

Labour Force Participation, Gender Equality and Women's Empowerment Through Micro-entrepreneurship: Evidence from Odisha, India

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Abstract

In this 21st century, the aggregative model of democracy would not be able to address the complex problem of a plural society where structural inequality is rampant. Hence, it is imperative to unearth a convenient way of the decision-making process through various social and economic empowerment factors, which enhance women's participation and awareness despite structural inequalities deeply rooted in Indian society in general and Odisha in particular. This article seeks to highlight the factors determining women's empowerment and identify issues related to the management of the enterprise. We have surveyed a hundred women entrepreneurs in the Ganjam district of Odisha, India, for the study. We have used multiple regression and Poisson regression models to identify the key determinants of women's empowerment. The study found that domestic decision, autonomy, self-confidence, business skills and public deliberation are significant determinants of the number of indicators adopted to enhance the overall empowerment index. The multiple regression models found that women's leisure, unpaid work, self-confidence, business skills and social status positively affect empowerment. The study found that micro-entrepreneurship is successful in the Ganjam district of Odisha. Hence, it is imperative to empower women through public deliberation and motivate them to participate in micro-entrepreneurship.

Keywords

Aggregative model of democracy, micro-entrepreneurship, Palli Sabha, public deliberation, women empowerment

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Introduction and Background of the Study

Women are considered the better half of society. They constitute 50% of the total world's population. Due to the patriarchal setup of society, their contributions are neglected in countries such as India. Women are only to take care of their homes and family. Now, this perception has completely changed. Women are now capable of taking care of their families as well as businesses. Micro, Small, and Medium Enterprises (MSMEs) significantly empower women economically, socially and domestically in developing countries (Dangi & Ritika, 2014). MSMEs carry on around 90% of the business across the world, and worldwide, they share 50% of the total workforce. Hence, MSMEs play an important role in a country's economic prosperity. Parvin et al. (2012) observed that women contribute their income to the family and economic progress by getting involved in entrepreneurial activities. The term 'women entrepreneurship' means a woman with some partners who started or inherited a venture, handling financial, social, and administrative risks and duties (OECD, 2004). The agriculture and non-agricultural sector provided self-employment to rural women. They converted them into entrepreneurs in activities such as cultivation, fish cultivation, livestock, poultry, plantation, nursery, handcrafting, tailoring and so on. Women entrepreneurs enjoy a better lifestyle than those who do not engage in such activities. Vasanthakumari (2012) advocated that poverty is a significant hindrance for developing and underdeveloped countries. It is observed that women-headed households are poor.

Generally, poverty, unemployment, ill-health and illiteracy are the major obstacles to public deliberation. Poverty and unemployment affect class solidarity, resulting in low attendance in public deliberation. 'Public deliberation has a long history of being celebrated by political theorists as a hallmark of true democracy, and it is increasingly being adopted as a tool for resource allocation among poor communities in the developing world' (Rao & Sanyal, 2010). As the United Nations, Human Development report said that 'in the past 15 years, the world has become more economically polarised both countries and within countries. If present trends continue, economic disparities between the industrial and developing nations will move from inequitable to human'. Public deliberation aims to bring prosperity to the life of rural people. The main challenges in rural societies are unemployment, poverty, inequality, discrimination, deprivation, ill health and social security measures.

The best way to make deliberation in Panchayat effective is to address these challenges. The active and meaningful participation and involvement of people in the deliberation of Panchayat are imperative for implementing the socioeconomic development programmes meant for them to accelerate their growth. There are many developmental programmes such as MDG, BRGF, MGNREGA, NRHM, SSA, ICDS, IWMP, RKVY¹ initiated by State Governments, Union governments and UNO to eradicate poverty, unemployment, ill-health and illiteracy in rural areas. It is the effective participation of rural people which makes the implementation of these programmes successful. Globally, women entrepreneurs constitute one-third of the total people involved in entrepreneurial activity (Amrita

et al., 2018). Again, if the unorganised sector is considered, it is likely to play a crucial role. As per the All India Census of Small Scale Industries, women-owned 10.11% of the total micro and small enterprises, and 9.46% of them are managed by women (Ray & Ray, 2008). Problems of unemployment and poverty in rural and urban India can be solved effectively through micro & small entrepreneurship. Hence, enhancing their opportunities could change the scenario in both rural and urban areas. Entrepreneurship helps immensely in achieving faster economic growth. The growth of women entrepreneurs is higher than that of men entrepreneurs, and it is found that in developed nations, it is more than that in developing nations (Fazalbhoj, 2014). But the ownership of productive assets and women's decision-making power is negligible (Garikipati, 2008).

States such as Tamil Nadu, Kerala, Karnataka and Gujarat have more women entrepreneurs. However, Odisha needs to improve in this context even though ample opportunities are available here. We attempted to bridge the gap up to a certain level by conducting this empirical work in this state. Although female entrepreneurs perform well in different sectors, they still come across many challenges that adversely affect their growth. There are several socio-economic factors influencing the decision to start any new venture. It is essential to see how these factors across different locations and regions determine women's empowerment. Against this backdrop, this article seeks to highlight the labour force participation trends and sector-wise employment distribution (gender-wise) in India at the macro level, examine the factors determining women's empowerment and identify issues dealing with enterprise management at the micro-level.

This article has many implications while identifying various determining factors of women's empowerment through micro-entrepreneurship and public deliberation. First, it shows how large-scale data on the perception of women towards micro-entrepreneurship may guide other entrepreneurs for new start-ups. Second, highlighting several indicators of women's empowerment ensures women's upliftment, while mainstreaming gender equality issues and identifying grey areas of deprivation, which may guide policymakers in developing a gender-sensitive theory. Finally, this article reveals how far structural inequalities influence the participation of citizens through deliberation in Palli Sabha, the smallest unit of Panchayati Raj Institutions, and whether it can bring social justice, equality and liberty with the help of public deliberation in a plural society.

The article is organised in this manner: after the introduction and the statement of the objectives in 'Introduction and Background of the Study', a brief review of existing literature is presented in 'Review of Existing Literature'. 'Women's Labour Force Participation in India' highlights women's labour force participation in India and Odisha. 'Growth and Trend of Women Entrepreneurs in India' highlights the number of women entrepreneurs in Odisha. Data, methodology and variable construction are presented in 'Data, Variable Construction and Methodology of the Study'. Empirical results and subsequent discussions take place in 'Results and Discussion'. Finally, the article concludes with some policy implications.

Review of Existing Literature

Globally, women population constitutes half of the total population. However, their role in the progress of the economy is underestimated. They are socially and economically vulnerable due to less payment for the same work as men and fewer alternatives available to them to earn money (Arif et al., 2010; Sleghe et al., 2013). According to the World Inequality Report (2022), globally, out of the total earnings from the labour force, the share of women is less than 35%, which was 30% in 1990. Once they achieve economic empowerment, it reduces violence from male partners and improves social status and freedom of mobility. Further, it has been studied that women engaged in entrepreneurial operations enjoy a better living standard than non-entrepreneurial women. Unfortunately, women workers' laws are not adequately implemented in the workplaces, which again marginalises their conditions (Arif et al., 2010). Hence, upliftment of the women is a key to the prosperity of any nation, and it should be taken care of by the national government.

Nachimuthu and Gunatharan (2012) highlighted that women can be self-dependent if we provide freedom and opportunities to them that they did not access before because of their female gender nature. The socioeconomic status of women is considered an indicator of the development of a society or country. There is less access to resources by women in India. They are considered the vulnerable group. The government of India adopted the concept of gender budgeting in the year 2005–2006 for achieving gender mainstreaming. In India, earlier, women were mostly engaged in the 3 Ks: Kitchen, Kids & Knitting, and 3 Ps: Powder, Pappad & Pickles, and engaged in the 4 Es: Electricity, Electronics, Energy & Engineering. Akram et al. (2015) try to evaluate the significance of microenterprises in women's movement and economic freedom and social upliftment. Sleghe et al. (2013) explained that the share of women in the total paid workforce is 40% and 43% of the agricultural labour force. Women lag behind men in terms of income even though they do the same work and there are also few alternatives for earning income available to them. Economic empowerment of women associated with a decline in violence from male partners improves social status and freedom of mobility. Arif et al. (2010) analyse gender-related social and economic issues, and gender inequality, and adopt policies that can address poverty, vulnerability and food insecurity in Indonesia. Women are socially and economically vulnerable due to fewer employment scopes and low pay for their work. They are primarily engaged in the informal sector and even high-risk work such as sex work. Women workers' laws are not adequately implemented in the workplaces, which marginalises their conditions.

Devi (2013) attempted to examine the steps taken by the government for women's entrepreneurship development, analyse existing policies for women's entrepreneurship and institutional support, and suggest measures to make a conducive environment for the progress of women's entrepreneurship. Joseph et al. (2016) highlighted the role of MSMEs in women's entrepreneurial development. Verghese (2011) attempted to assess women's empowerment in Oman, particularly

in the household, economic and social empowerment. Bushra and Wajha (2015) examined the factors influencing women's empowerment in Pakistan. The study was carried out in two educational institutes in Pakistan, taking 200 sample sizes, and the respondents were the students of age group 17–27, doing bachelor programme. The Likert scale was used for analysis. Dangi and Ritika (2014) analysed the growth and performance of MSMEs in India and the obstacles that women entrepreneurs faced and also highlighted the measures taken by the government for women entrepreneurs. They found that there are two factors responsible for women's entrepreneurship, that is, pull factors (such as aspiration for autonomy and independence, personal satisfaction, challenging gender stereotypes, the gap in the market, etc.) and push factors (such as unemployment, need for higher income, desire for a higher standard of living, financial incentive from govt. schemes, etc.).

Women's Labour Force Participation in India

Women's participation in the labour force is inevitable for the growth of their potential and economic independence. Labour force participation is an important contributor to growth and development. ILO (2016) states, 'Labour force participation is a measure of the proportion of a country's working age population that engages actively in the labour market, either by working or looking for work. As the sum of the employed and unemployed, this indicator signals the relative size of the labour supply available to produce goods and services'. India now ranks 120th out of 131 countries participating in women's labour force. The gender comparison of labour force statistics in India is presented in Table 1.

From Table 1, it is evident that there is considerable variation among urban and rural areas, but the overall labour force participation rate is low in India. Rural India is showing a declining trend, while in the urban area, it is increasing. Between 2009–2010 and 2011–2012, the share of rural women decreased from 26.5 to 25.3, while urban women increased from 14.6 to 15.6 during the same period. This decline in economic activity represents sub-optimal utilisation of India's human capital. Based on data from 2000 to 2004, women in India mostly attend domestic duties shown below.

Women's household maintenance duties have increased over the years in rural and urban areas. As per the results of the NSS 68th round data, 46.1% of females in urban areas and 35.3% of females in rural areas were engaged in domestic work, which clearly shows how low is the labour force participation rate in India (Majumdar & Neetha, 2011). Because these activities are not recognised in the System of National Accounts, out of the total, 34% in rural and 28% in urban areas reported their willingness to accept work if it is available at their local place. Ninety-five percent consider that both areas are willing to work regularly. The table below shows both distribution of women workers in various sectors and their respective employment statuses in total.

Table 1. Labour Force Participation Rates in India (%).

Year	Male (Rural)	Female (Rural)	Male (Urban)	Female (Urban)
1993–1994	56.1	33.1	54.3	16.5
1999–2000	54.0	30.2	54.2	14.7
2004–2005	57.1	33.3	55.5	17.8
2009–2010	55.9	26.5	55.6	14.6
2011–2012	56.3	25.3	55.3	15.5

Source: National Sample Survey various rounds.

Table 2. Percentage of Females Performing Domestic Workout of Total Females in India.

Years	Rural	Urban
1993–1994	29.1	41.7
1999–2000	29.2	43.3
2004–2005	27.2	42.8
2009–2010	34.7	46.5
2011–2012	35.3	46.1

Source: National Sample Survey various rounds.

The occupational pattern of women shows that although the share declined, most are still engaged in primary activities (62.8%), characterised by low productivity. The secondary sector is showing an increasing trend with (20.0%), and the rests are in tertiary activities (17.8%). As far as the status in employment is concerned, the share of self-employed increased compared to the previous round and remains in the sphere employing a large number of women (56.1%); very few are in regular salaried employment (12.7) and 31.2% are casual labourers. This shows a dire need to promote women's participation in quality and remunerative jobs.

From the facts mentioned above, it is clear that women think of self-employment as a source of their economic upliftment, given the inherent conditions shaping their lives.

Women Labour Force Participation in Odisha

The labour force participation rate for females in Odisha stood at 25.1% in rural areas, whereas 15.8% in urban areas. They perform household chores.

From the Table 2, it can be inferred that irrespective of the type of area, women in Odisha mainly prefer self-employment as a source of participation in the labour force. After that, they go for casual employment followed by regular salaried jobs.

Growth and Trend of Women Entrepreneurs in India

MSMEs comprise almost 40% of industrial production, 95% of the industrial units, 45% of the exports, and manufacture over 6,000 products (MSME Annual Report, 2015–2016). The Ministry of MSMEs supports women entrepreneurship. It is a

creative sector where women can show their potential and run their businesses efficiently with low investments or household materials (Fazalbhoy, 2014).

Table 5 highlighted the comparison between the third and fourth MSME Census. There has been an increase in the number of registered Small-Scale Industries (SSIs) in the third Census from 13.75 (lakh) to 15.64 (lakh) in the fourth census of MSME. It has also been noted that the number of registered women enterprises increased from 1.38 (lakh) to 2.15 (lakh) during the same time. The unregistered sector also depicts the same trend in both all sector enterprises and women enterprises. However, the growth of the unregistered sector is more significant than the registered sector in both the censuses.

According to the third census, the number varies from the highest of 139,225 in Kerala to 67 in Lakshadweep. According to the fourth census, the number varies from 395,293 in Tamil Nadu to 106 in Lakshadweep. Odisha has a better rank in the fourth census (7th) than in the previous one (11th). However, the number of Entrepreneurs increased from 38,233, accounting for 3.59% of all Indian totals (in the third census) to 86,302, accounting for 4.49% of all Indian totals in the fourth Census in Odisha.

From the Table 3, it is clear that women's entrepreneurship is primarily skewed towards micro and small-size firms in India. In the case of medium enterprises, the number of registered enterprises stood at 4.21%, whereas there are no unregistered medium enterprises.

The distribution of registered and unregistered women enterprises in all three types of activities shows that there are more manufacturing enterprises, that is, 50.47% and 72.74%, respectively. Registered service enterprises stood at 40.97% and unregistered enterprises are 22.27%. Similarly, in repairing and maintenance, the percentage share is 8.55 and 4.88, respectively.

The above table reveals the nature of the operational feature of women entrepreneurship in India. Most of the units are Perennial in both the registered (97.11%) and unregistered (93.14%) sectors. In the registered sector, 2.48% are seasonal, compared to 2.67% in the unregistered sector. 0.4% is casual in the registered sector, whereas 4.18% are in the unregistered sector.

The table shows the type of organisation of women entrepreneurs in India by the size of enterprises. The list of proprietary women entrepreneurs is higher in both registered (86.3) and unregistered (96.78) enterprises. The distribution of registered units under the partnership of women entrepreneurs is 2.61, and unregistered is 1.72. The registered companies of women entrepreneurs are 1.15, whereas there are no unregistered private companies of women entrepreneurs. The registered public company owned by women is 0.36, whereas there are no unregistered public limited companies of women entrepreneurs. The cooperative organisation of women entrepreneurs in registered and unregistered enterprises is 0.51 and 0.17, respectively. The registered units, under other categories owned by women entrepreneurs, are 9.30, and in unregistered units, it is 1.31.

Women Entrepreneurs in Odisha

In the eastern region of the country, females in Odisha constitute 49.46% of the total state population as per the 2011 census report. Table 10 shows the total

Table 3. Sector-wise Distribution of Women Workers and Their Employment Status (%).

Years	Sectors (%)			Employment Status (%)		
	Primary Sector	Secondary Sector	Tertiary Sector	Self-employed	Regular Salaried	Casual Labour
2011–2012	62.8	20.0	17.2	56.1	12.7	31.2
2009–2010	68.7	16.3	15.0	53.3	10.1	36.6
2004–2005	73.9	13.3	12.8	61.4	8.3	30.3
1999–2000	76.3	11.7	12.0	55.8	7.1	37.1

Source: National Sample Survey various rounds.

Table 4. Distribution of Women Workers and Their Employment Status in Odisha.

Status in Employment (%)	Rural Area	Urban Area
Self-employed	66.1	58.0
Regular salaried	3.4	27.1
Casual labour	30.5	14.9

Source: NSSO, 68th Round.

Table 5. Comparison Between Third and Fourth Census (in Lakh).

Characteristics	Third Census (2001–2002)		Fourth Census (2006–2007)	
	All Sector (SSI)	Women (SSI)	All Sector (MSME)	Women (MSME)
Registered	13.75	1.38	15.64	2.15
Unregistered	91.46	9.26	198.74	18.06

Source: Fourth All India MSME Census Report, 2006–2007, Government of India.

Table 6. Type of Women Enterprises in India (in %).

Type of Enterprise	Micro	Small	Medium
Registered	14.19	5.06	4.21
Unregistered	9.10	3.01	0.00

Source: Fourth All India MSME Census Report, 2006–2007, GOI.

Table 7. Type of Activity Performed by Women Entrepreneurs in India (%).

Type of Activity	Registered (Thousand)	Unregistered (Lakh)
Manufacturing	108.31 (50.47)	13.13 (72.74)
Service	87.96 (40.97)	4.02 (22.27)
Repairing and maintenance	18.36 (8.55)	0.9 (4.98)
Total	214.65 (100)	18.05 (100)

Source: Fourth All India MSME Census Report, 2006–2007, Government of India.

Table 8. Operational Features of Women Entrepreneurship in India.

Nature of Operation	Registered (Thousand)	Unregistered (Lakh)
Perennial	208.47 (97.11%)	16.71 (93.14%)
Seasonal	5.34 (2.48%)	0.48 (2.67%)
Casual	0.86 (0.40%)	0.75 (4.18%)
Total	214.67 (100%)	17.94 (100%)

Source: Fourth All India MSME Census Report, 2006–2007, Government of India.

Table 9. Type of Women Entrepreneur's Organisation in India.

Type of Organisation	Registered (Thousand)	Unregistered
Proprietary	184.7 (86.3)	16.87 (96.78)
Partnership	5.62 (2.61)	0.3 (1.72)
Pvt Company	2.48 (1.15)	0
Pub. Ltd Company	0.79 (0.36)	–
Co-operatives	1.1 (0.51)	0.03 (0.17)
Others	19.98 (9.30)	0.23 (1.31)
Total	214.67 (100)	17.43 (100)

Source: Fourth All India MSME Census Report, 2006–2007, Government of India.

registered enterprises and women enterprises in Odisha from 2005–2006 to 2015–2016. The total number of MSMEs during the years is 178,242, of which 20,095 are women enterprises. The percentage of women in total enterprises is only 11.27%. The minimum registered women enterprises percentage was 9.85% during 2014–2015 and the maximum in 2013–2014 with 15.70%. In Odisha, out of total women enterprises, micro-enterprises are more than small and medium enterprises, showing that it is more convenient for women to operate small-sized firms than larger ones (refer Tables 2 to 9 for detail).

Data, Variable Construction and Methodology of the Study

The present study is based on both secondary and primary data. We have chosen Ganjam, one of the districts in Odisha, which has excellent prospects for business and development. The main reason behind our study area selection is the following: since one of the constituencies, that is, Hinjilicut belongs to the chief minister of Odisha; the population of this district is the highest in Odisha according to the 2011 census; the Ganjam district is the biggest business hub in Odisha. Information is collected from various sources such as the economic survey of India, the economic survey of Odisha, MSME annual reports, DIC, Ganjam, etc. We have adopted a purposive sampling method to identify the study area. We

Table 10. Total MSMEs and Women MSMEs in Odisha.

Year	Total Units Set Up			Unit Set Up by Women			Percentage
	No. of Units	Investment (in Lakh)	Employment	No. of Units	Investment (in Lakh)	Employment	
2005-2006	4,786	27,044.34	25,142	508	1,991.54	2,663	10.61
2006-2007	4,556	27,113.50	20,839	526	2,049.7	2,863	11.54
2007-2008	4,710	29,551.18	23,301	630	2,804.60	3,917	13.37
2008-2009	4,806	22,792.21	20,996	644	2,452.79	3,182	13.39
2009-2010	4,907	29,233.69	23,195	645	4,293.65	4,122	13.14
2010-2011	5,016	39,502.13	24,451	664	4,349.13	4,100	13.23
2011-2012	5,505	50,073.1	30,387	757	7,486.01	5,384	13.75
2012-2013	5,931	43,290.75	27,104	886	5,006	4,269	14.93
2013-2014	7,009	66,942.04	32,136	1,101	8,280.5	5,394	15.70
2014-2015	29,866	226,723.56	107,011	2,943	14,498.11	11,057	9.85
2015-2016	53,920	267,963.96	166,731	7,515	24,985.44	23,823	13.93
Total	178,242	1,015,032.05	746,934	20,095	91,552.82	91,592	11.27

Source: Directorate of Industries, Odisha.

interviewed hundred women entrepreneurs through a questionnaire method using a simple random sampling method. We have adopted the Likert scale, multiple regression and Poisson regression method for data analysis.

Table 11 shows our construction of economic empowerment and social empowerment variables and identifies various issues in their measurement and an a-priori association of variables. Looking at the recent trend pattern of women labour force participation and entrepreneurship in India and anticipated changes in frequency and intensity of participation in the study area, adaption to different strategies becomes a necessity (should women aim for high income or earn a better position in society). In responding to dynamics in labour force participation, women adopt a mix of strategies. To identify significant determinants of strategies followed by the sample respondent, we have used a Poisson regression technique dealing with the count variable following Tambo (2016) and Boansi et al. (2017) as:

$$A_{N_i} = \beta Xi + \varepsilon i \quad (1)$$

where A_{N_i} is the number (N) of strategies implemented by women entrepreneurs i , Xi is a vector of socioeconomic and overall empowerment variables/indicators and εi represents the corresponding random errors.

Similarly, the multiple regression model is used to identify several factors of empowerment in our study area as:

$$\begin{aligned} \text{Overall empowerment} = & \alpha_0 + \beta_1 \text{microentrepreneurship} + \beta_2 \text{income} + \beta_3 \text{expenditure} + \beta_4 \text{asset value} \\ & + \beta_5 \text{bankaccount} + \beta_6 \text{decision} + \beta_7 \text{selfemployment} + \beta_8 \text{creditmanagement} + \beta_9 \text{domesticdecision} \\ & + \beta_{10} \text{autonomy} + \beta_{11} \text{mobility} + \beta_{12} \text{leisure} + \beta_{13} \text{unpaidwork} + \beta_{14} \text{selfconfidence} + \beta_{15} \text{businessskills} \\ & + \beta_{16} \text{socialstatus} + \beta_{17} \text{publicdeliberation} + \varepsilon \end{aligned} \quad (2)$$

Results and Discussion

From the estimation of the above Equation 1 using Poisson regression shown in Table 12, we find that domestic decision, autonomy, self-confidence, business skills and public deliberation are significant determinants of the number of indicators adopted to enhance the overall empowerment index. Women entrepreneurs having the power to decide domestic issues are likely to use 0.098 extra strategies to enhance their empowerment index. Women who have received complete autonomy to decide both family and job-related decisions are likely to use 0.149 extra strategies to enhance their empowerment index. Women having a considerable amount of self-confidence regarding entrepreneurship decisions are likely to use 0.292 extra strategies to enhance their empowerment index. Women having business skills earlier are likely to use 0.137 extra strategies to enhance their empowerment index. Similarly, women participating in Palli Sabha regularly are likely to use 0.231 extra strategies to enhance their empowerment index.

Table 13 highlights several instruments of empowerment. We found out of 17 instruments, 10 instruments are significantly influencing women's empowerment. The value of R^2 is 0.92 implies a relatively good fit. The mean VIF is 2.73 implying no multicollinearity among the explanatory variables. Breusch-Pagan/Cook

Table 11. Construction of Variables and Their Measurement Tools.

Number of Variables	Description and Measurement	Type	Expected Sign
<i>Economic empowerment</i>			
Income	High-income generation through micro-entrepreneurship indicates empowerment Measured through Likert scale from 1 to 10	Continuous	Positive
Expenditure	High expenditure reflects empowerment Measured through Likert scale from 1 to 10	Continuous	Positive
Saving	High saving amount reflects empowerment Measured through Likert scale from 1 to 10	Continuous	Positive
Ownership of asset	Acquisition of asset implies empowerment Measured through Likert scale from 1 to 10	Continuous	Positive
Bank account	Types of account created after entering into MSME Assumes 2 if independent, and 1 otherwise	Discrete	Positive
Enterprise decision making	Own decision implies empowerment Assumes 2 if independent, and 1 otherwise	Discrete	Positive
Employment	Number of days per month employed Measured through Likert scale from 1 to 5	Continuous	Positive
Management of credit	Credit management and access by themselves imply empowerment Assumes 2 if managed by them, and 1 otherwise	Discrete	Positive
<i>Social empowerment</i>			
Domestic decision making	Involved in the domestic decision-making process implies empowerment Measured through Likert scale from 1 to 5	Discrete	Positive
Personal decision-making autonomy	Independent in deciding own problems implies empowerment Measured through Likert scale from 1 to 5	Discrete	Positive
Physical mobility	Physical mobility freedom implies empowerment Assumes 0 if static, 1 if it is rare, 2 if is very often and 3 if it is all the time	Dummy	Positive

(Table 11 Continued)

(Table 11 Continued)

Number of Variables	Description and Measurement	Type	Expected Sign
Leisure	Availability of leisure time implies empowerment Assumes 1 if satisfied, 0 if unsatisfied	Dummy	Positive
Unpaid work	A decline in unpaid work implies empowerment Assumes 1 if it is less, 0 if there is no change and -1 if it is increased over time	Dummy	Negative
Business skill	Technical know-how and knowledge in own business implies empowerment Assumes 0 in case of poor, 1 if it is satisfactory, 2 if it is good and 3 if it is excellent	Dummy	Positive
Social status	Improved status in society indicates empowerment Assumes 0 in case of static, 1 if it is less, 2 if it is more, 3 if it is much more, 4 if it is relatively high	Dummy	Positive
Public deliberation	Proactive in Palli Sabha participation Takes value 0 if no participation, 1 if participated actively	Dummy	Positive

Source: Singh and Saxena (2000); Sharma and Verma (2008); Parvin et al. (2012); Vasanthakumari (2012); Yasmin and Gangaiah (2014); Asharani (2016); and Senapati and Ojha (2019).

Weisberg's heteroscedasticity test reveals there is no heteroscedasticity. We found Income as a significant variable that has a positive relationship with the overall empowerment of women. This result is in line with the findings of Sharma and Verma (2008) and Senapati and Ojha (2019). We found that self-employment generation has a positive association with overall women empowerment, which is in line with the findings of Vasanthkumari (2012) and Senapati and Ojha (2019). Similarly, we found domestic decision-making, autonomy, leisure, unpaid work, self-confidence, business skills and social status also positively affect the overall women empowerment, which is in line with the findings of Singh and Saxena (2000); Sharma and Verma (2008); Parvin et al. (2012); Vasanthakumari (2012); Yasmin and Gangaiah (2014); Asharani (2016); and Senapati and Ojha (2019). We found that micro-entrepreneurship enhances the social status of the sample respondent. It is also playing an important role in taking domestic-related decisions, enhances business-related skills and knowledge, and reduces unpaid domestic work. Women are now confident about taking entrepreneurial decisions and business-related decisions and enjoy making decisions for them, reducing

Table 12. Determinants of the Number of Empowerment Indicators Adopted Using Poisson Regression.

Dependent Variable: Number of Indicators Adopted		
Variables	Coefficient	Standard Errors
Micro-entrepreneurship	0.163	0.248
Income	0.0002	0.00003
Expenditure	0.0001	0.00003
Asset value	0.01	0.07
Bank account	0.242	0.65
Decision	0.054	0.227
Self-employment	0.021	0.218
Credit management	-0.075	0.218
Domestic decision	0.098**	0.049
Autonomy	0.149***	0.062
Mobility	0.0002	0.1119
Leisure	0.219	0.189
Unpaid work	0.051	0.162
Self-confidence	0.292***	0.128
Business skills	0.137*	0.102
Social status	0.048	0.114
Public deliberation	0.231*	0.355
Constant	-3.09***	1.377
LR Chi ² (17)	89.58	
Prob > Chi ²	0.0000	
Pseudo R ²	0.26	
Number of observations	100	
Log likelihood	-126.524	

Note: *, ** and *** represent statistically significant at 1%, 5% and 10% level, respectively.

issues in the family, improving the value of physical assets, generate a sufficient number of employment days, respectively, after entrepreneurship. We also found entrepreneurship enhances saving habits, improves physical mobility, meets rising expenses and independently manages credit required for enterprise, and the level of personal income increases, respectively, after starting the business activities.

Table 13. Determinants of Overall Empowerment Using Multiple Regression Model.

Variables	Coefficient	Standard Errors
Micro-entrepreneurship	0.151	0.125
Income	0.00072***	0.00002
Expenditure	0.0001	0.00002
Asset value	0.04	0.018
Bank account	0.115	0.278
Decision	0.142	0.124
Self-employment	0.021***	0.008
Credit management	-0.014	0.13
Domestic decision	0.223***	0.03
Autonomy	0.205***	0.031
Mobility	0.092	0.069
Leisure	0.355***	0.109
Unpaid work	0.182**	0.097
Self-confidence	0.334***	0.064
Business skills	0.255***	0.063
Social status	0.179***	0.059
Public deliberation	0.184	0.186
Constant	-3.203***	0.586
<i>F</i> (17, 82)	53.63	
Prob > <i>F</i>	0.0000	
<i>R</i> ²	0.92	
Adjusted <i>R</i> ²	0.9	
Number of observations	100	

Note: *, ** and *** represent statistically significant at 1%, 5% and 10% level, respectively.

Conclusion

This article highlights the growth and trend pattern of women labour force participation and entrepreneurship in India. Also, it detects the determining factor of the overall empowerment of women based on our cross-sectional survey data collected during 2020–2021. An OLS and Poisson regression model was employed to explore the determinants of empowerment diversity, and the following salient points emerge from the analysis. The share of women MSMEs in total MSMEs is very low. It can be noted that the growth of women entrepreneurs is more in both the third and fourth censuses of MSME, in the unregistered sector in India. Women are primarily establishing micro-enterprises at national, state and district levels than small and medium enterprises.

The crucial economic variables influencing overall empowerment are income, the business decision of women and self-employment. Social variables significantly influence social empowerment. Based on the results of Poisson regression envisaging the number of empowerment indicators adopted reported that domestic decision, autonomy, self-confidence, business skills and public deliberation are significant determinants of the number of indicators adopted to enhance the overall empowerment index. So, we can conclude that micro-entrepreneurship is successful in the Ganjam district of Odisha. We found finance as an important issue in managing enterprises. We also found that maintaining proper balance in the family as well as job life, adequate marketing of the product, unattractive price of the product and substantial workloads are also several challenges faced by women entrepreneurs.

Limitations, Policy Implications and Future Research

This study contributes to both policy and managerial implications. There are several limitations of the study which may be noted. First, we have adopted a cross-sectional, perception-based study, which is very subjective and not free from sample bias. Second, we have not incorporated psychological and cultural aspects of empowerment in our study. Third, we have confined our study to one selected district, which may be difficult to generalise without considering different state regions. Fourth, here, we have excluded unregistered MSME units, so we failed to perform a general equilibrium analysis. Fifth, there are non-response cases due to fear and shyness of the sample respondents. Yet, the findings have significant relevance in guiding plans and policies related to women's empowerment and also for new entrepreneurs who want to start up their new businesses with and without the support of the government. It also may guide policymakers in setting up new norms and regulations for MSMEs and also relevant in guiding them to a better success story in various regions of the country.

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Note

1. MDG: Millennium Development Goals; BRGF: Backward Regions Grant Fund; MGNREGA: Mahatma Gandhi National Rural Employment Guarantee Act; NRHM: National Rural Health Mission; SSA: Sarva Shiksha Abhiyan; ICDS: Integrated Child Development Services; Integrated Watershed Management Programme; RKVY: Rashtriya Krishi Vikas Yojana.

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