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Economic activities and unmarried labour

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ABSTRACT

This article aims to highlight the determinants that affect the labour force participation choice in the labour market, and the economic well-being of the single (unmarried) populace living in rural areas of Pakistan by utilising the Probit model. A sample of 6914 individuals has been selected from the Labour Force Survey of Pakistan 2012. Results indicate that education, age, family size and location are the major components affecting the labour force participation decision of unmarried labour in rural areas of Pakistan. Labour force participation of older people was found to be higher than for the young, while Education was found to negatively affect the labour force participation decision. The study also revealed that the participation rate of the unmarried labour force from Punjab and Sindh were high compared with the labour force living in Balochistan and Khyber Pakhtunkhwa (KPK), which indicates the better social and economic awareness of the people of Punjab and Sindh as compare with Balochistan and KPK.

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1. Introduction

Labour force participation (LFP) has paramount importance in the socio-economic development of any region, as it increases the income and reduces destitution. In Pakistan, like other developing nations, ten or more populace, especially the married populace significantly contributes to economic activities.

Pakistan is an agrarian economy, many families rely on the agriculture sector for their livelihood. The female labour force participation has been increasing through the years and it has expanded from 11.4% in 1994–1995 to 21.5% in 2009–2010 while the LFP of males has expanded from 69.1% in 1994–1995 to 70.3% in 2009–2010. However, it is evident, that the female participation rate in economic activities is far less when compare with the male rate. Apart from the varying rate of labour force participation among different genders, wide variations of labour force participation in economic activities may also exist between married and unmarried individuals.

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The goal of present study is to ascertain the participation of the single (unmarried) populace living in rural areas in economic activities of Pakistan. The study is based on the 2012 labour force survey. To our knowledge, there is no such study available, at least in case of Pakistan; thus, this study can be a small contribution in the ongoing research related to labour force participation decision.

2. Literature review

Sultana, Nazli, and Malik (1994) analysed optimum time allocation between home and market production of females in rural Pakistan by using a Field survey of districts (Dir, Faisalabad, Attock, and Badin). They found a significant and negative impact of women's education, husbands' income and age of women.

Garcia and Molina (1998) assessed the effect of dependents in a family where both spouses are employed in Spain. They found that number of dependents had a negative effect on female labour force participation in economic activities. Any increment in wages had a negative effect on working hours for males, while it had a positive impact for females, assuming time-off as normal goods.

Rakshanda and Rashida (1986) in their study to determine the female labour force participation in economic activities found that most of the females have large families and their spouses also have some sort of occupation. Most such females like to work within the boundaries of their homes, which restricts them from using advanced technology and limits their earnings.

Determining the labour force participation decision of educated married women in a district of Punjab (Pakistan), Hafeez and Ahmad (2002) identified wife's education, husband's education, husband's income, family status and assets of the female as determining factors of the female labour force participation decision. Naqvi et al. (2002) also determined education age and family status as major determinants of female labour force participation in Pakistan.

In an interesting study, Faridi, Chaudhry, and Basit (2009) used a logit model to determine male labour force participation in the Bahawalpur District of Pakistan. They identified age education, location, assets and changing social status as the major determinants of the male labour force participation decision. Amin, Ali, Ahmad, and Zafar (2009) used a sample of 384 farm families from the eight villages of Faisalabad district to determine the female participation rate in agriculture activities. The study found that most of the agricultural activities were dominated by males, while a significant contribution of females was observed in seed cleaning and vegetables picking.

Faridi and Basit (2010) indicated that the married labour force tends to participate more in economic activities compared with the unmarried labour force in Bahawalpur District. Faridi and Basit (2011) found education, social and economic capital as the determining factors of female labour force participation in rural Pakistan. Sarwar and Abbasi (2013) also found similar results.

Grantham (2012) used a sample of 70,000 workers of rural France to indicate that the women's labour force participation was strongly affected by marital status, the occupation of the husband and the presence of young children in the household. The study also found

that widows tend to work more compared with unmarried and married females, while married females tends to work more compare with unmarried females. The study found no significant difference between married and unmarried male workers' labour force participation rate.

In another study, Hafeez (2013) analysed the economic activity of single workers in urban areas of Pakistan. The study found that Age and a dummy for 'Male' have a positive and strong impact on the working behaviour of unmarried workers. The results of another important variable, such as education dummies, showed a strong positive relation with the economic activity of single workers in urban areas of Pakistan.

Azam and Rafiq (2014) investigated the factors determining the labour force participation of both the married and unmarried labour force in Pakistan by using binary regression methods. The findings of the study show that educated and married females' participation is high compared with uneducated and unmarried females.

3. Material and methods

3.1. Data

Data have been taken from the labour force survey of Pakistan. To analyse the labour force participation rate of singles, a sample of 6914 individuals has been selected from the families where there are unmarried labourers aged 15–50 years. Table 1 provides the definition of variables.

3.2. Estimation technique

Probit, Logit and Tobit models are three of the most widely used methods when dealing with binary choice. However, it is evident that the selection of Logit or Probit model has very little differential impact on results; see, for example, Paap and Franses (2000). The Tobit model is known as the censored regression model and it used when there are upper or lower limits involved.

Table 1. Definitions of variables used in the analysis.

Individuals' Characteristics	
<i>LFSINGL</i>	<i>Binary variable is set equal to 1 for single workers, and zero for single non-workers</i>
<i>AGE</i>	<i>Age of unmarried workers ranged between 15-50</i>
Educational Profile	
<i>PRIMARY</i>	<i>Workers who have completed primary education</i>
<i>MATRIC</i>	<i>Workers with matric level education</i>
<i>COLLEGE</i>	<i>Workers who have collage level education</i>
<i>HIGHER</i>	<i>Workers with higher education</i>
Household Characteristics	
<i>MALE</i>	<i>Binary variable is set equal to 1 for Male workers, and zero for female workers</i>
<i>HHSIZE</i>	<i>Household size</i>
Residence of Household	
<i>PUNJAB</i>	<i>Provence wise residence of unmarried labour force, including all four provinces of Pakistan</i>
<i>KPK</i>	
<i>BALOCHI</i>	
<i>SINDH</i>	

Source: Authors' Calculation.

For the analysis, the Probit model has been utilised to elaborate the dependent variable. Assume y^* , the labour force participation capability in economic activities, is undetectable and it relies upon a set of pragmatic elements X_i .

$$y_i^* = \beta X_i + \varepsilon_i \quad (1)$$

where β is parameters, and X_i is the set of variables that influence y^* . ε_i is normally distributed along with 0 mean.

$$Y = 1 \text{ if } y^* > 0 \\ = 0 \text{ otherwise}$$

The standard normal cumulative distribution function to compute the probability that y^* is less than or equal to y can be written as:

$$P_i = \Pr(Y = 1) = \Pr(y^* \leq Y) = F(Y_i) = \int_{-\infty}^{\beta X_i} f(z) dz \quad (2)$$

Table 2. Probit estimates of singles' work activity in rural Pakistan ($N = 6914$).

Explanatory variables	Coefficients and t values	Derivatives/marginal effects
<i>Intercept</i>	1.118 (7.993)*	0.159
Individuals' characteristics		
<i>AGE</i>	0.016 (3.022)*	0.002
Educational profile		
<i>PRIMARY</i>	-0.329 (-5.494)*	-0.047
<i>MATRIC</i>	-0.740 (-10.681)*	-0.105
<i>COLLEGE</i>	-0.966 (-12.191)*	-0.137
<i>HIGHER</i>	-1.031 (-6.241)*	-0.146
Household characteristics		
<i>MALE</i>	0.148 (2.554)*	0.021
<i>HHSIZE</i>	-0.002 (-0.027)	-0.003
Residence of household		
<i>PUNJAB</i>	0.245 (3.698)*	0.035
<i>KPK</i>	-0.763 (-0.699)	-0.108
<i>BALOCHI</i>	-1.042 (-0.954)	-0.148
<i>SINDH</i>	0.038 (0.782)	0.29
Log likelihood	-1828.37	
<i>R</i> -squared	0.443	

Note: The dependent variable is of a binary nature and is set equal to 1 for single workers, and zero for single non-workers.

Values in parentheses are t statistics. The statistics are significant at the 1% level and are indicated by *.

Source: Authors' calculations.

where P is the probability, $f(z)$ is the density function, and z is normally distributed with 0 mean and equal variance.

4. Results and discussion

The findings of the Probit model are given in Table 2. The Age factor has a positive impact on the participation choice of unmarried labourers, the coefficient of age shows that a 1% increase in age is likely to increase the labour force participation to about 0.2%. This is because individuals get more mature as they increase in age and their participation tends to increase compared with the youth.

Education seems to have negative impact on a single labourer's participation in economic activities at all levels. As shown in Table 2, the negative impact of education increases with the increase in education from primary to higher education. This negative impact of education on labour force is likely to occur as singles have fewer household and financial liabilities compared with the married labour force.

The outcomes of the estimated Probit model also indicate that the participation of single females is low compared with single males, mainly because females have fewer monetary obligations in contrast to males. The participation of single males in economic activities is 2.1% more than that of single females.

Likewise, results show that family size of the unmarried people does affect their choice of participating in economic activities. Table 2 indicates a 0.3% decline of single labour force participation due to increase in the family size.

The residential characteristics also present interesting results for a single's labour force participation in economic activities. According to the results given in Table 2, the labour force participation of unmarried workers is high in Punjab compare with Sindh, while it is lower in KPK and Balochistan as compared with Sindh.

5. Discussion and conclusion

The study aims to determine the factors affecting the LFP rate of the singles (unmarried) population living in the rural areas of Pakistan.

The results revealed that the participation decision of single workers has been influenced by different factors, e.g. labour force participation was high in mature and aged people as compare with youths, mainly because an increase in age also shows an increases in maturity and experience that enables this population to increase their earnings. Secondly, youths generally have fewer household and financial liabilities compare with the aged labour force and that reduces their participation in economic activities.

Education is another major determinant of labour force participation of single workers in Pakistan. Education was found to negatively affect the labour force participation decision in economic activities, which was mainly because unmarried people generally face fewer household and financial liabilities compare with married workers, thus resulting in a low participation decision in economic activities.

Residential characteristics also present interesting results; labour force participation of singles was high in Punjab and Sindh as compared with Balochistan and KPK. This indicates that people living in Sindh and Punjab are more aware of the importance of labour force participation in economic activities, they also enjoy better employment opportunities as compared with people living in Balochistan and KPK.

Our results are compatible with the results of studies by Hafeez (2013), Naqvi et al. (2002), Faridi et al. (2009) and Faridi and Basit (2010). The sign and significance of variables such as age, and gender, are in line with the results of Hafeez (2013). Signs of the variables are positive and the statistics are significant in both studies, indicating the similar impact of working behaviour. Regression results of household size show an insignificant impact on the dependent variables in both studies. However, the direction of the effect is opposite in both. Considering the results of another important variable, such as education, then dummies indicate that our results are in contrast to the results of a study by Hafeez (2013).

Contemplating the labour force participation choice; it has been identified that there is a need for precisely planned policies in light of legitimate information. The government may also intercede in the labour market with strategies to increase employment opportunities, improving education standards and enhancing training facilities. Finally, our study is limited to the rural population living in Pakistan; however, future research can be done by conducting a cross-country analysis among different countries to compare and contrast the unmarried labour force behaviour.

Disclosure statement

No potential conflict of interest was reported by the authors.

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