

Do Social Milieu and Attitude towards Females Create Obstacles in Attaining Sustainable Development?

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Abstract

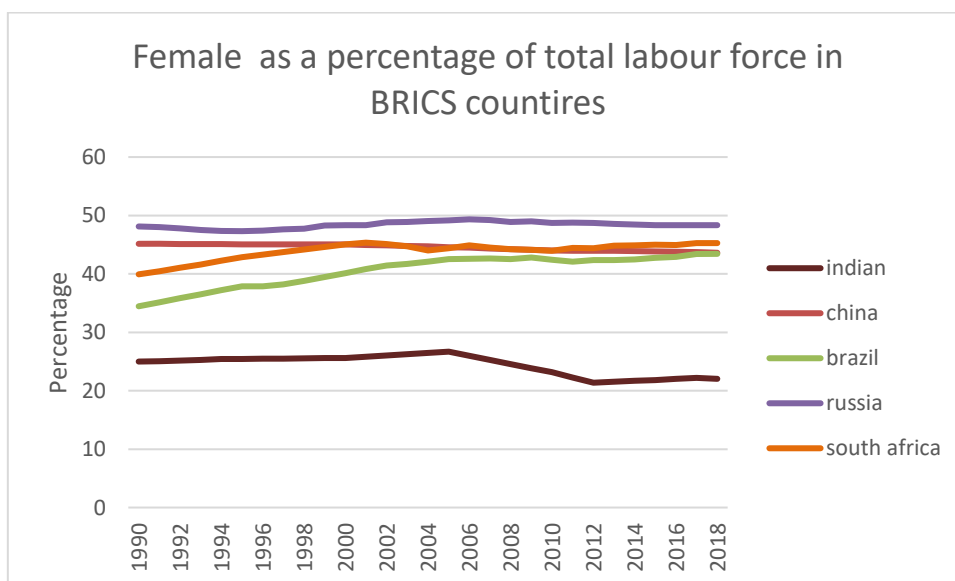
India is the sixth largest economy in the world with low female labour participation rate. The Logistic regression performed in this paper reveals gender as the most important variable determining the working status. It is owing to the fact that females have lower probability to participate in labour market. The LFPR is low for the states of Bihar and Uttar Pradesh. The increased level of income and patriarchal mind set in the society did not allow females to enter the labour market. There is a lot of scope to improve our labour force participation rate. Increase in the female labour force participation rate can enrich the contribution towards GDP and the attainment of sustainable development.

Introduction

The social milieu plays a deterministic role in contributing to the employment and unemployment of females. Social attitude, ideology, beliefs and behaviour are set by the old traditions and customs. In the absence of adequate education and exposure to outer world, these ideas and beliefs about females are hard to dilute till date. In the modern India, still we have group of patriarchal mind set who believe that females should not be highly educated, they must not engage in remunerative labour market activities and their activities should be restrained to domestic affairs. The resemblance of social behaviour can be observed in the labour market where female participation rate is quite low as compared to other developed countries. The average female labour participation rate between 1990 to 2017 was 32.50 percent. If we compare India with the world according to world bank data series, India ranks 163 out of 181 countries in female labour participation rate. The female labour force participation rate in India was 27.21 percent in 2017. Even Nepal ranks 3rd in the global female labour participation rate in 2017 with 82.73 percent. The figure 1.1 is of female as a percentage of total labour force in the BRICS countries. Figure itself clears half of the picture

about female LFPR in the BRICS countries. The Female LFPR in India is predominantly lower than the other BRICS countries. In the year 2018, the female was only 22 percent of the total labour force. On the other hand if we compare other BRICS countries female as a percentage of total labour force was 43 percent in China and Brazil, 48 percent and 45 percent in Russia and South Africa respectively. Thus, in all other country coming under BRICS nation, India is the worst performer. Female as a percentage of total force actually declined in India since 1990. In 1990, female was 25 percent of the labour force while in 2018 the percentage came down by 3 percent. There was a marginal decline of 2 percent in the female as a percentage of total labour force in China while this ratio remained stagnant in Russia over a period of time. In the case of Brazil and South Africa female as a percentage of labour force increased remarkably by 10 percent and 6 percent between the year of 1990 to 2018.

Figure 1.1 : Female as a Percentage of Labour Force in BRICS Nations



Source – Derived from World Bank Data Series based on ILO modelled estimates

Review of Literature

Chand and Srivastava (2014) in their study examined that though population of females was increasing, their participation in labour force continued to decline. The authors discussed that the enrolment of girls increased in the school and thus their labour entry in the labour market delayed. Desai and Joshi (2019) argued that NSSO underestimate the work undertaken by females. It was found through econometric analysis on Indian Human Development data that as the family income increases they prefer to keep their family female stuck at household work. Himanshu (2011) suggested that the slow employment growth was largely due to a sharp decline in female labour force participation, while the number of male workers actually increased by a respectable 22 million between 2005 and 2010. Goldar and Sadhukhan (2015) examined that the female participation rate in the aggregate manufacturing was around 30 percent and their share was exceptionally higher in the traditionally labour intensive sector. The wages of female were half compare to their male counterparts. Mehrotra and Sinha (2019) in their paper noted that growth and inclusiveness were interlinked and Indian can not keep female out of its growth trajectory with declining female labour participation rate. Mitra and Verick (2013) in their study on youth employment and unemployment in India constructed a logistic regression model and found that higher education leads to lower participation in the labour force. Similarly the participation of female were lower as compared to males. Nathan et al (2016) analysed the firm level situation of the women workers and found that their condition was more vulnerable at low skilled industry such as garment or cashew nut industries. They got meagre wages and were subject to physical and sexual abuse. Rangarajan et al (2014) examined that the trend of female labour force participation continued to decline and their education enrolment increased in the study period. The authors argued that as the economic situation improved in the family women engaged in the causal employment withdrew their labour. Thomas (2012) added that decline in the last decade in the agricultural labour force mainly accounted for withdrawal of distressed female labour.

Data Source and Methodology

The most important source of secondary data is National Sample Survey Organisation (NSSO). The National Sample Survey Organisation conducted employment and unemployment survey in every five year. This is the most reliable source of information available from the government agency. The last employment and unemployment survey was conducted in the year 2011-12. In order to get the fast frequency data **on employment**

situation government of India has started Periodic Labour Force Survey (PLFS) in 2017-18. The NSSO reports provide information about various NSSO Round and this information can be obtained from Ministry of Statistics and Program Implementation (MOPSI). On the basis of NSSO data major employment dynamics have been captured since the post reform period. Further we have used NSSO unit level data of 2011-12 round and 2017-18 PLFS of all India level and eight states for Logistic Regression purpose. The sample size for logistic regression for India and eight states have been given below in Table 1. It is to be noted that in order to avoid child labour problem, we have included 15 years and above individuals in the sample.

Table 1 : Sample Size for NSSO and PLFS Unit Level Data

State	2011-12 NSSO Round	2017-18 PLFS
Bihar	15661	15186
Gujarat	12760	12434
Kerala	16537	13672
Madhya Pradesh	16270	16242
Maharashtra	29354	25923
Rajasthan	15128	15194
Tamil Nadu	22039	19031
Uttar Pradesh	35593	31618
India	364367	330562

Source – Derived by from NSSO 2011-12 and PLFS 2017-18 unit level data

For the logistic regression model developed for the purpose of this research, working status of an individual was considered as dependent variable while Gender, Age, Monthly Consumption Expenditure, Literacy, Caste, Religion, Area of Living, and Marital Status were considered as independent variable. Appropriate coding was performed as mandated for running logistic regression by assigning values “0” and “1”.

The Labour Force Participation Rate In India

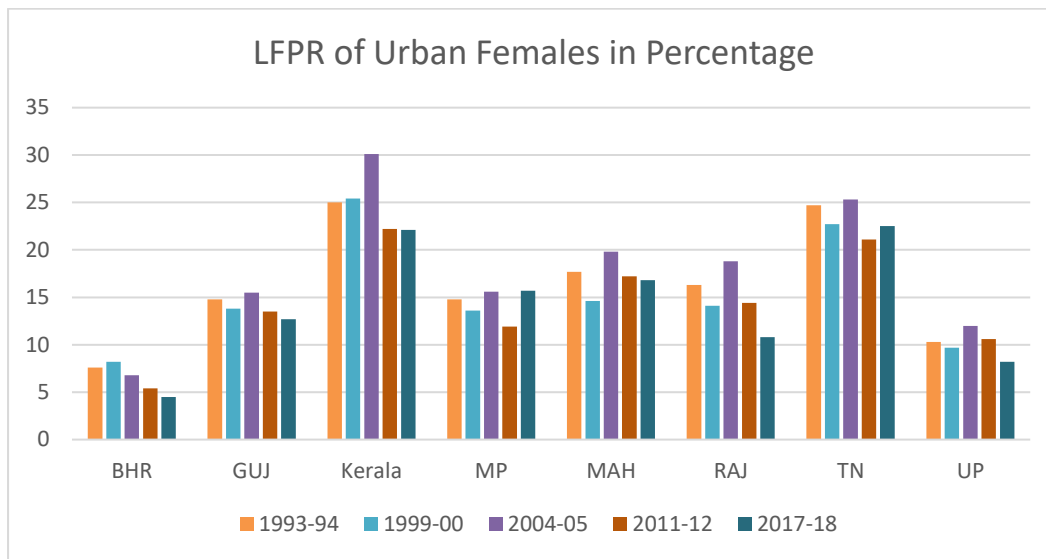
According to NSSO labour force participation rate (LFPR) in usual status and subsidiary status includes the person who worked or available for work for a relative long part of 365 days preceding the date of survey and those person from among the remaining population who had worked at least 30 days during the reference period of 365 days preceding the date of survey (NSSO, 2011-12). There LFPR for rural male slightly declined from 56.10 percent in 1993-94 to 55.30 percent in 2011-12. It further declined in 2017-18 PLFS to 54.90 percent. On the other hand, there was sharp decline in the LFPR of women in the rural area i.e. from 33.00 percent in 1993-94 to 26.50 percent in 2011-12. It further declined to 18.20 percent

points in during 2017-18 PLFS. On the other hand LFPR of urban male has increased in 2011-12 when compared to the year 1993-94. The increase continued in PLFS to 54.00 percent for urban males. For urban male LFPR continued to be around 16.00 percent. The sharp decline of LFPR of women in the rural areas can be attributed higher school enrolment rate of girls. In the villages women prefer to be home makers. They enter into labour force when need arises to support spouse during financial emergencies. There is small decline the LFPR of urban female compared to rural female from 1993-94 to 2011-12. Thus, it can be concluded that males do participate in an equal ratio both in urban and rural areas i.e. 55.00 percent while female participation is far less in both the areas. In addition to this the participation of rural female is 10.00 percent greater than the urban females in 2011-12. However this gap narrowed down in PLFS to 3.00 percent among rural and urban females. In the rural areas females are engaged in the field work, dairy farming and other household activities.

Labour Force Participation of Females in Select States

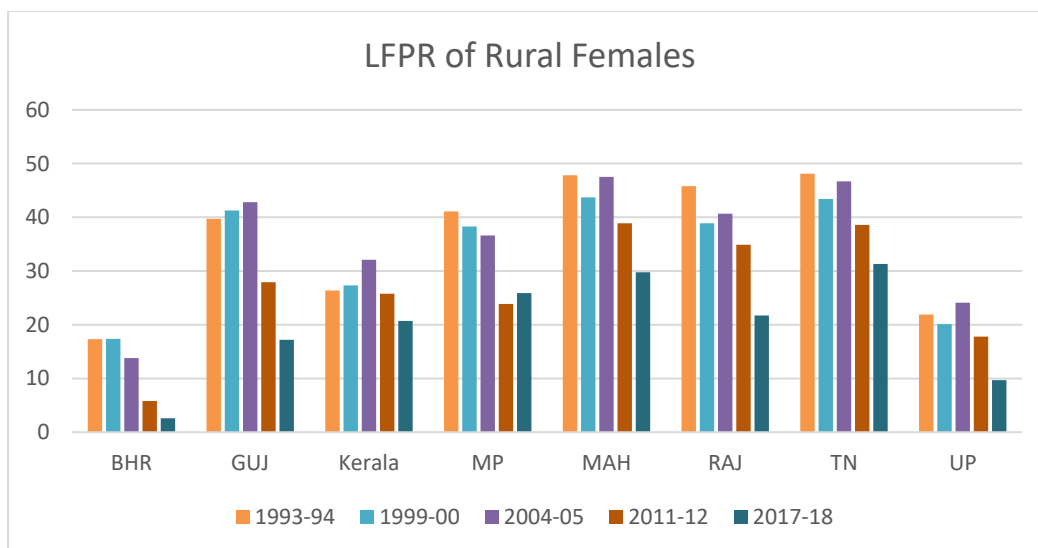
The overall female LFPR is found to be higher in rural areas compared to urban areas. Moreover, there has been a steady decline in the female LFPR in both rural and urban areas. When we look into the individual LFPR rate of individual states some mind boggling facts can be seen. The LFPR of urban females was extremely low in the state of Bihar which also came down in the recent past. The LFPR came down from 7.6 percent in 1993-94 to 4.5 percent in 2017-18 PLFS period. Whereas the trend for rural areas for the state of Bihar shows drastic fall in LFPR from 17.3 percent in 1993-94 to 2.6 percent in 2017-18 period. Bihar has been a part of BIMARU states since 1980s, however the situation of LFPR has not shown an improvement in spite of three decades of policy orientation. Similar trends can be seen for the state of Uttar Pradesh which showed slight decline of LFPR of 2 percent in urban area and huge decline of 11 percent in rural area in the survey period from 1993-94 to 2017-18. It is important to note that in both areas female LFPR in the state of Uttar Pradesh remained less than 10 percent in the latest survey period. For the state of Gujarat LFPR rate showed a slight decline from 14.8 percent in 1993-94 to **12.7 percent**.

Figure 2 : LFPR of Urban Females in Percentage



Source : Derived from various NSSO rounds and PLFS

Figure 3 : LFPR of Rural Females in Percentage



Source : Derived from various NSSO rounds and PLFS

Gender and Employment Relationship

Table 2 : Gender Employment Crosstabulation - India

Details			Employment 2011-12			Employment 2017-18		
			Non-Working	Working	Total	Non-Working	Working	Total
Gender	Female	Count	135571	42619	178190	132416	30589	163005
		% within gender	76.10%	23.90%	100.0%	81.20%	18.80%	100.0%
	Male	Count	41941	144236	186177	52822	114735	167557
		% within gender	22.50%	77.50%	100.0%	31.50%	68.50%	100.0%
Total		Count	177512	186855	364367	185238	145324	330562
		% within gender	48.70%	51.30%	100.0%	56.0%	44.0%	100.0%

Source- Calculated from NSSO 2011-12 and PLFS 2017-18 Unit level Data

Table 3 : Percentage of Non- Working Male and Female for Select States

2011-12								
Gender	Bihar	Gujarat	Kerala	Madhya Pradesh	Maharashtra	Rajasthan	Tamil Nadu	Uttar Pradesh
Females	95.00	76.30	74.50	78.50	70.40	74.80	64.50	87.80
Males	26.40	18.20	22.80	21.50	22.10	25.40	18.50	21.90
2017-18								
Females	96.10	85.60	82.80	75.50	73.90	82.00	71.90	91.00
Males	39.10	27.20	35.70	28.40	30.20	33.80	29.70	31.40

Source- Calculated from NSSO 2011-12 and PLFS 2017-18 **Unit level Data**

Table 4: Usual Principal and Subsidiary Status of Females in India

Status of Females	2011-12		2017-18	
	Frequency	Percent	Frequency	Percent
Usual principal & Subsidiary Status				
Worked in household enterprise (self-employed): own account worker	10461	5.90	6738	4.10
Employer	255	0.10	184	0.10
Worked as helper in household enterprise (unpaid family worker)	13328	7.50	8054	4.90
Worked as regular salaried/ wage employee	8278	4.60	9510	5.80
Worked as casual wage labour : in public works	716	0.40	464	0.30
Worked as casual wage labour : In other types of work	9581	5.40	5621	3.40
Did not work but was seeking and/or available for work	2404	1.30	3299	2.0
Attended educational institution	18812	10.60	21387	13.10
Attended domestic duties only	58761	33.00	76367	46.90
Attended domestic duties and was also engaged in free collection of goods	45680	25.60	19973	12.30
Rentiers, pensioners , remittance recipients, etc.	2596	1.50	7057	4.30
Not able to work due to disability	2671	1.50	1682	1.00
Others (including begging, prostitution, etc.)	4647	2.60	2626	1.60
Total	178190	100.0	162962	100.0

Source- Calculated from NSSO 2011-12 and PLFS 2017-18 **Unit level Data**

Table 5 : Female attended domestic duties/ involved in free collection of goods (percent)

2011-12								
	Bihar	Gujarat	Kerala	Madhya Pradesh	Maharashtra	Rajasthan	Tamil Nadu	Uttar Pradesh
Attended domestic duties only	35.20	39.60	41.10	24.40	47.00	24.70	40.20	29.90
Engaged in free collection of goods	45.10	23.00	10.70	38.20	6.40	34.10	8.50	41.30
Total	80.30	62.60	51.80	62.60	53.40	58.80	48.70	71.20
2017-18								
Attended domestic duties only	70.10	60.60	47.20	42.20	50.50	43.50	46.10	48.40
Engaged in free collection of goods	6.00	9.60	3.70	13.20	2.70	18.30	2.80	21.70
Total	76.10	70.20	50.90	55.40	53.20	61.80	48.90	70.10

Source- Calculated from NSSO 2011-12 and PLFS 2017-18 Unit level Data

It is found in table 2 that 76.10 percent females do not work during NSSO round 2011-12. On the other hand 22.50 percent male were not working. Thus substantial amount of females are not into labour force as one of the cause of low labour force participation rate in India. 58.6 percent of the females were engaged in the attending domestic duties and in addition to this collecting free goods from the nearby area according the usual principal and subsidiary status in 2011-12 round. Further 10.60 percent girls were the part of educational institutes. The adverse condition of job market for women further disappointed them and they do not take entrepreneurial venture as merely 0.10 percent female were employer in NSSO 2011-12 round. An analysis of 2017-18 data in Table 2 explain that percentage of non-working females increased from 76.10 percent in 2011-12 to 81.20 percent in 2017-18. Thus, in this period more females left the labour force. In addition to this percentage of non-working males also increased in the 2017-18 period i.e. 31.50 percent. Thus the participation of male and females in the labour market declined in 2017-18 PLFS. The situation of female participation is more grave compared to males. A detail study of usual principal and subsidiary status of employment of females in 2017-18 in Table 4 shows like 2011-12 survey period 59.20 percent of the female workforce were doing domestic duties and 13.10 percent girls were enrolled in the education institutes.

Table 3 shows that percentage of non- working female was very high in Bihar in both periods i.e. 95.00 percent and 96.10 percent in 2011-12 and 2017-18 respectively. It was followed by Uttar Pradesh where 87.80 percent and 91.00 percent female were not working in 2011-12 and 2017-18 respectively. The percentage female who were in non-working category increased in 2017-18 period compared to 2011-12 period. Overall all states were doing badly in terms of female work participation rate. However, situation in Tamil Nadu was little better as this percentage was lower than other state. i.e. 64.50 percent and 71.90 percent in 2011-12 and 2017-18 respectively. On the contrary the condition of men was far better than women. The percent of non-working men increased in the study period as 2017-18 PLFS reported highest percentage of non-working men. Highest percentage of non-working men were from Bihar in both survey period i.e. 26.40 percent in 2011-12 and 39.10 percent in 2017-18. The lowest percentage of non-working men was observed in Gujarat State i.e. 18.20 percent in 2011-12 and 27.20 percent in 2017-18.

Table 5 shed light on very interesting reason of low female participation rate in the workforce. The study found that in almost all the state major part of female workforce attend domestic duties only and some time in addition to attending domestic duties they get involve in collection of free goods which is non-monetary in nature. Thus, a large workforce gets wasted inside their home and do not contribute to the GDP. The state of Bihar in 2011-12 registered 80.00 percent of its female workforce in this category. This percentage dropped by 4.00 percent when Bihar's 76.00 percent female population was engaged in attending domestic duties. It is followed by the state of Uttar Pradesh were approximately 70.00 percent of female workforce was engaged in attending domestic duties in both the period. Gujarat seen a surge in female population in attending domestic duties and collection of free goods in 2017-18. This percentage was 62.00 percent in 2011-12 which rose to 70.00 percent in 2017-18. The percentage of women in this category was lowest in the state of Tamil Nadu which recorded only 48 percent females were involved in attending domestic duties and collection of free goods in both the period. This was one of the main cause of lower female labour participation rate in India. As we have seen more than 70 percent female workforce in the state of Uttar Pradesh and Bihar were involved in attending domestic duties, how is it possible to have a higher female labour force participation rate in these state?

Gender and Literacy Relationship

Table 6 : Gender and Literacy level Crosstabulation - India

Literacy Level			2011-12			2017-18		
			Literate	Illiterate	Total	Literate	Illiterate	Total
Gender	Female	Count	121237	56953	178190	118178	44827	163005
		% within gender	68.0%	32.0%	100.0%	72.5%	27.5%	100.0%
	Male	Count	158105	28072	186177	146358	21199	167557
		% within gender	84.9%	15.1%	100.0%	87.3%	12.7%	100.0%
Total		Count	279342	85025	364367	264536	66026	330562
		% within gender	76.7%	23.3%	100.0%	80.0%	20.0%	100.0%

Source- Calculated from NSSO 2011-12 and PLFS 2017-18 Unit level Data

we can see in Table 6 that illiteracy level of females was higher i.e. 32.00 percent compared to their male counterpart who share 15.10 percent illiteracy level according to 2011-12 survey period. 84.90 percent male and 68.00 percent female were literate according to NSSO 2011-12 round. we can see in the cross tab that illiteracy level of females was higher i.e. 32.00 percent compared to their male counterpart who share 15.10 percent illiteracy level according to 2011-12 survey period. 84.90 percent male and 68.00 percent female were literate according to NSSO 2011-12 round. In addition to this the educational qualification of females was not very promising at national level as 5.90 percent women were graduate as per the survey.

An analysis of PLFS 2017-18 in Table 6 shows was a slight positive development in education aspect as literacy level increased among women from 68.00 percent in 2011-12 to 72.50 percent in 2017-18. Table 7 explains the education level of surveyed women in 2017-18 survey period. The table reveals that 27.50 percent women were illiterate. Further 61.80 percent women were having education up to or less than graduation. Only 7.50 percent women were graduate in the survey while 2.60 percent were post graduate. Thus, the educational qualification was quite low among women. Lower educational qualification might adversely affect female labour force participation rate in the labour market.

Table 7 : General Education Level of Females in India

	2011-12		2017-18	
	Frequency	Percent	Frequency	Percent
Not literate	56953	32.0	44817	27.50
Literate without formal schooling: EGS/ NFEC/ AEC	366	.2	179	0.10
Literate without formal schooling: TLC	86	.0	54	0.0
Literate without formal schooling: Others	360	.2	377	0.20
Literate: below primary	14929	8.4	7558	4.60
Literate: primary	20516	11.5	17952	11.0
Literate: middle	29355	16.5	33608	20.60
Literate: secondary	24105	13.5	23036	14.10
Literate: higher secondary	16211	9.1	17656	10.80
Literate: diploma/certificate course	1553	.9	1268	0.80
Literate: graduate	10441	5.9	12201	7.50
Literate: postgraduate and above	3304	1.9	4256	2.60
Total	178179	100.0	162962	100.0

Source- Calculated from NSSO 2011-12 and PLFS 2017-18 Unit level Data

Table 8 , explains the percentage of illiterate female in different states. As it was discussed in the previous tables that majority of females spend their time at their home attending domestic duties, sneak peek into the educational background of female workforce was necessary. We went forward with very basic literacy level of female workforce. The study revealed that a large percent of female was not literate. The large state of Uttar Pradesh, Bihar and Rajasthan have lion's share of illiterate women. The two survey periods show that the percentage of illiterate women came down in 2017-18 PLFS. However we need to understand that the women who were in the literate category were not very highly qualified. The percentage of illiterate women were 44.90 percent in Bihar, 52.60 percent in Rajasthan and 48.50 percent Uttar Pradesh during 2011-12 survey period. This percentage came down to 37.90 percent, 42.40 percent and 39.40 for each state respectively. Lowest level of illiteracy among women was seen in Kerala for which the state is famous . The illiteracy level were lower among males in both the period. Highest illiteracy level among male was seen in the state of Uttar Pradesh and Bihar in both the survey period. In the case of men also Kerala has shown the best figure of lowest illiteracy level.

Table 8 : Illiterate Male and Female (Percent)

2011-12								
Gender	Bihar	Gujarat	Kerala	Madhya Pradesh	Maharashtra	Rajasthan	Tamil Nadu	Uttar Pradesh
Females	44.90	31.80	7.80	38.50	25.20	52.60	28.20	48.50
Males	20.50	13.10	3.20	17.30	9.30	20.30	13.20	24.20
2017-18								
Females	37.90	27.20	7.70	31.70	24.70	42.40	22.30	39.40
Males	17.50	8.50	3.30	13.10	10.70	15.10	10.90	17.30

Source- Calculated from NSSO 2011-12 and PLFS 2017-18 Unit level Data

Table 9 : Graduate and Postgraduate Females (Percent)

2011-12								
Gender	Bihar	Gujarat	Kerala	Madhya Pradesh	Maharashtra	Rajasthan	Tamil Nadu	Uttar Pradesh
Graduate	3.3	5.0	9.3	4.8	6.5	4.2	6.0	5.5
Postgraduate	0.4	1.3	2.9	2.3	1.9	2.1	2.1	2.4
Total	3.7	6.3	12.2	7.1	8.4	6.3	8.1	7.9
2017-18								
Graduate	4.80	6.80	10.70	6.0	8.3	5.5	9.8	7.2
Postgraduate	0.90	2.30	3.30	2.90	2.9	3.3	3.9	2.9
Total	5.70	9.10	14.00	8.90	11.20	8.80	13.70	10.10

Source- Calculated from NSSO 2011-12 and PLFS 2017-18 unit level data

The table 9 looks into the decent educational qualification to be eligible to enter into formal job market or government jobs in today's era. It is to be noted that table shows the most disappointing picture females in terms of their educational qualification in the job market. The percentage of graduate and post graduate was very low in the survey in both the survey periods. However, the second PLFS period showed slight improvement in the educational qualification. Lowest percentage of graduates and postgraduates were seen in Bihar i.e. 3.70 percent in 2011-12 and 5.70 percent in 2017-18. Kerala showed a 12.20 percent and 14.00 percent graduates and post graduates 2011-12 and 2017-18 period. The overall picture was very pessimistic in terms of educational qualification as all other states except Kerala were having less than 10.00 percent of female graduates in 2017-18 PLFS. This gloomy picture explains us that we are still far behind in the development path compared to all other countries as lower educational attainment and domestic duties are depriving women an equal employment opportunity in the labour market. In addition to this sexual and verbal abuse in the workplace, low social mobility and negative social attitude of women work culture in the society enhances social discrimination in the job market for females. The states which are

lagging far behind in social justice for women are Bihar, Uttar Pradesh and Rajasthan performing poorly in terms of their female labour participation. The major reasons identified by the study is lower educational qualification and majority of female workforce were involved in attending domestic duties. Further, social discrimination in various forms discourage women to take part in the job market. India being a nation following patriarchal structure, shows that men are the earning member of the family, hence are better educated and actively involved in the labour market which is why they do not have a choice to sit at home and they have to work to feed themselves and their family. It is also a possibility the patriarchal structure of the society intensifies the ego of men hence not allowing their female counterparts to enter into the labour market. This aspect requires further research which is at present beyond the limit of the study.

Logistic Regression Model

In order to analyse the impact of socio-economic factor on the working condition of an individual we have used the technique of binary logistic regression. Logistic regression does not make any assumptions of normality, linearity, and homogeneity of variance for the independent variables. In order to apply logistic regression we have taken converted usual status of employment as working and non – working individuals. Thus, working status of an individual is an dichotomous binary dependent variable where code 1 is given if the person is working and code 0 is given if the person is non- working. The independent variables which were regressed on working status of an individual are gender, age , monthly consumption expenditure, literacy level, caste, religion, marital status and area of living i.e. urban or rural area. In all the independent variables considered for analysis only age is a numerical variable while all other variable are categorical variables. Let's start with gender. If a person is male then code 1 is given and for females code 0 is given. For monthly consumption expenditure if a person earning less than 10,000 Rs a month code 1 is given while above 10,000 Rs monthly consumption expenditure given value 0. For educational qualification, if a person is illiterate code is 1 and for literate person code 0 is given. With respect to caste Reserve categories are given code 1 and general category code 0 is given. People following Hindu Religion were given code 1 and other religions were given the value 0. For unmarried individuals code 1 is given and for married code 0 is given. Last independent variable is area of living. Here if a person lives in the rural area code 1 is given and he belongs to urban area code 0 is given. Thus all the independent variable except age of an individual are transformed to categorical variable in order to perform binary logistic regression.

Logistic Regression- 2011-12 unit level data

In the model we are using NSSO 2011-12 unit level data and trying to predict that whether a person is working or non-working on the basis of certain socio-economical factors.

Table 10 : Variables in Equation 2011-12

Variables	B	S.E.	Wald	df	Sig.	Exp(B)
Monthly Consumption Expenditure	.328	.009	1195.168	1	.000	1.389
Gender	2.497	.008	89040.491	1	.000	12.148
Area	.265	.008	976.307	1	.000	1.303
Literacy Level	.096	.011	84.117	1	.000	1.101
Marital Status	-.025	.009	7.406	1	.007	.975
Religion	.062	.009	45.129	1	.000	1.063
Caste	.310	.009	1246.914	1	.000	1.363
Age	.018	.000	4137.862	1	.000	1.018
Constant	-2.546	.017	23005.236	1	.000	.078

Source- Generated with the help of SPSS Software

Table No 10 explains the individual variables and their significance level in the model. The first column of the table explains the log odds β coefficients in the model. These β coefficients explain the positive or negative relationship of the variables with binary dependent variables. The second column presents the standard error in the estimation and if it is more than two percent then the model suffers from multi-co linearity problem. The third column deals with Wald Chi Square statistic which explains the significance of each independent variable holding other independent variables constant. The fourth and fifth column represents degree of freedom and P-values respectively. The last column shows exponential of β coefficients and more specifically known as odds ratio. First we will analyse the impact of monthly consumption expenditure on working category. While analysing the variable in the equation we need to make note of the fact that SPSS interpret the value of higher number while dealing in the categorical variables. In simple words when we analysed the result we have kept code 1 in every variable as a reference category. At first when we glance through the standard errors of the model we see that no variables is having standard error of more than 2 percent. It means that our model is free from the multi-collinearity problem. The first variable of monthly consumption expenditure of an individual significantly affects the working status of an individual as we can not reject the null hypothesis at 5 percent level of significance. The result can be interpreted as one more person belongs to monthly consumption expenditure of 10,000 Rs, log odds he or she belonging to working

category increases by 0.32 units, holding all independent variables constant. In other words, if one more person belongs to monthly consumption expenditure of less than 10,000 Rs he is 1.38 times more likely to belong to working category, holding all other independent variable constant. In percentage terms result can be interpreted as if one more person belongs to less than 10,000 Rs monthly consumption expenditure category , odds in the favour of him or her belonging to working category increases by 380 percent. The second variable is gender and its impact on the working status is very significant . The result can be interpreted as one more individual belongs to male category, he is 12.14 times more likely to be working compared to females, holding all other independent variable constant. In other words, males are 1114 percent more likely to be working compared to females. It is to be noted that beta coefficient or odds ratio of gender is highest when we analysed the impact of all socio-economic variables on working status of an individual.

The next variable is area where individual is living. The area of living also significantly affecting the working status of an individual. The result can be interpreted as people living in the rural areas are 1.30 time are more likely to be in the working category compared to people living in the urban areas holding all independent variables constant. While analysing the impact of literacy level on working status we found that illiterate persons are 1.10 times are more likely to be in working category compared to literate people, holding all other independent variables constant. The impact of single individuals is negative. The result can be interpreted as one more individual is single log odds of him or her belonging to working category decreased by 0.025 units. In other words, single people are 0.97 times less likely to be working compared to married people, holding all other independent variables constant. The result fulfils the common logic that single people are more involved in the studies thus their chances of working reduces compared to married people.

While analysing the impact of religion, result can be interpreted as Hindus are 1.06 times more likely to be under working category compare to other religions, holding all other independent variables constant. Similarly while analysing the caste it is found that people from reserved categories are 1.36 times more likely to be under working category compared to general category. The last independent variable considered for study is age which numerical in nature. As age increases by 1 year odd in the favour of individual belonging to working category increases by 1.01 times, holding all other independent variable constant. In other words, as the age increases by 1 year, a person is 01 percent more likely to join the labour force, holding all other independent variables constant.

Logistic Regression 2017-18 unit level data**Table 11 : Variables in Equation**

Variables	B	S.E.	Wald	Df	Sig.	Exp(B)
Monthly Consumption Expenditure	.122	.010	144.991	1	.000	1.130
Gender	2.998	.011	78137.850	1	.000	20.044
Area	.095	.009	101.758	1	.000	1.100
Literacy Level	.111	.012	80.045	1	.000	1.118
Marital Status	-2.607	.014	32605.063	1	.000	.074
Religion	.100	.010	95.662	1	.000	1.105
Caste	.139	.010	204.814	1	.000	1.149
Age	-.024	.000	4025.822	1	.000	.976
Constant	-.576	.020	805.443	1	.000	.562

Source- Generated with the help of SPSS Software

Table 11 explains the individual variables and their significance level in the model. All variables in the model significantly affect the dependent variable as we fail to reject null hypothesis at 5.00 percent level of significance. The result can be interpreted as one more person belong to monthly consumption expenditure of 10,000 Rs, log odds that he or she belonging to working category increases by 0.12 units, holding all independent variables constant. In other words, if one more person belongs to monthly consumption expenditure of less than 10,000 Rs he is 1.13 times more likely to belong to working category, holding all other independent variable constant. The second variable is gender and its impact on the working status is very significant. The result can be interpreted as one more individual belong to male category, he is 20.44 times more likely to be working compared to females, holding all other independent variable constant. It was seen that in 2011-12 analysis also gender was a most significant factor, and its significance level has increased in 2017-18 compared to 2011-12 period.

The next variable is area where individual is living. The area of living also significantly affecting the working status of an individual. The result can be interpreted as people living in the rural areas are 1.1 time are more likely to be in the working category compared to people living in the urban areas holding all independent variables constant. While analysing the impact of literacy level on working status we found that illiterate persons are 1.11 times are more likely to be in working category compared to literate people, holding all other independent variables constant. The impact of marriage on the working status is negative.

This is because we have taken unmarried people as a reference category. The impact of unmarried people on working status intensified in 2017-18 period compared to 2011-12 period. The result can be interpreted as one more individual belonging to unmarried category odds are in the favour of him belonging to working category decreases by 0.074 times. In other words, unmarried people are 92.60 percent less likely to be in a working category compared to married people, holding all other independent variables constant in the model. Assessment of impact of religion on the working status can be interpreted as Hindus are 1.10 times more likely to be under working category compare to other religions, holding all other independent variables constant. Similarly while analysing the caste it found that people from reserved categories are 1.14 times more likely to be under working category compared to general category. The last independent variable considered for study is age which numerical in nature. As age increases by 1 year odd in the favour of individual belonging to working category decreases by 0.97 times, holding all other independent variable constant. In other words, as the age increases by 1 year, a person is 3.00 percent lesslikely to join the labour force, holding all other independent variables constant.

Conclusion

India is the sixth largest economy in the world with low female labour participation rate. The Logistic regression performed reveals gender as the most important variable deciding the working status. It is owing to the fact that females have lower probability to participate in labour market. The LFPR is low for the states of Bihar and Uttar Pradesh. The increased level of income and patriarchal mind set in the society did not allow females to enter the labour market. It has been observed in the rural areas that females enter the labour force at the time of economic distress and exit the labour force as the situation improves. The educated females finds it difficult to join the labour force after their maternity. The maternity forces the females to spend a considerable time at home and their employment prospect becomes uncertain keeping in mind the unorganised sector of Indian Labour Market. What is difficult to change is the social attitude towards females in the male dominated society. Many women leave their jobs because of the family pressure and house hold work is not calculated in the GDP. Thus, the social environment and family works as a major obstacles in the entry of females in labour force thereby blocking the road towards prosperity of the country. Thus, the predominant reasons are the general preference of boys over girl child in India, social customs that prevent women from working out. Of late, the lower female labour participation rate is looked at in a positive way owing to higher school enrolment rate of girls in the recent years. The government programs of free education of girl child, scholarship,

midday meal scheme and betibachao-betipadhaoabhiyan were successful in bringing the girls to school. This has delayed the entry of females in the labour market. However, it has been observed that even educated girls from well to do families acquire education but do not take part in labour market activities. There is a lot of scope to improve our labour force participation rate. Increase in the female labour force participation rate can enrich the contribution towards GDP and the attainment of sustainable development.

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