EMPIRICAL STUDY ON THE CHALLENGES AND IMPACT OF FEMALE LABOUR FORCE PARTICIPATION IN TAMIL NADU

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Article history:	Abstract:
Published: 10th March 2022	Normally, women are not only considered as valuable resources but also more determined in their aspirations than men. On one side, from the religious perspective women are treated with a high degree of respect in a country like India, but at the same time on the other side Indian culture has a long history with respect to women access to public domine such as on education, employment, dress code, public entertainment avenues with lots of restrictions. The policy changes such as liberalizations and modernizations have made a significant impact on women with respect to socio-cultural changes in Indian Society. The vicinity of reach out of women in education, the state of emancipation, awareness, and association of the women to fight for their political, socio-economic, property, and for other rights and privileges are stunned the society. Hence, the earning ability of women gives more importance and builds self-confidence to them to pursue, provide better education and employment platform for themselves and for their kids irrespective of the rural or urban, middle or upper-class sections in the society. The state of socio-economic empowerment status of the women is started using as a development indicator in the global scenario. But, the increased opportunities for women in different aspects whether it has been tapped by them in a real sense as it was intended is a debatable question in Indian Society. That is why the authors have taken the initiative to study the real facts of the women especially the working women with respect to their socio-economic, cultural, political and empowerment status of them in this paper. This paper is based on primary data collection with a scheduled questionnaire. Three different Districts have been chosen to represent Urban, Semi-urban and Rural regions in Tamil Nadu. The raw data is computed in SPSS and the empirical outcome of the study is taken using econometric techniques such as Linear Regression, LOGIT and PROBIT model.

INTRODUCTION

Predominantly, a woman sacrifices everything for the betterment of others throughout their life, in the course of time even they don't care to the minimum extent of their own health and desires. On the one hand, the past two to three decades have shown significant witnesses in women's productive participation in India. Hence, the role of women to take the responsibility to lead or to head their households were also been increased after the 70s, the causes for this change and its implications for the Socio-Economic wellbeing of women and children were analysed by many researchers and experts (Cutright, 1974; Ross and Sawhill, 1975; Cooney, 1979; Tienda and Angel, 1982; Angel and Tienda, 1982). In most of the OECD countries, aggregate participation rates and cross-country variation were increased mainly because of the level of female labour force participation (Burniaux *et al.*, 2003). On the other side, the report of NSSO 2011 revealed from the studies conducted at different levels that even though India has consistent economic growth but declined in terms of female labour force participation rate (LFPR). In 2004-05, the rate of women labour force participation was 33.3 per cent in rural and 17.8 per cent in urban areas which is declined to 26.5 per cent and 14.6 per cent in 2009-10 in rural and in urban areas respectively. Hence, out of 131 countries in the world, India has been ranked at 120th place in terms of women's labour force participation (International Labour Organisation's Global Employment Trends 2013).

BACKGROUND AND LITERATURE REVIEW OF THE STUDY

Explicitly the wide gap in the responsibilities, challenges, issues and burdens between the working men and women can be observed in society. For many decades in developing countries like India, women are used to getting married at a young age and moving to the household of their husband's family and shouldering the responsibility of family members. Culturally, men in India take the major task to provide income and security for their families. Hence, men use to operate in the public sphere and women in the private sphere. The strong emphasis on high fertility, restriction of private domain movements and low educational status of women have not given sufficient employment opportunities and in formal economic activities. Under the pressure of onset modernization, lack of rural employment opportunities, massive migration to the cities have worn the extended family system and increased the male provider role.

A high level of female labour participation is preferred by most of the countries due to low payment, less educational status, early marriage and separation, widow, aspire of women empowerment and so on. On the one side, women are able to participate in the workforce to some extent but on the other side, numerous issues and challenges are faced by women at the workplace and in society because of their work participation. However, the degree of correlation between different factors and the rate of female labour force participation differs from county to country. In countries like Cambodia, Ghana and Kazakhstan more than 60 per cent of the female labours are gainfully taking part in employment. Whereas, in countries like Algeria, Egypt and Iran less than 20 per cent of the female-only are taking part in employment in one or other way round as paid labour (ILO, 2006; UN,2007). As a result, the countries are able to achieve different levels of employment, economic growth and social welfare policies for women at the macro level.

In reality, most of the studies on the effect of modernization on female labour force participation found a nonlinear relationship, with declining female labour force participation at the beginning stage and with the increasing level at the latter stage like 'U' shaped. According to **Boserup** (1997), during pre-industrial society, negligible developmental productive differences were found between men and women. At the earlier stage, most of the productive activities of the women were home-based like caring duties. However, during the early era of industrialization, the possibilities of female participation to be economically active were declined drastically. On the one hand, modernization, mechanization and improvement in the specialization of agrarian farming activities reduced their possibilities to contribute to the family business. But on the other, the emerging industrial jobs have not offered them a real alternative job, with women's roles at home such as caring duties bounded and the required physical strength in new jobs were not considered to be compatible. Due to the low level of educational status, lack of skill development training and gender biases haven't provided the chance of better employment positions to women in the labour market (Scott & Tilly, 1975; Boserup, 1977, Pampel & Tanaka, 1986; Rau & Wazienski,1999). According to Ross (2006), the labour-intensive export industries are very favourable to female labour participation, because they may not require any physical strength and hard-earned specialized skill training.

RESEARCH ISSUES:

The study of women labour force participation is not a new phenomenon; but certainly, there are a lot of recent developments in many contexts. The issues discussed in the present study have raised a number of questions whereas the developed countries give more importance to social research and issues. But many of the researches and studies of developing countries are also coming up in recent decades about social issues like female labour participation, gender biases and inequality in wage determinants in labour market. The list of issues commonly exposed to the women labour force are:

- **Social norms attitudes and values**: There exist insoluble social and cultural barriers for women engaging in the workforce. Even though there are various changes in the dress, food habits, hobbies etc., due to liberalization policies but the social norms related to women such as still orthodox belief based on religion, caste and community with respect to women has not changed particularly for participation in the labour market
- **Lack of education and requisite skills** - This is either because women/girls cannot afford it or social attitude that actively discourages it. The higher illiteracy rate might be the cause for women unemployment rate In India there is a change in the literacy rate during the years, in 1951 female literacy rate is 8.86% whereas the Male literacy rate is 27.16%, in 1991 female literacy rate is 39.29% whereas Male literacy rate is 64.13% and in 2011 female literacy rate is 65.46% whereas male literacy rate is 82.14%.
- **Lack of safety and security in the workplace/commuting:** This prevents educated women from working and reduces their mobility. Cabs and public transport are not safe and the latter means of commuting is time-consuming, overcrowded and private transport are not affordable
- **Infrastructure:** Development of roads, public transport, provision of street lighting, development of public administration and policing are precursors for enhancing women LFP.

- **Lack of opportunities/jobs for women:** The stereotyped nature of jobs is designed in such a way the execution has to be performed only by women. Most of the time the women are treated as second class citizens, which means they agree to low paid jobs and low-value jobs.
- **Obstacles for official roles:** In the workplace, women still encounter significant obstacles in taking on managerial or senior official roles.
- **Government Policies:** There is no adequate government policy to enhance women participation in the job market.
- **Lack of work flexibility**: Inconvenience is quite commonly women experienced during the maternity period, particularly in the unorganized sector. In organized sectors, it could be felt with respect to promotion and increments.
- **Unequal pay for equal work**: Enforce the existing laws against this. Creating awareness among women about their right to equal pay would also help particularly in the secondary and tertiary sectors.

OBJECTIVES OF THE STUDY

This paper is carried with the following objectives:

1. To study the factor determinants of socio-economic and educational status of the women on labour force participation into the job market.
2. To review the role of the demographic characteristics and substitutability factors for the women workforce participation in the study area.
3. To analyse the perception and difficulties of women in achieving empowerment through labour force participation.

RESULT ANALYSIS OF THE STUDY

The result of the data collected from the respondent from the study area is analysed here. The descriptive statistics of the mean and standard deviation of the study profile is presented in table 1. It is evident from table 1 that the mean value of most of the endogenous variables is greater than that of the value of standard deviation in the sample. When, the mean value of variables is greater than the value of standard deviation in the sample, which reflects the less degree of variability in the distribution in those variables. On the basis of that, almost all variables such as region, taluk, age of the respondents, educational status of the wife and spouse, age of marriage, support of the elders, size of the family, where do child study, all reflect the same result. Whereas, only two variables namely, Children below 10 years status and Caretaker of children below 10 years status of the sample observe that the value of standard deviation is greater than its mean value. The result shows that nearly 35 per cent of the respondents stated that they have children below 10 years in the sample. But, 79 per cent of the respondent has replied that they have the caretaker of those children below 10 years at home. These results also support the expected value reflections among the relationship of the variables.

Table –1: Descriptive Statistics of the Study Area and Profile of the Respondents

Variable	Mean	σ
Region of the study area	1.7610	.74516
Taluk of the respondent	1.9940	.72522
Age	42.3174	10.39344
Educational status of the respondent	11.0688	2.75178
Marital status	.1778	.38254
Employment status	.1778	.38254
Age at which got married	22.6864	8.59037
Age at which gave first birth	24.3136	9.18784
Respondent family size	3.8394	.75458
Do any elders are with you	.7925	.81961
Type of the family	.2543	.43568
Spouse educational status	13.3566	1.99952
Educational status of the last member of the family	2.1836	1.03930
Where do a child study	3.2533	1.52675
Dowry status_dummy	.6013	.48986
Dowry burden status_dummy	.6606	.47373
Loan status for dowry_dummy	.8623	.34748

Amount of loan for dowry	2.0755	1.00288
Source of loan_d1 work place	.0574	.23264
Source of loan_d2 banks	.6960	.46021
Source of loan_d3 friends	.1157	.31999
Valid N (listwise)	**146**	

Source: Primary Data

The empirical estimation of the factor determinants of the economic status of the respondents is described in table 2. The impact of exogenous variables with respect to endogenous variables are estimated using linear regression, maximum likelihood LOGIT and PROBIT models.

Table – 2: Estimation of the Factor determinant of the Economic Status of the Respondent Using Linear Regression, LOGIT and PROBIT

Parameters	Linear Regression	LOGIT	PROBIT
Region of the study area	.075 (.73)	.653 (5.33)***	1.030 (5.77)***
Taluk of the respondent	-.120 (-1.1)	-.939 (-6.97)***	-1.522 (-8.06)***
Age	.004 (1.27)	-.044 (-12.09)***	-.057 (-11.09)***
Educational status of the respondent	.059 (4.87)***	.002 (.18)	-.062 (-3.05)***
Marital status	-.027 (-.233)	.384 (2.86)**	.686 (3.29)***
Respondent family size	-.006 (-.33)	-.034 (-1.77)	.059 (2.05)
Spouse educational status	-.005(-.58)	.027 (2.86)**	.092 (6.39)***
Dowry status_dummy	.063 (2.38)	-.020 (-.65)	.068 (1.53)
Community_d1SCST	.027 (.45)	.077 (1.05)	.025 (.27)
community_d2BC	.034 (.57)	.049 (.65)	.006 (.07)
Community_d3MBC	.057 (.97)	.035 (.48)	.019 (.21)
Community_d4OC	.096 (1.17)	.144 (1.53)	-.005 (-.04)
Property inheritance status	.929 (10.97)***	.152 (1.51)	.051 (.38)
The region where property inheritance owned	-.297 (-12.49)***	-.060 (-2.16)	-.025 (-.68)
Property from own earning	-.015 (-.87)	-.005 (-.27)	.052 (2.09)
Type of the house owned	.025 (1.35)	.028 (1.24)	-.002 (-.08)
Type of the house live in	-.047 (-3.06)**	-.093 (5.03)***	-.030 (-1.36)
Drainage facility	.010 (.24)	.053 (1.21)	.062 (.90)
Drinking water facility	.013 (.47)	.001 (.04)	.049 (1.12)
Toilet facility	.000 (-.00)	-.004 (-.11)	-.064 (-1.12)
Household appliance status	.067 (1.45)	.056 (1.12)	.137 (1.92)
Saving status	-.132 (-2.54)	-.052 (-.88)	.095 (1.23)
Amount of savings	.127 (2.91)**	-.067 (-1.32)	-.151 (-2.38)
Smart phone status	-.060 (-1.41)	.040 (.83)	.538 (6.17)***
Designation of the employee	.069 (2.84)**	-.131 (5.05)***	-.052 (-1.40)
Number of breadwinners	-.019 (-.67)	.137 (3.14)**	.046 (.83)
Monthly income status	-.071 (-1.03)	.078 (.95)	.059 (.65)
Monthly income status of other at home	.239 (3.36)***	.074 (.87)	-.016 (-.16)
Years of service	-.019 (-.69)	.049 (1.68)	-.163 (-3.63)***
Years gap between education and employment	.007 (.43)	-.094 (-4.64)***	-.059 (-1.96)
Gap between marriage and employment	-.037 (-2.48)	-.033 (-1.76)	-.109 (-3.47)***
Type of sector of the employment	.029 (1.65)	-.108 (-6.19)***	-.083 (-2.81)**
Status of family support for LFP	.050 (3.4)***	.055 (3.72)***	.106 (4.76)***
(Constant)	.349 (1.82)	-1.919 (-8.93)***	-1.027 (-3.11)**

Source: Primary Data

The exogenous variables such as **'Region of the study area'**, and **'Taluk of the respondent'** are statistically significant at 1 per cent with an endogenous variable in both maximum likelihood LOGIT and PROBIT models. The

exogenous variable **'age'** of the respondent is not only negatively associated with the endogenous variable **'economic status'** but also statistically significant at 1 per cent level in both Maximum Likelihood LOGIT and PROBIT models. The variable marital status with respect to the 'economic status' of the respondent is positively associated and statistically significant at a 1 per cent level in the Maximum Likelihood PROBIT model. By using maximum likelihood LOGIT and PROBIT models, the variables such as smartphone status, number of breadwinners are being positive and statistically significant at 1 per cent level in only one model estimation.

The exogenous variable 'years of service' of the respondent with respect to economic status is surprisingly having a negative effect in terms of Maximum Likelihood PROBIT model estimation and is also statistically significant at 1 per cent level. The variable 'Status of family support for LFP' is positively associated with an endogenous variable by using all the three models of estimation but it is statistically significant at 5 per cent level in the Maximum Likelihood PROBIT model. The variable 'Designation of the Employee' is negatively corrected with the economic status of the respondent but statistically significant at a 5 per cent level by using Maximum Likelihood LOGIT estimation. The 'type of house live' in the status of the respondent is positively associated by using the Maximum Likelihood LOGIT and PROBIT model of estimations. But it negatively correlated with the same variable by using the Linear Regression Model of estimation and also it is statistically significant at 5 per cent.

Table – 3: Descriptive Statistics of Employment Profile of the Respondent

Variables	Mean	Std. Deviation
Designation of the employee	2.2782	1.01945
Reason for employment	1.4771	.69099
Are you the only breadwinner	.0220	.14672
Number of breadwinners	2.2667	.48969
Monthly income status	1.5621	.67877
Monthly income status of other at home	1.6004	.72874
Years of service	2.8470	.95723
The employment gap between first and present	1.4245	.90587
Years gap between education and employment	2.0956	1.45899
Employment status before marriage	1.0488	.42247
Employment status after marriage	1.5994	.91304
Gap between marriage and employment	.7084	.45471
Status of employment change	1.5335	1.11292
Frequency status of employment change	2.2782	1.01945
Size of the Respondents	**146 (100.0)**	

Source: Primary Data

The frequency distribution of the employment profile of the respondent is given in table 3 as in the normal way and as per the expectation of the study the mean value of various variables presented to describe the employment profile of the respondent is greater than its standard deviation value except the variable 'are you the only breadwinner' in the sample.

The empirical estimation of the factor determinants of employment is depicted in table - 4. The endogenous variable factor determinants of employment are empirically estimated with the support of Linear Regression, Maximum Likelihood LOBIT and PROBIT models here. The expected exogenous variables to have an impact on endogenous variables are clearly observed in table 4. The exogenous variable age of the respondent is negatively associated with the factor determinant of employment of the respondent and also statistically significant at 1 per cent level in both Maximum Likelihood LOGIT and PROBIT models.

Table-4: Estimation of the Factor Determinants of the Employment Using Linear Regression, LOGIT and PROBIT

Parameters	Linear Regression	LOGIT	PROBIT
Age	-.001 (-.30)	-.056 (-10.41)***	-.088 (-15.29)***
Educational status of the respondent	.106 (11.40)***	-.095 (-6.58)***	.148 (7.96)***
Marital status	.248 (1.58)	.988 (3.22)***	3.805 (11.53(***
Age at which got married	.008 (1.04)	.046 (3.63)***	.134 (8.24)***

Age at which gave first birth	-.010 (-1.43)	-.022 (-1.99)	-.050 (-3.22)***
Respondent family size	.021 (1.26)	-.090 (-2,82)**	.128 (3.91)***
Type of the family	.024 (.88)	-.047 (-1.05)	-.120 (-2.37)
Spouse educational status	.018 (2.38)	.023 (1.60)	.149 (9.12)***
Where do child study	.001 (.11)	-.064 (-3.35)***	-.210 (-9.52)***
Respondent birth size	-.004 (-.26)	.011 (.43)	.144 (5.15)***
Dowry status_dummy	-.025 (-.98)	-.035 (-.74)	.064 (1.26)
Dowry burden status_dummy	.003 (.11)	-.014 (-.26)	-.057 (-1.07)
Loan status for dowry_dummy	.085 (.69)	.008 (.03)	.013 (.05)
Amount of loan for dowry	.042 (1.72)	.038 (.81)	-.244 (-5.28)***
Source of loan_d1workplace	-.030 (-.24)	.099 (.43)	.180 (.69)
Source of loan_d2banks	-.100 (-.81)	.102 (.43)	.837 (3.14)***
Source of loan_d3friends	-.060 (-.48)	.158 (.67)	1.008 (.81)***
Economic status of the family belongs to	.164 (6.56)***	.290 (6.255)***	.254 (6.10)***
Are you the only breadwinner	-.087 (-.95)	1.382 (6.45)***	1.155 (5.77)***
Monthly income status	-.269 (-4.13)***	-.024 (-.18)	.341 (3.94)***
Monthly income status of others at home	.408 (6.24)***	.075 (.59)	-.361 (-4.06)***
Years of service	-.005 (-.21)	-.173 (-3.89)***	-.273 (-5.51)***
Type of sector of the employment	.209 (14.69)***	.016 (.69)	.060 (1.95)
Type of the organisation	.374 (11.86)***	-.015 (-.25)	.056 (1.13)
Constant/Intercept	-1.106 (-6.20)***	-2.832 (-8.78)***	-7.240 (-20.55)***

Source: Primary Data

The variable 'Respondent family size' is positively associated with the dependent variable and also statistically significant at a 1 per cent level using the Maximum Likelihood PROBIT model of estimation. The variable 'Do any elder is with you' has an inverse association with factor determinant. It is also statistically significant at a 1 per cent level in the PROBIT model. The variables 'Spouse education status' and 'Respondent birth size' have both negative and positive associations with factor determinants. The first one is statistically significant at a 1 per cent level in both LOGIT and PROBIT estimations. The second one is statistically significant at a 1 per cent level by using the PROBIT estimation model.

The variables such as 'where do child study', 'years of service' and 'type of the employment sector' are all inversely associated with the factor determinant and also statistically significant at 1 per cent level by using the Maximum Livelihood PROBIT model. The variable 'Loan status for dowry' has both negative and positive association with endogenous, but it is statistically significant 1 per cent level with respect to maximum likelihood PROBIT model and at 5 per cent level with respect to LOGIT model. The variable 'Economic status of the family the respondent belongs to' is the only exogenous variable that has not only a positive association with respect to an endogenous variable but is also statistically significant at 1 per cent in the three models of estimations.

The socio factor determinant of female labour force participation of the sample is empirically estimated in table 5. The relevant exogenous variables to the socio factor determinants of the study are also presented in table 5. The econometric tools of linear regression and maximum likelihood LOGIT and PROBIT models are used for data analysis here.

Table – 5: Estimation of the Socio Factors for the Determinants of the FLFP Using Linear Regression, LOGIT and PROBIT

Variables	LINEAR REGR.	LOGIT	PROBIT
Age	-.032 (-.808)	-.044 (- 8.13)***	-.100 (- 20.00)***
Educational status of the respondent	.198 (4.15)***	-.089(- 4.62)***	-.188 (- 7.812)***
Marital status	.047 (1.862)	.471 (5.176)***	.371 (5.580)***
Age at which got married	.181 (1.190)	-.001 (- .076)	-.108 (- 4.652)***
Age at which gave first birth	-.208 (-1.346)	-.021 (- 1.45)	.092 (4.125)***
Respondent family size	.025 (1.194)	.093 (2.677)**	.184 (5.850)***
Do any elder are with you	.011 (.585)	-.022 (- .749)	-.205 (-7.702)***

Education impact on fertility rate	.029 (1.362)	.032 (1.234)	.190 (7.876)***
Spouse educational status	.067 (2.85)***	-.065 (- 4.33)***	.313 (19.766)***
Educational status of the last member of the family	.015 (.808)	-.060 (- 2.60)**	-.150 (-7.523)***
Where do child study	.015 (.532)	-.055 (- 2.30)	-.181 (- 7.480)***
Respondent birth size	.005 (.264)	-.055 (- 1.84)	-.106 (- 3.735)***
Religion	.011 (.579)	-.010 (- .270)	.176 (5.100)***
Religion status	.007 (.385)	-.081 (- 1.11)	-.028 (- .397)
Community status	-.036 (-1.920)	.041(1.409)	.102 (3.905)***
Drainage facility	-.081(- 3.42)***	-.016 (- .241)	.270 (3.599)***
Drinking water facility	.570 (12.25)***	.285 (4.516)***	.572 (7.495)***
Toilet facility	.039 (1.140)	.051 (.767)	.231(3.144)**
Social media account	.057(1.246)	-.057 (-.416)	-.059 (- .369)
Usage of social media	-.165(03.04)***	.026 (.268)	.486 (5.843)***
Time spent per day for social media	.049 (.962)	-.041 (- .549)	-.103 (- 2.009)
C	**.302**	**-2.060 (- 6.80)*****	**-4.836 (- 15.64)*****

Source: Primary Data

The variables such as age, educational status of the respondent, Age at which got married, do any elders with you, educational status of the last member of the family, where do child study, Respondent birth size are all inversely associated with the socio factor determinant and also all are statistically significant at 1 per cent level in Maximum Likelihood PROBIT model estimation. On the other hand, the variables such as marital status, respondent family size, Education impact on fertility rate, Community status and the dummy variable Drinking water facility and Usage of social media are all positively associated and statistically significant at 1 per cent level. But at the same time, the usage of social media has a negative effect on the dependent variable and is also statistically significant at a 1 per cent level by using the linear regression model. The variable 'Educational status of the respondent' is statistically significant at a 1 per cent level in all three models of estimations. The dummy variable drainage facility has a positive effect with the dependent variable by using linear regression and has a negative effect with the same while we use the Maximum Likelihood PROBIT model. But it is statistically significant at a 1 per cent level in both linear regressions and in PROBIT model estimation. As per the expectation of the present study and on the basis of the earlier research, the variables such as social media status and Time spent per day on social media has an inverse relationship with respect to socio factor determinants on female labour force participation in the sample survey.

Table – 6: Estimation of the Economic Factors for the Determinants of the FLFP Using Linear Regression, LOGIT and PROBIT

Parameter	Linear Reg.	LOGIT	PROBIT
Age	.008 (2.26)	-.041 (-9.86)***	-.063 (-11.61)***
Educational status of the respondent	.094 (4.60)***	.024 (1.12)	-.026 (-.89)
Employment status	.047 (.26)	.366 (2.41)	.967 (4.55)***
Spouse educational status	-.003(-.33)	.019 (2.02)	.046 (3.32)***
Where do child study	-.023 (-1.72)	.002 (.14)	-.086 (-4.36)***
Community_d1SCST	.028 (.45)	-.214 (-2.86)**	-.235 (-2.66)*
Community_d2BC	.045 (.73)	-.223 (-3.02)**	-.131 (-1.52)
Community_d3MBC	.067 (1.11)	-.192(-2.62)*	-.180 (-2.09)
Community_d4OC	.120 (1.45)	-.217 (-2.27)	-.157 (-1.36)
Property inheritance status	1.001 (11.3)***	.764 (7.12)***	1.041 (7.97)***
Region where property inheritance owned	-.309 (-13.6)***	-.190 (-7.3)***	-.257 (-8.3)***
Property from own earning	-.010 (-.58)	-.001 (-.04)	.081 (3.55)***
Do you live in own house	-.088 (-.96)	-.234 (-2.25)	-.240 (-1.52)
Type of the house owned	.020 (.70)	.061 (2.03)	.020 (.52)
Type of the house live in	-.047 (-2.91)**	-.068 (-3.8)***	.024 (1.18)
Household appliance status	.041 (.79)	.063 (1.13)	.120 (1.69)
Saving status	-.154 (-2.97)**	-.168 (-2.88)**	-.108 (-1.61)
Amount of savings	.141 (3.26)***	.087 (1.77)	.070 (1.28)
Designation of the employee	.085 (2.61)*	-.094 (-2.89)**	.011 (.29)

Number of bread winners	-.016 (-.52)	.056 (1.19)	.116 (2.01)
Monthly income status	-.113 (-1.59)	-.172 (-2.22)	-.139 (-1.78)
Monthly income status of others at home	.215 (2.94)**	.131 (1.62)	.160 (1.98)
Years of service	-.026 (-.94)	-.031 (-1.04)	-.069 (-1.67)
Employment status before marriage	-.027 (-.31)	-.482 (-4.4)***	-.422 (-3.6)***
Employment status after marriage	-.050 (-1.32)	-.164 (-3.6)***	-.113 (-2.43)
Gap between marriage and employment	-.040 (-2.59)*	-.053 (-2.73)**	-.178 (-5.5)***
Type of sector of the employment	.033 (1.68)	-.064 (-3.5)***	-.073 (-2.65)*
Present job status	-.213 (-3.29)***	-.023 (-.73)	-.045 (-.92)
(Constant)	.086 (.35)	-2.04 (-7.9)***	-1.71 (-5.1)***

Source: Primary Data

The empirical estimation of the economic factor determinants for the Female Labour Force Participation of the sample is discussed here. Linear Regression, Maximum Likelihood LOGIT and Maximum Likelihood PROBIT models are used for the empirical estimation of the dependent and independent variables. The exogenous variable 'age' and 'years of service' are the two variables that are inversely related to the economic factor determinants of FLFP in the sample survey. By using the maximum likelihood PROBIT model, both the variables are statistically significant at a 1 per cent level. The variable 'age' is also statistically significant while we use the maximum likelihood LOGIT model. Unexpectedly the variables such as the Economic viability status of the family the respondents belong to and their property or inheritance status is directly associated with the economic factor determinants of FLFP. But the first variable is statistically significant at 1 per cent by using a linear regression model. Whereas, the second variable is statistically significant at 1 per cent level while we use maximum likelihood estimation of LOGIT and PROBIT models. The variable 'Region where property/inheritance owned' by the respondent is oppositely associated with the economic factor determinants of FLFP. This variable is statistically significant at 1 per cent using maximum likelihood LOGIT and at 5 per cent level using PROBIT model.

The variable 'Property from own earning' is directly associated with the dependent variable using all three methods of the econometric tool. But it is statistically significant at a 5 per cent level in the linear regression model and it is being significant at a 1 per cent level in the maximum likelihood PROBIT model. As per the expectation of the study the variables such as 'Do you live in own house' and 'Type of the house live in' are negatively associated. The parameters such as Type of house owned, Average monthly rental amount, Household appliance status, Amount of savings, Number of breadwinners and Type of organization are all positively associated with economic factors for the determinants of the FLFP. Some of these variables are also statistically significant at 1 per cent and 5 per cent levels.

The descriptive statistics of demographic characteristics of the sample survey of the respondent is portrayed in table 7. It is evident from table 7 that most of the parameters reflected in the table show the value of mean value is greater than the value of standard deviation. It projects that the Mean value of those variables is greater than SD indicating a less degree of variability in the distribution along with endogenous variables.

The empirical estimation of the women empowerment status due to female labour force participation in the study area is shown in table 8. The three econometric techniques such as linear regression, Maximum likelihood LOGIT and PROBIT models have been used. The parameters that make an impact to improve women empowerment is used as endogenous variables. The variables such as 'Region of the study area', 'Educational status of the respondent', 'Average hours of work per day' and dummy variables religion and community are positively related to endogenous variable and also statistically significant at 1 per cent level by using maximum likelihood LOGIT and PROBIT model estimation.

Table – 7: Descriptive Statistics of Demographic Profile

Variables	Mean	Std. Deviation
Religion	1.4380	.61688
Religion status	.8930	.30927
Community status	2.2120	.81714
The economic status of the family the respondents belongs to	1.6190	.73647
Property inheritance status	.7440	.43664
The region where property inheritance owned	1.5820	1.17075
Property from own earning	.5140	.85354
Do you live in your own house	.6780	.46748

Type of the house owned	1.7620	1.37523
Type of the house live in	2.8630	.93440
Average monthly rental amount	.5110	.82617
Drainage Dummy Variable = 1 if facility is available, 0 otherwise	.7180	.45020
Drinking-Water Dummy Variable =1 if the facility is available, 0 otherwise	.7250	.84029
Toilet Dummy Variable = 1 if the facility is available,0 otherwise	1.0760	.65165
Household appliance status	1.5110	.50213
Status of home appliances to the support of WLFP	1.7150	.99033
Option of a daycare centre	1.1390	.81753
Opinion about the daycare centre	1.8480	1.00494
Saving status	.9460	.85780
Amount of savings	1.1120	1.09483
Smartphone Dummy Variable = 1 if the status is owned, 0 otherwise	1.6520	.75860
Social media account Dummy Variable = 1 if yes, 0 otherwise	.8270	.37844
Usage of social media	1.2750	.74022
Time spent per day for social media	1.8150	1.06297
Size of the Respondents	**146 (100%)**	

Source: Primary Data

The exogenous variable 'Economic status of the family belongs to' is directly related and statistically significant at a 1 per cent level by using the LOGIT model. The variable 'Employment status', 'Status of education on employment, Status of family support for LFP is negatively associated with endogenous variable but it is statistically significant at a 1 per cent level either by using maximum likelihood LOGIT or PROBIT model estimations. The exogenous variable 'Smartphone status' and 'Status of work environment' are directly and inversely associated with endogenous variable women empowerment and also statistically significant at 1 per cent level by using LOGIT and PROBIT models. But the variables such as 'Average hours of work per day' 'Women association status' 'Beneficiary scheme status' and 'Status of government benefit policy' are all positively and negatively associated and also statistically significant at 1 per cent either by using maximum likelihood LOGIT and PROBIT models.

Table – 8: Estimation of the Women Empowerment Status Due to FLFP Using Linear Regression, LOGIT and PROBIT

Parameters	Linear Reg.	LOGIT	PROBIT
Region of the study area	.006 (.836)	.164 (29.45)***	.044 (10.65)***
Educational status of the respondent	.021 (2.83)**	.027 (5.21)***	.018 (4.73)***
Employment status	-.011 (-.86)	-.091 (-8.95)***	-.047(-6.12)***
religion_d1Hindu	-.006 (-.15)	.887 (21.08)***	.181 (6.58)***
religion_d2Christian	.019 (.47)	.851 (20.18)***	.164 (5.91)***
religion_d3Muslim	-.009 (-.25)	.931 (22.20)***	.177(6.46)***
Community_d1SCST	.021 (.91)	.152 (7.56)***	.045 (2.97)**
community_d2BC	.018 (.78)	.150(7.37)***	.057 (3.70)***
Community_d3MBC	.016 (.70)	.126 (6.27)***	.038 (2.47)
Community_d4OC	.001 (.02)	.271 (10.66)***	.127 (6.62)***
Economic status of the family belongs to	.001 (.08)	.102 (11.97)***	.010 (1.56)
Smart phone status	.005 (.31)	-.077 (-7.77)***	.054 (7.31)***
Status of education on employment	-.540 (-14.1)***	-.262 (-9.21)***	-.024 (-1.12)
Present job status	.57(17.46)***	-.012 (-.53)	-.057 (-3.32) ***
Status of work environment	.017 (1.42)	.112 (13.69)***	-.044 (-7.47)***
Status of family support for LFP	-.016 (-2.01)	-.086(15.28)***	-.003 (-.75)
Average hours of work per day	.053 (2.77)*	.116 (8.33)***	.051 (4.77)***
Average days of work per week	.066 (6.4)***	.015(2.02)	-.030 (-5.25)***
Women association status	-.910 (-57.8)***	-.003 (-.25)	.074 (7.73)***
Beneficiary scheme status	.029 (1.72)	-.076 (-6.25)***	-.005 (-.56)
Status of government benefit policy	-.008 (-55)	.102 (9.03)***	-.005 (-.57)
(Constant)	-.354 (-3.19)***	-3.420 (-38.50)***	-1.756 (-27.0)***

Source: Primary Data

The econometric tools such as linear regression, maximum likelihood LOGIT and PROBIT models are used to estimate the impact on women's economic status due to their labour force participation in the study area is presented in table 9. Economic status is one of the main social indicators that reflect different aspects of the person in society. More specifically, economic status plays a crucial role for women. The economic status of the women is directly associated with employment status. However, many more variables make an impact and influence the economic status of the individuals. All those parameters have been taken into consideration for the empirical estimation as an exogenous variable and presented in table 9. The economic status of the respondents as a result of their participation in the labour market activities are empirically estimated by using econometric tools such as linear regression, Maximum likelihood LOGIT and PROBIT models here. As per normal expectations, even the outcome of the empirical estimation of the study reveals that the regions of the study area have a positive association in terms of making an impact with respect to economic status. Hence the variable is also statistically significant at a 1 per cent level by using both LOGIT and PROBIT models. The variable 'Educational status of the respondent' is positively related to the endogenous variable and statistically significant at 1 per cent level in linear regression and Maximum Likelihood LOGIT model.

Table – 9: Estimation of the Women Economic Status Due to FLFP Using Linear Regression, LOGIT and PROBIT

Parameter	Linear Regression	LOGIT	PROBIT
Region of the study area	-3.822E-5 (-.003)	.168 (30.25)***	.050 (12.05)***
Educational status of the respondent	.082 (5.59)***	.023 (4.52)***	.009 (2.34)
Employment status	.010 (.41)	-.108 (-10.56)***	-.040 (-5.32)***
religion_d1Hindu	.050 (.66)	.885 (20.96)***	.147 (5.41)***
religion_d2Christian	.030(.39)	.849 (20.05)***	.124 (4.50)***
religion_d3Muslim	.048 (.62)	.924 (21.95)***	.140 (5.17)***
Community_d1SCST	-.096 (-2.08)	.127 (6.34)***	.028 (1.82)
community_d2BC	-.101 (-2.19)	.133 (6.67)***	.044 (2.85)**
Community_d3MBC	-.074 (-1.63)	.110 (5.49)***	.032 (2.11)
Community_d4OC	-.198 (-3.12)**	.288 (11.38)***	.114 (5.98)***
Economic status of the family belongs to	-.010 (-.44)	.106 (12.46)***	.016 (2.43)
Smart phone status	.001 (.02)	-.058 (-5.86)***	.061 (8.17)***
Status of education on employment	-.340 (-4.48)***	-.268 (-9.41)***	-.047 (-2.20)
Present job status	.428(6.53)***	.002 (-.068)	-.044 (-2.57)*
Status of work environment	-.039 (-1.59)	.106 (13.01)***	-.030 (-5.11)***
Status of family support for LFP	-.090 (-5.73)***	-.079 (-1405)***	-.005 (-1.19)
Average hours of work per day	-.045 (-1.20)	.107 (7.74)***	.034 (3.20)***
Average days of work per week	-.042 (-2.10)	.057 (7.63)***	.022 (3.83)***
Women association status	-.236 (-7.56)***	-.083 (-6.73)***	-.023 (-2.44)
Beneficiary scheme status	.029 (.85)	-.029 (-2.38)	.002 (.22)
Status of government benefit policy	-.020 (-.69)	.032 (2.87)**	-.036 (-4.25)***
(Constant)	-.092 (-.42)	-3.41 (-38.37)***	-1.664 (-25.70)***

Source: Primary Data

The parameters 'Average hours of work per day', 'Average days of work per week' and religion dummy and community dummy variables are positively associated and statistically significant at a 1 per cent level in both LOGIT and PROBIT models. The rest of the community dummy variables are directly related and statistically significant at a 1 per cent level in LOGIT model estimation. The variable 'Employment status', 'Smartphone status', 'Status of education on employment', 'Status of family support for LFP' and 'Women association status' are all inversely associated with endogenous variable and also statistically significant at a 1 per cent level by using either LOGIT and PROBIT models.

LIMITATIONS OF THE STUDY
The following are the limitations of the study
- The findings of this study are based on expressed information of the respondents which may have its own limitations. The possibility of hiding certain facts on the part of respondents cannot be completely ruled out, although every possible effort has been made to elicit authentic information.

- This study covers only three districts to represent urban, semi-urban and rural regions of Tamil Nadu out of 33 districts in the state.
- The data has been collected by the authors with the help of a structured interview schedule. The respondents might be provided with the necessary information on the basis of the schedule questionnaire in which the generalizations and the findings of the study are limited to techniques of data collection.

CONCLUSION

Finally, the study expresses the slight difference witnessed with different taluks in the urban regions. The estimation of the mental strain and physical harassment status of the respondents due to their participation in the labour market activities but surprisingly there is no single respondent of the sample had reflected that they had any physical harassment. However, from the total sample around 15.20 per cent of the respondents felt that they couldn't have any mental strain due to their participation in the labour market activities. The people around 38.53 per cent had a feeling that sometimes they have mental strain due to their job. Hence 22.27 per cent of the respondents strongly retorted that they had very strong mental strains from their job. In terms of estimation of physical harassment at the workplace 30.41 per cent of the respondents have replied that as such they don't have any problems like that. Only the people around 13.41 per cent had retorted that they have the harassment sometimes at the workplace. However, 56.12 per cent of the respondents are not interested to disclose such happenings at the workplace. As a result, the study clearly concludes that predominantly the working women are not facing any stranger issues either at their workplace or at home apart from the issues come across by all the women irrespective of working or not working in the society.

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