



Structure of manufacturing Micro and Small Enterprises in India

Anamika

Centre for the Study of Regional Development,

School of Social Science,

Jawaharlal Nehru University, India

Abstract

The developing significance of micro and small enterprises in growth, poverty reduction and livelihood strategies in growing economies in which paid economic activity opportunities are constrained cannot be understated. This study is based on the manufacturing enterprises data provided by National Sample Survey Organization (NSSO). It employ enterprises level data drawn from socio-economic survey 62nd on manufacturing enterprises for the year 2005-06 and 73rd on round unincorporated non-agricultural enterprises (excluding construction) for the year 2015-16 to estimate the structure and pattern of Micro and Small Enterprises (SMEs) at macro level in India. Manufacturing Enterprises based results show that Per unit Microenterprises are large in size, provides more employment, required less fixed investment, contribute more in GVA, and number of women owned per unit microenterprises are large as compared to small enterprises in India.

Background

Micro, Small and Medium Enterprises (MSMEs) are widely called the backbone of the Indian economy. According to the official portal of MSME, Micro, Small and Medium Enterprises (MSME) sector has emerged as a highly vibrant and dynamic sector of the Indian economy over the last five decades. MSMEs not only play crucial role in providing large employment opportunities at comparatively lower capital cost than large industries but also help in industrialization of rural and backward areas, thereby, reducing regional imbalances, assuring more equitable distribution of national income and wealth. MSMEs are complementary to large industries as ancillary units and this sector contributes enormously to the socio-economic development of the country. India's Micro, Small, and Medium Enterprises (MSMEs) base is the largest in the world after China. The sector provides a wide range of services and is engaged in the manufacturing of over 6,000 products – ranging from traditional to hi-tech items. Given the government of India's latest 'Make in India' push, along with a significant jump in the FDI flows, the Indian MSMEs sector is poised for rapid growth and integration with major global value chains.

The paper mainly focuses on the structure of manufacturing Micro and Small Enterprises (MSEs) at macro level in India that is sub-divided into a number of sections: Theoretical Background, structure of MSEs, conclusion and future measures.

Theoretical Background

In the year 1917, a book was published in German, under the title *Theory of Economic Development*¹, by a German Economist Joseph Schumpeter. According to his theory, an entrepreneur or innovator is the key figure in the process of development. Coad et al (2012)² examined the association between age of the firm and growth of the firm based on the firm level data from the third census of registered small-scale firms (2002-2003). It has been found that size and age of the firm has negative impact on the growth of the firm. Mead D. C. (2006)³ concludes that Growth of micro and small enterprises are positively associated with the growth of economy and growth of firm and expansion of firm generates more employment. Amin M. (2011)⁴ Study is based on estimation of labor productivity in enterprises for Ethiopia, Malawi, Nigeria, and Uganda using World Bank's LSMS-ISA database for the years 2010-2011 and 2012-13. Heckman Selection Model and Panel regression analysis applied to estimate labour productivity. It has been found that rural enterprises are on average less productive than those in urban areas. McPherson (1996)⁵ Shows that enterprises are motivated to be registered as it helps to accrue advantage to the registered enterprises only. Rapid productivity growth attain by Indian manufacturing during 1999-00 to 2011-12 (Goldar B.N. et al., 2015)⁶. Their analysis is based on the Annual Survey of Industrial data and Growth accounting method. Goldar (2015)⁷ analyzed the National Annual Survey data. His study found that growth rate in aggregate real GDP with base year 2011-12 is higher than the 2004-05 series. Growth rate in real GVA of manufacturing was higher than reported in the 2004-05 series. Bardasi et al (2011)⁸ analysed performance gaps between male and female owned companies by using World Bank enterprises survey and applied Ordinary Linear regression analysis. It concludes that gap between male and female owned companies in term of firm size was higher but it was smaller in terms of firm efficiency and growth except Latin America. Distinguin I. et al (2016)⁹ article is based on to examine the competition face by the formal SMSE from informal SMEs in terms of access to credit than other formal SMEs this study used firm-level survey (2009 to 2012) data and applied probit model where credit constrained is a categorical dependent variable and

¹Schumpeter J. A. (1911), "The Theory of Economic Development", Publication: January 1934 , ISBN 9780674879904

²Coad, A., & Tamvada, P. (2012), "Firm growth and barriers to growth among small firms in India", *Small Business Economics.*, 39(2), 383–400.

³Mead, D. C. and Liedholm, C. (1998), "The Dynamics of Micro and Small Enterprises in Developing Countries", *World Development*, 26 (1), 61-74.

⁴Amin, M. (2014), "Impact of external factors on determining E-commerce benefits among SMEs", *Journal of Global Entrepreneurship Research*, 26(2), 125-142.

⁵McPherson, M. A. (1996), "Growth of Micro and Small Enterprises in Southern Africa", *Journal of Development Economics*, 48 (1), 253-277.

⁶Goldar, Bishwanath and Amit Sadhukhan (2015), "Employment and Wages in Indian Manufacturing: Post-reform Performance," *Employment Working Paper* no. 185, Employment Policy Department, International Labour Office, Geneva.

⁷Goldar, Bishwanath and Maitri Ghosh (2015), "Employment Growth in India's Organized Manufacturing: Trends and Determinants" *Review of Development and Change*, vol. 20 no. 2, pp.277- 302.

⁸Bardasi, E., Sabarwal, S., & Terrell, K. (2011), "How do female entrepreneurs perform? Evidence from three developing regions", *Small Business Economics*, 37(4), 417–441.

⁹Distinguin I. et al (2016), "Can Informal Firms Hurt Registered SMEs' Access to Credit?", *World Development* volume 84, August 2016, Pages 18-40.

competition in informal SMEs is independent variable. It has been found out that there are two major hurdles behind the operation and growth of registered SMEs. Kersten (2017)¹⁰ describes that SME finance programs have a positive impact on performance measures, such as capital investment and employment, but it has negative association with effect on profitability and wages. According to the Report of the Expert Committee on MSMEs (2019), found that MSME sector has face impressive growth in last 10 years in terms of number of units, production, employment, and exports.

Banwo A.O. (2017)¹¹ found that location of small and medium enterprises play a crucial role in determining their survival. This paper used World Bank data and china and Nigeria dataset. The availability of natural resource endowment and types of business climate in their environment is the main reason behind SMEs agglomeration. It has also been found that major reason for the sharp differences in the SME composition lies in the nature of institutional opportunities and problem in each context. Rijkers B. (2010)¹² analysis is based on Rural Investment climate survey Amhara (2007) and Ethiopia Enterprises survey (EES). It has been found that the size of urban manufacturing enterprises is larger, more capital intensive than rural manufacturing enterprises, larger disparity in labour productivity between the rural and urban manufacturing enterprises urban firm produces more output per worker than rural firms.

Table 1: Definition of micro, small, and medium enterprises (MSMEs) based on Investment

Type	Manufacturing (investment in plant and machinery) (in lakhs)	Service- (investment in equipment)(in lakhs))
Micro	Up to 25	Up to 10
Small	25 – 500	10 – 200
Medium	500 – 1000	200 – 500

Source: MSME All India Census 2006-07.

After reviewing the existing literature, it has found that limited studies are available on structure and pattern of the MSEs. Based on the research gaps that have been identified from the existing literature, this paper seeks to examine the structure and pattern of MSEs at macro level in India. Unlike most of the previous studies lying on primary surveys of a small sample of firms, this study is based on the manufacturing enterprises data provided by National Sample Survey Organization (NSSO). It employ enterprises level data drawn from socio-economic survey 62nd on manufacturing enterprises for the year 2005-06 and 73rd on round unincorporated non-agricultural enterprises (excluding construction) for the year 2015-16. This rich dataset contains information pertaining to 6.41 million and 20 million Micro, Small and Medium enterprises (included manufacturing sector only) for the year 2005-06 and 2015-16 respectively. In this study, we confine the analysis to the sample of enterprises belonging to the manufacturing sector only.

¹⁰ Kersten (2017 “Small Firms, large Impact? A systematic review of the SME Finance Literature” World Development, vol. 97, issue C, 330-348.

¹¹ Banwo A.O. (2017), “The determinants of location specific choice: small and medium-sized enterprises in developing countries”, Journal of Global Entrepreneurship volume 7, Article number: 16.

¹² Rijkers B. (2010), “A Rural-Urban Comparison of Manufacturing Enterprise Performance in Ethiopia”, world Development 38(9):1278-1296.

Structure of MSMEs in India

To observed the structure of Micro, Small and Medium enterprises in India, this study focus on the firm size located in India, sector-wise distribution of MSMEs, nature of operation of the MSMEs, status of employment, status of contractual firms, and social group of the entrepreneurs.

Table 1: Description of manufacturing MSMEs (in million) in India during 2005-06 to 2015-16.

MSMEs	2005-06		2015-16		CAGR	
	India		India		India	
Micro	6.4		20.00		12.1	
Small	0.007		0.09		29.7	
Medium	78		0.0001		12.1	
Overall	6.4		20.10		12.1	

Source: NSSO- socio-economic survey- manufacturing enterprises (2005-06); NSSO- unincorporated non-agricultural enterprises (excluding construction) (2015-16)

Table 1 illustrates the description about the number of manufacturing MSMEs in India as well as in India. It allows comparison between different manufacturing MSMEs. In India, total number of MSMEs were 6.41 millions during 2005-06 out of which 6.40 millions were micro enterprises, less than 0.1 millions were small enterprises, and only 78 medium enterprises were set up while at India level total number of MSMEs set up were 0.045 millions out of which 0.04 millions were micro and 0.0004 million were small enterprises. Similarly during 2015-16 total number of MSMEs were 20.10 millions in India. However, this table concludes that microenterprises captured the major proportion of the manufacturing MSEs at all India level with positive growth rate. The reason for this difference are beyond the capabilities of these data, it may be that the less capital requirement to set up the MSEs as compared to set up a heavy industries and support from the government in accessing credit and procurement.

Table 2: classification of different types of workers between part time and full time period engaged in MSMEs in India during 2005-06 to 2015-16. (In percentage)

Types of workers	2005-06		2015-16	
	Full time	Part time	Full time	Part time
Working owner	53.9	60.0	51.4	3.7
Formal/Informal hired worker	39.8	21.0	39.2	27.1
Helper /Other workers	6.3	19.0	9.4	69.2
Total	100	100	100	100

Source: NSSO- socio-economic survey- manufacturing enterprises (2005-06); NSSO- unincorporated non-agricultural enterprises (excluding construction) (2015-16)

In above table 2, full time and part time working owner reported highest share of employment followed by Full time and part time formal/informal hired workers (39.8% and 21% respectively) in all manufacturing MSMEs during 2005-06 to 2015-16.

Table 3: Percentage distribution of MSMEs among different social groups in India 2015-16.

Social Groups	Micro	Small	Total
ST	0.84	0	0.83
SC	5.33	0	5.27
OBC	28.13	0.66	27.82
Others	63.92	98.94	64.32
Not known	1.78	0.4	1.76
Total	100	100	100

Source: NSSO- socio-economic survey- manufacturing enterprises (2005-06); NSSO- unincorporated non-agricultural enterprises (excluding construction) (2015-16); Note: there is no division of social group is present for the year 2005-06 due to unavailability of data for entrepreneur's social group.

Table 3 table concludes that the presence of entrepreneurs belong to SC/ST social group was very less in micro-enterprise while there were no entrepreneurs found who set up small enterprises. For the growth of MSEs, there is need to increase the participation of vulnerable section of the society in the MSME sector.

Table 4: Status of manufacturing enterprises in India during 2005-06 to 2015-16. (In percentage)

Status of enterprises	2005-06			2015-16		
	Micro	Small	Overall	Micro	Small	Overall
OAME	14.6	0.2	14.5	23.4	0.9	23.1
Establishment (NDME+DME)	85.4	99.8	85.5	76.6	99.1	76.9
Overall	100	100	100	100	100	100

Source: NSSO- socio-economic survey- manufacturing enterprises (2005-06); NSSO- unincorporated non-agricultural enterprises (excluding construction) (2015-16).

Status of enterprises for establishment¹³ is highest among overall MSMEs with 85.5% and 76.9% during 2005-06 to 2015-16. The compound growth rate showing declined growth among MSMEs but small enterprises has set up a positive growth in own account manufacturing enterprises (OAME) during 2005-06 to 2015-16. Better marketing of the product, different varieties of product, economies of scale, and higher profit could be the reason behind larger proportion of establishments than own account enterprises (see table 4).

¹³Established defined as enterprises with at least one hired worker; NDME: non directory manufacturing establishments, ie, enterprises with at least 1 hired worker and less than 6 total workers; DME: directory manufacturing establishments, ie, enterprises with at least 1 hired worker and 6 or more total workers.

Table 5: Description of worker productivity¹⁴ and capital productivity¹⁵ in India during 2005-06 to 2015-16.

(In Rs.)

Years	Worker productivity			Capital productivity		
	Micro	Small	Total	Micro	Small	Total
2005-06	9.7	23.2	10.4	34.4	8.6	35.1
2015-16	2.6	4.1	2.4	44.8	11.3	26.0

Source: NSSO- socio-economic survey- manufacturing enterprises (2005-06); NSSO- unincorporated non-agricultural enterprises (excluding construction) (2015-16)

Table 5 illustrates that total MSMEs workers productivity and capital productivity was higher during 2005-06 as compared to 2015-16. At enterprises level, higher worker productivity among both micro and small enterprises found during 2005-06 and higher capital productivity among both micro and small enterprises during 2015-16 but overall higher worker and capital productivity captured during 2005-06. This analysis furthermore suggests that increasing labour emoluments, raw materials and improving workers and capital productivity helpful to reduce the cost of capital that would help catalyze the growth of MSEs.

Table 6: structure of MSEs in India during 2005-06 to 2015-16.

Sr. no.	Characteristics	2015-16			2005-06		
		Micro manufacturing	Small manufacturing	Total	Micro Manufacturing	Small manufacturing	Total
1.	Size of firms (in numbers)	20,56,1500 (99.55%)	90,871 (0.45%)	2,06,52,371 (100%)	64,45,045 (98.88%)	76,100 (0.1%)	64,52,655 (100%)
2.	No. of Women Enterprises (in numbers)	65,967 (100%)	0 (0.%)	65,96,725 (100%)	87,264 (99.93%)	68 (0.07%)	87,332 (100%)
3.	Total Employment (in numbers)	76,02,637 (92.94%)	5,77,631 (7.06%)	81,80,268 (100%)	3,82,469 (98.78%)	4,722 (1.22%)	3,87,191 (100%)
4.	Per Unit Employment	44.94	14.17	5.17	4.06	8.8	4.09
5.	Per unit original value of Plant & Machinery (in rupees)	151,385 (71.91%)	53,36,644 (29.09%)	21,04,93 (100%)	3,64,05 (36.39%)	5,97,07,64 (99.6%)	10,00,24 (100%)
6.	Total fixed investment (in Lakh)	36,800 (71.04%)	15,000 (28.96%)	51,800 (100)	23,900 (68.5%)	11,000 (31.5%)	34,900 (100%)
7.	Total Gross	16,500 (90.6)	1,690 (9.4)	18,200 (100%)	17,900 (89.05%)	2,170 (10.95%)	20,100 (100%)

¹⁴ (total GVA per enterprise/worker's emolument per enterprise)

¹⁵ (total GVA per enterprise/total fixed investment per enterprise)

Output (in Lakh)							
---------------------	--	--	--	--	--	--	--

* in Brackets the percentage values are given; Source: unit level data of NSSO (2005-06 and 2015-16) – manufacturing sector surveys

Structure of MSEs in India during 2005-06 to 2015-16 concludes that

- Per unit Microenterprises are large in size as compared to small enterprises in India.
- Number of women owned per unit microenterprises are large in numbers as compared to small enterprises in India.
- Per unit Microenterprises have higher number of employment as compared to small enterprises in India.
- Per unit employment in microenterprises is less as compared to small enterprises.
- Per unit investment in plant and machinery is less in microenterprises as compared to small enterprises.
- Per unit total fixed investment is large in microenterprises as compared to small enterprises India.
- Per unit total gross output is large in microenterprises as compared to small enterprises India.

Conclusion

The development of micro and small enterprises is seen as one instrument in addressing poverty problems in developing countries, and women are increasingly participating in the ownership of MSEs in developing countries. This paper has analysed the structure and performance of MSEs at macro level in India using data from a national sample survey 62nd and 73rd round (enterprises level data). Using data for manufacturing micro and small enterprises multi-linear regression econometric model has been applied.

This paper used data for the years 2005-06 and 2015-16 for the comparison of manufacturing MSEs to estimate the structure of Micro and small enterprises at macro level in India. The findings from structure of MSEs in India concludes that per Microenterprises enterprise is larger in size, higher in number of employment, larger in total gross output, and lower in total fixed investment per enterprises as compared to small enterprises in India. There are large number of women owned microenterprises as compared to small enterprises in India.

The results in this study point out the major issue that interventions in the microenterprises sector may require lower fixed investment but higher labour emolument and raw material consumption per enterprises as it affects the performance of microenterprises in different degrees. The economic position of microenterprises have an impact on overall performance of MSME sector. This analysis furthermore suggests that increasing labour emoluments, raw materials and improving workers and capital productivity helpful to reduce the cost of capital that would help catalyze the growth of microenterprises. Thus, government provisions have an impact at macro as well as micro level of the MSEs. however, these arguments are only one side of the coin as a proper evaluation of the desirability of different policy options requires examining both the costs and the benefits of such reforms.

Policy implications

- Today enterprises need to embrace best practices and keep worldwide principles to go ahead for offering innovative solutions.
- Focus should be on exchange of data and aptitude advancement to adequately utilize the moved innovation.
- There is an urgent need to overhaul foundation utilities (like water, power supply, street/rail) for any venture to run its tasks effectively.

- Entrepreneurs need to create quality cognizant outlooks inserted in the hierarchical culture.
- Sensitisation and handholding of MSMEs at various and overhauled level of affirmation is the need of great importance.
- Finally, as suggested by India MSME Report 2018, we need a qualification approach that can have the capability of convincing all connected partners to chip away at a typical public plan and arrangements under a deductively organized structure.

References

- Amin, M. (2014), “Impact of external factors on determining E-commerce benefits among SMEs”, *Journal of Global Entrepreneurship Research*, 26(2), 125-142.
- Banwo A.O. (2017), “The determinants of location specific choice: small and medium-sized enterprises in developing countries”, *Journal of Global Entrepreneurship* volume 7, Article number: 16.
- Bardasi, E., Sabarwal, S., & Terrell, K. (2011), “How do female entrepreneurs perform? Evidence from three developing regions”, *Small Business Economics*, 37(4), 417–441.
- Coad, A., & Tamvada, P. (2012), “Firm growth and barriers to growth among small firms in India”, *Small Business Economics*, 39(2), 383–400.
- Distinguin I. et al (2016), “Can Informal Firms Hurt Registered SMEs’ Access to Credit?”, *World Development* volume 84, August 2016, Pages 18-40.
- Goldar, Bishwanath and Amit Sadhukhan (2015), “Employment and Wages in Indian Manufacturing: Post-reform Performance,” *Employment Working Paper* no. 185, Employment Policy Department, International Labour Office, Geneva.
- Goldar, Bishwanath and Maitri Ghosh (2015), “Employment Growth in India’s Organized Manufacturing: Trends and Determinants” *Review of Development and Change*, vol. 20 no. 2, pp.277- 302.
- Kersten (2017) “Small Firms, large Impact? A systematic review of the SME Finance Literature” *World Development*, vol. 97, issue C, 330-348.
- McPherson, M. A. (1996), “Growth of Micro and Small Enterprises in Southern Africa”, *Journal of Development Economics*, 48 (1), 253-277.
- Mead, D. C. and Liedholm, C. (1998), “The Dynamics of Micro and Small Enterprises in Developing Countries”, *World Development*, 26 (1), 61-74.
- Rijkers B. (2010), “A Rural-Urban Comparison of Manufacturing Enterprise Performance in Ethiopia”, *World Development* 38(9):1278-1296.
- Schumpeter J. A. (1911), “The Theory of Economic Development”, Publication: January 1934 , ISBN 9780674879904.