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Determinants of Female Labor-Force Participation in Pakistan: An Empirical Analysis of the Labor Force Survey 2020-21

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Abstract: Pakistan, with a female labor force of more than 100 million, ranks among countries with the lowest female labor force participation rates, hindering economic growth and limiting the potential of female workforce. Women's participation in the labor market contributes to the country's economic progress and empowers them to make decisions and access resources, raising their living standards and leading to socioeconomic development. This study analyzes the dynamics of female labor force participation in Pakistan. It examines individual, household and economic factors including female education level and technical training, level of income of females, marital status, provincial status, locality, presence of children, income of household members other than females, average paid income of female labor force, household head employment status and education level, responsible for low female labor force participation. The study contributes to the literature by investigating evolving female labor force participation trends using recently available and nationally representative Labor Force Survey of Pakistan 2020-21. The study identifies challenges females currently face in the labor market. The study's findings help formulate targeted policies for improving female labor force participation, which in turn reduces gender disparities, empowers women, and foster inclusive economic growth in Pakistan.

Keywords: Female Labor Force Participation, Education Level, Technical Training, Level of Income, Household Factors

1. Introduction

Women make up approximately half of the total population of Pakistan, yet this portion does not constitute a significant labor force. According to the Labor Force Survey (LFS) 2020-21, only 22% of women actively participated in the labor force compared to men with an active share of 67.7%. This obvious disparity undermines the nation's economic potential

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and suppresses opportunities for women to contribute to development and progress. When women participate actively in the labor market, they raise entire families through improved income, greater access to resources, and upgraded living standards, resulting in sustainable socioeconomic development. Increased women's participation in the labor market signifies economic and social development and women's empowerment (Mujahid 2014). Therefore, Pakistan's untapped female workforce represents not just a challenge but an enormous opportunity for transformation. By minimizing the gender gap in labor force participation, Pakistan can achieve inclusive economic growth and prosperity.

The female labor force participation rate in Pakistan is very low compared to neighboring nations like India (36.4%), Bangladesh (60.2%), China (77.8%), and Nepal (66.15%) [World Bank, 2020]. Female labor market dynamics are more complex and depend on various personal, household, and economic factors. The regional split between urban and rural areas has greatly affected female labor force participation. Formal employment options are more accessible to urban women, but these opportunities require higher education and technical and professional skills. Rural women, on the other hand, frequently work in the informal economy and in agriculture, where earnings are typically lower (World Bank, 2019). Pakistan's high fertility rate, with 3.6 children per woman, causes women to be excluded from the labor force, as reported in the Labor Force Survey 2020-21 and the Pakistan Demographic and Health Survey 2017- 18. Higher levels of education and technical and professional training are critical in shaping female labor market dynamics in Pakistan (Serrat, Park et al. 2016). Higher education and technical and professional training provide work opportunities and empower individuals economically.

Few studies based on microdata sets have been conducted to analyze factors responsible for low female labor force participation in Pakistan. To our knowledge, existing studies didn’t highlight the role of technical education in female labor market dynamics. Technical education/skills are among crucial factors that provide work opportunities and make them more productive. Current study contributes to literature by considering crucial factors that shape female labor market dynamics, including levels of education of females (primary, middle, matric, intermediate, bachelor, master, and higher), their marital status, income of household other than females, provincial status, locality, presence of children up to age of 3

years and presence of children within the age brackets of 3 to 15 years, household head education, household head employment status, paid income of females and technical education. The study highlights the role of technical and professional training, such as auto or engine mechanics, carpentry, typing, computer, tailoring, etc. This study uses the nationally representative, recently available Labor Force Survey of Pakistan 2020-21. By identifying barriers to participation and highlighting the challenges women face in entering and staying in the labor market, this research provides valuable insights into the dynamics of female labor force participation. The study is aligned with several Sustainable Development Goals (SDGs). It supports SDG 5 (Gender Equality) by identifying the barriers and highlighting the challenges to women's participation in the labor market. The study also analyzes the role of skill development/technical education and wage incentives in female labor force participation decision which supports SDG 8 (Decent work and economic growth). The study also contributes to SDG 1 (No Poverty) and SDG 10 (Reduced Inequalities) through insights into how females' participation in labor market contributes to welfare of their families and reduces income inequalities. SDG 4 (Quality education) is also addressed in this study by analyzing how levels of education and technical training matters for increasing females labor market participation.

1.2. Significance of the study

With more than half of total population, females' participation in labor market has very important role in the country's socio-economic development and achieving SDGs. Higher female labor participation ultimately raises living standards of their families and contributes significantly to country's socio-economic development. Females' decisions to participate in labor market do not depend solely on their own choice but also depends heavily on household factors and economic factors. The study examines the impact of personal, household and economic factors that affect females market choices using recent available labor force survey data of Pakistan. The significance of this study is highlighted in its ability to inform evidence-based policy-making. Addressing the root causes of low female labor market participation will not only reduce gender disparities but also empower women as agents of

change, unlocking their potential to drive Pakistan's economic and social progress. This is more than research—it is a call to action for building an equitable, inclusive, and prosperous future for all.

2. Literature Review

Various empirical studies on female labor force participation in Pakistan have been conducted. Some studies examine the macroeconomic determinants of female labor force participation rate and found that female population, female workers ratio, female-headed households, and female literacy rate have positive and significant effects on female Labor Force Participation while fertility rate and low child mortality rate decrease female labor market participation (Naheed, Waseem et al. 2024). Studies based on primary survey data found that females in urban areas have more opportunities to work than in rural areas. Increasing female education contributes positively to higher female labor force participation (Shah, Riaz et al. 2021). Studies based on microdata sets focused on Pakistan Social and Living Standards Measurement (PSLM) and labor force surveys of Pakistan. This study contributes to the literature by conducting an in-depth analysis of all possible personal, economic, and household factors that can affect female labor force dynamics in Pakistan using the Labor Force Survey of Pakistan 2020-21. Empirical studies on female labor force participation in Pakistan are summarized in [Table 1].

Table 1: Review of Selected Studies

Author(s) & Year	Variables	Data	Results
He and Iftikhar (2025)	Female labor force participation, primary, secondary, and tertiary levels of education, nature of women's work, income, mobility, location, household size, and childcare	Cross-sectional data of the Labor Force Survey of Pakistan 2017-18	• Females have 33.4% lower probability of participating in the labor market as compared to males. • As age increases, the likelihood of participating in the labor market declines. • There is a correlation between education, type of contract, income, childcare, and mobility, indicating that the more educated a woman is, the

			more likely she is to be employed under regular contracts.
Naheed et al. (2024)	Female population, female workers ratio, female-headed households, and female literacy rate	Time series data from the World Bank and WDI	Female population, female workers ratio, female-headed households, and female literacy rate have a positive and significant effect on female labor force participation, while fertility rate and low child mortality rate decrease female labor market participation.
Shair, Arshad et al. (2024)	Labor force, Province, Education, Marital Status, Job training	Pakistan Labor Force Survey 2020-2021	The logistic regression findings highlight provincial disparities. Females in urban areas have fewer chances to work than rural women.
Amber and Chichaibelu (2023)	Female labor force participation, location, education level and marital status	Panel data taken from labor force surveys (1990–2017)	• The increasing proportion of working-age women in the population does not explain the changes in overall labor force participation rates. • The age–period–cohort analysis shows that for cohorts born since the 1900s, urban women exhibit a slight M-shaped pattern in labor force participation across age, reflecting reduced participation during child-rearing years. Cohort effects indicate a rise in labor force participation among women born after the 1950s.
Khan (2022)	Female labor market participation, household	Fieldwork involving interviews was	• The findings reveal significant variation in women's workforce

	responsibilities, levels of education and skills and working environment	conducted over several weeks between May and August 2020	participation. • Married women are generally less involved in paid employment due to household duties and childcare responsibilities. • Higher levels of education and schooling are positively associated with increased female labor force participation. • The study also examines how family social status, financial income, and personal characteristics influence women's employment decisions.
Shah, Riaz et al. (2021)	Respondents' age, labor force participation, education level of the respondent, and household head	Primary data collected from 200 females	• Female labor force participation increases due to an increase in age of respondents, their education, and the education level of the household head. • Females in urban areas have more job and education opportunities and have better infrastructure facilities.
Junaid, Farwa et al. (2021)	Female participation, marital status, percentage of total employees by gender, education status, distribution of average monthly payment by gender	Data taken from PSLM (2018-19)	The policy brief identifies four key factors contributing to the decline in female labor force participation in Punjab: weak authorization for women to work outside the home, reluctance to seek employment, a lack of suitable job opportunities for women, and their involvement in household

			responsibilities.
Shah and Riaz (2020)	Female labor force participation, female's education, age, husband's education level and salary, household size, female's marital status, No. of children and access to credit	Primary data of 350 females collected through a field survey for the year 2020	• Educational attainment, women's age, husband's education, marital status, and access to credit significantly influence female work participation in the Multan division. • The study recommends that the government design an effective policy framework to encourage women's participation in the labor force. • Additionally, providing short-term loans can support women in engaging in various economic activities, such as small business enterprises.
Mehak Ijaz (2010)	Female labor force participation, education level, technical training, level of income, household factors	PSLM 2006-07	• Higher fertility rates, marital status, and a significant gender wage gap negatively affect female labor force participation. • Higher education and access to home appliances increase their chances of working.
Faridi, Zahir, Chaudhry, Sharif, & Anwar (2009)	Levels of education, Household income, family dependents, marital Status, presence of children	Cross-sectional data collected through a field survey	• Levels of education are significant determinants of female labor force participation. Their participation in the labor market increases with increasing levels of education.
Fatima& Sultana (2009)	Female education attainment, sectoral employment share,	LFS (Labor Force Surveys) and HIES	• The study confirms a U-shaped relationship between female labor force

	unemployment rate, wages and marital status.	(Household Integrated Economic Surveys) of 1992-1993, 1996-1997, and 2001-2002.	participation (FLP) and economic development. FLP initially reduces with economic growth but increases with more economic development. • The U-shaped relationship between FLP and economic development can be due to educational attainment, marital status, unemployment rate, and wages.

3. Objectives of the study

- Analyze trends in females' labor force participation in Pakistan.
- Empirically examine the impact of individual, household, and economic factors on female labor force participation in Pakistan.

4. Theoretical Framework

Various labor supply theories have been evolved, highlighting factors that can significantly affect labor force participation decisions. According to the neoclassical labor supply model, labor market participation is independent; everyone chooses between work and leisure. When wages increase, people prefer work over leisure, and after a certain point, the opportunity cost of work increases, which decreases working hours. (Lundberg and Pollak 1996) found that the traditional neoclassical labor supply model does not consider the preferences of married females when deciding to work. (Schultz 1961) found that there is a U-shaped relationship between levels of education and work. More people prefer to work when they have no education or a very low level of education. When people's level of education increases to the intermediate level, their chances of working will decrease, and they are more willing to work after getting higher education. (Becker 1965) found that the decision to work depends not solely on work and leisure but also on the type of work, like paid or unpaid work, competitive and non-competitive work, etc. He further explained that choosing between work and household production, such as child care, depends on the law of comparative advantage. Females have a comparative advantage in household production and prefer

household work over labor market work (Becker 1975). The human capital theory states that improving human capital by increasing investment in education and technical skills can contribute positively to female labor market participation. (Becker 1992) found that the wage rate is the opportunity cost of having children; a higher wage implies a higher opportunity cost for children. Various studies extended the basic model of labor supply by incorporating various socioeconomic factors at personal or household level, including age, household size, income level, presence of children, levels of education, training, area of residence, etc., by incorporating various socioeconomic factors that play essential role in female labor market dynamics. The following function is developed based on various theories of labor supply to analyze data.

Female labor force participation= f (female levels of education, marital status, income of household members other than females, provincial status, locality, presence of children, household head employment status, household head education level, technical training, average paid income for females)

In model form, the above function can be written as:

$$FLP = \alpha_0 + \alpha_1 Female\_education\_levels_i + \alpha_2 marital\_status_i + \alpha_3 houshold\_income\_other_i + \alpha_4 \Pr ovince_i + \alpha_5 locality_i + \alpha_6 HHchild3_i + \alpha_7 HHchild15_i + \alpha_8 HH\_employmentstatus_i + \alpha_9 hh\_education_i + \alpha_{10} technical\_training_i + \alpha_{11} paid\_income\_females_i + \varepsilon_i$$

In the equation,

FLP represents female labor force participation rate, a binary variable which is equal to '1' if a female participates in labor market and equals '0' if female does not participate in labor market.

Female_education_levels is a categorical variable representing various levels of education of females, including no education, primary education, middle, matric, intermediate, bachelor, master, and higher. Marital_status is a categorical variable equals to '1' if female is unmarried and takes equal of '2' if they are married.

Household_income_other is the income of members of the household other than females.

Province is a provincial status for females. It includes KPK, Punjab, Sindh, and Balochistan.

Locality is a categorical variable that takes the value of '1' if females belong to rural areas and '2' if they are from urban areas.

HHchild3 represents the presence of children up to the age of 3 years.

HHchild15 represents the presence of children within the age brackets of 3 to 15 years.

Hh_employmentstatus shows the household head's employment status. It equals '1' if the household head is employed and '0' otherwise.

Hh_education represents the years of education of the household head.

Technical _training includes technical and professional courses and training for females.

Paid_income_females represents the average wage rate that females get for work.

Ɛ is an error term that represents the other factors affecting female labor force participation decisions, which are not considered in this study.

FLP is the dependent variable; all other variables on the right side of the equation are independent variables.

As the dependent variable and some independent variables in our model are categorical, the appropriate choice is to estimate a Logit or Probit model instead of a linear regression model through the Ordinary Least Squares (OLS) estimation technique. Therefore, the following Logit model is estimated for empirical analysis.

$$L_i = \ln\left(P_i / 1 - P_i\right) = \alpha + \beta_i Z_i + \eta_i$$

Li is a dependent variable in our study, female labor force participation (FLP). P is the probability of working for females. Z is a vector of all independent variables we have taken in our analysis. β is a vector for coefficients. α is the constant or intercept. **η** is the stochastic error term. Subscript i represents cross-sectional units.

The following formula computes average marginal effects:

$$\partial L_i / \partial Z_i = Pi(1 - P_i)\beta_i$$

$\partial L/Z$ finds the change in the dependent variable in percentage points due to the change in each independent variable.

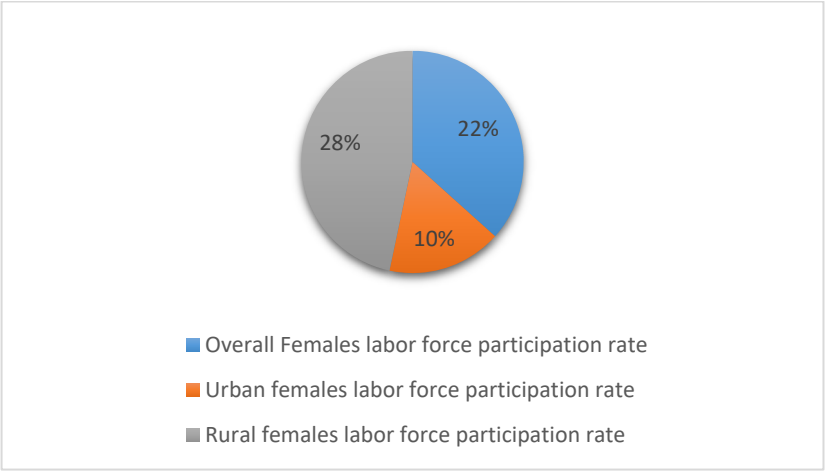
This study uses recent microdata from the Labor Force Survey 2020-21, which is taken from the Pakistan Bureau of Statistics. Both descriptive and empirical analysis is performed in STATA.

5. Data Analysis

5.1 Trends in female labor force participation in Pakistan

Total working-age females in the Labor Force Survey 2020-21 comprise a sample of 198,140 females. Out of the total sample, 41734 are part of the labor force. The labor force includes those employed or unemployed but actively seeking work. Those females who do not want to work for any reason, like disability, full-time students, retirees, etc., are not considered part of the labor force. In total female labor force, 36718 females belong to rural areas and 5016 females belong to urban areas, showing that females in rural areas have relatively more representation in labor force than metropolitan areas. [Figure 1] represents the overall female labor force participation rate and their participation rate in rural and urban areas of Pakistan. Overall, the female labor force participation rate in 2020-21 is 22 percent, and participation rates in rural and urban areas are 28% and 11%, respectively. As the agriculture sector is the backbone of Pakistan's economy, a large segment of females in rural areas are attached to this sector primarily as unpaid family members. Many females in rural areas are also connected to livestock, poultry farming, and informal economic activities such as traditional crafts, sewing, carpet weaving, food processing, etc. Females in urban areas of Pakistan face more challenges and have low participation rates in the labor market.

Figure 1: Female Labor Force Participation Rate

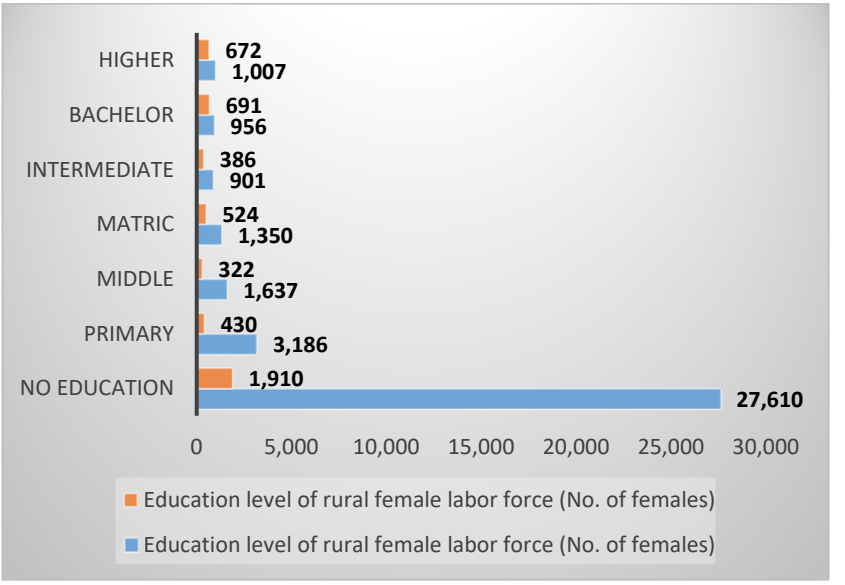


Education plays a fundamental role in creating work opportunities for females. In a sample of the female labor force, a large portion of females are either uneducated or have acquired a lower level of education [Table 2]. In the sample, more than 80 percent of females are uneducated, and less than 5 percent have a bachelor's or higher education. [Figure 2] compares the education level of the rural and urban female labor force. The graph shows that most females in the rural labor force are uneducated. Most females in rural areas perform unskilled labor and get low service rewards, which will not contribute to socioeconomic wellbeing. Females in the urban labor force also acquire a low level of education.

Table 2: Education levels of females

Female's education level	Number of females
No education	29,520
Primary	3,616
Middle	1,959
Matric	1,874
Intermediate	1,287
Bachelor	1,647
Higher	1,679

Figure 2: Education level of female labor force- Rural Vs Urban



Technical and professional training also provides good work opportunities in the labor market. Of the total female labor force sample, only 6324 have received technical training [Table 3]. Less than 20% of the female labor force receives technical training in rural and urban areas.

Table 3: Technical training

	Female labor force (percentage of female labor force)	Female labor force in rural areas (percentage of female labor force)	Female labor force in urban areas
Technical training	6324	14.5%	19.7%
No technical training	35409	85.5%	80.3%

The lack of higher-quality education and technical skills is a key impediment for females to get good opportunities, which in turn limits their labor market participation.

Many unmarried females are either employed or seeking work [Table 4]. This shows that married females usually participate less in the labor market. Married females typically have more responsibilities; including taking care of children and other household members, so their decision to enter the labor market is more complex and depends on many household factors, along with personal and economic factors.

Table 4: Marital Status

Marital status	Females
Married	9,250
Unmarried	32,484

Females in rural and urban areas face multiple challenges that limit their contribution to the labor market. In rural areas, females contribute relatively more because they mostly live in a joint family system, which supports child care and other household responsibilities and contributes more to the labor market. In rural societies, females work to participate and do not get discouraged, while in urban areas, social norms discourage females from working in the labor market.

5.2 Empirical Analysis

The Logit model is estimated to empirically examine the impact of individual/personal, household, and economic factors on the female labor force participation rate, and results are given in [Table 5]. The dependent variable is the female labor force participation rate, a binary variable that takes a value of '1' if a female participates in the labor market and '0' otherwise. Female education, marital status, provincial status, and locality are categorical variables. The first category is considered a base category for all categorical variables. Results of the logit model show that higher levels of education from a bachelor's degree onwards increase the probability of participating in the labor market, as coefficients are positive. Uneducated females and females with low educational levels have fewer chances to work. In literature, empirical studies found that levels of education positively contribute to higher female labor force

participation in Pakistan (Ali, Ibrahim et al. 2024). As per findings of our study, technical training has a significant positive impact on female labor force participation. Technical, vocational, and educational training/courses such as auto or engine mechanics, carpentry, typing, computer, tailoring, etc., increase the probability of females becoming a part of the labor market. Technical education provides skills that ultimately increase chances of working. Therefore, focusing on skill-based education is highly important to get employment opportunities. (Fatima, Saeed et al. 2023) found that female labor force participation with technical education can increase the pace of economic growth in Pakistan. In the case of marital status, a base category is married females. The coefficient of marital status is positive, showing that unmarried females are more likely to participate in the labor force than married females. All studies found that married females have fewer chances to work due to having more household responsibilities. Many cultural and social factors discourage women from working (Hussain 2024). In provincial status, a base category is KPK; coefficients are positive for Punjab and Sindh, showing that females in Punjab and Sindh are more likely to participate as compared to KPK, while in Balochistan, their participation is less as compared to KPK. Locality is also a categorical variable equal to '1' if females belong to rural areas and '2' if females are from urban areas. The first category is treated as a base category. The coefficient of locality is negative, which shows that females in urban areas of Pakistan have fewer chances to work compared to females in rural areas. In Pakistan, more females are a part of the labor force in rural areas as they are engaged in agriculture, livestock, etc. Some empirical studies found that females in urban areas have more opportunities and have more chances to work than females in rural areas (Fatima, Saeed et al. 2023). (Sadaquat 2011) found that females in rural areas of Pakistan have greater participation in labor market as unskilled workers as compared to urban areas due to extreme poverty and high inflation. However, many of them work as unpaid family workers or earn less. Females in urban areas are facing more challenges in joining the labor force. Paid female income reflects the average wage that employed females get. Its positive coefficient shows that females are more likely to work when they get more income.

Household factors, including the income of household members other than females, the household head's employment status, the household head's income, and the presence of children up to three years of age and children older than three but younger than fifteen, also play a vital role in shaping the dynamics of females' labor force participation in Pakistan. The income of household members other than females decreases the likelihood of females participating in the labor market. Household head employment status is coded as '1' if the household head is employed and '0' if unemployed. Employed is the reference category. The positive coefficient indicates that if the household head is unemployed, females are more likely to participate in the labor market, and vice versa. The coefficient for household education is negative, indicating that higher education levels of the household head correlate with a lower probability of females working. This finding aligns with other household factors, including household employment status and the income of household members other than females. These results suggest that most females work only when facing serious financial difficulties; otherwise, they prefer not to work. The presence of children up to three years of age and those between more than three and fifteen years also significantly hinder females' ability to participate in the labor market. Caring for children is primarily viewed as the responsibility of married women. Both coefficients are negative, reflecting that females are less likely to work due to the presence of children up to three years old and those within the age bracket of more than three to fifteen years. In the literature, various household factors such as household members, their income, employment status, and presence of children are considered crucial in shaping female labor market dynamics (Khan and Khan 2009) and (Khan 2022).

Table 5: Regression Analysis-Logit Model

Number of observations: 198140		
F(19, 198120) = 2900.00		
Prob > F = 0.0000		
Variable	Coefficient	P>|t|
Levels of education: Primary	-0.051879	0.000
Middle	-0.0264885	0.000
Matric	-0.0340093	0.000
Intermediate	-0.0183794	0.002
Bachelor	-0.0164654	0.000
Master	-0.0569377	0.000
Higher	-0.5608271	0.000

Marital status	1.002100	0.000
Household_income_other	-0.0030667	0.003
Province: Punjab	0.0309193	0.000
Sindh	0.0072397	0.007
Balochistan	-0.0437867	0.000
Locality	-0.0143597	0.000
HHchilds	-0.0105565	0.000
HHchilds2	-0.0093982	0.000
Householdhead_employmentstatus	-0.0020346	0.114
Householdhead_education	-0.0118967	0.000
Technical_training	-0.1110837	0.000
Paid_income_females	-0.0292134	0.000
Cons	-0.0048571	0.468

To get the magnitude of coefficients, average marginal effects are estimated in [Table 6], which shows a change in probability of female labor force participation due to a one-unit change in the independent variable. When female education increases to the Bachelor's level, they have 57.7 percent more chances to work in the labor market. When the female level of education increases, there is a remarkable percentage point increase in their labor market participation. It shows that a higher level of education matters a lot in getting opportunities. An increase in technical education increases the probability of females working by 58 percent. In household factors, the employment status of the household head has a relatively greater contribution to increasing their likelihood of working compared to other factors such as the income of family members other than the female, the household head's education, and the presence of children.

Table 6: Average Marginal Effect Based on Logit Model

Flp	Coefficient	P-value
Education_level		
Primary	-0.3111374	0
Middle	-0.3296139	0
Matric	-0.2536771	0
Intermediate	-0.0070906	0.715

Bachelor	0.5777454	0
Master	1.198748	0
Higher	1.781441	0
Marital	0.4610754	0
Household_income_other	-0.0003154	0
Province		
Punjab	0.1941189	0
Sindh	0.0814281	0
Balochistan	-0.2219611	0
Locality	-0.2982706	0
HHchild3	-0.0069499	0
HHchild15	-0.005538	0
hh_employmentstatus1	0.0677118	0
hh_education	-0.0040581	0
Technical_training	0.5824126	0
Paid_income_females	0.0110823	0
_cons	-1.685983	0

Note: A P-value less than the 5% level of significance shows a significant impact of each Variable on female labor force participation.

The multi-collinearity problem is checked by finding the correlation matrix in [Table 7]. As most values are low, the dataset has no serious multicollinearity issue.

Table 7: Correlation Matrix

	Flp	Marital status	Income of members of the household other than female	Locality	HHchild3	Hhchildren 15	Household employment status	The paid income of a female
Flp	1							
Marital	0.14	1						
	-0.08	-0.011	1					
Locality	-0.16	-0.014	-0.0426	1				
HHchild3	0.06	0.046	0.1145	-0.365	1			
HHchild15	0.03	-0.013	0.1341	-0.453	0.5546	1		
hh_employment	0.37	0.014	-0.2179	-0.396	0.2396	0.2671	1	
hh_education	-0.08	-0.033	0.075	0.230	-0.2514	-0.3038	-0.2514	
Technical_education	0.11	0.064	0.0011	-0.020	0.0132	-0.0171	0.0272	
Paid income of females	0.17	-0.023	0.098	-0.027	-0.0332	-0.1088	0.0779	1

6. Conclusion

From the above analysis, we can conclude that female labor market participation dynamics are more complex and depend on various economic, personal and household factors. Higher average wages will also attract females to work in the labor market. Higher education from the Bachelor's level onwards and the provision of technical and professional education are the most critical factors affecting female labor force participation. Focusing on higher education and technical and professional training can increase female participation in the labor market. Providing opportunities for technical and professional training to females who are already working and who want to work will make them more skillful and productive and provide good work opportunities to them. In household factors, the presence of children in age brackets of up to three years and greater than three years to fifteen years limits a female's chances to work. Household head education, income of members of households other than females, and household head's employment decrease females' chances of working. This also shows people's perceptions and choices regarding female labor market participation. Females who face severe financial constraints mostly work in the labor market. While there is a trend that many people do not prefer females to work in the labor market. This perception can be changed by ensuring a more flexible and safe working environment. Females' participation in the labor market empowers them and their families. There is a need to change the typical mindset and respect and acknowledge female labor market participation. Focusing on daycare facilities motivates females to work in the labor market. Female labor market participation can be increased by focusing on quality higher education, technical training, and professional skills. In an era of the digital world, even if basic digital skills are provided to females in their education, they can easily develop expertise over time by self-learning, which makes them more skilled and provides them with more opportunities. Female participation in the labor market in Pakistan can be increased by focusing on personal, economic, and household factors. Female labor market dynamics should be analyzed using provincial or district-level data that effectively capture regional differences and help to make more specific and targeted policies. Panel data analysis helps to study the evolution of female labor force participation over time in response to policy changes or overall changes in society.

6.1 Policy Recommendations

Based on the findings of the study, following policy measures are suggested:

i. Increase access to technical and vocational education specially for women and make it affordable for them.
ii. Provide safe and affordable public transport for women which facilitate them to work.
iii. Highlight the importance of women labor market anticipation for both country and family through public awareness campaigns.
iv. Enforce daycare facilities at workplaces and encourage flexible working environment.
v. Promote women employment in rural areas by providing them training and microfinance.
vi. Strictly enforce anti-harassment laws at workplace to ensure safe working environment.
vii. More investment is required in higher education to increase its access and quality of education.

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