

CSE Working Paper

#25

The Size Structure of India's Enterprises: Not Just the Middle is Missing

Santosh Mehrotra and Tuhin Subhra Giri

December 2019

Centre for Sustainable Employment

cse.azimpremjiuniversity.edu.in

The Size Structure of India's Enterprises: Not just the middle is missing

Santosh Mehrotra¹ and Tuhinshubhra Giri²

Abstract

Due to the predominance of tiny enterprises and informality in the industrial sector, it is tough to harness the economies of scale, adopt new technologies and regular upgradation. There are many studies of a missing middle situation in developing economies. One of the essential characteristics of firm size distribution patterns in developing countries is a bimodal distribution with 'missing middle,' which is widely accepted in development economics (Krueger, 2013). The idea of the missing middle is that there are a large number of small firms, some large firms, but very few medium-sized firms. Here we examine both Formal and informal sector enterprises of India in this paper. Here, we analyze data from the Annual Survey of Industries (ASI), National Sample Survey (NSS) and Economic Census(EC) to assess the size structure of the whole industrial sector. Data sources and definition related complexities in the size structure of Indian firms have been discussed in detail in this paper. Informality abounds in India both for workers and firms, which is a well-known fact. As well as what even alarming is among all micro enterprises, 84.2 percent are OAEs. Tiny micro enterprises' ability to expand is minimal. Together with units that employ 1-5 workers, OAEs have an almost 97 percent share. We have used ASI and NSS data sources both to demonstrate that there is not only a missing middle but a missing small category as well. India's policy regime is also guilty of worsening the situation. Policy structure should always include all types of firms. This paper tried to explain those.

Introduction

Most international development economics and industrial organization literature emphasizes the importance of SMEs (small and medium enterprises) as essential to output, but especially to employment generation. Countries have different definitions of SMEs. In India, the MSMEs (micro, small and medium enterprises) are defined in terms of investment in plant and machinery or equipment. The MSME Ministry (Annual Report, Government of India 2017–18) stated that the sector accounts for 45% of the manufacturing output and 40% of the total exports of the country; also, that MSMEs accounted for 30.74% of GDP in 2014–15. Not surprisingly, MSMEs are considered a driving force of the economy.

Due to the predominance of tiny enterprises and informality in the industrial sector, it is challenging to harness the economies of scale, adopt new technologies and regular upgradation. It is often found that the main challenge for many SMEs is to cultivate the right skills and management practices for establishing and integrating knowledge created by external partners with in-house practices and innovation processes (OECD 2013). Given that economies of scale go hand in hand with higher productivity, the predominance of micro-

1 Professor of Economics and Chairperson, Centre for Informal Sector and Labour Studies, JNU, New Delhi; Email Id: santoshmeh@gmail.com

2 Ph.D. Scholar, Centre for Informal Sector and Labour Studies, JNU, New Delhi; Email Id: giri.tuhinshubhra55@gmail.com

enterprises in any economy can prove to be a barrier to growth. There is a body of literature on firm size distribution in developing countries, which mostly depicts that the 'missing middle' phenomenon is persistent for firms size distribution in the non-agriculture sector.

There are many studies of a missing middle situation in developing economies. One of the essential characteristics of firm size distribution patterns in developing countries is a bimodal distribution with 'missing middle,' which is widely accepted in development economics (Krueger, 2013). The idea of the missing middle is that there are a large number of small firms, some large firms, but very few medium-sized firms.

Dhar and Lydall (1961) were the first to observe missing middle in the data, the thin share of employment size class 50 to 499 in Indian manufacturing employment.

Tybout (2000) also finds that a large portion of the small-sized and middle category is missing in poor countries, and then argues that strict business regulation could be a reason for too many small firms. Hsieh and Olken (2014) explained that this is a misconception, and questioned Tybout's conclusion. However, Tybout (2014) revisited his study and justified the existence of a 'missing middle' by comparing the size categories of firms. He argued that the share of medium-sized firms compared to small or large firms is smaller than the share one would observe in an undistorted economy. The literature on firm size distribution suggests it is reasonable to approximate the undistorted cumulative size distribution as Pareto optimal. Tybout (2014) analyzed the same data of Hsieh and Olken (2014) to understand the size distribution of firms. Then, the general tendency toward small scale production in poor countries can be crudely controlled by allowing the shape parameter k to vary across countries, with a larger value for k implying a smaller size distribution. The value of k in his paper appeared 1.43 for India, 1.08 for China and US both. That means there is no missing middle in China and USA. But India's medium category is less populated.

Mazumdar (2003) and Mazumdar and Sarkar (2008) also find that the size distribution of Indian firms is characterized by a dense concentration of tiny enterprises, i.e., micro and a 'missing middle.' Mazumdar and Sarkar (2013), in their recent comparative study about manufacturing firms in Asia, shows that the size group of 6-49 workers accounts for more than 55 percent of total non-household manufacturing in 2005. The share of large firms with more than 500 workers was close to 20 percent, and the remaining 25 percent is the share of size group with 50-499 workers in the same year. Another study also estimated that around 85 percent of people are employed in enterprises with less than 50 workers including OAEs in total manufacturing employment pictures (Hasan and Jandoc, 2013). This dualistic size structure in manufacturing has remained unchanged over the last two decades. Labour regulation is one of the factors which can affect firm size and distribution pattern. More flexible labour regulation tend to go hand in hand with larger sized firms for mostly labor-intensive industries.

However, Nagaraj (2018) has argued that there is no missing middle in India. He only draws upon organized sector firms', using data from the Annual Survey of Industries (ASI). We

believe it is necessary to take a holistic approach to see the accurate picture of different firm size categories, both organized as well as unorganized.

The India Wage Report (ILO, 2018) shows that low pay and wage inequality remain a serious challenge to India's path to achieving inclusive growth. Nearly half of the workforce is self-employed in India, which is a source of low earnings. However, stable wage employment (rather than self-employment) is a doorway to the middle class (Banerjee and Duflo 2008).

In this paper, we merged the data of all organized and unorganized firms of India from different data sources to figure out the exact size of the MSME sector (number of firms by the size of employment). That will give us a clear idea about the size distribution (micro, small, medium and large) according to the definition of MSMED Act 2006 (provided by the Ministry of MSME). We argue that it's not only the middle which is missing. Small firms are also missing from the Indian industrial sector.

The paper is organized as follows. Section 1 spells out the definitions and data sources. Then section 2 depicts the picture of the size distribution of India's non-agricultural enterprise structure -formal and informal both. After that, section 3 presents a discussion about the missing small and medium-sized enterprises and policy issues. Lastly, section 4 offers some concluding remarks.

1. Data Sources and definitions

We examine both Formal and informal sector enterprises in this paper. To assess the size structure of the whole industrial sector, it is necessary to analyze ASI data, Economic Census (EC) data and National Sample Survey (NSS) data. Hence, the data sources for this paper are the ASI, EC and NSSO unit-level data for the organized and unorganized sector respectively. We use a combined data set that includes formal and informal firms in India. The Annual Survey of Industries conducted by the Central Statistical Organisation, Ministry of Statistics and Programme Implementation (ASI) gathers information on "registered," or formal sector firms that are covered by (Sections 2m(i) and 2m(ii) of) the 1948 Factories Act and firms registered in the 1966 Bidi and Cigar Workers Act—particularly (i) those firms that use electricity and hire more than 10 workers; and (ii) those that do not use electricity but nevertheless employ 20 or more workers. It also covers specific utility industries such as power, water supply, cold storage, and the like. Units with 100 or more workers are all counted, and a census of such enterprises is captured in the ASI, as they are entirely enumerated, while the rest (<100 workers) are sampled. Their survey is based on a predetermined sampling design.

The ASI does not cover unorganized or informal sector firms. NSSO Survey of Unorganised Manufacturing Enterprises includes those, and hence two rounds (2010-11 and 2015-16) have been used for our analysis. NSS unorganized surveys are follow-ups to the different Economic Censuses. NSS used Economic Census as their sampling frame.

When we talked about non-agri enterprises, the construction sector has to be considered as well. In the last decade, the construction sector jumped high with respect to others. To add up construction sector data with above two data sources, EC data will be retrieved for formal and informal construction enterprises. Construction enterprises are not covered by ASI or NSS unincorporated non-agri enterprise round.

The Ministry of Micro, Small and Medium Enterprises the Government of India has enacted the Micro, Small and Medium Enterprises Development (MSMED) Act, 2006 in terms of which these enterprises are defined. The MSMEs are classified into two classes:

1. Manufacturing Enterprises: The enterprises engaged in the manufacture or production of goods of any industry specified in the first schedule to the Industries (Development and Regulation Act, 1951) or employing plant and machinery in the process of value addition to the final product having a distinct name or character or use. The size of Manufacturing Enterprises is defined in terms of investment in Plant & Machinery.
2. Service Enterprises: The enterprises engaged in providing or rendering of services are defined in terms of investment in equipment.

The limit for investment in plant and machinery/equipment for manufacturing/service enterprises is as under:

Table.1: Defining Micro, Small and Medium Enterprises: Thresholds for Plant & Machinery

Type of Enterprises	Manufacturing Sector	Service Sector
	Investment in plant & machinery	Investment in plant & equipment
Micro Enterprises	Don't exceed 25 lakh rupees	Don't exceed 10 lakh rupees
Small Enterprises	More than 25 lakh rupees but doesn't exceed 5 crore rupees	More than 10 lakh rupees but doesn't exceed 2 crore rupees
Medium Enterprises	More than 5 crore rupees but doesn't exceed 10 crore rupees	More than 2 crore rupees but doesn't exceed 5 crore rupees

Source: The MSMED Act, 2006, Ministry of MSMEs

We have used mainly four data sets, i.e., NSS unorganized survey rounds unit-level data (73rd in 2015-16 and 67th in 2010-11), ASI databases (2010-11 and 2014-15 unit-level data) and Economic Census (2013-14). The NSS data is used for unorganized sector data, and for organized sector ASI has been used.

Other than these two data sources, there are two different databases on industries: MSME Census data and Centre for the Monitoring of the Indian Economy (CMIE) Prowess database. We have not used the latter two for this study. Because the last MSME census, which is available, is 4th MSME census 2005-06 and the data was published in 2011. After that, there is no MSME census data available. And the CMIE Prowess database is mainly for companies which are registered in the share market. Therefore we used only NSS unorganized survey rounds and ASI databases for this study.

Sometimes there is confusion about enterprises under formal/registered sector and informal/unorganized sector. We should clarify that the Unorganised sector is not entirely overlapping with what is called the unregistered sector. In the NSS unorganized survey rounds, some enterprises can be small registered enterprises under the Shops and Establishment Act, or the Municipal corporation/Panchayat/local body, VAT/sales tax, Employee Provident Fund Act, the Employees State Insurance Corp. Act, and/or registered with SEBI/stock exchanges and any other specific act or authorities. So, the unorganized sector consists of mostly unregistered enterprises and some registered enterprises under some particular act or authorities other than Factories Act (which are being captured under the ASI). Firms captured under the ASI, on the other hand, are *all* registered/formal firms under Sections 2m(i) and 2m(ii) of the 1948 Factories Act and firms registered in the 1966 Bidi and Cigar Workers Act—particularly (i) those firms that use electricity and hire more than 10 workers; and (ii) those that do not use electricity but nevertheless employ 20 or more workers. Therefore, it is evident that there is no overlapping or double counting between NSS and ASI datasets.

The National Sample Survey Rounds on the Unorganized Sector

We use two different rounds of the NSS specific survey that examines the unorganized sector. The specifics of these two rounds are explained in Table 2.

Table 2: NSS unorganized sector rounds: 73rd (2015-16) and 67th (2010-11)

NSS rounds	Brief data handling remarks
73 rd unorganized enterprise round 2015-16	<ul style="list-style-type: none"> • Total number of enterprises 63 million • In this round, NSS provided data on investment in plant & machinery and did it for each of the MSME categories in the dataset for the first time.
67 th unorganized enterprise round 2010-11	<ul style="list-style-type: none"> • The total number of enterprises is 57 million. • MSME categorization is not given in the database • To enable us to analyze trends about the size structure of enterprises between 2011 and 2016, we had to categorize the enterprises. So we have used the investment in plant and machinery variables for both manufacturing and services sector firms. • Though according to MSME definition for manufacturing firms, plant and machinery should be considered and for services firms, plant and equipment should be considered. However, plant and equipment variables are not available in the dataset of 2010-11, so we have used plant & machinery for all the manufacturing and services enterprises.

Annual Survey of Industries 2014-15 & 2010-2011

The second source used is two years of the CSO's Annual Survey of Industries, for 2010-11 and 2014-15, the latest one being the latter. In them, only operational enterprises were taken into consideration. ASI mostly covers manufacturing units and manufacturing processes (minimal in number). However, the problem is that in the ASI, almost 40 percent of firms have missing values in respect of investment in the plant and machinery variable over the years. Hence, we used the remaining 60% of enterprises in the ASI database to categorize ASI firms in terms of the number of employees in each firm. Categorization, as follows in Table 3.

Table.3: Defining Organized Manufacturing Firms by Size of Employment

• Categories	• Number of employees (Nos.)
• Micro	• <10
• Small	• 10 to <20
• Medium	• 20 to <100
• Large	• >=100

We need to explain how we arrived at this particular size distribution, and why we are calling them micro, small, or medium. We should clarify that ASI does not classify firms by the categories – Micro, Small and Medium – but NSSO's unorganized sector survey does. So we tried to discover what might be the number of employees in organized sector firms if we were to apply the Plant & Machinery thresholds that are used in the NSSO surveys to the ASI firms (even though the latter belong to the organized sector, while the former do not). We found that the plant & machinery based-definition corresponds quite strongly with the category-ranges for M-S-Ms for the number of workers shown above in Table 3. Since, in this paper, our attention is focused on MSMEs, we needed a standard definition across the organized and unorganized categories in terms of the number of employees.

Economic Census 2005 & 2013

To include enterprises of the construction sector, 5th EC data 2005 and 6th EC data 2013 has been used. EC data covers all the establishments. The total number of construction enterprises calculated from these two ECs. If any enterprises owned by Govt, PSUs, corporate/company, that categorized as organized construction enterprise and rest of the enterprises counted under unorganized construction enterprises category. On the other side, the organized services sector also is not captured by ASI and NSS. These two rounds of EC provide the number of enterprises in the organized services sector. To classify these enterprises under MSME, the above Table.3 has been followed to determine the size of the enterprises.

2. India's Non-agricultural Enterprise Structure: Formal & Informal MSMEs

Over 1950 to 1980, slow GDP growth pace was accompanied by a growth strategy dependent upon heavy-industry first, combined with reservation of products for small firms to generate employment. The set of products reserved for small enterprises had grown and consisted of more than 1200 products at the beginning of reform in 1991. Over the years the number of reserved products was reduced to 500 by 2005, but it took more than fifty years to end this. This has led to the emergence of underdeveloped informal firms and employing informal workers, all operating in a low-level equilibrium trap of low wages –low-technology-low productivity (Mehrotra, 2020). On the other side, too many labour laws for organized or formal sector firms did not help; hardly any rules applied to the unorganized sector. This kind of phenomenon lowered the demand for workers in the formal sector.

Labour laws and regulations of India are very complicated for firms. When any firms go from six workers to seven workers, the Trade Workers Act kicks in. When this number goes from nine to ten, the Factories Act is to be implemented. When firms go from 19 to 20 workers, the Employees Provident Fund Act kicks in, and if the firm adds one more worker after 99 and goes to 100 workers, the Industrial Disputes Act gets triggered. The Industrial Disputes Act says that if you are a manufacturing firm with 100 workers or more, you cannot dismiss any of them under any circumstances unless you get prior approval from the state government. This is rarely given and it applies even if you go bankrupt, in which case the firm still has to pay the workers. This is an additional reason why Indian firms have remained so small on average (Panagariya, 2013).

In this study, we tried to capture the whole picture of the formal and informal sectors. Table 4 presents the total universe of India's non-agricultural enterprises. In Indian parlance, enterprises that employ less than 10 workers are considered as unorganized sector units. And those employing more than 10 workers are regarded as organized. What jumps out at the reader is the scale of informality among India's enterprise structure. India has 63.56 mn enterprises, informal (unorganized) and formal (organized) taken together in the non-agricultural economy. Around 30 percent of enterprises are registered in both years (2015-16 and 2010-11) under any act or authority. There is no change in the share of registered enterprises in the informal sector over the years.

Another finding from Table 4 is that 96.1 & 96.7 percent of enterprises are in the unorganized sector in 2010-11 and 2015-16, respectively. The share of unorganized enterprises in 2015-16 shows a slight increase in number, which may not a very promising picture. Of these two-thirds are not registered anywhere – which is a severe problem from the perspective of the policymaker, since that makes it challenging to extend services to them if the state was desirous to do so.

What is most notable is how small is the total number of organized / formal sector firms: only 3.86 percent and 3.34 percent only in 2010-11 and 2015-16, respectively. The well-known

fact is that the informal sector is much bigger than the registered sector. Therefore, this study later on focuses mainly on the informal sector size distribution of MSMEs. One could argue that India's informal sector is the backbone of the economy after agriculture.

Table.4: Total Number of Enterprises in the organised and unorganized sector in 2010-11 & 2015-16

Sectors		Number of Enterprises (Nos.)		Share (%)	
		2010-11	2015-16	2010-11	2015-16
Unorganized Manufacturing, Services (NSS) & Construction (EC)	Registered under any act/authority	1,68,26,63 9	1,95,92,55 4	28.86	30.30
	Not registered under any act/authority	4,08,46,60 6	4,37,99,42 1	70.05	67.73
	Construction (EC)	634466	1276862	1.09	1.97
	Total	5,83,07,71 1	6,46,68,83 7	100	100
Organized	Manufacturing: Registered under Factories act, companies act or other (ASI)*/ Formal	159957	1,65,632	6.84	7.41
	Services (EC)	2173193	2061310	92.87	92.18
	Construction (EC)	7010	9244	0.30	0.41
	Total	23,40,160	22,36,186	100	100
Total Unorganised				96.1	96.7
Total Organised				3.86	3.34
Total Unorganised & Organised		6,06,47,87 1	6,69,05,02 3	100	100

Source: Annual Survey of Industry Unit level data of 2014-15, Annual survey of Industry Unit level data of 2010-11, 73rd round NSSO Unincorporated Non-Agricultural Enterprises (Excluding Construction) Survey 2015-16 unit-level data & 67th NSS Unincorporated Non-Agricultural Enterprises (Excluding Construction) survey 2010-11 unit level data and 5th Economic Census 2005 & 6th Economic Census 2013

Table 5 shows the size of the formal and informal sectors according to MSME categories. The micro enterprises share and numbers are overwhelmingly large. What we do know (though not shown in the table) is that *84% of the micro-enterprises are own-account enterprises (OAEs), without hired labour, or let us say household enterprises*. An estimated 93% of the micro-enterprises have less than 5 employees.

There is a nearly *8x increase in the number of small enterprises in the unorganized units* (Table 5). Within unorganized units, the number of small enterprises in 2010-11 and 2015-16 does increase quite sharply in absolute terms, both among the registered as well as the unregistered in the unorganized manufacturing and services sector. At the same time, the number of unorganized construction enterprises shows us a negligible increase between this period. *But their share is still marginal in 2015-16, as it was in 2010-11: from 0.3 to 0.7 percent of all enterprises.*

Of the 66.9 mn MSMEs, barely 0.59 mn are small and medium. Naturally, their contribution would be very limited in the growth story. What is notable is that between 2010-11 and 2015-16, the number of registered (under Factories Act) manufacturing units and services units are small have shrunk slightly, as have medium-sized enterprises. While the number of organized construction enterprises exhibits a marginal increase. However, the small firms among the unregistered unorganized sector just exploded in numbers, from 1682 to 51072 over the same period. But at the same time, the small unorganized units which are registered under any Act/authority also increased from 38414 to 279794. The increase in number over just five years is too significant to be explicable. So, we found, on careful examination, that the number of acts under which registration was permitted had increased between 2010-11 and the 2015-16 NSS Surveys. This is what explains the unprecedented rise in the registered category (see Table 6 for Acts, and Annex 1 table for the list of additional Acts under which registration is permitted), though not in the case of unregistered category. This sharp rise needs further investigation before it can be explained.

Medium enterprises have also seen a rise, but that rise seems reasonable, even though it is highly likely that the *sharp increase among small enterprises that we see between the two periods in the 'registered' category is also massive. This too is likely to have happened due to new acts being included.* It is notable that for registered enterprises under the Factories Act (based on data from the Annual Survey of Industries), there is a fall in the number of enterprises. But, there is a surge in the number of unorganized and organized construction enterprises.

If we examine the *registered manufacturing firms under the Factories Act*, there is some growth. However, here too, the increase in the number of firms is accounted for by micro firms, not the small or medium categories. Organized services units show us some reduced number of enterprises in 2015-16 than in 2010-11. But the number of construction enterprises increased over the years for all MSME categories. If anything, small and medium firms shrink in number over those five years. The number of large firms grows only a little.

Table 4 depicts the whole picture of the size distribution of MSMEs, both formal and informal sectors. The size distribution of formal sector firms is nearly normally distributed. In contrast, informal sector size distribution is distinctly skewed to the left, with a concentration of micro firms. In 2015-16, the share of registered organised sector firms from Table 4 was only 3.34 percent and informal sector firms account for 96.7 percent share of all firms. The registered formal sector firms have been analyzed in several studies, but informal firms have been overlooked. Informal firms' size distribution should be analyzed more closely.

Table.5: Size wise total number of enterprises in India in 2010-11 & 2015-16 (nos.)

Sectors		Micro		Small		Medium		Large		Total	
		2010-11	2015-16	2010-11	2015-16	2010-11	2015-16	2010-11	2015-16	2010-11	2015-16
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(1)+(3)+(5)+(7) =(9)	(2)+(4)+(6)+(8) =(10)
Unorganised Manufacturing, Services (NSS) & Construction (EC)	Registered under any act/authority	16787999	19304556	38414	279794	142	5064	83	3092	16826639	19592505
	Not registered unde any act/ authority	40844924	43746969	1682	51072	0	218	0	25	40846606	43798285
	Construction (EC)	624380	1266850	6276	6637	2385	4445	534	903	634466	1276862
	Total	58257303	64318375	46372	337503	2527	9727	617	4020	58307711	64667652
Organised	Manufacturing: Registered under Factories act, companies act or other (ASI)*/ Formal	36369	44254	41087	40176	59306	56203	23194	24998	159957	165632
	Services (EC)	1984732	1912149	106064	91268	71781	54347	8698	5814	2173193	2061310
	Construction (EC)	5864	7442	377	484	529	841	200	569	7010	9244
	Total	2026965	1963845	147528	131928	131616	111392	32092	31382	2340160	2236186
Total Unorganised & Organised		60284268	66282220	193900	469431	134144	121118	32710	35402	60647871	66903838
Share (%)		99.4	99.1	0.3	0.7	0.2	0.2	0.1	0.1	100	100

Source: Annual survey of Industry Unit level data of 2014-15, Annual survey of Industry Unit level data of 2010-11, 73rd round NSSO Unincorporated Non-Agricultural Enterprises (Excluding Construction) survey 2015-16 unit level data & 67th NSS Unincorporated Non-Agricultural Enterprises (Excluding Construction) survey 2010-11 unit level data and 5th Economic Census 2005 & 6th Economic Census 2013

From Table 4, we have also seen that like the formal sector firms registered under the Factory Act or under Govt./PSU or under the company act, informal sector or unorganized sector firms are also registered under other acts or authorities, i.e., 28.9 percent in 2010-11 and 30.3 percent in 2015-16, which is a pretty good number for the informal sector.

The acts or authorities under which informal sector firms are registered have been shown in the following Table 6. There are some inclusions and exclusions of acts and authorities between these two points of time between NSS rounds (Table 6).

Table.6: Registration Act/ authorities of unorganized firms

Particulars	Number of Enterprises	
	2010-11	2015-16
Shops and Establishment Act	3772223	4270136
Municipal Corporation/Panchayats/ Local Body	9904106	12678481
Vat /Sales Tax Act	1830626	2383199
Provident Fund Act	72974	91159
Employees State Insurance Corporation Act	64720	61390
Registered with SEBI/ Stock Exchange?		13039
any other industry-specific Act/ Authority	1181990	95150
Total registered	16826639	19592554
Total unregistered	40846606	43799421
Total	57673245	63391974

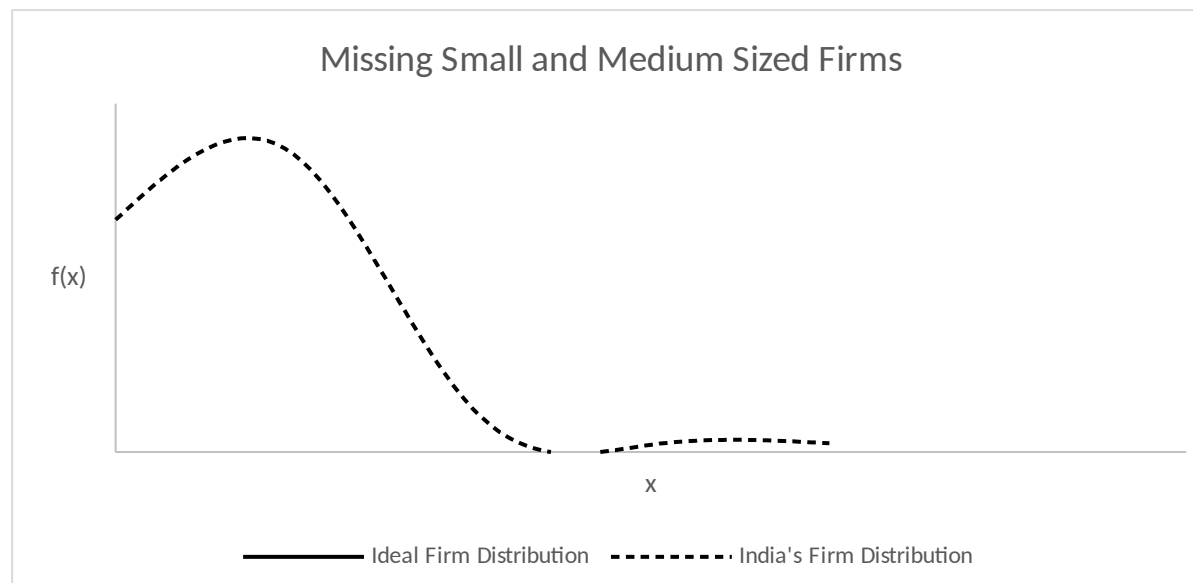
Source: 73rd round NSSO Unincorporated Non-Agricultural Enterprises (Excluding Construction) survey 2015-16 unit-level data & 67th NSS Unincorporated Non-Agricultural Enterprises (Excluding Construction) survey 2010-11 unit-level data

*Any other industry-specific Act/ Authorities are depicted in Annexure Table

Registration under these acts or authorities of informal sector firms is a mere formality, not particularly useful. It is also not synonymous with formalization. These acts or bodies only register about 30 percent of the unorganized firms. Formalization under Factory Act registration tends to assure social security benefits and other benefits in the firms. But registration under these other acts or authorities is only for a simple registration, but the firms remain the same as before such registration. Some small incentives for any State/ Central Government exhibitions or fairs, early access of benefits from any government schemes and availing credit from banks can be gained by these types of registration of informal firms (a subject we return to in the last section).

Rather than considering about bimodal distribution of missing middle from earlier literature, it is better to measure the share of the small and medium-sized firms as opposed to micro and large firms. The following figure 1 depicts several hypothetical plant size distributions that show the notion of missing small and middle. The solid line indicates an undistorted ideal firm size distribution of developing economies and the dotted line exhibits the missing small and medium-sized firms in India. The dotted line depicts the preponderance of micro firms, but it can be seen that small and medium categories are missing from the picture.

Figure.1: A hypothetical illustration of missing small and medium-sized firms in the distribution



Productivity of firms: registered versus unorganized

There are significant productivity differences between small and large establishments. Technical change and returns to scale can be the factors for productivity differentials between these two (Taymaz, 2002). Productivity is one of the leading indicators of performance. In Table 7, we can see that formal sector firms have higher productivity compared to informal ones. Micro formal firms have higher productivity than informal ones. The larger the firm, the higher is the productivity.

Table.7: Average productivity of organised and unorganised firms in 2010-11 & 2015-16 (in Rupees per worker)

Type of Firms	Average Productivity			
	Formal (ASI)		Informal (NSS)	
	2014-15	2010-11	2015-16	2010-11
Micro	517046	423692	86700	60544
Small	363091	322278	237617	227340
Medium	515499	390445	302148	204050
Large	664897	610926	308089	275503
Total	540007	411811	91728	61091

Source: Annual Survey of Industries, Unit level data of 2014-15 and 2010-11, 67th and 73rd round NSSO Unincorporated Non-Agricultural Enterprises (Excluding Construction) survey 2015-16 unit-level data

Note:- Productivity calculated as GVA divided by the number of workers. GVA and productivity calculations have been done after deflating the figures with WPI values (2011-12=100 as the base)

What is noticeable is that formal micro firms have higher productivity than the larger firms in the formal sector. This needs an explanation. One possible reason is that micro firms are particularly inclined to understate the number of their workers. They are unlikely to be inspected or audited, given how numerous they are. So the reported numbers in micro firms listed in the ASI might be much smaller than the actual number of employees working in the enterprise.

2.1. Own Account Enterprises and Other Categories

Own account Enterprises (OAEs) comprise of tiny firms which are not even hiring one worker. A significant portion of unorganized/informal sector firms is OAEs. The share of OAEs is vital since it can guide policies on employment generation and industrial development. It can also help to determine whether the emphasis of policy should be on micro-enterprises grow or on the hurdles to operating larger enterprises (Mel, McKenzie, and Woodruff, 2008).

In Table 8, we find that in urban areas, OAEs are 76.8 percent of all firms in 2010-11 and 76.6 percent of firms in 2015-16, while the OAEs are 91.4% of all rural firms. No change was seen as just over 84.6 percent in 2015-16 are OAEs. This predominance of OAEs in rural and urban is the underlying symptom of, and a reason for, the widespread poverty in the country.

Table.8: Unorganized/ informal sector: Share of Own account enterprises (OAE) in total enterprises by rural and urban location, 2010-11 & 2015-16

Sectors	OAE (nos.)		Total (nos.)		Share (%)	
	2010-11	2015-16	2010-11	2015-16	2010-11	2015-16
Rural	28,245,99 8	29,695,86 1	30,891,07 4	32,489,67 0	91.4	91.4
Urban	20,564,42 8	23,663,44 6	26,782,17 1	30,902,30 5	76.8	76.6
Total	48,810,42 6	53,359,30 8	57,673,24 5	63,391,97 4	84.6	84.2

Source: 67th and 73rd round NSSO Unincorporated Non-Agricultural Enterprises (Excluding Construction) survey 2015-16 unit-level data

OAE's high share led us to examine the sector according to the number of workers. We have categorized the unorganized sector firms into four categories, i.e., OAEs, firms having 1-5 workers (non-directory establishment), firms having 6-9 workers (directory establishment) and firms having 10 & more workers. Other than OAEs, firms are found mostly in the category that employs 1-5 workers, i.e., 12.6 & 13.3 percent in 2010-11 & 2015-16, respectively. A slight increase is seen in the type of firms having 1-5 workers.

The above table is prepared with the given definition of the Ministry of MSME. NSS also earlier gave these two groups in the dataset, i.e., non-directory establishment and directory establishment. So Table 9 has been computed in terms of the size of the employment. But there is not much difference in the picture as the share of firms in these categories has not changed much between 2010-11 to 2015-16. A slight increase in the share of OAEs and enterprises having 1-5 workers has been seen over the period.

Table.9: Non-Agricultural enterprises in Unorganized sector: Size distribution by Number of firms, 2010-11 and 2015-16

Firm categories	2010-11		2015-16	
	No. of firms (nos.)	Share %	No. of firms (nos.)	Share %
OAE	48985940	84.0	54710295	84.6
1-5 workers	7572679	13.0	8740210	13.5
6-9 workers	1069437	1.8	1122717	1.7
10 & more workers	556739	1.0	561692	0.9

Total	58307711	100	64668836	100
-------	----------	-----	----------	-----

Source: 67th and 73rd round NSSO Unincorporated Non-Agricultural Enterprises (Excluding Construction) survey, 2010-11 and 2015-16 unit-level data, and 5th Economic Census 2005 & 6th Economic Census 2013

Notes: Units that employ more than 10 workers but not use electricity and are not registered under the Factories Act 1948 are still regarded as unorganized firms.

The phenomenon of missing small and medium-sized firms can be seen from Table 10 also. The 69.9 million OAEs in 2010-11 and 70.5 million OAEs in 2015-16 account for 63.8 percent in 2010-11 and 61.8 percent share of workers in 2015-16. Firms in the 10 & more workers and 6-9 workers category account for only 15 percent of the total employment of the unorganized non-agriculture sector. It is quite evident from Table 10 that OAEs and non-directory firms employed nearly 85 percent of the total employed persons in the non-agriculture unorganized sector. Missing small and medium firms is one of the reasons for this kind of asymmetry. In India, the self-employed/ OAEs have formed the majority of the workforce and are the most prominent of the informally employed. Given the ease of entry into such activities and the unavailability of formal employment, it is not surprising that self-employment was the most prevalent economic activity.

Table.10: Non-agricultural enterprises in Unorganized sector: Size distribution of firms by Number of workers, 2010-11 & 2015-16

Firm categories	2010-11		2015-16	
	No. of workers (nos.)	Share %	No. of workers (nos.)	Share %
OAE	69975514	63.8	70450987	61.8
1-5 workers	21775489	19.9	25043218	22.0
6-9 workers	7565950	6.9	7872639	6.9
10 & more workers	10218965	9.3	11072178	9.7
Total	109674741	100	113936871	100

Source: 67th and 73rd round NSSO Unincorporated Non-Agricultural Enterprises (Excluding Construction) survey, 2010-11 and 2015-16 unit-level data, and 5th Economic Census 2005 & 6th Economic Census 2013

2.2. *Wages and Earnings of the Workers in Different Categories of Enterprises*

The most exciting aspect of trends in informal employment is the gradual growth in enterprise-based informality. Almost 80 percent of jobs created between 1999-2000 and 2011-12 were generated by unorganized enterprises and the majority of jobs were informal. Informal employment in the formal sector was also rising over the period (Rosa, 2016).

The increase in informal employment is as much a cause as it is a symptom of how the benefits of economic growth in India have bypassed the majority of its population. This is unlike the experience of China where economic growth has been accompanied by an increase in medium and large scale units that provide formal employment to its workers (Ghose, 2014; Majid, 2015). India's high chronic informality in labour market since the 1980s created more temporary workers, contract workers, subcontracting practices (Goldar, 2010) and self-employed jobs.

Low and stagnant wage is also one of the main reasons for this situation. In Table 11, we can observe that first, the majority of units earn less than Rs 5000 per month. Second, there are hardly any units in the >10 workers category where workers earn more than Rs 10 000 per month. Non-directory establishment(1-5 workers), directory establishments (6-9 workers) and 10 & more workers are mostly receiving monthly average wage upto 5000 rupees in 2010-11. Third, by 2015-16 the scenario has changed significantly. The share of unorganized forms where earnings are as low as Rs 5000 or less falls sharply to 80% from 96%. Fourth, the percentage of those earning Rs 5000 to 10 000 pm rises from 4 to 18%. If small and medium-sized firms are in goods numbers, they can play the role of the savior by hiring more and giving higher wages.

Table.11: Unorganized Sector: Monthly average wages & allowances per worker, by the size distribution of enterprises, 2010-11 & 2015-16

Monthly average wage, salaries & other allowances per worker (Rs.)	OAE (own earnings)		1-5 workers		6-9 workers		10 & more workers		Total	
	2010-11	2015-16	2010-11	2015-16	2010-11	2015-16	2010-11	2015-16	2010-11	2015-16
Upto 5000			98.11	84.76	87.46	56.32	81.49	45.66	95.85	79.60
More than 5000 to 10000			1.80	14.08	11.28	36.56	16.27	43.11	3.80	18.06
More than 10000 to 15000			0.06	0.89	0.92	5.76	1.45	7.79	0.25	1.79
More than 15000 to 20000			0.02	0.16	0.24	0.89	0.38	1.92	0.07	0.33

More than 20000 to 25000			0.00	0.05	0.07	0.25	0.16	0.90	0.02	0.12
More than 25000 to 30000			0.00	0.02	0.00	0.08	0.04	0.21	0.00	0.04
More than 30000 to 35000			0.00	0.01	0.01	0.06	0.08	0.11	0.01	0.02
More than 35000 to 40000			0.00	0.00	0.01	0.02	0.00	0.06	0.00	0.01
More than 40000			0.00	0.02	0.01	0.06	0.12	0.24	0.01	0.04
Wage category Total			100	100	100	100	100	100	100	100
Enterprise category Total	84.63	84.17	12.63	13.28	1.79	1.68	0.95	0.87	100	100

Source: 67th & 73rd round NSSO Unincorporated Non-Agricultural Enterprises (Excluding Construction) survey, 2010-11 and 2015-16, unit-level data

2.3. Sectoral Distribution of Unorganised Enterprises and Employees

If much of manufacturing is in the micro- or unorganized sector, that will not only reduce productivity in manufacturing but in the economy. The contribution of manufacturing to India's GDP in 2017 was only about 16%, a share that stagnated since the economic reforms began in 1991. The contrast with the major Asian economies is significant. For example, Malaysia roughly tripled its share of manufacturing in GDP to 24%, while Thailand's share increased from 13% to 33% (1960-2014). The services sector has been flourished more than manufacturing for India. But without the growth of the manufacturing sector, services will not be able to grow for very long (unless they access global markets).

No major country managed to reduce poverty or sustain growth without manufacturing driving economic growth. This is because productivity levels in the industry (and manufacturing) are much higher than in either agriculture or services. Manufacturing is an engine of economic growth because it offers economies of scale, embodies technological progress and generates forward and backward linkages that create positive spillover effects in the economy (Mehrotra, 2019). However, India also has no industrial policy or employment strategy to ride the wave of its demographic dividend.

Table 12: Size-wise sectoral share distribution of informal enterprises in manufacturing & services in 2010-11 & 2015-16

Firm Categories	Rural Services		Urban Services		Rural Manufacturing		Urban Manufacturing		Total	
	2010-11	2015-16	2010-11	2015-16	2010-11	2015-16	2010-11	2015-16	2010-11	2015-16
OAE	39.1	36.0	31.3	32.4	18.7	19.7	10.8	11.8	100.0	100.0
Non-directory establishment	20.1	19.3	51.5	54.2	10.1	8.7	18.3	17.8	100.0	100.0
Directory establishment	11.4	14.0	43.7	45.8	13.3	11.6	31.6	28.6	100.0	100.0
10 & more workers	15.8	18.5	38.7	45.6	19.2	11.5	26.4	24.4	100.0	100.0

Source: 67th and 73rd round NSSO Unincorporated Non-Agricultural Enterprises (Excluding Construction) survey, 2010-11 and 2015-16. Estimated from unit level data

In Table 12, we examine the distribution across manufacturing and services of India's unorganized sector enterprises. What is clear is that service firms dominate; they account for around 60% or more of units (regardless of the size of the enterprise), with manufacturing accounting for the remainder. What is interesting is that services are relatively more prominent among the OAEs and the smallest units (with 1-5 workers), while manufacturing is more critical among the slightly bigger units (>6 workers). Secondly, it is notable that manufacturing is much more important as an economic activity in urban areas, regardless of size than in rural areas.

Table 13: Rural vs urban: Size-wise sectoral share distribution of non-agri informal enterprises in 2010-11 & 2015-16

Firm Categories	Rural		Urban		Total	
	2010-11	2015-16	2010-11	2015-16	2010-11	2015-16
OAE	57.9	55.7	42.1	44.3	100	100
Non-directory estabmnt (2-5 workers)	30.2	28.0	69.8	72.0	100	100
Directory estabmnt (6-9 workers)	24.7	25.6	75.3	74.4	100	100
10 & more workers	35.0	30.0	65.0	70.0	100	100

Total	53.6	51.3	46.4	48.7	100	100
-------	------	------	------	------	-----	-----

Source: 67th & 73rd round NSSO Unincorporated Non-Agricultural Enterprises (Excluding Construction) survey 2010-11 & 2015-16. Estimated from unit-level data

Finally, Table 13 gives us an idea about the distribution of enterprises of different sizes in unorganized non-agriculture across locations – rural and urban. First, what is clear is that OAEs predominate in rural areas, and to a lesser extent in urban areas. Second, however, units of slightly larger size (in terms of employment) are what predominate in urban areas. Putting the information from these last two tables together suggests that manufacturing in the unorganized sector is mainly undertaken by slightly larger units (rather than OAEs), and tends to be located in urban areas. Both these propositions seem logical given that manufacturing would require more inputs and raw materials, which might be more accessible to sources in urban areas, and the markets would also be more convenient in urban areas.

3. Discussion: The Missing Small & Medium-sized Enterprises

We would suggest that the size structure of the non-agricultural sector discussed in India has been confined to a discussion of the ‘missing middle’ phenomena in policy circles. The last time there was a thorough analysis of this sector in the reports of the National Commission for Enterprises in the Unorganized Sector (over 2007-09). This sector not only dominates the enterprise structure of India’s establishments but employs the vast majority of workers in India; they are the self-employed, as well as the wage employed (both casual and regular wage work). They are also what constitutes the bulk of non-agri informality in India. Informal workers usually work in informal enterprises.

By contrast, in Economic Survey 2019, the Indian MSME sector was discussed, but in the discussion, MSME data of the unorganized sector was not used. ASI database was used to examine the dwarf and infant firms (less than 100 workers in a firm and aged more than 10 years is dwarf), small firms (less than 100 workers in a firm) and large firms (more than 100 workers in a firm). However, what we have shown is that the MSME sector is not about only these two categories (although the Economic Survey does characterize ‘dwarf-ness’ rightly as an abiding problem India’s economy).

The MSME is much more complex in structure and the nature of problems they face cannot be captured by this simple characterization. We have shown earlier in this paper using enterprise data that even the total number of unregistered and unorganized firms are not exactly overlapping. There are plenty of unorganized firms that are registered, except that they seem to be registered under a variety of Acts. Government authorities cannot address the problems facing the unorganized sector unless they deal with each of these types separately. But if firms are not even registered, then authorities don’t have any idea about them in practice. How are policies or programs to be devised in the face of such a state of

ignorance? Second, although 31% of unorganized firms are registered, they happen to be registered under Acts that are so numerous and diverse in nature, that there is likely to be little or no consolidated information anywhere in government or any other agency (private or autonomous) that might help a well-meaning government even to begin to support such units.

Thirdly, we have noted that the total registered enterprises are less than one percent compared to all enterprises (organized and unorganized). Fourth, we have found that the presence of small and medium-sized enterprises is almost negligible. Fifth, there is a vast sea of own account enterprises, accounting for the vast majority of enterprises in India.

Yet, the policy discourse in the country is confined merely to the ‘missing middle.’ What we have found is that while there may not be a missing middle if you only examine the organized sector firms (using ASI data), if you combine the ASI data with the NSSO data on an unorganized sector, you discover not only a missing middle but also a missing small. The micro-segment of the MSME sector of non-agri enterprises is vast and is highly differentiated. The OAEs predominate, which could be called nano-enterprises, and they practically don’t figure in the policy discourse (except as potential members of self-help groups). Moreover, the small-sized enterprises may be numerous in sheer absolute number, but they hardly account for a negligible proportion of all enterprises.

What all this implies is the following. Firms start tiny, as a means of survival, and also rarely grow to become significant. This kind of structure owes its origins to the reservation of products for small scale industries that began with the Industrial Policy Resolution of 1956 and lasted till well beyond the 21st century, until the end of the first decade of the millennium. In other words, this distorted the size structure of India’s enterprises over half a century. The policymakers’ challenge now is how to correct for entrenched structure, caught in a low-level equilibrium, a poverty trap.

As though that was not bad enough, the policy regime has tended to encourage the sub-optimal size of enterprises well into the very recent past. Government schemes and incentives are holding back micro or small firms from expansion to some extent. The following table shows the name of schemes for micro, small, medium and large and who can avail the incentives-

Table.14: Government schemes: Who has access depends upon size of enterprise (2013)

Scheme	Description	Availability of Incentive by Size of the organisation			
		Micro	Small	Medium	Large
National Manufacturing Competitiveness Program	Assistance aimed at improving processes, designs and technology.	Y	Y	Y	N
Government Purchase and Price preference policy for MSEs	Till 2012-13, 358 products were reserved for exclusive purchase from MSEs. 20 % of annual value of goods and services purchased to be procured from MSEs	Y	Y	N	N
Credit linked Capital subsidy scheme for technology upgrade	15 % capital subsidy for Tech. upgrade on term loan from approved inst.	Y	Y	N	N
Credit Guarantee Fund scheme for MSE	Credit guarantee for collateral free loan upto 1cr.	Y	Y	N	N
MSE-Cluster Development Programme	Training, tech etc. grant of 75% of project cost and tangible assets, infrastructure, grant of 80% of project cost	Y	Y	N	N
Quality upgradation in MSEs-incentives for certification	Reimburse 75% of ISO certification expenses (max. Rs. 75k one time)	Y	Y	N	N

Micro Finance Programme	SIDBI supporting NGO/micro finance institutions in providing loans	Y	N	N	N
-------------------------	--	---	---	---	---

Source: Economic Survey 2012-13

What table 13 demonstrates is that if firms grow larger than small, and think of becoming ‘medium’ sized, they will lose all the incentives and the benefits of schemes such as the ones above. This cannot be a situation fostering the growth of firms.

Since 1st April 2015, a new scheme has come into existence: MUDRA. To enhance the credit flow to micro and small enterprises (MSEs), Micro Units Development and Refinance Agency (MUDRA) was established on 25th September 2014. On 8th April 2015, Pradhan Mantri Mudra Yojana (PMMY) officially launched by PM, which is nothing but a broader initiative of original MUDRA. All [loans to non-farm micro-enterprises up to Rs 10 lakh](#) by public and private sector banks, and other financial institutions can be renamed as Mudra. Under the PMMY, three categories of loans were to be given, based on the stage of development and funding needs of the micro-enterprises: i) *Shishu* (meaning infant), loans up to Rs. 50,000/- provided with no collateral, @1% rate of interest/month repayable over a period of 5 years, ii) *Kishor* (meaning child): loans above Rs.50,000/- and up to Rs. 5 lakh, iii) *Tarun* (meaning adolescent): loans above Rs. 5 lakh and up to Rs. 10 lakh. In 2018-19, the number of Shishu loans was 89%, Kishor loans were 9.3% and Tarun loans merely 1.6%.

No additionality has been seen through this scheme. Though it has been claimed that it has created many employment and start-ups, there is no sign of it. “It is a typical case of renaming and rebranding” (Mahajan, 2019). Loans under 10 lakhs by the financial institutions in ordinary courses are now counted and reported as ‘Mudra loans, ’ which is no help. The annual report of MUDRA shows that it contributed less than 3% of the total lending by banks as part of their regular lending. Mudra loans account for between 8.5% to 12.6% to full bank credit availed by mainly large borrowers. It also strengthens our argument about the consequences of a vast pool of tiny micro-enterprises and the negligible share of small firms.

Under Mudra Yojana, the average size of loans disbursed is Rs.54072, but the most substantial proportion of loans, 89% of the total, are the Shishu loans, which had an average loan size just Rs 28,074 in 2018-19. This amount is not enough to start up micro-enterprise for self-employment or provide jobs to others. Kishor and Tarun loans can generate additional income and employment, but an insignificant number of these loans are not helping much.

Mudra loans are flawed as a financial product - these are structured as term loans with a tenor of three years, with periodic repayments of principal and interest, whereas 90% or more of the amount is used for working capital, which is needed as long as the microenterprise runs. If the loan is repaid, the unit will not have working capital. These loans should have been offered as cash credit overdraft limits. That would also have reduced the interest burden on the borrowers.

Mudra loans risk a default because debt for new enterprises is the wrong financial product. In debt financing, the entrepreneur has to maintain the fixed installment repayment and this leads to the loan becoming an NPA. Catching up on older installments becomes tougher. Had the Mudra financing been done using the micro-equity framework, the build-up of NPAs would have been avoided (already 4-5%, but growing, since it is early days yet). An RBI expert must examine alternatives to MUDRA retail loans.

Currently, the risk of default is tried to be obviated through credit guarantees from the Credit Guarantee Trust for MSMEs (CGT-MSME). But no guaranteed mechanism can sustainably deal with failure rates as high as 70-80% among new enterprises, which are typical for nano-enterprises run by individual entrepreneurs (Mahajan, 2019). Only a micro-equity fund mechanism can handle this. While many enterprises would go under or would be marginally profitable, returns from the surviving and thriving enterprises would have been enough to offset the investment losses

Missing middle is not new and researchers have been talking about this long time. There is an expectation that some formalization is occurring after the introduction of the goods and services tax (GST) system in July 2017. There is a slight change in the share of informal firms. Existing unorganized sector units have registered if they have an annual turnover 20 lakhs, because GST return has to be submitted. On account of this 93 percent of informal workers in India comes down to 90 percent (Mehrotra and Parida, 2019). Some of the firms do indeed register under GST, but the percentage of this kind of cases is small. This missing part (small and medium-sized firms) needs further detailed research to determine their constraints, size-wise, in detail.

4. Concluding remarks

The MSME sector is the second-largest employer and an essential driver of the economy. But the literature about the 'missing middle' rightly identifies this gap in the size structure of enterprises in developing economies as a severe problem. Though some researchers deny such a problem exists. Hsieh and Olken (2014) wrote about no missing middle in Indonesia, Mexico and India by considering plant size distribution as bimodal. Nagraj (2018) also concluded that no missing middle exists, but based on an analysis of only the organized sector. However, Tybout (2014) argued quite differently.

It is well known that informality abounds in India, both for workers as well as for firms. We have used ASI and NSS data sources both to demonstrate that not only is there a missing middle but a missing small scale sector as well. Even worse, of all micro enterprises 84.2 percent are OAEs. Tiny micro enterprises' ability to expand is minimal. Together with units that employ 1-5 workers, OAEs have an almost 97 percent share.

These units have remained outside the policymakers' frame of reference. Such policies that have been adopted (which we examined briefly), have barely made a dent on the problem. There is a case for a new policy framework that takes these units as the main focus of their attention, as opposed to clubbing together all MSMEs into one catch-all category.

Bibliography

Abraham, R. (2016). *Informal Employment in India: An Analysis of Forms and Determinants* (ISEC Working Paper. 363). Bangalore: Institute for Social and Economic Change.

Banerjee, A., & Duflo, E. (2008). What is Middle Class about the Middle Classes Around the World? *Journal of Economic Perspectives*, 22(2), 3-28.

Bernard, A., Jensen, J., Redding, S., & Schott, P. (2012). The Empirics of Firm Heterogeneity and International Trade. *Annual Review of Economics*, 4(1), 283-313.

Bernard, A., Jensen, J., Redding, S., & Schott, P. (2007). Firms in international trade. *Journal of Economic Perspectives*, 21(3), 105-130.

Chatterjee, U., & Kanbur, R. (2015). Non-compliance with India's Factories Act: Magnitude and patterns. *International Labour Review*, 154(3), 393-412.

Chong, S., Hoekstra, R. H., Lemmers, O., Beveren, I. V., Berg, M. V., Wal, R. V., & Verbiest, P. (n.d.). (2019). The role of small- and medium-sized enterprises in the Dutch economy: an analysis using an extended supply and use Table *Journal of Economic Structures*, 8(1).

De Mel, S., McKenzie, D., & Woodruff, C. (2010). Who are the microenterprise owners? Evidence from Sri Lanka on Tokman versus De Soto. In: Lerner, J., & Schoar, A. (Eds.) *International Differences in Entrepreneurship* (pp. 63-87). Chicago, IL:

University of Chicago Press.

Dhar, P., & Lydall, H. F. (1961). *The Role of Small Enterprises in Indian Economic*. Bombay: Asia Publishing House.

Ghose, J. (2014). The Curious Case of the Jobs that did not Appear: Structural Change, Employment and Social Patterns in India. *Indian Journal of Labour Economics*, 57 (1).

Goldar, B. (2010). Informalisation of Industrial Labour in India: Are Labour Market Rigidities and Growing Import Competition to Blame?. Working Paper No. id:3125, eSocialSciences. Retrieved from <https://ideas.repec.org/p/ess/wpaper/id3125.html>

Government of India. (2017-18). *Annual Report*. New Delhi: Ministry of Micro, Small and Medium Enterprises.

Government of India. (2018-19). *Economic Survey*. New Delhi: Ministry of Finance.

Hasan, R., and K. Jandoc. (2013). Labor Regulations and the Firm Size Distribution in Indian Manufacturing. in J. Bhagwati and A. Panagariya, eds. *Reforms and Economic Transformation in India*, Delhi: Oxford University Press.

Hsieh, C.-T., & Olken, B. (2014). The Missing 'Missing Middle'. *Journal of Economic Perspectives*, 28(3), 89-98.

Krueger, Anne O. (2013). The Missing Middle. in *Economic Reform in India: Challenges, Prospects, and Lessons* edited by Nicholas C. Hope, Anjini Kochar, Roger Noll, and T. N. Srinivasan, Cambridge University Press.

Mahajan, V. (2019), *Employment in MSMEs- Challenges with MUDRA and thePMMY: A Way Forward*, Rajiv Gandhi Centre for Contemporary Studies, New Delhi, mimeo.

Mazumdar, D. (2003). Small and Medium Enterprise Development in Equitable Growth and Poverty Alleviation. In C. M. Edmonds, ed., *Reducing Poverty in Asia; Emerging Issues in Growth, Targeting and Measurement*. Chaltenham: Edward Elgar for the Asian Development Bank

Mazumdar, D., and S. Sarkar. 2008. *Globalization, Labor Markets and Inequality in India*. London and New York: Routledge

- Mazumdar, D., and S. Sarkar. (2013). *Manufacturing Enterprise in Asia: Size Structure and Economic Growth*, London and New York: Routledge and IDRC, Canada
- Mehrotra, S. (2019). 'Manufacturing: The Cornerstone of Planning for a 21st Century India', in Mehrotra, S. and S. Guichard (Eds.) *Planning in the 20th Century and Beyond: India's Planning Commission and NITI*, Cambridge University Press, 2020.
- Mehrotra, S. (2016). *Seizing the Demographic Dividend. Policies to Achieve Inclusive Growth in India*, Cambridge University Press.
- Mehrotra, S. (2020), *Informal Employment Trends in the Indian Economy: Persistent informality, but growing positive development*, ILO Working Paper, Geneva.
- Mehrotra, S. and J. Parida (2019), A Jobs Crisis: Rising Education Levels and Falling Non-agri Job Growth, State of Working India Working Paper, Azim Premji University, Bangalore. ([https://cse.azimpremjiversity.edu.in > wp-content > uploads > 2019](https://cse.azimpremjiversity.edu.in/wp-content/uploads/2019))
- Nagaraj, R. (2018). Of Missing Middle and Size-based Regulation: A New Frontier in the Labour Market Flexibility Debate. *CSE Working Paper # 2018-7*.
- OECD . (2013). *Skills Development and Training in SMEs*. Paris : OECD Publishing .
- Panagariya, A. (2013): *Why growth matters: How India's growth acceleration has reduced poverty*,
- Ramaswamy, K.V.(2013). *Understanding the 'missing middle' in Indian Manufacturing: The Role of Size-Dependent Labour Regulations and Fiscal Incentives*. (V.R.F Series, No.480). Institute of Developing Economies, Japan External Trade Organisation.
- Taymaz, E. (2002). Are Small Firms Really Less Productive? An Analysis of Productivity Differentials and Firm Dynamics, presented at 9th Annual Conference of Economic Research Forum (ERF).
- Tybout, J. (2000). Manufacturing Firms in Developing Countries: How Well Do They Do, and Why? *Journal of Economic Literature*, 38(1), 11–44.
- Tybout, J. (2014). *The Missing Middle, Revisited*. Retrieved from <https://assets.aeaweb.org/>

asset-server/articles-attachments/jep/app/2804/28040235_app.pdf

Annexure

Industry-specific acts/ authorities under which enterprises registered in 2010-11 & 2015-16

Sl. No.	2010-11	2015-16
1	State directorate of industries	State directorate of industries
2	Khadi and Village Industries Commission/Board	Khadi and Village Industries Commission/ Board
3	Development Commissioner of Handicraft/ handloom	Development Commissioner of Handicraft /handloom
4	Coir Board	Commodity boards (Coir board, Silk Board, Jute commissioner, etc.)
5	Directorate of education /AICTE/NCTE	Directorate of education /AICTE/NCTE
6	Silk Board	Pollution Control Board
7	Jute Commissioner	Directorate General of Foreign Trade/ other export promotion agencies
8	Pollution Control Board	State Financial Corporation/Industrial Cooperative Banks/Industrial Development Banks/ SIDBI
9	Directorate General of Foreign Trade/ other export promotion agencies	Food safety and Standards Act, 2006
10	State Financial Corporation/Industrial Cooperative Banks/Industrial Development Banks	District Supply and Marketing Society
11	Technical Consultancy Services Organisations/Council for Technological Upgradation	Technical Consultancy Services Organisations/Council for Technological Upgradation

12	Small Industries Development Bank of India (SIDBI)	Sale tax
13	Small Industries Services Institutes/ other small industries registration agencies	Indian Charitable Act
14	District Supply and Marketing Society	Cinematograph act
15	State Trading Corporation of India Limited (STC)	Money lender's Act (including the State variants)
16	Indian Charitable Act	Societies Registration Act, 1860 (including the State variants)
17	Cinematograph act	Indian Trust Act/Public Trust Act (including the State variants)
18	Money lender's Act	Employees Provident Fund Organisation (EPFO)
19	Societies Registration Act, 1860 (including the State variants)	Others
20	Public Trust Act	
21	Others	

Source: 73rd round NSSO Unincorporated Non-Agricultural Enterprises (Excluding Construction) survey 2015-16 unit level data & 67th NSS Unincorporated Non-Agricultural Enterprises (Excluding Construction) survey 2010-11 unit level data