macro with Bootstrapping is a standard in statistical resampling, this technique relies solely on the sample to estimate the model's parameters and associated standard errors (Zafar et al., 2021). The statistics were run with SPSS 20.

4. Results and Discussion

Information on the 48,497 MWRA's economy, population, and geography can be found in Table 1. More over half of the female participants were at least 35 years old (57.9%), with the median age being 36. Of all women, 74.2% had no more than a secondary education, whereas 67.0% of all male spouses held at least that level of education. Sixty-six percent of women (66.3%) in the lowest income households do not own any real estate or a place to call home. Women made up the vast majority of the jobless (85.9%), whereas males made up the vast majority of the employed (94.2%). The majority of households were led by men (90.7%), and 50.2% of those households had no more than five members. More than half of all women (54.4%) make their homes in the countryside. Punjab has 21.1% of the country's female population, Sindh 17.9%, KPK 16.4%, Baluchistan 12.8%, FATA 7.6%, AJK 10.5%, GB 7.6%, and ICT 6.3%.

Table 1: Socio-economic and demographic characteristics of the women

Characteristics of women	Frequency	Percentage (%)
Women's age	15-19	0.8
	20-24	6.0
	25-29	15.1
	30-34	20.1
	35-39	23.6
	40-44	17.9
Women's education	45-49	16.4
	Less than secondary	74.2
Ownership of land/household	At least secondary	25.8
	No ownership	96.3
Household wealth status	Ownership	3.7
	Poorest	66.3
Gender of household headship	Richest	33.7
	Female	9.3
Number of living children	Male	90.7
	Less than five	50.2
Husband's education	At least five	49.8
	Less than secondary	33.0
Husband's employment status	At least secondary	67.0
	Currently unemployed	5.8
Place of residence	Currently employed	94.2
	Rural	54.4
Region of residence	Urban	45.6
	Punjab	21.1
	Sindh	17.9
	KPK	16.4
	Baluchistan	12.8
	GB	7.5
	AJK	10.5
	FATA	7.6
Women's employment status	ICT	6.3
	Currently unemployed	85.9
	Currently employed	14.1

The findings of a binary logistic regression are presented in Table 2, which examines the influence of FLFP on a woman's age, education, household wealth status, ownership of land or a house, the gender of the household head, her husband's education, his job status, the location in which she lives, and the region in which she resides. Every variable was shown to have a substantial association with FLFP, with the exception of location and area of residence.

According to the findings, the level of participation that women have in the labor market increases as their age increases. Women between the ages of 15 and 19 have a lower labor force participation rate compared to women in other age groups ranging from 20 to 24. This is due to the fact that young married women, those between the ages of 15 and 35, are completely dependent on their spouses. In most cases, they are preoccupied with childbirth, caring for their newborn, and many other responsibilities around the house. It is possible that this can be explained by cultural restraints, a lack of experience, skills, and training, as well as the fact that many younger women are still in school; nevertheless, the relationship between these factors is very tenuous. When women reach the age range of 35 to 39, they are more likely to have children of school or college age, which frees up more time for them

to be employed outside the house. This explains the growth in the labor force participation of women in this age range. The FLFP begins to fall beyond the age range of 35 to 39 due to the fact that older women are more likely to be in poor health and are as a result less productive.

Table 2: Results of binary logistic regression

Characteristics of women	β	Sig.	Exp (β)
15-19		Reference	
20-24	.168	.434	1.183
25-29	.533	.010	1.704
30-34	.757	.000	2.131
35-39	1.145	.000	3.141
40-44	.933	.000	2.541
45-49	.931	.000	2.527
Women's education		Reference	
Less than secondary			
At least secondary	.351	.000	1.421
Ownership of land/household		Reference	
No ownership			
Ownership	.337	.000	1.400
Household wealth status		Reference	
Poorest			
Richest	-.626	.000	.535
Gender of household headship		Reference	
Male			
Female	.193	.000	1.212
Number of living children		Reference	
Less than five			
At least five	.199	.000	1.220
Husband's education		Reference	
Less than secondary			
At least secondary	-.323	.000	.724
Husband's employment status		Reference	
Currently unemployed			
Currently employed	-.336	.000	.715
Place of residence		Reference	
Rural			
Urban	.041	.179	1.042
Region of residence		Reference	
ICT			
Punjab	.104	.058	1.110
Sindh	.021	.711	1.021
KPK	-1.173	.000	.310
Baluchistan	-.845	.000	.429
GB	-1.496	.000	.224
AJK	-.747	.000	.474
FATA	-2.682	.000	.068
Constant	-1.683	.000	.186

The correlation between the age of women in the labor and our findings is analogous to that found by Hafeez and Ahmad (2002), Faridi and Rashid (2002) and Naqvi and Shahnaz (2002). Women's educational attainment is a significant factor in their choice to join the job market. Our findings indicate a positive and substantial connection between FLFP and greater levels of education: the higher the degree of education, the higher the probability of FLFP. Women with higher levels of education have more work options outside the house and are better able to earn money. Becker's (1965) theory of household production and time allocation is reflected in these findings. Higher education raises the opportunity cost of creating nonmarket output and the likelihood of engaging in income-generating activities outside the house. Similar results are presented by Ahmad and Hafeez (2007) and Kozel and Alderman (1990). Women from wealthier/richer families are less likely to engage in the labor force than women from poorer households because increased family income reduces females' opportunities to work in the market. If their financial situation is excellent, women choose not to work (Asif and Pervaiz, 2019; Batool, 2019).

Women who have property ownership, such as a home or a tract of land, are much more likely to be employed than those who do not. In other words, having material possessions (a home and land) significantly improves one's ability to accumulate and distribute wealth. When women have financial resources of their own, they are more likely to look for paid employment and therefore increase family prosperity and security. Faridi et al. (2001) and Ahmad and Hafeez (2007) found similar outcomes. Women's engagement in the workforce is strongly influenced by the gender of the household's primary breadwinner. It has been shown that households headed by women have more female workers than those headed by males. Because of these characteristics, women now have greater freedom in deciding on a career path (Riaz and Pervaiz, 2018; Asif et al., 2021;). Women who have had five or more children are more likely to work than those who have had less. As a result of the financial demands of supporting a large family, a large number of single mothers feel they must enter the labor force. Ahmad and Hafeez (2007) both provide similar results.

According to the odds ratio, women whose spouses have lower levels of education tend to have a higher participation rate in the labor force. This is most likely due to the fact that the wealth of a family rises in direct proportion to the level of education attained by the father, which causes a decrease in the participation rate of educated women. It's very uncommon for fathers, particularly those living in rural regions, to be reluctant to give their daughters jobs. Women's participation in the work field tends to increase in parallel with the educational attainment of their spouses. This trend may be the result of loosening cultural limitations and the

desire of women to provide a better life for their children. These researches provide credence to the findings that we came up with Faridi et al (2009). According to the odds ratio, the percentage of women who engaged in the labor force was higher for those whose husbands were jobless. The employment situation of the partner and any other individuals who work from home has a negative and significant coefficient. A rise in the income of the husband will almost probably result in a reduction in the requirement for his wife to continue working. A similar effect is produced by the presence of extra working members of the household consistent with Ahmad and Hafeez (2007).

Urban women are more likely to participate in the workforce than their rural counterparts. Our research shows that provinces play a significant role in determining whether or not women choose to participate in the labor force. Punjabi women are more likely to be employed than their counterparts in the ICT sector. Women in every other region are much less likely to work than ICT women. The results indicate that Punjabi and Sindh women make more contributions to the economy than those who do work in ICT. Women in Sindh and Baluchistan have a poorer likelihood of getting work than ICT women since their coefficients are negative (Basit, 2009). The results of the moderation test are shown in Table 3. Women's education and geographic location were found to have a positive and statistically significant interaction impact on FLFP ($b = 0.176$, $p = 0.01$).

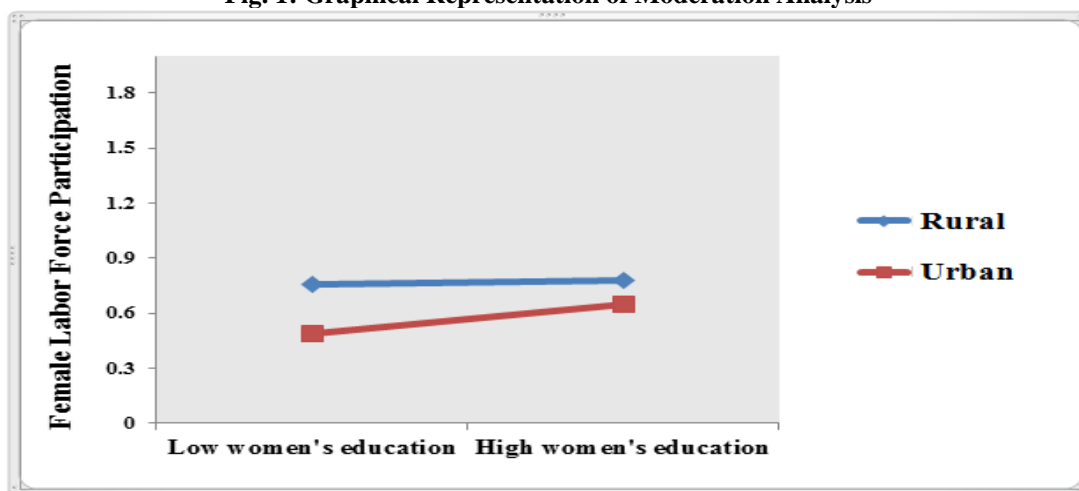
Table 3: Results of moderation/ interaction

Variables	β	Sig.
Constant	.8381	.000
Women's education	-.1288	.012
Place of residence	-.3965	.000
Women's education * Place of residence	.1759	.005

The findings in Table 3 highlight, a woman's level of education as well as the area in which she lives has a supporting and considerable influence on her decision to participate in the labor market. It's possible for wives to work along with their husbands to help shoulder the financial burden of the family. Due to the fact that many people have inadequate salaries and have a tough time paying for all of their family's expenses on their own, the possibility of women working in market labor is significantly increased. There is a negative correlation between the location of educated women and the chance of females pursuing market jobs. The influence of women's location of residence as a moderating factor on the link between FLFP and a woman's level of education is positive. We plotted the interaction effects so that the moderating impacts of area of residence could be seen in a clearer manner (urban and rural). The association between women's education and FLFP is substantially more apparent and positive when the women belong to urban area rather than rural area. This is because urban areas tend to have higher rates of female higher education.

Figure 1 shows that the association between women's education and FLFP is greater and more positive for women who are both highly educated and urban residents. This is in contrast to women who live in rural areas.

Fig. 1: Graphical Representation of Moderation Analysis



Women who are now looking for work have far more limitations in terms of the locations of potential jobs compared to males. It is estimated that 33 percent of these women are only able to find job that can be done within the home, which drastically limits the options that are accessible to them. The majority of the women who are still accessible are exclusively available inside their local town or hamlet. The number of opportunities open to women outside the house has grown in recent years, and such opportunities are considerably more likely to be available to women with higher levels of education (Tanaka and Muzones, 2016).

5. Conclusion

Before the 1990s, Pakistan was an underdeveloped and underprivileged nation with poor economic progress. The expansion of the service sector in the 1990s changed all of this. The fact that the GDP growth rate enhanced as a consequence of a higher female labor force participation led to the possibility of drawing the conclusion that a greater number of women participating in the labor

force contributes to an improvement in the economic advancement of countries. According to the findings of the study, the FLFP is increased when women are elder, have more education, own lands or houses, and have the primary responsibility for the household. In contrast, the FLFP is decreased when the husband has a higher level of education, is employed, the family has a higher economic state, and there are at least five children in the household. On the other hand, we discovered a positive and significant correlation between the level of education women have and where they live in connection to FLFP.

References

- Acharya, D.R., Bell, J.S., Simkhada, P., van Teijlingen, E.R. and Regmi, P.R. (2010). Women's autonomy in household decision-making: A demographic study in Nepal. *Reproductive Health*, 7(1), 15-27.
- Agarwal, N. (2017). An Explanation for the Puzzling Decline of Female Labor Supply in India.
- Agler, R., and De Boeck, P. (2017). On the interpretation and use of mediation: multiple perspectives on mediation analysis. *Frontiers in Psychology*, 8, 1984.
- 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., & Rehman, H. U. (2015). Macroeconomic instability and its impact on the gross domestic product: an empirical analysis of Pakistan. *Pakistan Economic and Social Review*, 285-316.
- Ali, A., & Sajid, A. (2020). Towards Inclusive Growth: Financial Sector Dynamics and Poverty Reduction in Pakistan. *Journal of Business and Economic Options*, 3(4), 129-140.
- Ali, A., & Şenturk, I. (2019). Justifying the Impact of Economic Deprivation, Maternal Status and Health infrastructure on Under-Five Child Mortality in Pakistan: An Empirical Analysis. *Bulletin of Business and Economics*, 8(3), 140-154.
- Ali, K. A. (2012). Women, Work and Public Spaces: Conflict and Coexistence in Karachi's Poor Neighborhoods. *International Journal of Urban and Regional Research*. 36 (3), 585-605.
- Ali, S., Asif, M. F., Khan, M. K., Fatima, N., Safdar, H., & Lassi, Z. S. (2020). Moderating role of husband's education and their employment on female labor force participation in Pakistan. *Ilkogretim Online*, 19(4), 5265-5276.
- Amin, S., and Alam, I. (2008). Women's employment decisions in Malaysia: Does religion matter? *The Journal of Socio-Economics*, 37(6), 2368-2379.
- Ashraf, I., & Ali, A. (2018). Socio-Economic Well-Being and Women Status in Pakistan: An Empirical Analysis. *Bulletin of Business and Economics (BBE)*, 7(2), 46-58.
- Asian Development Bank. (2014). Rapid Assessment of Sexual Harassment in Public Transport and Connected Spaces in Karachi. Manila.
- Asif, M. F. Mirza, U-K. Khan, A. H. Asif, M. Z. Riaz, S. & Ahmed, S. (2017). Job Satisfaction: Antecedent and Consequences. *Bulletin of Business and Economics*, 6(4), 185-194.
- Asif, M.F. & Pervaiz, Z., (2019). Socio-demographic determinants of unmet need for family planning among married women in Pakistan. *BMC Public Health*, 19(1), 1-8.
- Audi, M & Ali, A. (2017). Socio-Economic Status and Life Expectancy in Lebanon: An Empirical Analysis. *Archives of Business Research*, 5(11), 159-170
- Audi, M., Ali, A., & Hamadeh, H. F. (2022). Nexus Among Innovations, Financial Development and Economic Growth in Developing Countries. *Journal of Applied Economic Sciences*, 17(4).
- Awan, A. G., Nadeem, N., and Rashid, B. (2015). Factors affecting the rural women labour supply in agriculture sector: a case study of district Rajanpur-Pakistan. *Developing Country Studies*, 5(1).
- Becker, G. S. (1965). A Theory of the Allocation of Time. *The Economic Journal*, 493-517.
- Bibi, A., and Afzal, A. (2012). Determinants of married women labor force participation in Wah Cantt: A descriptive analysis. *Academic Research International*, 2(1), 599.
- Butt, T. H., Abid, G., Arya, B., and Farooqi, S. (2020). Employee energy and subjective well-being: a moderated mediation model. *The Service Industries Journal*, 40(1), 133-57.
- Chen, J., Shao, X., Murtaza, G., and Zhao, Z. (2014). Factors that influence female labor force supply in China. *Economic Modelling*, 37, 485-491.
- Contreras, D., and Plaza, G. (2010). Cultural factors in women's labor force participation in Chile. *Feminist Economics*, 16(2), 27-46.
- Deininger, K., Jin, S., Hari K., and Sudhir, K. (2020). *Political reservation and female labor force participation in rural India*. The World Bank.
- Dwyer, D. H., and Bince, J. (1988). A home divided: Women and income in the Third World.
- Ejaz, M. (2011). The determinants of female labor force participation in Pakistan: An instrumental variable approach.
- Faridi, M. Z., and Rashid, A. (2014). The Correlates of Educated Women's Labor Force Participation in Pakistan: A Micro-Study. *The Lahore Journal of Economics*, 19(2), 155.
- Faridi, M. Z., Malik, S., and Basit, A. B. (2009). Impact of education on female labour force participation in Pakistan: Empirical evidence from primary data analysis. *Pakistan Journal of Social Sciences*. 29(1).
- Göksel, İ. (2013). Female labor force participation in Turkey: The role of conservatism. *Women's Studies International Forum*. 41, 45-54.
- Government of Pakistan. (2020). Economic survey of Pakistan, Ministry of Finance Division, Islamabad, Pakistan.
- Hare, D. (2016). What accounts for the decline in labor force participation among married women in urban China, 1991–2011? *China Economic Review*, 38, 251-266.
- Hassan, Q., Abid, G., Ahmad, J., Ali, M., Khan, A. H., and Zafar, R. (2020). Applicants' reaction towards the personnel selection methods in Pakistan. *Cogent Business & Management*, 7(1), 1816418.

- Hayes, A. F. (2012). PROCESS: A versatile computational tool for observed variable mediation, moderation, and conditional process modeling.
- Hussain, M., Anwar, S., and Huang, S. (2016). Socioeconomic and demographic factors affecting labor force participation in Pakistan. *Journal of sustainable development*, 9(4), 70-79.
- Kabeer, N. (1997). Women, wages and intra-household power relations in urban Bangladesh. *Development and Change*, 28(2), 261-302.
- Kabeer, N. (2003). Mainstreaming gender in poverty eradication and the Millennium Development Goals. Commonwealth Secretariat and IDRC: London and Ottawa, 3, 1-17.
- Kabeer, N. (2012). Women's economic empowerment and inclusive growth: Labour markets and enterprise development.
- Khadim, Z., & Akram, W. (2013). Female labor force participation in formal sector: An empirical evidence from PSLM (2007-08). *Middle-East Journal of Scientific Research*, 14(11), 1480-1488.
- Khan, R. S., Jan, S. A., Afridi, J. R., & Asif, M. F. (2020). Impact of " Food for Education Program" on Child Labour incidence in Tribal Districts of Khyber Pakhtunkhwa, Pakistan. *Ilkogretim Online*, 19(3).
- Khwaja, A. I., and Mian, A. (2005). Do lenders favor politically connected firms? Rent provision in an emerging financial market. *The Quarterly Journal of Economics*, 120(4), 1371-1411.
- Klasen, S. (2019). What explains uneven female labor force participation levels and trends in developing countries?. *The World Bank Research Observer*, 34(2), 161-197.
- Lupri, E. (1969). Contemporary authority patterns in the West German family: A study in cross-national validation. *Journal of Marriage and the Family*, 31(1), 134-144.
- N.I.P.S (2018) Pakistan Demographic and Health Survey 2017-18. Islamabad, Pakistan: National Institute of Population Studies and Macro International Inc.
- Nawaz, M., and Abid, G. (2019). Does prosaically motivation and psychological capital improve organizational citizenship behavior? An empirical study through the moderating role of workplace incivility.
- Rafique, T., Asif, M.F., Afridi, J.R., Rehman, N.U. and Mahmood, K., (2020). Credibility of social networking sites: Impact on organizational attraction in recruitment filed. *Sarhad Journal of Management Sciences*, 6(2), 279-294.
- Riaz, S., & Pervaiz, Z. (2018). The impact of women's education and employment on their empowerment: empirical evidence from household level survey. *Quality & Quantity*, 52(6), 2855-2870.
- Ridley, C.J. (1959). Number of Children Expected in Relation to Non-familial Activities of the Wife, *Milbank Memorial Fund Quarterly*, 37(3), 277-296.
- Şentürk, İ., & Ali, A. (2021). Socioeconomic Determinants of Gender Specific Life Expectancy in Turkey: A Time Series Analysis. *Sosyoekonomi*, 29(49), 85-111.
- Tanaka, S., & Muzones, M. (2016). Policy Brief on Female Labor Force Participation in Pakistan.
- World Bank. (2006). Women's Work and Movement into the Public Sphere.
- Zafar, R., Abid, G., Rehmat, M., Ali, M., Hassan, Q., and Asif, M. F. (2021). So hard to say goodbye: impact of punitive supervision on turnover intention. *Total Quality Management & Business Excellence*, 32, 1-23.