The Indian Journal of Labour Economics (2021) 64:1069–1092
https://doi.org/10.1007/s41027-021-00344-8

ARTICLE

Women Entrepreneurs in India: Where Do They Stand?

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Accepted: 22 September 2021 / Published online: 23 October 2021

Abstract

The paper gives a holistic picture of the women entrepreneurship in India and its gender differentials by using various national-level data. It aims to analyse the condition of overall women employment, operational and economic characteristics, access to credit and other infrastructural facilities and entrepreneurial activity of the women-owned enterprises. The study reveals that most of the women are engaged in self-financed, small own account enterprises, without any hired workers, and are operating from within the household premises, few even without having a fixed location. These, along with the lack of access to basic infrastructural facilities, signify women entrepreneurship as necessity-driven and not opportunity-led. It also notes the persistence presence of religious and cultural norms in determining women's participation as entrepreneurs. In addition, the paper aims to study the determinants of the women entrepreneurship in India by using a logistic regression model. The model establishes more chance of engagement of women entrepreneurs in informal sector home-based work and the enterprises with less than six workers. The model also reveals the increasing chance of women entrepreneurship with increasing general education and establishes the need for formal vocational training. At the end, the study proposes to look at women's entrepreneurship from the macroeconomic understanding of women's employment and work and identify policies to ensure that women entrepreneurship does not remain only as distress-driven employment, but become opportunity-led.

Keywords Women entrepreneurs · Own account enterprise · Self-employment

A very preliminary version of the paper was presented at the roundtable jointly organised by the Institute of Social Studies Trust (ISST) and the Initiative for What Works to advance Women and Girls in the Economy (IWWAGE) on 21 January 2019 at the Willow, India Habitat Centre, New Delhi, and comments and suggestions received have been very helpful. A part of this paper has been published as an ISST and IWWAGE position paper.

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1 Introduction

According to the United Nation's High-Level Panel on Women's Economic Empowerment, gender inequality is critical for economic development of a nation and a move towards gender equality not only increases women's economic empowerment but also generates larger benefits to the society. McKinsey Global Institute (MGI) report, 2015, pointed out that assuming a business-as-usual scenario, with an equal participation rate of men and women, global gross domestic product (GDP) would increase by 26% in 2025. Similarly, as per their 2018 estimates, by advancing gender equality, i.e. by enabling women to participate equally in the economy like men, India will be able to increase its GDP by 18% by 2025. But achieving gender equality necessitates substantiating initiatives to close the gender gaps at work, and it is also identified as one of the policy priorities by the Government of India. The Central Government has taken several initiatives to improve women's employment opportunities like the National Mission for Empowerment of Women (NMEW), 2011–2012, to ensure economic empowerment of women, the enactment of the Maternity Benefit (Amendment) Act, 2017, to increase paid maternity leave from 12 to 26 weeks, mandatory crèche facilities in establishments with more than 50 employees and many more. The Government of India also set up the Ministry of Skill Development and Entrepreneurship on 2014 'to create an ecosystem of empowerment by skilling on a large scale at speed with high standards and to promote a culture of innovation based entrepreneurship which can generate wealth and employment to ensure Sustainable Livelihoods for all citizens in the country'. Since its inception, the Ministry of Skill Development and Entrepreneurship not only focuses on skilling but also aims to improve productivity through skill development to stimulate economic growth and employment opportunities. Women get a special focus under the Skill India Mission as it is committed to facilitate and promote women with market-relevant skills and direct them to a path of self-sufficiency through entrepreneurship.

Despite all these, it is disheartening to note that India has recorded one of the lowest women labour force participation rates in the world and their share in entrepreneurship is even lower. According to the Census 2011, 48.5% of India's population is women but the Periodic Labour Force Survey (PLFS) 2018–2019 indicates that women workforce participation rate is 17.6%, as compared to 52.3% for men and 35.3% for the entire country, on average. Further, according to the last available Economic Census, i.e. the Sixth Economic Census (2013) which enumerated all establishments engaged in various agricultural and non-agricultural activities, only 8.05 million out of the total 52.29 million proprietary establishments were run by women and they provided employment to around 13.45 million persons. Of these women-owned establishments, more than 80% were own account enterprises (OAE) (i.e. enterprises without any hired worker) and it not only implies their limited scope of employment generation capacity but also indicates that they are more likely to be necessity-driven entrepreneurs. It is also observed that out of these establishments under women entrepreneurs, about 34% belonged to agricultural activities, where livestock was the dominant one in 2013. In the same year, manufacturing and retail trade were the major ones

where women entrepreneurs are engaged, among the non-agricultural activities. Furthermore, according to the Sixth Economic Census, a significant percentage (89%) of the women-owned establishments were perennial and most of the women establishments (79%) were self-financed in 2013. Such a picture raises many questions on the aim and scope of women entrepreneurs in India and indicates that the extent of opportunity-oriented entrepreneurship is very low among them in India. It also majorly reflects the possibility of a necessity-based early-stage entrepreneurial activity that is driven by limited choices for work to eke out living (Unni and Naik 2018). In other words, the choice for women is either they become employed and earn something or they remain unemployed and earn nothing. Since they cannot afford to be unemployed, it forced them to take whatever employment was available. Moreover, the transition from necessity-driven entrepreneurs to opportunity-driven entrepreneurs is quite low for women in India (Schoar 2009).

Academicians working on drivers of women entrepreneurship believe that women prefer self-employment as a result of a 'push' out of the formal economy and the lack of employment opportunities is flinging a significant proportion of women workers into a downward spiral of more labour but less income world of work (Deshpande and Sharma 2013). Alternatively, another set of literature provides evidence that women prefer self-employment or entrepreneurship than salaried employment primarily due to unpaid domestic chores and child care responsibilities (Georgellis and Wall 2005; Kabeer 2012; Longstreth et al. 1987). Married women with young children are more likely to be self-employed, often in home-based work than unmarried women or women without children (Kabeer 2012; Parker 2009). The same is also validated from the survey results of the NSS 68th round (2011–2012) and the Periodic Labour Force Survey (2018–2019) which indicates a significant proportion (more than 80%) of the total working-age group (15–59 years) women who have children with less than 5 years of age in their household being into entrepreneurship.

There are diverse perspectives on the relationship between gender and entrepreneurship opportunities. The necessity-driven entrepreneurship is important in enabling women to earn a living, but the opportunity-driven entrepreneurship is more important for the overall growth of an economy because of the latter's greater potential impact on dimensions such as employment creation prospects. But in developing countries, the literature is limited to women entrepreneurship, and India is not an exception to this. Against the above background, the study attempts to analyse the condition of overall women's employment, operational and economic characteristics of the women-owned enterprises, its access to credit and entrepreneurial activity across socio-religious groups and nature and drivers of women entrepreneurship in India by using the Economic Census, National Sample Survey Organisation (NSSO) data and Periodic Labour Force Survey Data. The rest of the paper is organised as follows: Section 2 provides a brief review of literature on women entrepreneurship in India, while Section 3 describes the data used for the study. Section 4 gives a brief idea of the overall women employment and entrepreneurship in India. Section 5 presents the characteristics of women-owned enterprises in India by using Economic Census and NSSO data, and Section 6 discusses the nature and operational characteristics of women-owned enterprises. Section 7 explores the drivers of the women

entrepreneurship in India by using the logistic regression model. Finally, Section 8 summarises the findings of the study and offers some policy directions.

2 Literature Review on Women Entrepreneurs in India

It is widely acknowledged that to accelerate innovation, entrepreneurs are acted as the catalysts of change and their role in economic development and employment generation is undoubted. Realising the importance of entrepreneurship as an engine of economic growth and change in India, the Economic Survey of 2019–2020, dedicated a chapter on entrepreneurship and emphasised the role of entrepreneurship as an increasingly important strategy to upsurge productivity growth and wealth creation in India. According to the report, India has the third largest entrepreneurship ecosystem in the world and over the period 2006–2018, the number of new firms increased rapidly in the formal sector. But still, on a per capita basis, India has low rates of entrepreneurship in the formal sector and a large number of India's enterprises operate in the informal sector. To promote economic development in post-liberalisation reform India, national and state governments are pursuing growth and development policies that encourage entrepreneurship and self-employment (Ahluwalia 2002, 2005).

The entrepreneurship literature is often found to equate self-employment and entrepreneurship, but it may be misleading as entrepreneurship has a broader meaning. (Fields 2013). Parker (2004) mentioned that the main objective of the self-employed people is to earn money till they find any other productive and remunerative employment, whereas entrepreneurs are the persons who take the risk of setting a business with the intent of growing it further, and so, the two are not synonymous. In developing countries, the goal of most of the self-employed people is to earn money for a time until they find any other productive and remunerative employment.

The research on women entrepreneurship has focussed on the distinction between necessity-driven and opportunity-based entrepreneurship. Kobeissi (2010) categorised the entrepreneurs operating without any hired workers as necessity-driven entrepreneurs and those who employ workers as opportunity-driven entrepreneurs. Daymard (2015) defined necessity-driven entrepreneurship as own account enterprises operating with the help of unpaid family labour and opportunity-based entrepreneurship as those functioning with the help of at least one hired worker. The author highlighted low women entrepreneurship in India along with the rise mainly in the own account workers category—i.e. the necessity-driven entrepreneurship with the help of NSSO data. The report of the Mastercard Index of Women Entrepreneurs 2019 also indicates that almost half of the women entrepreneurs in India started their business out of necessity rather than opportunity-driven. These women entrepreneurs are reported to face different challenges from smallness of scale, less access to raw materials, markets, infrastructure and lack of access to credit facilities. Samantroy and Tomar (2018) identified the above-mentioned factors along with lack of adequate skills, household domestic responsibilities and lack of decision-making abilities due to sociocultural arrangements as constraints for the growth of the women-run enterprises. The main factors driving the extent of women

entrepreneurship are found to be insufficient family income, widowhood, ill health of the male earning member, etc. (Khokhar and Singh 2016). Some literature even argued that informal entrepreneurship allowed women to escape from the unpaid domestic work (Ghani et al. 2012).

Few literature studies consider own account workers as disguised wage workers engaged in the informal sector, rather than better off entrepreneurs (Papola 1981; Breman 1996; Sainath 1996). The incomes of the very small enterprise owners are reportedly not very different from the average worker in the industry (Breman 1996). Different studies have also observed a dependent relationship between owners of smaller firms and traders, suppliers and buyers. 'Shram Shakti', the report of the National Commission on Self-Employed Women and Women in the Informal Sector (1988), mentioned the non-farm self-employed as small producers and home-based workers, who either supply their produce to middlemen through informal contractual arrangements and retailing establishments or have their own small vending businesses.

Gender differential is observed in the entrepreneurial participation in the industries in which businesses are established (Verheul et al. 2002; Greene et al 2003). The women entrepreneurs are heavily over-represented in a few sectors like agriculture, manufacturing and retail trade. Only a small proportion of women-owned businesses are found to be located in high-growth or high-technology sectors (Menzies et al. 2004; Morris et al. 2006).

It is also important to note that all over the world, regardless of whether 'entrepreneurship' is defined as 'creation of new endeavour', 'business ownership' or 'self-employment,' the proportion of men engaged is more than that of women. So, increasingly, policy makers are exploring ways for promoting entrepreneurship among women. Still relatively little is known about the condition of women entrepreneurship, especially in developing countries like India. Thus, the paper aims to study the extent, working condition and performance of the women entrepreneurs in India with the help of the data available from NSSO and Census.

3 Data Source and Methodology

The study uses the two quinquennial rounds of unit-level data of Employment and Unemployment Survey (EUS) of NSSO, 50th round (1993–1994) and 68th round (2011–2012) along with the recently released Periodic Labour Force Survey (PLFS) (2018–2019) to understand the overall picture of women employment in India. To get the characteristics of the women entrepreneurship in the country, the study has used the unit-level data of NSS 73rd round (July 2015–June 2016), the 5th Economic Census (2005–2006) and the 6th Economic Census (2013–2014), keeping in mind the differences in coverage, concepts and definitions adopted in these surveys. The survey on unincorporated non-agricultural enterprises of the NSS 73rd round covers all unorganised manufacturing units and enterprises engaged in cotton ginning, cleaning and baling and units engaged in trading, non-captive electricity generation and transmission and other services activities. The two rounds of Economic Census not only cover all the unincorporated enterprises as included in the

NSS 73rd round, but also include all other units engaged in various agricultural and non-agricultural activities excluding crop production, plantation, public administration, defence and compulsory social security. But the above-mentioned Economic Census data and NSS 73rd round data do not capture other demographic factors that influence the participation of men and women as entrepreneurs. Hence, the determinants of the men and women entrepreneurship in India are analysed by using the above-mentioned 68th round NSS data and the PLFS data in order to understand the change in pattern overtime. It is important to note that the comparability between the PLFS and the previous NSS-EUS rounds has always been debated and to avoid this only data from the first visit are used here to ensure comparability as far as possible.

4 Women Employment and Entrepreneurship India

The low and continuous decline in women workforce participation rate in India, over the period 1993–1994 to 2018–2019, was accompanied by a significant change among the status of employed persons. But, according to PLFS 2018–2019 data, the WPR of women has increased slightly from 16.5% in 2017–2018 to 17.6% in 2018–2019, and this is witnessed in rural areas. The Employment and Unemployment Survey data of 50th round (1993–1994) and 68th round (2011–2012) and the two PLFS data of 2017–2018 and 2018–2019 revealed the employment status of the working-age population in India. From 1993–1994 to 2018–2019, the proportions of self-employed and casual labour had declined for both men and women in the working-age population, leading to the rise in the proportion of regular wage/salaried employees. A closer look at the classification of self-employed shows that own account workers and employers capture entrepreneurial activities best, and over the years, the proportion of men entrepreneurs was much more than that of women entrepreneurs. The proportion of women entrepreneurship had increased from 17 to 22% in 2018–2019. However, recording them as directors or working proprietors may create a false impression about their true nature of work as most of them are involved in outsourced manufacturing work (mainly food processing, textile and garment manufacturing) and family-owned retail trade (like local grocery stores) (Chakraborty 2019). On the contrary, the proportion of unpaid family helpers is consistently more for women in all the years, but it has decreased for both (Table 1).

After looking at the employment status of the workers, here a closer look is given at the proprietary types and proportion of workers engaged in different enterprises. From the latest data available in 2018–2019, it is found that 87% of the enterprises are men proprietary in contrast to the 13% proprietary headed by women with less than six workers in overall India and the women-headed proprietary is more in rural areas. Table 2 gives the proportion of workers engaged in men- and women-headed enterprises in 2011–2012 and 2018–2019. It is revealed in both the years that 95% women proprietors operate in enterprises with less than six workers which is around 70% for men proprietors. It implies that the majority of the women entrepreneurs are operating in small enterprises, mostly in the informal sector.

Table 1 Status of women's employment in India from 1993–1994 to 2018–2019

Status of employment	1993–1994		2011–2012		2018–2019	
	Men	Women	Men	Women	Men	Women
Self-employed	50.3	55.2	48.7	55.6	49.3	52.9
Own account worker and employer	35.9	17.4	37.3	19.6	41.3	22.2
Unpaid family helper	14..4	37.8	11.5	36	8.1	30.8
Regular wage/salaried employee	17.5	6.5	21.2	13.4	26.1	22.9
Casual labour	32.3	38.3	30.3	31	24.6	24.2
Total	100	100	100	100	100	100

Source: Computed from NSS 50th, 68th rounds and two rounds of PLFS unit-level data on Employment and Unemployment

Age group 15–59 years and usual status of employment is considered

Table 2 Percentage distribution of workers engaged in different types of enterprises

Number of workers	Percentage of workers in men proprietary		Percentage of workers in women proprietary	
	2011–2012	2018–2019	2011–2012	2018–2019
Less than 6 workers	71	72.5	95	95
6 and above and less than 10	12.7	13.2	2.1	1.9
10 and above and less than 20	6.4	5.1	0.8	0.7
20 and above	6.8	5	0.9	0.7
Not known	3.1	4.2	1.2	1.7
Total	100	100	100	100

Source: Computed from 68th rounds and PLFS (2018–2019) unit-level data on Employment and Unemployment

5 Type of Ownership and Characteristics of Women-Owned Enterprises in India

In India, enterprise surveys of the NSSO and the Economic Census conducted by Central Statistics Office (CSO) are the two main official sources which provide estimates related to the unincorporated sector enterprises. According to the latest Sixth Economic Census (2013), in India, the total number of establishments increased from 41.25 million in 2005 to 58.5 million in 2013, registering a growth of 42%. It was also observed that most of these establishments were operated under private ownership and within this, own account enterprises (OAE) were foremost compared to the establishments with hired workers. Further, over the period 2005–2013, OAE grew at a higher rate (56%) relative to the establishments with hired workers (15%). But gender-disaggregated data provided a disquieting picture about women's entrepreneurship opportunities. Around 131.29 million persons were found employed in these 58.5 million establishments, but among them, 98.25 million persons (75%) were men and only 33.04 million persons (25%) were women. Table 3 shows that

Table 3 Characteristics of women-owned establishments during 5th and 6th Economic Census

Type of establishments	5th Economic Census (2005)	6th Economic Census (2013)
Total proprietary establishments (in million)	37.34	52.29
Women-owned proprietary establishments (in million)	3.54	8.05
Total persons employed in proprietary establishments (in million)	77.92	103.06
Workers engaged in women-owned proprietary establishments (in million)	6.05	13.45
Women proprietary establishments with premises (in percentage)	86.8	61.5
Women proprietary establishments without premises (in percentage)	13.2	38.5
Women proprietary establishments without hired workers (in percentage)	77.1	83.2
Women proprietary establishments with at least one hired worker (in percentage)	22.9	16.8
Women proprietary establishments in agricultural activities (in percentage)	15.7	34.3
Women proprietary establishments in non-agricultural activities (in percentage)	84.3	65.7
Women proprietary establishments in rural (in percentage)	74.1	65.12
Women proprietary establishments urban (in percentage)	25.9	34.88

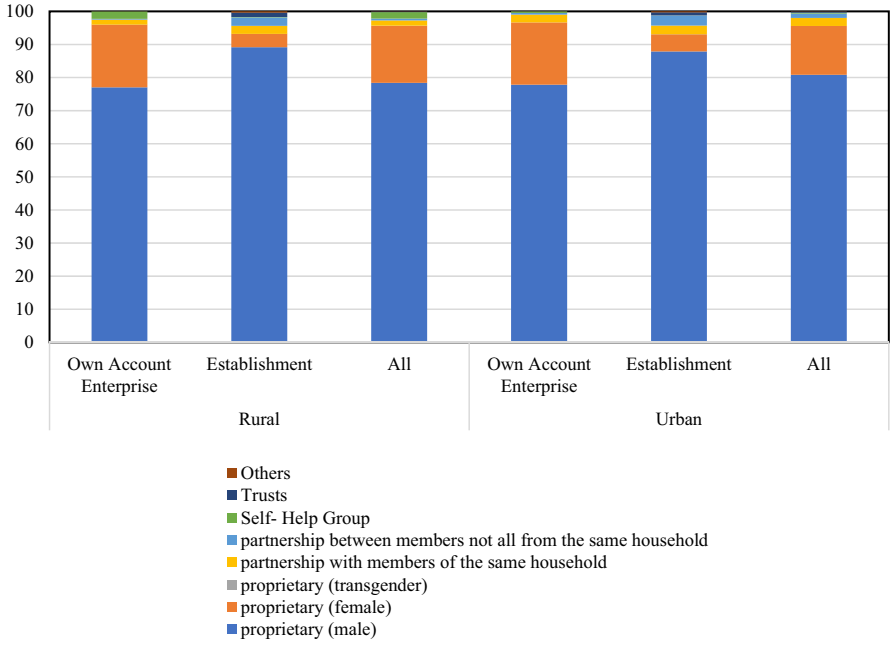
Source: Calculated from the unit-level data of the 5th and 6th Economic Census

among the total proprietary establishments, only 15% were run by women in 2013. However, over an intervening period of about 8 years between 5th and 6th Economic Census, women-owned proprietary enterprises increased by more than double. It also shows that over the period 2005–2013, there has been a significant increase in women-owned proprietary enterprises without premises from 13 to 39%. This reflects the operational constraints and vulnerability the women entrepreneurs had to face because of the non-availability of any fixed place to run their enterprises. Overtime from 2005 to 2013, women-owned establishments without hired workers have increased from 77 to 83%, while the establishments with at least one hired worker declined from 23 to 17%. The increase in the number of women establishments without any hired workers along with no fixed workplace indicates not only their limited operational scope but also signifies the growing informalisation of these women-owned enterprises. It also depicts that over time from 2005 to 2013, there has been a decline in non-agricultural activities in women-owned establishments along with an increase in agricultural activities. But majority of the women-owned proprietary enterprises (more than three quarter) were involved in different non-agricultural activities, while retail trade and manufacturing were dominant among them as both of these together constituted 58% of total non-agricultural enterprises. Majority of the women-run proprietary enterprises were found in rural areas, but during the recent time 2005–2013, women-owned enterprises have increased in urban areas from 26 to 35% (Chakraborty and Mukherjee 2020).

Like the Economic Census, the NSS 73rd round (2015–2016) which excluded construction and conducted surveys on all unincorporated non-agricultural

enterprises also presents a somewhat similar pattern. The NSS 73rd round shows that the majority of the enterprises were run by the small proprietors and women hold only a negligible portion of that in India. It presents that at the national level nearly one-fifth of the enterprises were proprietary headed by a woman and their concentration was mainly restricted to OAEs, where they had a share of about 22% in both rural and urban areas in 2015–2016. Among the bigger enterprises (i.e. establishments), women's share was only 4.8% in India during 2015–2016. Further, the total number of enterprises was estimated as 63.4 million and they provided employment to approximately 111.3 million workers. The OAEs or the proprietary enterprises accounted for 62% of the workforce and workers in the OAEs outnumbered those engaged by big enterprises in the country. Among all the sectors, women OAEs were higher in manufacturing as 45% of OAEs were headed by women in this sector (NSSO 2017).

Figure 1 presents a sector-wise break-up of enterprises by types of ownership, and it shows that across enterprises, proprietary enterprises (i.e. enterprises wholly owned by a single individual) had the highest share (96%) in the unincorporated non-agricultural enterprises in both rural and urban areas. The dominance of proprietary enterprises was widely prevalent irrespective of location



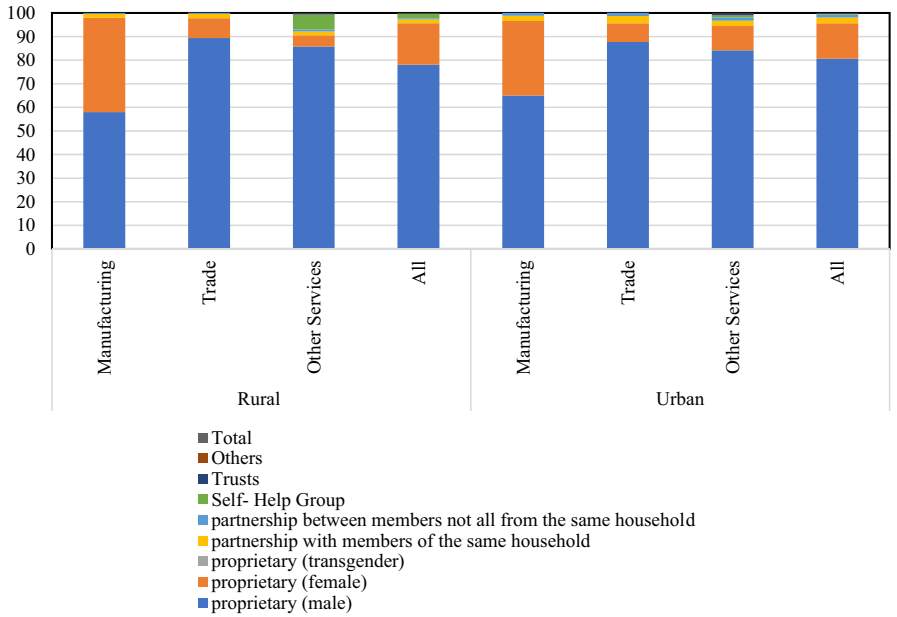
Source: Estimated from NSS 73rd round unit level data on Unincorporated Non-Agricultural Enterprises (Excluding Construction).

Fig. 1 Percentage distribution of number of enterprises by type of ownership for each sector and enterprise type. *Source*: Estimated from NSS 73rd round unit-level data on unincorporated non-agricultural enterprises (excluding construction)

and enterprise types, and it indicates the low level of operational capacity with limited employment generational opportunities. Among the enterprises, only 2% were partnerships and even these partnership enterprises are largely formed by the members of the same household. At the overall level, among the total enterprises, self-help group's (SHG) percentage share was less than 2%, but their existence varies across locations. SHGs are largely found to be operational in rural areas (3%) relative to urban areas (less than 1%).

Industry-specific analysis of enterprises suggests some interesting findings from both the Economic Census and NSSO surveys. According to the Economic Census, women entrepreneurs were mostly engaged in agriculture and related activities and among the overall women-owned enterprises, almost one-third of them were found to be operational in agriculture. At the same time, there was a decline in women-run enterprises in the manufacturing sector from 34.9 to 29.8% between 2005 and 2013. But for the same period, there was an increase in women entrepreneurship in other services sector from 2.9 to 5.4%, indicating the sectoral shifts for women entrepreneurs. Given the growth of the service sector and its momentous contribution to the overall GDP and employment of the country, it will not be exaggerated to say that the service sector has the immense potential in creating employment opportunities. But it is already established that the informal nature of the women-owned enterprises along with their low level of operational capacity will act as a deterrent for women not only to operate but also to grow their businesses.

A disaggregation of type of ownership across industries from the NSS 73rd round which captures data from all un-incorporated non-agricultural enterprises presents that women proprietary enterprises had a larger share in the manufacturing sector relative to trade and other services sectors. Figure 2 shows that overall women proprietary enterprises' share was 45% in the manufacturing sector, while their share in trade and other services was 9% and 7%, respectively. Further, it is interesting to note that in the manufacturing sector, women proprietary enterprises share was higher by 8 percentage points in rural areas compared to urban areas. It also matches with the overall finding of the NSS 68th round employment and unemployment schedule which suggested that over 1993–1994 to 2011–2012, the manufacturing sector recorded the highest increase in own account employment among women in both rural and urban areas. It is also worthwhile to mention that the share of women enterprises was smaller in other services sector relative to manufacturing and trade and it was further lower in rural areas compared to urban areas. These unincorporated non-agricultural enterprises were majorly managed by household-based proprietary and partnership firms. They were dominantly informal enterprises as their nature of operation was seasonal depending on the availability of raw materials, demand for the products/services they produced. So, it is evident that women not only have lower rates of entrepreneurial activity, but also, among other non-agricultural enterprises, they mostly run small own account enterprises in the manufacturing industry in 2015–2016. Women proprietors also face different structural barriers and social constraints in taking up any entrepreneurial activity, and as a result they are mostly engaged in labour-intensive and low-productive industries. Bardasi et al. (2011) explained that women choose smaller enterprises so that they could



Source: Same as Figure 1.

Fig. 2 Percentage distribution of enterprises by type of ownership for each broad activity category across sectors. *Source*: Same as Fig. 1

also balance their unpaid domestic responsibilities at home and also because of their risk aversion attitude.

6 Nature and Operational Characteristics of Women-Owned Enterprises in India

An investigation into all the establishments engaged in various agricultural and non-agricultural activities provides useful insights into understanding the operational and economic characteristics of the women-owned enterprises in India. It is already discussed that enterprises in India are mostly household-based proprietary and partnership enterprises and the informal character of such enterprises can be visible in their nature of operation. A small portion of these enterprises operate only in seasons depending on the availability of raw materials, demand for the products/services they are producing. Further, the socio-religious profile of the women entrepreneurs reveals that out of the total establishments owned by women entrepreneurs, SC and ST hold only 19%, while 81% of the women entrepreneurs belong to OBC and other forward caste in 2005 (Table 4). The lower share of entrepreneurship among SC and ST women indicates their marginalisation and limited scope in setting up business in spite of their higher overall workforce participation rate. Similarly, 66% of the women entrepreneurs were Hindu, and out of the total establishments, Muslim women constituted only 13%. The lower participation rate of Muslim women in

Table 4 Percentage distribution of establishments under women entrepreneurs by religion and social group of the owner

Religion	Percentage	Social group	Percentage
Hindu	65.6	SC and ST	19.2
Islam	12.8	OBC	40.6
Others	21.6	Others	40.2
Total	100	Total	100

Source: Calculated from the unit-level data of the 6th Economic Census

entrepreneurship is because of the social stigma that restricts women's mobility and entry and keeps more Muslim women tied to hearth and home. So, women proprietors from the marginalised groups like Scheduled Castes (SC), Scheduled Tribes (ST) and Muslims suffer from a double discrimination, both being women and belonging to a discriminated or depressed caste or tribe.

One of the main characteristics of the unincorporated non-agricultural enterprises is the presence of units which do not have any fixed location of operation. Table 5 presents that approximately 87% of the unincorporated non-agricultural enterprises were operated from a fixed location either within the households (about 44%) or outside the households (about 43%) in India during 2015–2016. It is also evident that in rural areas a comparatively larger proportion of OAEs and establishments were operated from within the household premises, while in urban areas, a significant proportion of OAE and establishments were reported to have operated outside the household but from a fixed location. However, according to the 6th Economic Census (2013–2014), more than one-third (36%) of all the establishments were home-based establishments, i.e. inside the household, while approximately 18% establishments were operating from outside the household without a fixed structure. Around 45% of establishments were reported to be operating from outside households with a fixed structure.

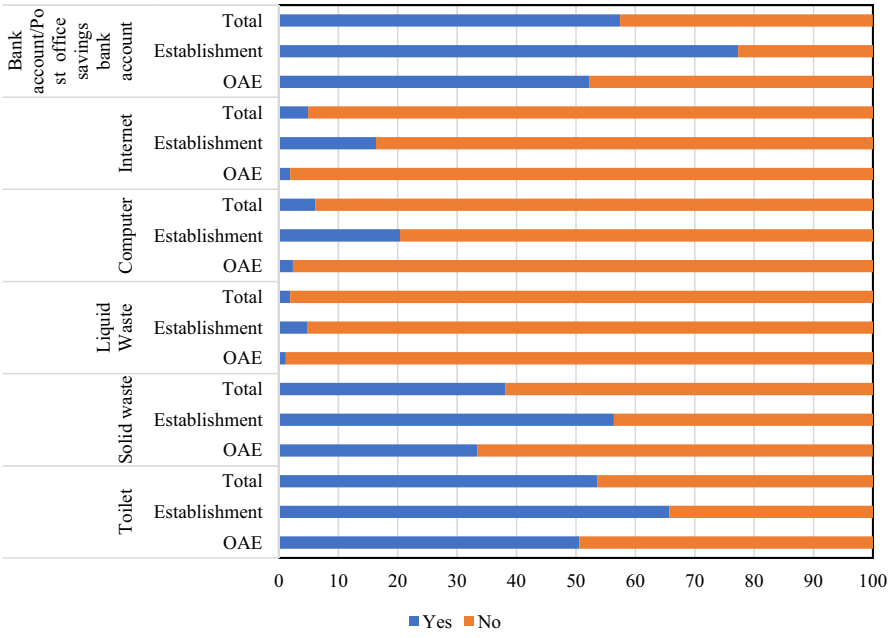
A further look into the types of ownership by using the NSS 73rd round revealed that 80% of women proprietary enterprises operated from within the household premises and 3% of them operated without having a fixed location in 2015–2016. It also shows that nearly half of the men-owned enterprises have operated from a permanent fixed structure and men had the lower chances from operating inside the house. It indicates the strict gender division in location of operation of the proprietary enterprises owned by men and women. In addition, while running the enterprises a significant number of women entrepreneurs faced various operational issues and among them shrinkage/fall of demand was one of the biggest challenges in both rural and urban areas (Chakraborty 2019). Women proprietors also suffer from lack of access to different basic infrastructural facilities in India.

Figure 3 states the availability of basic infrastructural facilities like toilet and waste management, internet facilities, availability of bank/post office accounts and use of computers within the enterprises. Out of total enterprises, only 54% had access to toilet facilities, 62% did not have any solid waste management and only 2% had provision for liquid waste management. A further detailed division across types of ownership of enterprises revealed that 23% of women proprietors have

Table 5 Sector-wise percentage distribution of enterprises according to their location of operation

Location of enterprise	Rural			Urban			Total (rural + urban)		
	OAE	Establishment	All	OAE	Establishment	All	OAE	Establishment	All
Within household premises	56.2	26.5	53.7	40.3	12.9	33.9	49.2	16.7	44
Outside household premises with fixed location	28.9	64.3	31.9	44.2	85.3	53.8	35.6	79.5	42.5
Outside household premises without fixed location	14.8	9.3	14.3	15.6	1.8	12.3	15.2	3.9	13.4

Source: Same as Fig. 1



Source: Same as Figure 1.

Fig. 3 Access to basic infrastructural facilities of the enterprises. *Source*: Same as Fig. 1

toilet facilities and 18% and 10% have access to solid and liquid waste management, respectively. Across the enterprises, 98% OAEs did not use computers and only 20% of establishments used computers for their operation purposes. Similarly, in 2015–2016, only 5% of the total enterprises and less than 2% of the OAEs have Internet facilities. At the all-India level, 53% enterprises maintained bank / post office savings accounts in owners' name only and 40% did not have any bank account, while more than half of the women proprietors did not have any bank/post office savings accounts. So, access to different basic infrastructural facilities indicates that women are further deprived of many of these essential services. This not only signifies their limited scope of operation but also restrains their business expansion in future.

Despite all these difficulties in operating women-owned enterprises in India, the majority of the women-owned enterprises are perennial in nature. But, between 2005 and 2013, women's ownership in perennial entrepreneurship had declined by 4%. On the contrary, seasonal women-owned enterprises had witnessed an increase from 7.5 to 9% over the same period. Table 6 shows the percentage distribution of enterprises by their nature of operation for women proprietors and highlights that about 89% of the total estimated number of women proprietary enterprises were perennial in nature. 9% women proprietary enterprises were seasonal enterprises, and the remaining 2% were operating intermittently in 2013.

Since majority of the women-owned establishments were perennial, it is important to analyse whether the perennial status of the establishment had made easy

Table 6 Percentage distribution of establishments under women entrepreneurs by nature of operation and sector in 2013

Nature of operation	Total
Perennial	89
Seasonal	9.03
Casual	1.97
Total	100

Source: Same as Table 4

access to finance and other credit facilities for effective functioning of the enterprises. It is disturbing to note that 79% of women-owned establishments are self-financed and financial assistance from government sources is limited to only 3% in 2005 (Table 7). This indicates that access to finance was one of the major challenges faced by women in taking entrepreneurship.

7 Drivers of Women Entrepreneurship in India

The section focusses on the determinants of the women entrepreneurship in India and is analysed by using the logistic regression model. The unit-level data of Employment and Unemployment Survey of NSSO for 2011–2012 and similar data of Periodic Labour Force Survey for 2017–2018 are used for this analysis to understand the overtime change in pattern. The analysis is performed by using logistic regression, as the above models do not make any assumptions about the distribution of the predictors, which can be both discrete and continuous. The independent variables that are considered cover both demographic- and enterprise-level factors. Age group, marital status, religion, social group, general and technical education level, attainment of vocational training, number of children below 5 years, number of elderly people (above 65 years) in the family, household size, consumption quintiles and sector are the demographic-level factors, and propriety type, number of workers in the enterprise and home-based workers are the enterprise-level factors that are considered for this regression. The dependent variable here is a dichotomous variable which takes the value 1, if the individual is entrepreneur, and takes the value 0,

Table 7 Percentage distribution of women-owned establishments by major source of finance in 2013

Access to finance	6th Economic Census (2013)
Self-finance	79.1
Financial assistance from government sources	3.4
Borrowing from financial institutions	1.1
Borrowing from non-institutions/money lenders	0.8
Others	15.7
Total	100.0

Source: Same as Table 4

if the individual is any other type of worker. Given this, the above logit regression can be expressed as

$$\text{Logit}(p) = \text{Log}\left(\frac{P}{1-p}\right) = \beta_0 + \beta_i X_i$$

where X_is are explanatory variables, β_0 is the intercept term, β_is are the regression coefficient, and p is the probability of the individual being an entrepreneur.

The results of the logistic regression models can be expressed either in terms of marginal effect or in terms of odds ratio. In this study, the results are expressed in terms of odds ratio and their significance level.

The chance to become an entrepreneur significantly increases with age for both men and women in both the years, and it is highest for the 45–59 years age group. From the odds ratio, it is found that the probability of the currently married and divorced/separated men is more than the never married, the former being the highest in both the years. On the contrary, the chance of the widowed and divorced women to become an entrepreneur is more than the never married (reference group) and also it is the highest. Muslim men have the highest probability to become entrepreneurs as compared to the Hindu men. This picture is the same for women in 2011–2012, but in the latter year, the chance for the women in Others category to become an entrepreneur is more as per the odds ratio. This can be explained, to some extent, by the sectoral shift of the workers from manufacturing to other services sector. The chance of the General category men and women to become entrepreneurs is significantly more than the ST/SC category in 2011–2012, the latter being the lowest. This picture has changed for women in the recent year where the chance of OBC women is the highest followed by the ST/SC category. With the increase in education level, the probability of both men and women joining as entrepreneur increases and is the highest for those having graduate and above degree of education. The women with no technical education is found to have a better probability to join as an entrepreneur, but for men, the effect of technical education is insignificant in both the years. The odds ratio of both the years showed that men having informal vocational training have more probability to become entrepreneurs than those not possessing the training. The picture for women in this case is the right opposite. It is validated that women with formal vocational training have more probability to join as an entrepreneur than with informal or no training. Among women entrepreneurship, 97% in 2018–2019 are own account workers who possess formal training in textile- and beautician-related works in manufacturing. Most of the men are also engaged as own account workers, but they have received the skills by inter-generational transfer in an informal way and are mostly engaged in trade, hotel and restaurant sectors. Though the chance of both men and women to join as entrepreneurs is found to have a negative relationship with household size in 2011–2012, the result reversed for men in the latter year. The same has come out to be insignificant for women in 2018–2019. As per 2011–2012, the chance of men working as entrepreneurs significantly declines if the number of elderly persons (above 65 years) in the family increases. On the contrary, as per 2018–2019, the chance of men to become entrepreneur is negatively related to the number of children below 5 years of age.

The chance of women to join as entrepreneur increases if the household has children below 5 years of age. This can be explained by the fact that a major proportion of the women entrepreneurs are home-based own account workers engaged in the manufacturing sector. The odds ratio reveals that the probability of men and women to become an entrepreneur increases with consumption quintiles in both the years and also the chance is more in the urban areas. For both men and women, a better chance to be an entrepreneur is found in the informal sector and mostly in the work within household premises. The odds ratio also validates that their probability of being an entrepreneur is more in the enterprises with less than six workers.

Thus, the above logit models conclude that the engagement of both men and women as entrepreneurs is majorly in the informal sector home-based work with enterprises having less than six workers. Also, the chance of participation for both is more in urban areas. It is evident from the model that the probability of the men without formal vocational training to join as entrepreneurs is more, whereas for women it is more for those who possess vocational training. The women entrepreneurs are mostly engaged in textile-related and beautician kind of works for which they acquire formal training. But information about the main works of the male entrepreneurs who do not have any formal vocational training is not available in the NSS and PLFS data. One striking change noticed here is that, in 2018–2019, the women in Others category have the highest probability to join as entrepreneurs than those in Hindu, which is the reference group, and also more than the Muslim women, unlike 2011–2012. It is evident from both the years data that the maximum proportion of Muslim women are engaged in the manufacturing sector, followed by other services and retail trade sectors. The data reveal that there is a decline in the proportion of Muslim women working in the manufacturing sector and rise in the other services sector from 2011–2012 to 2018–2019. Moreover, when only women entrepreneurs are considered, the reduction in the women engaged in the manufacturing sector is by 4 percentage points over the time period concerned. Also, within the manufacturing sector, in 2011–2012, the maximum proportion of women entrepreneurs were engaged in tobacco work which in the recent year has changed to wearing apparel industry. Muslim women prefer home-based work as their movement outside the house is restricted by the presence of social stigma. Tobacco work is majorly a home-based work which allowed the Muslim women to participate more in the workforce, but apparel industry work is not fully home-based in nature. All these together, to some extent, explains the above change in the result of the logit model regarding the religion-wise chance of participation of women as entrepreneurs. The chance of ST/SC women to join as an entrepreneur is more than the upper caste, and the majority of them are engaged in the manufacturing sector. Unlike Muslim women entrepreneurs, these women are engaged mostly in the wearing apparel industry and the proportion of the same has increased over the period from 34 to 43%. Also, the chance of women entrepreneurship is positively related to the number of children below 5 years of age in the household. Thus, the regression results also establish the result obtained in the earlier sections about the condition of the women entrepreneurs. The logit models for both the years finally indicate that the women entrepreneurship in India is distress driven and not opportunity driven (Table 8).

Table 8 Logistic regression model to show drivers of men and women entrepreneurship—odds ratio

Variables	Model 1 Entrepreneur = 1 Other workers = 0 (sex: men)	Model 2 Entrepreneur = 1 Other workers = 0 (sex: women)	Model 3 Entrepreneur = 1 Other workers = 0 (sex: men)	Model 4 Entrepreneur = 1 Other workers = 0 (sex: women)
Year	2011–2012	2011–2012	2018–2019	2018–2019
Age (Ref: 15–29 years)				
30–44 years	2.37***	1.71***	2.15***	1.69***
	(0.06)	(0.08)	(0.06)	(0.11)
45–59 years	3.93***	1.97***	3.22***	1.97***
	(0.13)	(0.11)	(0.11)	(0.15)
Marital status (Ref: Never married)				
Currently married	2.77***	1.32***	2.15***	0.89
	(0.09)	(0.08)	(0.07)	(0.07)
Widowed/divorced	1.63***	1.80***	1.72***	1.49***
	(0.13)	(0.14)	(0.14)	(0.14)
Religion (Ref: Hindu)				
Muslim	1.32***	1.55***	1.21***	1.14**
	(0.03)	(0.08)	(0.03)	(0.07)
Others	1.07*	1.18***	1.06	1.49***
	(0.04)	(0.06)	(0.04)	(0.09)
Social groups (Ref: General)				
OBC	0.86***	0.94	0.88***	1.35***
	(0.02)	(0.04)	(0.02)	(0.07)
ST and SC	0.74***	0.88**	0.77***	1.29***
	(0.02)	(0.04)	(0.02)	(0.08)

Table 8 (continued)

Variables	Model 1 Entrepreneur = 1 Other workers = 0 (sex: men)	Model 2 Entrepreneur = 1 Other workers = 0 (sex: women)	Model 3 Entrepreneur = 1 Other workers = 0 (sex: men)	Model 4 Entrepreneur = 1 Other workers = 0 (sex: women)
General education (Ref: Not literate)				
Literate up to primary	1.26***	1.27***	1.31***	1.46***
	(0.04)	(0.06)	(0.05)	(0.09)
Middle	1.43***	1.46***	1.64***	1.69***
	(0.05)	(0.08)	(0.06)	(0.11)
Secondary and higher secondary	1.91***	1.69***	2.01***	1.88***
	(0.06)	(0.09)	(0.07)	(0.13)
Graduate and above	2.42***	1.56***	2.64***	2.04***
	(0.10)	(0.13)	(0.12)	(0.19)
Technical education (Ref: No technical education)				
Have technical education	0.99	0.72**	1.138	0.68*
	(0.065)	(0.10)	(0.12)	(0.15)
Vocational training (Ref: No vocational training)				
Formal vocational training	1.05	2.32***	1.05	2.17***
	(0.05)	(0.19)	(0.08)	(0.24)
Informal vocational training	1.07***	1.22***	1.12***	1.11*
	(0.03)	(0.06)	(0.03)	(0.06)
MPCE quintile (Ref: Lowest quintile)				
Second quintile	1.15***	1.18***	1.12***	1.11
	(0.03)	(0.06)	(0.04)	(0.08)
Third quintile	1.27***	1.24***	1.33***	1.24***
	(0.04)	(0.07)	(0.04)	(0.08)

Table 8 (continued)

Variables	Model 1 Entrepreneur = 1 Other workers = 0 (sex: men)	Model 2 Entrepreneur = 1 Other workers = 0 (sex: women)	Model 3 Entrepreneur = 1 Other workers = 0 (sex: men)	Model 4 Entrepreneur = 1 Other workers = 0 (sex: women)
Fourth quintile	1.64***	1.29***	1.70***	1.28***
	(0.05)	(0.08)	(0.05)	(0.09)
Fifth quintile	2.05***	1.35***	2.25***	1.41***
	(0.07)	(0.09)	(0.08)	(0.10)
Households with children less than 5 years (Ref: No children)				
Have children	0.99	1.09**	1.003	1.14**
	(0.02)	(0.05)	(0.02)	(0.07)
Households with elderly population (Ref: No elderly person)				
Have elderly person	0.94**	0.97	1.03	0.95
	(0.02)	(0.05)	(0.03)	(0.05)
Household size	0.99**	0.96***	1.02***	0.98
	(0.004)	(0.008)	(0.005)	(0.01)
Enterprise type (Ref: Informal)				
Formal	0.01***	0.05***	0.01***	0.07***
	(0.002)	(0.01)	(0.002)	(0.01)
Number of workers in enterprise (Ref: Less than 6)				
Above 6 and less than 10	0.14***	0.15***	0.15***	0.12***
	(0.005)	(0.02)	(0.005)	(0.02)
10 and above	0.12***	0.13***	0.19***	0.35***
	(0.004)	(0.01)	(0.006)	(0.03)

Table 8 (continued)

Variables	Model 1 Entrepreneur = 1 Other workers = 0 (sex: men)	Model 2 Entrepreneur = 1 Other workers = 0 (sex: women)	Model 3 Entrepreneur = 1 Other workers = 0 (sex: men)	Model 4 Entrepreneur = 1 Other workers = 0 (sex: women)
Location of workplace: (Ref: Within household premises)				
Outside household premises	0.21***	0.34***	0.16***	0.14***
	(0.008)	(0.02)	(0.005)	(0.006)
Rural–URBAN (Ref: Rural)				
Urban	1.36***	1.6***	1.31***	1.05
	(0.03)	(0.07)	(0.03)	(0.05)
Constant	0.61***	0.55***	0.62***	0.73**
	(0.04)	(0.05)	(0.04)	(0.09)
Observations	69,313	18,087	63,481	15,547

Source: Calculated from the unit-level data of NSS 68th round (2011–2012) and PLFS data (2018–2019)

Standard error in parentheses, ***$p < 0.01$; **$p < 0.05$; *$p < 0.1$

8 Conclusion and Policy Recommendation

Women are engaged mostly in the small OAEs without any hired workers, majority of which are located within the household premises and few of them even lack fixed location for operating. The gender difference is observed when the location of the workplace is considered, which revealed that about half of the men-owned enterprises have operated from a permanent fixed structure and men had the lower chances from operating inside the house. The maximum proportion of women-headed enterprises are in the agricultural sector, and there is a decline in this proportion in the manufacturing sector with a slight rise in the services sector. Among the non-agricultural sector, women-headed enterprises are maximum in the manufacturing sector, who are engaged mostly in labour-intensive, low-productive work in the informal sector. This informal nature of the women-owned enterprises along with the low operational capacity acts as barriers for both operation and growth of the business. Women from the marginalised section of the society are found to have low participation as entrepreneurs due to their limited scope in setting up business and presence of social stigma. This proves that the women from this section of the society suffer from double discrimination, one from being women and other belonging to a discriminated or depressed caste, tribe or religion. The limited access to various infrastructural facilities, like toilet facilities, waste management, use of computer, Internet facilities and lack of bank/post office account of the women-headed enterprises, signifies their limited scope of operation and also restrains future business expansion. Though the majority of women-headed enterprises, given all these limitations, are perennial in nature, they face a huge funding crisis. The maximum proportion of these enterprises are self-financed, whereas only 3% were receiving funds from government sources, indicating a major challenge faced by the women in taking entrepreneurship.

The regression results also validate that the participation of women as entrepreneurs is affected by their socio-religious status, age group, marital status, location of workplace and type of enterprise. The model establishes more chance of engagement of the women entrepreneurs in informal sector home-based work in the enterprises with less than six workers. The maximum participation of the widowed/divorced women in informal entrepreneurship explains their distress-driven participation. The presence of religious and cultural norms in determining the participation of women as entrepreneurs is validated by this logistic regression. Moreover, the model reveals the increasing chance of women entrepreneurship with increasing general education and establishes the need for formal vocational training. The overall result of the logit model in both years also proves that the women entrepreneurship in India is not opportunity driven as it is obtained that they are mostly working in low-productive enterprises with no scope for future expansion.

The previous literature and the paper have established that self-employment and entrepreneurship are the preferable work for women than wage employment due to the burden of domestic chores and child care responsibilities and

because mostly they are necessity-driven. But to promote and push the necessity-driven entrepreneurship to opportunity-led entrepreneurship, the government has to focus more on developing the skills of women to access technology and digital platforms and promoting partnership with other business ventures for their growth. Focus is to be given towards providing and improving the basic infrastructural facilities and inclusion of women entrepreneurship in the institutional credit system which will help the transition of these enterprises from the informal to formal sector. As mentioned earlier, the participation of women as entrepreneurs, as well as in the overall workforce, is highly constrained by the social stigma. To overcome this, a social campaign is required for promoting women entrepreneurship by countering gender stereotypes and social barriers regarding women's work in the labour market.

Funding Authors have not received any funding to carry out this research.

Declarations

Conflicts of interest Authors hereby declare that there is no conflict of interest.

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