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# **Problems of Profiling and Collecting Data on Large and Complex Enterprises in India**

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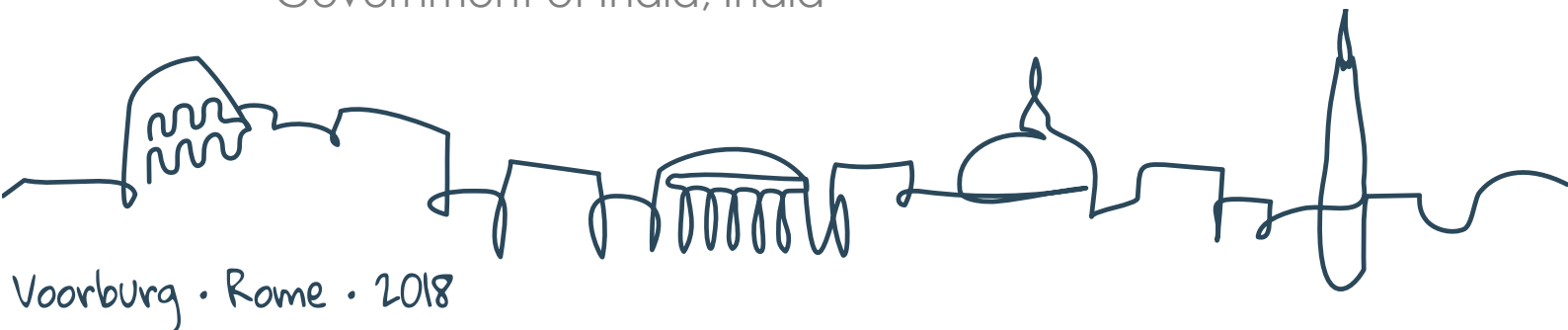
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## Problems of Profiling and Collecting Data on Large and Complex Enterprises in India

### 1. Introduction

The development trajectory of India has been quite unique in the sense that India leapfrogged manufacturing sector to become a service sector driven economy from being a predominantly agrarian economy during independence in 1947. In 2017 the share of industrial sector encompassing manufacturing, construction, electricity, gas and water and mining and quarrying accounted for around 29.1 per cent of the economy while the service sector made up for 54 per cent of Gross Domestic Product (GDP) of the country. The balance was accounted for by agricultural sector. The share of manufacturing sector in GDP is about 17 per cent.

The nature and scope of industrial activities have undergone sea change over the recent decades. Computer aided designing and manufacturing, increasing automation, 3D printing, artificial intelligence, virtual reality and Internet of Things are fast changing the industrial landscape in a dynamic manner. Due to advances in technology, and growing demand of newer and diversified goods and services, the simple manufacturing production units have gradually evolved into complex enterprises. Therefore, the task of profiling and collecting data from enterprises is becoming challenging for the concerned agencies. The large and complex enterprises have intra firm horizontal and vertical linkages and many of these enterprises are part of the global value chain. Policy makers, global investors and the corporate sector performance analysts demand data with greater granularity.

There is ever growing demand for comprehensive data on all facets of industrial activities. The data compilation on large corporate goes beyond the inputs and output encompassing details of externalities generated such as quantum of fresh water usage or carbon emissions or damage to surrounding air, water and soil arising from production and use of industrial goods and services. It has thus become imperative for statistical offices to rise to the occasion and fine tune their surveys to capture the changing nature of industries in a meaningful way. With the increasing importance of new e-commerce companies and internet based startups, the design of industrial statistics needs to focus also on ICT (Information and Communication Technology) and software related data.

### Definition of Complex Enterprises

There is no universally acceptable definition of a complex enterprise. Tying down the definition of a complex enterprise to numerical threshold of net worth or market capitalization or global presence would be self defeating. Today we have online companies that are in essence online market platform with backward linkages to

producers and forward linkage to other business and final users straddling the entire globe in a complex web of financial transactions (think of base erosion and profit shifting) and commercial transactions as an entity in the global supply chain. For our limited purpose we have restricted the scope of a complex enterprise to one satisfying any of the following criteria:

- **Producing wide range of bundled products covering goods and services.**
- Having a significantly higher share of ICT capital
- Outsourcing large parts of production processes to other firms on which it may or may not have direct control

## 2. Scope and Coverage of Enterprise statistics in India

India has two main sources of economy-wide data on enterprises. The scope of the two sources of enterprise data is not mutually exclusive. The scope of both the sources is limited to formal sector enterprises. The first key source is the Annual Survey of Industries (ASI) collecting data from all the factories registered under the Indian Factories Act employing more than ten workers with power or twenty workers without power. The ASI covers units engaged mainly in manufacturing activities. Units falling below the threshold are not covered. The second key source is the Indian Corporate Sector statistics compiled by the Ministry of Corporate Affairs (MCA) based on the returns filed by the registered companies under the provisions of Indian Companies Act, 2013. The corporate sector statistics cover enterprises engaged in agriculture, manufacturing and service sectors of the economy.

Apart from the above two key sources, the National Sample Survey Organisation (NSSO) conducts surveys to collect data on unorganized/informal sector enterprises from time to time after a gap of a few years.

### 2.1. Coverage of ASI

The Annual Survey of Industry (ASI) is a record based survey in the sense that the data are taken from audited balance sheet, Profit and Loss Account of the factory, unlike many other surveys which are response based. Another important feature of ASI data is that the data is tabulated in a manner that enables various studies to be conducted both across geographical domains and industrial categories. In contrast corporate sector data cannot be disaggregated by geographical regions and industrial classifications based on output of individual factories.

The Annual Survey of Industries is the primary source of industrial statistics in India. ASI provides one of the largest continuous series of data on the manufacturing industries anywhere in the world. The ASI was launched in the year 1960 with 1959 as the reference

year and has been continuing since then except for the year 1972. It provides statistical information pertaining to growth, composition, and structure of organized manufacturing sector<sup>1</sup> comprising activities related to manufacturing processes, repair services, gas and water supply and cold storage. It has been specifically designed for economic analysis of the growth and structure of the manufacturing industries in great detail. The unit of data collection in ASI is a factory which is the physical or technical unit of production.

The ASI distinguishes between the Census sector which corresponds to the larger units (based on threshold number of workers) and the sample sector covering the remaining sector. The census units are surveyed every year and the sample units are surveyed depending on their selection during a particular year based on the sampling design adopted.

Of the total number of **234,271** units in the ASI frame, the number of units considered for 2015-16 survey (which includes non-operating factories appearing in the frame) at the country level was **73,481 (47,905 Census and 25,576 Sample)** which was selected after stratifying the units according to their number of employees. Out of 234,271 units in the frame the **estimated number of factories in operation by status of survey was only 191062**.

Due to two years of lag in release of data and limited coverage of ASI, Central Statistics Organization (CSO) of India has started using corporate data collected by Ministry of Corporate Affairs (referred to as MCA 21 dataset) to calculate the GDP as it has wider coverage and is released with a lesser time lag.

## 2.2. Coverage of MCA

The responsibility for collection, compilation and dissemination of basic statistics on the Indian Corporate Sector is vested with the Ministry of Corporate Affairs. The registered companies are required to file certain documents and returns under the provisions of Companies Act, 2013. The corporate sector consists of government enterprises, private corporate sector and quasi corporate bodies. The private corporate sector consists of both financial as well as non financial companies. MCA is the main data source for non financial corporate sector. The data are extracted from the Annual Reports. This is the most comprehensive data set on the corporate sector available in the system. The MCA database covers around one million companies.

### 2.2.1. MCA-21 Data Base

MCA 21 database was created under an e-governance project by the Ministry of Corporate Affairs to enable online data submission by the companies. All companies

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<sup>1</sup>The organized sector in India comprises of firms which are registered under the Indian Factories Act 1948. Firms have to register under the Factories Act if they employ ten or more workers if the firm uses electricity or twenty and more workers if the firm does not use electricity. Registration under Factories Act implies that the firm will need to comply with a wide range of government regulations that are exclusively applicable to formal sector.

listed with any Stock Exchange(s) in India and their Indian subsidiaries; or having paid up capital of Rupees fifty million (0.7 million dollar) and above; or having turnover of Rupees one billion (14 million dollars) are required to file their Balance Sheet and Profit & Loss Account to the MCA.

*Table 1: Coverage of MCA-21 Database since 2015*

Sl No	Economic Activities	Total No. of Companies (As on 31st March)		
		2015	2016	2017
<b>1</b>	<b>Agriculture &amp; Allied Activities</b>	<b>26388</b>	<b>29346</b>	<b>32846</b>
<b>2</b>	<b>Industry</b>	<b>347189</b>	<b>3,59,432</b>	<b>374946</b>
	(i) <i>Manufacturing</i>	215183	2,22,512	232788
	(ii) <i>Construction</i>	106707	1,10,236	114309
	(iii) <i>Electricity, Gas &amp; Water</i>	13446	14575	15440
	(iv) <i>Mining &amp; Quarrying</i>	11853	12109	12409
<b>3</b>	<b>Services</b>	<b>624419</b>	<b>6,76,221</b>	<b>741195</b>
	(i) <i>Business Services</i>	254620	2,90,828	339818
	(ii) <i>Real Estate and Renting</i>	74421	1,56,290	163024
	(iii) <i>Trading</i>	150697	77415	79827
	(iv) <i>Community, Personal &amp; Social Services</i>	63643	67631	69841
	(v) <i>Transport, Storage &amp; Communications</i>	32407	48761	50922
	(vi) <i>Finance</i>	47864	34467	36846
	(vii) <i>Insurance</i>	767	829	917
<b>4</b>	<b>Others</b>	<b>24015</b>	<b>23781</b>	<b>20316</b>
	<b>Total</b>	<b>1022011</b>	<b>1088780</b>	<b>1169303</b>

### 3. Issues and challenges in data collection of Large and Complex Enterprises in India

- 3.1 ASI statistics do not capture accurately enterprises engaged in mixed/ multiple activities. In rapidly developing countries such as India, diversification of industrial activities, forward and backward integration, synergistic management have led to mixed activities within a company. The rule of choosing only major activity in determining the industry misses the major subsidiary activity at classification stage.

- 3.2 In ASI, there exists a large gap between **Reference period and Date of Publication of Data**. A primary objective of collection of statistics pertaining to industry is to record the current state of affairs regarding performance of each sector of industry. However the time lag in release of ASI data has been a major source of concern for policy makers and researchers. For example, in ASI 2015-2016, data collected from establishments relate to their respective accounting years that ended on any day between 1st April 2015 and 31st March 2016. Survey was conducted in the year 2017 (January 2017 to October, 2017). Final data of reference period 2015-16 was published in May 2018. This large gap between the reference period and final date of publication reduces the usability of the ASI data.
- 3.3 The balance sheets and Profit and loss documents often do not reveal true facts and figures either because of intentional clubbing of some items and subjective dissection of others as well as due to the fact that figures appearing in documents do not always confirm to standard definition and calculations for some items of information. (For instance treatment of depreciation). Further since all organizations have not been able to conform to the requirements of International Financial Reporting Standards (IFRS) this leads to lack of comparability of Balance sheet across companies. Sometimes information captured through Balance sheets do not convey the outcome of certain equipments which are procured and maintained at some cost. For instance to comply with regulatory requirements pollution control equipments are purchased by companies but in practice they are not often fully or partly utilized. Thus data on expenses on pollution control equipments do not shed any light on whether they are used for the purpose for which they were purchased.
- 3.4 While ASI captures details of employment by collecting data on workers directly employed and those employed through contractors it is not yet able to fully capture the contribution of digital workers who contribute through off shoring, tele working etc.
- 3.5 In a world where knowledge is fast becoming the engine of growth, there is a need to capture the value of knowledge based assets such as R&D, design, training, brand and organizational improvement and intangible assets such as Intellectual Property Rights. Valuation of digital services (cloud services, digi locker, algo trading) and digital skills is still at its infancy. What often gets captured under expenses on R&D is expense on routine activities like inspection and testing on incoming materials, in –process and finished products and expenses on maintenace and calibration of the components and equipments used for these purposes and some routine data analysis and documentation.

- 3.6 More precise and accurate recording of ICT related investment will help analyze the difference in productivity growth among producers of ICT capital goods industries such as 'electronic and telecommunication equipment', and non ICT industries like 'real estate activities', construction etc.
- 3.7 Business outsourcing of activities has become quite widespread. As a result of fragmentation of production, such activities are outsourced not only to specialized service companies located within the country but also abroad. Thus value added formerly attributed to employees of a company are now being outsourced to specialized companies located both on shore and off shore. The activities of large complex enterprises which are part of such global value chain are not captured precisely.
- 3.8 An important gap in MCA database relates to the information at the regional level. For the companies operating in more than one state/region, there is no way of ascertaining the distribution of GVA of such a company accruing from multiple units spread across states/regions.
- 3.9 The information pertaining to the economic activity or activities (NIC codes) pursued by a company is extracted out of the CIN (Corporate Identification Number) assigned to the company at the time of registration. However subsequently the activities pursued are often different from the NIC Code reported at time of registration; the activity-mix often undergoes change in due course of time. The economic activity recorded at the time of registration continues to remain the principal corporate identifier resulting in bias in estimates.

## 4. Conclusion

Collection of data on various aspects of industrial activity is a major obligation of the Central Statistics Office. The growing importance of large complex enterprises in the economy has posed new challenges and the collection, compilation and presentation of data require dynamism, expertise and use of technology driven tools. A complex enterprise is also likely to be involved in intra firm transactions with subsidiaries spread across the globe. In such cases the availability of a harmonized database covering information on trade flows and industry characteristics would be useful for getting a complete insight into its commercial operations. Design of statistical surveys, therefore, need to keep pace with the changing and evolving structure of industries to better able to estimate their importance and effect on economy.

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