

Levels of women empowerment among the Indian states assessing the impact of unemployment

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Abstract

Objectives: To study the status of women empowerment in different states of India and to examine its relationship with unemployment.

Methods/Statistical analysis: The study mainly depends on two data sources, NFHS-4 and Employment-Unemployment Survey of Labour Bureau. Empowerment indicators are constructed using the 15 parameters given in NFHS-4. Percentile method, which gives the relative position of the individual, is adopted to evaluate the relative status of different states in terms of women empowerment. Further, Chi-square test is used to examine the relationship between women empowerment and unemployment, while scatter diagram is used to study the direction of their relationship.

Findings: Different states have shown varying performances in terms of women empowerment. Four states namely Bihar, Daman & Diu, Rajasthan, and Uttar Pradesh are the group of states which have the lowest scores in all the empowerment indicators, while Chandigarh, Kerala, Lakshadweep and Goa are placed in the top categories in all the indicators. Meanwhile, this study observed that women empowerment is significantly related to unemployment and per capita NSDP. It is also observed that the incidence employment among the women has negative impact on their levels of empowerment.

Application/Improvements: The concept of women empowerment is multidimensional, and determined by multiple factors. Thus, a holistic view is necessary while studying its nature and problems.

Keywords: Women, Empowerment, Unemployment, Labour Force, Participation

1. Introduction

Empowerment of women has not only become a global issue in determining the status of women, but economic empowerment of women has been regarded as a sine-qua-none of progress and development for a country [1]. Therefore it has become a subject of paramount importance for policy makers and development planners the world over including India. Women empowerment and economic development are closely related: in one direction, development alone can play a major role in driving down inequality between men and women: in the other direction, empowering women may benefit development [2]. If women are empowered economically, culturally and socially it can be expected that the development process of a country will be accelerated within a short period of time [3]. India is among the few developing countries where gender equality and improvement in the status of women have to be the central goals of development and social policy till today. Every Five Year Plan since the early 1950s has certain policies which specially aimed at increasing women's welfare. The Sixth Five Year Plan (1980-85) may be taken as landmark for the cause of women as the concept of 'women and development' was introduced for the first time in this plan [4]. Taken women empowerment as the central theme the vision of the 12th Plan stated 'empowered women living with dignity and contributing as equal partners in development in an environment free from violence and discrimination' [5]. The National Policy for Empowerment of Women was declared by Government of India in 2001 to eliminate all types of discrimination against women and to ensure justice, besides empowering women both socially and economically [6]. Under this Policy, the Government of India set up National Mission for Empowerment of Women in 2010 with the objective of convergence of schemes/programmes of different Ministries/Departments of Government of India as well as State Governments/UT Administrations.

Despite all these efforts shown by the government and its agencies, the work participation rates of women has declined rather sharply for all age groups for the past 35 years, leading to the conclusion that women are largely being excluded from employment in India [7]. India is the third countries among the G-20 nations in terms of women empowerment and employment next only to Pakistan and Saudi Arabia. The World Economic Forum's *Global Gender Report 2015* ranked India at 139 among 145 countries on the Economic participation and opportunity sub index and in the rankings by indicator, India's rank in Female Labour Force Participation Rate is 136 among 145 countries [8]. Given all these, it is clear that there is long way to go for India to achieve the vision of having empowered women and inclusive development.

With this background it is our interest to study the status of women empowerment in different states. This paper intended to study the levels of women empowerment among the states. However, the first challenge that comes up in studying 'women empowerment' is the problem of measuring the level of empowerment as it is multidimensional concept with wide variety of parameters. There is hardly any consensus on its measurement and a single empowerment indicator is certainly not appropriate for every economy since empowerment is influenced by various socio-econ-cultural factors that are not unique to every community [9]. Women empowerment is a very complex and multi-dimensional concept conducted of many aspects of life, including social status, financial situation, family relations, and emotional and physical health conditions in different communities [10]. Since the involvement of women in income related activities increase their level of empowerment, women employment and unemployment may be considered significant factor for women empowerment. Attempt is also made in this paper to examine if employment is related to women empowerment.

2. Data and Analytical methods

This study simply depends on two main data sources such as Ministry of Health and Family Welfare and Labour Bureau, both under Government of India (GOI), respectively for women empowerment and employment. As noted above, empowerment is subjective in nature and encompasses a wide range of indicators, measurable and non-measurable. So, due to the unavailability of comprehensive data series which can be taken as representative of women empowerment, this study adopts the parameters of women empowerment used in the National Family Health Survey 4 (NFHS 4, 2015-16) by the Ministry of Health & Family Welfare, GOI. Similarly, rate of unemployment, on usual principal status criterion, among the states are obtained from the Report of Fifth Employment and Unemployment Survey, 2015-16 of the Labour Bureau, Ministry of Labour, GOI. Data on Female Labour Force Participation Rate (FLPR), one of the good proxies for women employment, are also obtained from this Report. Further, due to the unavailability of comprehensive data covering district and sub-districts levels data for all the states, the state level data of the 36 states of India (including Union Territories) are simply adopted as a cross sectional data for both empowerment and unemployment. In addition, per capita net GSDP data for these states are obtained from Economic Survey of India 2017-18. A summary of the different indicators of empowerment and employment used in this study along with group of parameters to each indicator are presented in Table 1.

The indicators such as WEF, PDA and PHH are calculated by taking the average score of all the parameters included, while the overall indicator of Women Empowerment (WEMP) is the sum of these three major indicators of empowerment. Though the Report of Labour Bureau presented women unemployment and FLPR as per 1000 persons, it is converted to percentage term to ensure uniformity in measurement. Unlike other studies, [11], etc, which adopted multiple regression methods to analyse the impact of several factors on women empowerment, this study simply adopted frequency distribution and diagrammatic presentations due to insufficient sample size, though chi-square test is adopted to examine the relationship between the empowerment and employment. It is to be noted that there is no universally acceptable measure for women empowerment, and in fact, 'measuring empowerment has always been a difficult ask and there is hardly any consensus' [9]. Instead of trying to make separate measure, this study simply adopted *percentile* which gives the relative position of the individual base on the scores in the selected indicators. A *percentile* is a measure used in statistics to indicate the value below which a given percentage of observations in the group of observations fall.

Based on their scores in the indicators given in Table 1, states were evaluated their relative positions as follows: (i) bottom 30% (i.e. 30th percentile) are categorised as *Low*, (ii) middle 40% (between 30th percentile and 70th percentile) as *Medium High*, and (iii) top 30% (above 70th Percentile) as *High*. Further, the alphabetical codes given by the central government to each state for registration of vehicles are used to save space and make the interpretation easy.

Table 1. Summary of the major parameter's empowerment and employment

Indicators	Parameters (measured in percentage)
Employment Parameters	1. Women Unemployment Employment in Usual Principal Status 2. Female Labour Force Participation in Usual Status Data Source: Report of the Fifth Employment and Unemployment Survey, 2015-16, Labour Bureau.
Personal Development & Asset Ownership (PDA)	1. Owned house/land alone or jointly 2. Owned Bank/Saving Account for personal Use 3. Owned Mobile Phone for personal use 4. Women who are literate 5. Women with 10 or more years of schooling; Data Source: NFHS-4, (2015-16)
Empowerment Within the Family (EWF)	1. Participate in Household decision-making 2. Women who worked in the last 12 months & were paid in cash 3. Ever married women who have ever experienced spousal violence 4. Ever married women who have experienced violence during pregnancy; Data Source: NFHS-4, (2015-16)
Personal Hygiene and Health (PHH)	1. Women age 15-24 years who use hygienic methods of protection during menstrual period 2. Women 15-24 years who have comprehensive knowledge of HIV/AIDS 3. Women who know that consistent condom use can reduce the chance of getting HIV/AIDS 4. Women age 15-49 years who had ever undergone examination of cervix 5. Women age 15-49 years who have ever undergone examination of breast 6. Mothers who had full antenatal care; Data Source: NFHS-4, (2015-16)
Women Empowerment	EWF + PDA + PHH

1. Unemployment and Labour force participation

In fact, those female members who have substantial contribution to the family income are believed to have more say in the family decision, command over assets, etc. and are more empowered comparing with their counterpart unemployed members. This hypothesis can be interpreted as the impact of employment on empowerment in the family. Keeping this in view, it is considered worthwhile to study the situation of female unemployment and labour force participation in different states before determining their performances in women empowerment the condition of women unemployment and FLPR in different states of India. As noted above, this paper adopted usual principal status (UPS) approach in determining the employment status of the women. Among the states, there are 6 states which have very high rate of women unemployment (of more than 20%) while comparing with others. They are Tripura (49.8%), Sikkim (37.4%), Andaman & Nicobar Island (32.9%), Kerala (30%), Uttar Pradesh (20.9%), and Punjab (20.1%). On the other end, there are states having less than 3% unemployment such as Chandigarh (1.9%), Chhattisgarh (1.8%), Daman & Diu (1.8%), Gujarat (1.1%), Karnataka (2%), and Maharashtra (2.2%). The states which have comparatively higher FLPR are Chhattisgarh (54.3%), Mizoram (54%), Nagaland (53.6%) and Andhra Pradesh (46.6%), while there are states which have extremely lower FLPR such as Chandigarh (8.2%), UP (11.2%), J&K (10.5%), Punjab (11.1%) and Bihar (14.2%) one can see that there is a relationship between FLPR and unemployment at least to some extent.

For example, states which have high FLPR such as Andhra Pradesh, Assam, Chhattisgarh, Gujarat, Maharashtra, Karnataka, Mizoram and Telangana are having relatively lower rate of women unemployment; while states like UP, Punjab, J&K and Himachal Pradesh are having lower labour force participation and higher unemployment among the women. However, this relationship between work participation and unemployment may not be generalised due to the fact that there are states showing high FLPR but have high rate of unemployment, viz. Kerala, Andaman & Nicobar Island, Sikkim and Tripura. As stated earlier, the 30th and 70th percentile of the scores are used to classify states into different categories as low, medium high and high in terms of unemployment and LFPR. The result is presented in Table 2.

Table 2. Profile of women unemployment and labour force participation among the Indian States (2015-16)

Women Unemployment	Low	Andhra Pradesh (AP), Chandigarh (CG), Chhattisgarh (CH), Dadra Nagar & Haveli (DD), Gujarat (GJ), Karnataka (KA), Maharashtra (MH), Manipur (MN), Mizoram (MZ), Tamil Nadu (TN), Telangana (TS)
	Medium High	Arunachal Pradesh (AR), Assam (AS), Bihar (BR), Delhi (DL), Daman & Diu (DN), Haryana (HR), Jharkhand (JH), Lakshadweep (LD), Meghalaya (ML), Madhya Pradesh (MP), Nagaland (NL), Odhisa (OD), Puducherry (PY), Rajasthan (RJ), Uttarakhand (UK), West Bengal (WB)
	High	Andaman & Nicobar Island (AN), Goa (GA), Himachal Pradesh (HP), Jammu & Kashmir (JK), Kerala (KL), Punjab (PB), Sikkim (SK), Tripura (TR), Uttar Pradesh (UP)
Women Labour Force Participation (FLPR)	Low	Bihar (BR), Chandigarh (CG), Dadra Nagar & Haveli (DD), Delhi (DL), Daman & Diu (DN), Himachal Pradesh (HP), Haryana (HR), Jammu & Kashmir (JK), Lakshadweep (LD), Madhya Pradesh (MP), Punjab (PB), Uttar Pradesh (UP)
	Medium High	Assam (AS), Goa (GA), Gujarat (GJ), Jharkhand (JH), Karnataka (KA), Kerala (KL), Manipur (MN), Odhisa (OD), Puducherry (PY), Rajasthan (RJ), Sikkim (SK), Tripura (TR), Uttarakhand (UK), West Bengal (WB)
	High	Andaman & Nicobar Island (AN), Andhra Pradesh (AP), Arunachal Pradesh (AR), Chhattisgarh (CH), Maharashtra (MH), Meghalaya (ML), Mizoram (MZ), Nagaland (NL), Tamil Nadu (TN), Telangana (TS)

Source: Computed from 5th EU Survey, Labour Bureau, 2015-16

2. Measuring the levels of empowerment

The performances of different states in three major indicators such as empowerment in the family (EWF), personal development & assets ownership (PDA), empowerment on physical health and hygiene (EPH), and overall indicator of women empowerment (WEMP) are evaluated. And each state is put under different categories of empowerment levels as low, medium high and high.

Table 3. Levels of women empowerment in different states

SN	Parameters	Low	Medium High	High
1	Empowerment in the Family (EWF)	AP, AR, BR, DD, DL, DN, HR, OD, PY, RJ, TN, UP	AN, AS, CH, GJ, JH, JK, KA, MN, MP, PB, TR, TS, UK, WB	CG, GA, HP, KL, LD, MH, ML, MZ, NL, SK
2	Personal Development & Assets Ownership (PDA)	AP, AS, BR, CH, DN, GJ, JH, MP, RJ, UP, WB	AR, DD, DL, HR, JK, KA, MH, MZ, NL, OD, PB, TR, TS, UK	AN, CG, GA, HP, KL, LD, ML, MN, PY, SK, TN
3	Empowerment on Physical Health (EPH)	AR, AS, BR, DN, JH, MP, NL, RJ, TR, UP, WB	AP, CH, DD, GJ, HP, HR, JK, KA, ML, MN, OD, SK, TN, TS, UK	AN, CG, DL, GA, KL, LD, MH, MZ, PB, PY
4	Women Empowerment (WEMP)	AR, AS, BR, CH, DN, JH, MP, OD, RJ, UP, WB	AP, DD, DL, GJ, HR, JK, KA, MH, ML, NL, TN, TR, TS, UK	AN, CG, GA, HP, KL, LD, MN, MZ, PB, PY, SK

Source: Computed from NFHS 4 data (2015-16)

The result is presented in Table 3. There are 11 states which are categorised as top performer in respect to the women empowerment (overall indicator). They are Andaman & Nicobar Island, Chandigarh, Goa, Himachal Pradesh, Kerala, Lakshadweep, Manipur, Mizoram, Punjab, Puducherry and Sikkim. At the other end, the bottom 11 in terms of women empowerment are Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Daman & Diu, Jharkhand, Madhya Pradesh, Odhisa, Rajasthan, Uttar Pradesh, and West Bengal. Among the top 11 performing states, Andaman & Nicobar Island is placed at among the medium high performer state in terms of EWF, while Meghalaya which scores better in terms of EWF and PDA is placed in the middle position for the total women empowerment scores.

Similarly, Mizoram is also placed in the highest group for overall empowerment, but it is not scoring highest in terms of PDA. Though different states are having varying performances in the three major indicators, there are four states namely Bihar, Daman & Diu, Rajasthan, and Uttar Pradesh are among the lowest performer in all the empowerment indicators adopted in this study; while Chandigarh, Kerala, Lakshadweep and Goa are placed in the top categories in all the indicators.

3. The impact of unemployment

To examine if the unemployment has significant impact on the levels of women empowerment, chi-square test of independence of attributes is calculated between the empowerment indicators and unemployment and FLPR. The result is presented in Table 4.

Table 4. Chi-Square test between indicators of empowerment and employment

Unemployment & Empowerment			FLPR & Empowerment		
Indicators	Chi-Square	p-value	Indicators	Chi-square	p-value
EPF	4.59	0.33	EPF	4.4	0.35
PDA	4.87	0.30	PDA	1.49	0.82
PHH	12.16**	0.016	PHH	1.24	0.87
WEMP	14.43***	0.006	WEMP	2.66	0.62

It is observed in Table 4 that the relationship is significant for PHH and WEMP. Though the relationship are insignificant for two sub-indicators (EPF and PDA), the significance between unemployment and WEMP can lead us to the conclusion that women employment or unemployment is a significant factor for their level of empowerment. Meanwhile, unemployment and PHH are also significantly related, while female labour force participation does not have clear impact (relationship) on the levels of women empowerment. Having concluded that empowerment is significantly related to women empowerment and physical health and hygiene, it is an interest to see the direction of their relationship, positive or negative. It is to be noted that traditional method of correlation and regression may not give conclusive result due to insufficient sample data. So, it is decided to study the direction of the relationship by plotting scatter diagram between the variables. Further, the scatter showing the relationship between per capita Net State Domestic Product (NSDP) and empowerment is to give us idea about the impact of development on empowerment. However, as comparable data were not available for West Bengal and UTs, they are excluded accordingly, there is no clear pattern of relationship between unemployment and empowerment till the former reached 40%, but decline at a faster rate afterward. The estimated cubic function has slowly decreased with a slight increase in the unemployment, but move up gradually till it reached a point somewhere between 35% and 40% and decline consistently afterward. On examining the sign of the coefficients of the cubic function, one can see inverse relationship between empowerment and unemployment, although the relationship is not very strong. It may be concluded here that with an increase in women unemployment in the states, levels of women empowerment declines.

A more or less similar pattern is observed between unemployment and physical health and hygiene (PHH) levels of women in different states. Thus, the level of PHH tended to decline gradually with an increase the rate unemployment. Though chi-square test could not be conducted between per capita income (i.e. per capita NSDP) and empowerment due to unavailability of NSDP data for some states. Thus, the levels of women empowerment tended to increase with economic development as indicated by the increase in per capita NSDP.

3. Conclusion

The analysis undertaken in this study shows a varying performance of different states in terms of women empowerment. There are four states namely Bihar, Daman & Diu, Rajasthan, and Uttar Pradesh are the group of states which have the lowest scores in all the empowerment indicators adopted in this study; while Chandigarh, Kerala, Lakshadweep and Goa are placed in the top categories in all the indicators.

Significant relationship between women empowerment and unemployment are observed, and the levels of empowerment tended to decrease with an increase in women unemployment in the states. However, though significant, the two variables are not found to be strongly related. At the same time, women labour force participation is not significantly related to the empowerment levels. As such, participation of women in economic activity does not necessarily translate into their empowerment in the family and society, and the incidence of unemployment led them to compromise their empowerment. The positive relationship between empowerment and per capita NSDP may also be interpreted as the need to increase economic growth for gender empowerment in different states of India.

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