DETERMINANTS OF FEMALE LABOUR FORCE PARTICIPATION IN INDIA

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Abstract: This paper has attempted to identify and examine the motivational factors for taking up post graduate studies and determinants of labour force participation of these postgraduate educated married women in India. For the study, data was collected from a 405 collegiate women. The samples included 255 working women and 150 non-working women. The study has also analysed the motivation for taking up higher education and employment using Garrett Ranking. A Binomial Logistic Regression model was applied to determine the impact of potential variables on labour force participation of these highly educated women. Chi square was applied to associate the motivational factors for taking up higher education. The results indicated that the non-working women did higher education for career whereas working women for knowledge. Logistic Regression results indicate that factors caste, religion, total family income, number of dependents etc. had negative influence and factors like immovable property, place of birth and age had positive impact on labour force participation. The study concludes that highly educated women are significantly influenced by socio-cultural and religious factors rather than their educational attainment and economic factors.

Introduction: Urbanisation, education, migration, and other socio-cultural and economic factors have significant impact on Indian society. Women have started entering the portals of higher education in large numbers. Female labour force participation has also increased. Gender gap in literacy has decreased. Yet FLFP in organised sector has not increased to the desired levels. Large bodies of research testifies that there is an asymmetry in the education and employment as also in gender equality and economic development. While conceptualising empowerment of women, education was identified as one of the major elements for removing the structural gender inequalities. But in traditional societies, women get caught into the 'Inequality Trap'. Dreze and Sen (1996) have pointed out that persistence of gender inequality and female deprivation are among India's most serious social failures. It is hypothesised that the opportunity cost of sending daughters for higher education is higher than for sons because for the daughter, with educational expenditure, marriage expenditure involves higher financial burden. Along with this is Thus, there is a trade off, that is, sons for higher education and daughters are married off. The Indian society is yet to accept the fact that higher education for girls, at the minimum improves their productivity in their homes, reduces fertility, improves family health and nutrition and promotes higher quality of education of children (UN paper 1995). There is a U shaped relationship between educational status and women's labour force participation at a given point of time. The U-curve is the outcome of a combination of structural change in the economy, income effects, and social stigma against factory work by women. In initial stages of development, education levels rise and employment shifts from agriculture to manufacturing. Women's wages and opportunities for work change relatively slowly while unearned income rises fast, so the positive substitution effect of rising female wages is likely to be dominated by a negative income effect. The presence of social stigmas associated with female higher education and employment is very high in India. These effects are even stronger for married women.

Purpose of the study: The aim of this paper is to determine what drives women to

identify the motivational factors for undergoing post graduate education. It also has analysed the push factors for entering the labour market. Understanding these determinants is necessary to understand the implications for women's wellbeing and for future growth of labour force and the economy.

Data and Method: A total of 405 samples have been taken for the study of which 150 are non-working women and 255 are working women. Proportionate Probability Sampling technique has been used to select the samples. Post-graduate educated married working and non-working women were selected for the study. Girls are educated up to a degree level for reasons like a job, status in the society, better opportunities in the marriage market, etc. But a post-graduate degree is mainly for taking up career. A structured comprehensive interview schedule was used to obtain the relevant information from the respondents. Garret's ranking technique is applied for studying the reasons for motivational factors for taking up higher education and entering labour market.

Binary Logistic Regression is applied to find out the determinants of labour force participation. The non-participation in the labour market is assigned the value 0 and 1 is assigned for participation. The independent variables considered are a) Immovable property b) Movable property c) Cash d) Personal expenditure e) Total income f) Number of dependents g) Age h) Caste i) Religion j) Place of Birth based on Chi-square results.

Analysis of Results: The paper has analysed the factors that influenced working and non-working women in doing post graduate studies. In a semi urban place like Madurai in India, women have to overcome the traditional and socio-cultural and religious barriers to do post-graduation. The motivation for taking up higher education among women is different in different communities. The variation is associated with economic background of the family, personal ambition, pattern of socialization and the education status of parents. After conducting an informal pilot study, six factors were identified. They were a) career b) desire for knowledge c) parents decision d) passport for marriage e) status and f) to kill time. The respondents were asked to rank the various factors. The scores were then converted into ranks. Using Garrett's Table the final ranks were arrived.

Table 1 Motivational Factors for Higher Education (Non-Working Women)

Motivational factors	Total score	Mean score	Rank	No. of Respondents
To take up or improve career	4550	56.9	I	80
Desire for Knowledge	7194	56.20	II	138
Parents decision	5081	47.93	III	106
Passport for Marriage	1082	45.08	IV	24
Status	2748	38.70	V	71
To kill time	1921	30.98	VI	62

Source: Primary data

The investigation revealed that among non-working women, the most prominent reason for doing post graduation was to take up a career. Thus, at some point of time in their lives, non-working women had cherished dreams of taking up employment. This was followed by desire for knowledge and parents' decision. Marriage was not in their

plan of events. The fifth and sixth factor is status and to kill time respectively. The last three factors are also important because modern education is considered as a symbol of and a vehicle to sophisticated living.

Nonetheless these women had never entered the labour market and would not be entering labour market as the labour markets are inflexible.

Table 2 Motivational Factors For Higher Education (Working Women)

Motivational factors	Total score	Mean score	Rank	No. of Respondents
Desire for Knowledge	11591	55.72	I	208
To take up or improve career	12047	52.83	II	228
Parents decision	6941	45.07	III	154
Passport for Marriage	257	42.83	IV	6
To kill time	110	36.66	V	3
Status	2990	33.22	VI	90

Source: Primary data

Among working women, the first rank was assigned to desire for knowledge and only the second rank was for career whereas, the reverse is true among non-working women. Parent's decision has found the third place. Passport to marriage has found the fourth place just as for non-working women. It is followed by, to use leisure time and status. It is noteworthy to see that there is not much difference in the motivation for doing higher education among working and non-working

women. And yet many do not enter the job market.

Motivation for Taking Up Employment: Working women's motivation for taking up employment was analyzed. After preliminary analysis, nine factors were identified. The respondents were asked to rank any three of the factors that they considered important for opting to take up a full time career. Garret's ranking technique was applied to find out the factors considered most important by the respondents.

Table 3 Motivational Factors for Taking Up Employment

Factors	Total score	Mean score	Rank	No. of Respondents
Economic Independence	13643	58.80	I	232
To help parents	4071	57.33	II	71
Inadequacy of Husband's income	2450	48.03	III	51
Raise standard of living	8680	47.17	IV	184
Unemployment of husband	137	45.16	V	3
Use education	9527	45.15	VI	211
Social status	8725	44.06	VII	198
To serve the community	337	37.44	VIII	9
Utilize leisure time	1456	31.56	IX	46

Source: Primary data

The most important motivating factor for taking up employment was to achieve economic freedom. The positive income effect was found to be very strong. Interestingly, the second most important factor is to support parents financially. In Indian culture, it is generally the son who has to take up the responsibility of supporting the aged parents and the unmarried sisters too. Due to this, there is a strong preference for sons in Indian families. The attitude and tendency of working women have changed in a positive direction. Women have started to take up the responsibility of supporting their parents even after their marriage. To supplement family income, when the husband's income was insufficient has found the third place followed by to raise the standard of living. With the growing consumerism, the wants of the people has increased multifold. Therefore, women have started to share the financial responsibilities with their spouse. Unemployment of husband is the fifth cause. Obviously, she becomes the main breadwinner of the family. Thus, from being just a housewife to sharing the financial burden and then to become the sole breadwinner of the family, women have gone a long way. Other factors like to use the education received, to raise the social status, to serve the community and to use leisure time productively were ranked VI, VII, VIII and XI place respectively. These reasons are more in line with women who are financially sound.

Factor Influencing Labour Force Participation: The association between various achieved and ascribed factor and labour force participation has been analysed. In order to assess the quantitative impact of the hypothesized determinants of labour force participation, Binary Logistic Regression analysis is applied. Maximum likelihood estimation (MLE) is the method used to calculate with logit coefficients. Probability of labour force participation by women is estimated with dichotomous dependent variables taking on the values of one when the women are working and 0 when they are not working. The independent variables considered for the study are 1) Immovable property 2) Movable property 3) Cash 4) Personal Expenditure 5) Total Family Income 6) Caste 7) Religion 8) Place of birth 9) Number of dependents 10) Age.

The data is run in SPSS. The results are given. Cox and Snell R^2 = 0.453 and Negelkerte R^2 = 0.619 indicates that the model is a good fit.

Table 4 Variables in the Equation

Variables	B	SE	Wald	Significance	Exp (B)
Immovable Property	0.2003	0.0723	7.6782	0.0056	1.2218
Movable property	-0.4237	0.1390	9.2932	0.0023	0.6546
Cash	3.47E-06	1.999 E-06	3.0132	0.0826	1
Personal Expenditure	-0.0010	0.0003	15.5842	0.0001	0.9990
Total Family Income	0.0001	2.154 E-05	10.8359	0.0000	1.0001
Number of Dependents	-1.8789	0.2088	80.9767	0.0000	0.1528
Caste	-	-	2.4234	0.2977	-
Caste$_1$	-0.7153	0.4636	2.3803	0.1229	0.4890
Caste$_2$	-0.1964	0.4734	0.1721	0.6783	0.8217
Religion	-	-	0.1560	0.8882	-

Religion$_1$	-.219	0.556	0.0986	0.6931	0.1246
Religion$_2$	-6.757	2.1884	0.708	0.758	86.24
Place of Birth	0.2063	0.3240	0.4053	0.5243	1.2291
Age	0.0532	0.0208	6.5284	0.0106	1.0546
Constant	9.5377	12.2820	0.6031	0.4374	-

The classification table shows that the model correctly predicted 86.91 percent of cases. This indicates that the model is a good fit. -2 log likelihood statistics is 289.575, which also indicates that the predictions in the model are good. To interpret the results, unlike in the general OLS model, where the β coefficients are considered, here the odds ratio or Expectation of B is considered. The odds ratio of an event is the probability of the outcome of the event occurring divided by the probability of the event not occurring. The odds ratio for a predictor tells the relative amount by which the odds of the outcome increases or decreases when the value of the predictor value is increased by one unit.

The first factor namely immovable property includes all property owned by the respondents like house, land etc. This study found that the Odds Ratio was 1.2218. For interpretation, the sign of B coefficient is considered. B coefficient is found to be positive. This indicates that there is a positive relationship between immovable property and labour force participation. For every unit of increase in the ownership of immovable property, the probability that women will join the labour market is 0.8184 (1/1.2218). The reason is that the practice of giving equal share in the immovable property to the daughter does not exist. Even if she had property in her name, generally, it is the husband who manages it. Also immovable property does not have liquidity. Therefore, it does not directly increase her financial independence.

The second factor is movable property, which includes consumer goods and jewels owned by her. The B coefficient has a negative sign indicating an inverse relationship between movable property and labour force participation. The Odds Ratio is found to be 1.5276 (1/0.6546). For every unit increase in the movable property, the probability that she will participate in the labour market decreases by 1.5276. The liquidity of movable property is high thereby strengthening her financial position, status and empowerment level. Therefore,, she is less inclined to join the labour market.

The third factor is cash in hand. Cash increases the purchasing power of the woman and gives her financial independence since it is highly liquid. The coefficient has a positive sign indicating that there is a direct relationship between cash and labour force participation. In most Indian families, the husband is the head of the family and the decision taker. But when the woman is given financial independence she is able to take her own decisions. This motivates her to take up employment if the right opportunity comes by. The Odds Ratio is 1. As the amount of cash she has increases by one unit, the probability of her joining the labour force also increases by one unit. This predictor is found to be significant (0.0826) at 10 percent level of significance.

Religion has a very strong influence on the people of Madurai. It is found that the impact of religion is very strong with regard to the decision to participate in the labour market. The negative coefficient indicates that there is an inverse relation between labour force participation and religion. Hindus are taken as the indicator predictor for the analysis. The Odds Ratio shows that Hindu women are 0.803 times more likely to participate in the labour market than Muslim women. Hindu women are 0.011

times more likely to join the labour market as compared to Christian women.

Caste is a dominant factor, influencing the lives of the people in India. The negative coefficients show that caste has a negative influence on women with regard to labour force participation. Backward Community is taken as the indicator predictor. The Odds Ratio shows that women from Backward Caste are 2.044 times more likely to participate in the labour market as compared to women who hailed from Scheduled Caste and Tribe. Similarly, women from Backward Community are 1.216 times more likely to join the labour market as compared to women from Forward Caste.

The coefficient for the predictor variable total family income is found to have a positive sign. This indicates that there is a direct relationship between total family income and labour force participation. Educated women are motivated to take up paid employment to maintain and improve the standard of living of the family. The Odds Ratio is 0.999 (1/1.001). It is inferred that for every unit increase in the total family income, there will be a unit increase in the labour force participation of women.

The number of dependents in the family has a negative impact on the labour force participation of women. The B coefficient is found to have negative sign. The Odds Ratio is 6.544 (1/0.1528). It can be inferred that for every unit increase in the number of dependents there will be a unit decrease in labour force participation by 6.544. The result is found to be significant (0.000) at five percent level of significance.

The personal expenditure of the respondents also influences the decision of women to participate in the labour market. The sign of the B coefficient is negative, indicating an inverse relationship between personal expenditure and labour force participation. The Odds Ratio is 1.001 (1/0/9990). For every one unit increase in personal expenditure there is a unit decrease in the probability of labour force participation by 1.001. Personal expenditure is found to be a significant predictor (0.0001) at five percent level of significance.

The place of birth also has an impact on labour force participation decision of the women. Women hailing from rural background still are bound by traditions whereas the urban educated woman is more open and less culturally bound. The B coefficient indicates that there is a positive relationship between place of birth and labour force participation. Urban residence is taken as the indicator predictor for the analysis. The Odds Ratio shows that urban women are 0.8136 as likely to participate in the labour market as compared to rural women.

Age is an important variable, especially where women are considered because they leave their jobs to settle and manage their children. But middle-aged women who have growth up children tend to find some job to fruitfully utilize their leisure time. The positive coefficient indicates that there is a direct relation between age and labour force participation. The Odds Ratio is 0.9482 (1/1.0546), that is, for every unit increase in age, the likelihood of her participating in the labour market increases by 0.9782.

Conclusion: In India along with economic factors the socio-cultural factors like religion, caste, place of birth etcc. play a major in determining the female labour force participation. Even the economic factors are indirectly influenced by social factors. Policy makers should take note of these factors while designing gender inclusive interventions and policies.

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