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Labour Absorption in Indian Manufacturing: The Case of the Garment Industry

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I. INTRODUCTION

A striking feature of the Indian economy has been the relatively small contribution made by the manufacturing sector to the country's Gross Domestic Product (GDP) and, more importantly, to employment. In 2013, manufacturing accounted for only 16.5 per cent of India's GDP, compared to 29.7 per cent of China's.³ According to the National Sample Survey (NSS) on Employment and Unemployment, India's manufacturing sector provided employment to 61.3 million in 2011-12, which was only 13 per cent of the country's total workforce of 472.5 million in that year (Thomas 2015a).

This paper is an attempt to understand the reasons for the relatively slow growth of labour absorption into the manufacturing sector in India. The study focuses on the garment industry, which has been a significant generator of factory employment in India, especially for females, from the 1990s onwards. Despite this growth, it appears that India has not fully exploited the employment-creation potential in this industry, particularly so in comparison with the performance of countries such as China and Bangladesh. The present study

¹ Background study for the State of Working India Report 2018.

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³ Data obtained from the World Bank's *World Development Indicators*. Available at <http://data.worldbank.org/indicator>.

is based on an analysis of secondary data sources and a field study of garment factories and workers in Bangalore.

In India, manufacturing consists of the organized and unorganized (or registered and unregistered) sectors. The organized manufacturing sector is almost identical with the factory sector. The factory sector comprises factories that employ more than 10 workers and operate with the aid of electric power, as well as factories that employ more than 20 workers without the aid of electric power. According to data from Annual Survey of Industries (ASI), workers belonging to the factory sector numbered 13.3 million and made up 21.7 per cent of all manufacturing workers in India in 2011-12. This implies that close to 80 per cent of all manufacturing workers in India are outside the factory sector, engaged in small, informal (or unregistered) enterprises. It is notable that despite its low share in employment, the organized sector contributed 67.6 per cent of India's total manufacturing GDP in 2010-11 (GOI, 2016).

What explains India's relatively slow progress in industrialization and industrial growth? This question is important given that the generation of employment in modern industry has been an important objective of economic policies in India from the 1950s onwards. The creation of manufacturing employment is crucial, particularly given the unimpressive record of the Indian economy in recent years with respect to employment creation. Thomas (2018) shows that, given the rate of increase in India's working-age population, the workforce employed in industry and services could *potentially* have grown at the rate of 15 million a year

between 2004-05 and 2011-12. But the *actual* growth during this period was far slower, around 7 million jobs annually. Almost half of the net increase in non-agricultural employment during the 2004-12 period occurred in construction, a relatively low-wage sector. The contribution of the manufacturing sector to the employment growth during these years (2004-12) was particularly slow, less than a million jobs a year (Thomas 2018).

The rest of the paper is organized as follows. Section II deals with the structure and growth of Indian manufacturing. Section III examines the growth of the garment and textile industry in India and also the regional aspects of this growth. Section IV discusses the garment industry in Bangalore and the fieldwork carried out by one of the authors among firms and workers in this industry during the period from September to December 2017.⁴ Sections V deals with the major challenges facing the garment industry. Section VI deals with some the emerging issues with respect to employment creation in the garment industry, and Section VII concludes.

II. STRUCTURE AND GROWTH OF INDIAN MANUFACTURING

Structure of Indian Manufacturing

⁴ The fieldwork carried out by Chinju Johny has been part her doctoral research on 'Female employment in Indian Manufacturing' being done at the Indian Institute of Technology Delhi.

This section provides an overview of the structure and growth of Indian manufacturing. The two main sources of data on manufacturing in India are the National Sample Surveys (NSS) on Employment and Unemployment and the Annual Survey of Industries (ASI). Using NSS data, we can make an estimate of the total size of the manufacturing workforce, which was 61.3 million in 2011-12. At the same time, ASI provides us an estimate of employment in the factory-sector, which was 13.3 million in 2011-12 (see Table 1). The difference between the two estimates roughly corresponds to employment in the unorganised manufacturing sector. It needs to be highlighted, however, that NSS is a household survey while ASI is a survey of enterprises. This difference in the nature of the two surveys is a limitation while making an estimate of employment in the unorganized manufacturing sector using a combination of data from NSS and ASI.

Textiles, garments and leather industries are an important source of manufacturing employment in India. These industries, together, accounted for 20.9 million or more than a third of the total manufacturing jobs in India in 2011-12. Food products, beverages and tobacco rank next in importance as a source of manufacturing employment in India. Together, these industries employed 11.4 million workers in 2011-12. If we consider factory-sector employment alone (rather than total employment in the industry), textiles, garments and leather (TGL) and food and beverages (FB) are again the leading generators of employment. According to ASI, they employed 20.6 per cent and 16.3 per cent respectively of the total factory employment in the country in 2011-12 (see Table 1).

Thus, in 2011-12, the combined share of textiles, garments, leather, food products and beverages (that is, grand total of TGL and FB) in India's total manufacturing employment was 53.6 per cent and in total factory employment was 36.9 per cent. However, the combined share of these industries in value added by the factory sector (2011-12) was only 17.2 percent (see Table 1). This implies that these industries are characterized by relatively low value-added per employee (or low productivity), which is likely to be a result of relative technological backwardness.

A majority of the workers in textiles, garments, leather, food products and beverages are engaged in enterprises that fall outside the factory sector. Consider textiles, garments and leather. In 2011-12, the combined employment (according to NSS) in these industries was estimated to be 20.9 million while the combined employment in the factory sectors of these industries (according to ASI) was only 2.7 million (see Table 1). Therefore, the ratio between factory employment (as per ASI) and total employment (according to NSS) was only 12.9 per cent in the textiles, garments and leather industries combined. The corresponding ratio was 19.5 per cent in food, beverages and tobacco industries combined (see Table 1). Thus it is clear that 80 per cent or more of all workers in the textiles, garments, leather, food products and beverages industries in India are engaged in small enterprises in the unorganised sector.

At the other end, chemicals, petroleum, rubber and plastic products, together, contribute the most (26.2 per cent of the total in 2011-12) to the total value added by the factory sector

in India. But the combined share of these industries in the total manufacturing employment was only 5.6 per cent (according to NSS) in 2011-12. Other industries that have relatively high shares in value added by the factory sector but relatively low shares in manufacturing employment include machinery, equipment and related industries and motor vehicles and transport equipment industries. The ratio between factory employment (according to ASI) and total employment (according to NSS) is relatively high in each of these industries: 56.1 per cent in chemicals and allied industries, 57.7 per cent in machinery and allied industries, and 69.8 per cent in motor vehicles and allied industries compared to 12.9 per cent only in textiles, garments and leather industries (see Table 1).

The manufacture of wood and wood products, furniture, jewellery, music instruments, games and toys, sports goods, as well as of medical and dental instruments (NIC Codes 16, 31 and 32) have been grouped together in Table 1. The combined share of these industries in total manufacturing employment of India was 16 per cent in 2011-12. Nevertheless, these industries had only a limited presence in the country's factory sector: their combined share was 1.9 per cent in factory-sector value added and 2.9 per cent in factory employment (both in 2011-12)(see Table 1). Industries such as games and toys, sports goods and medical instruments have generated significant job opportunities in China, benefiting from the boom in export demand in these sectors. A growth of a similar nature is yet to happen in India.

Growth of Indian Manufacturing Over the Decades

According to estimates based on NSS, India's manufacturing employment was 32.2 million in 1983, 39.8 million in 1993-94, 55.2 million in 2004-05, and 61.3 million in 2011-12 (see Table 2). The size of the manufacturing workforce relative to the country's total workforce remained steady at 10.6 per cent between 1983-84 and 1993-94, but rose to 12.1 per cent by 2004-05 and to 13 per cent by 2011-12 (see Table 2).

Despite the growth of the size of the overall manufacturing workforce, there had been hardly any significant change in the size of India's factory sector during the 1980s and 1990s. According to the Annual Survey of Industries, factory sector employment in India was 8.2 million in 1983, 8.8 million in 1993-94 and 8.5 million in 2004-05. Factory sector employment as a share of total manufacturing employment in India declined from 25.5 per cent in 1983 to 15.4 per cent in 2004-05 (see Table 2 and Figure 1).

The 'jobless' growth - stagnant growth of employment despite a relatively fast growth of value added - in India's factory sector between the 1980s and early 2000s has been the subject of a scholarly debate. Some scholars have argued that labour regulations have reduced the flexibility in India's labour market and thereby slowed down the growth of factory employment in the country. In other words, it is argued, the processes of hiring and retrenching of workers have become more cumbersome for the employers following regulations (Fallon and Lucas 1993; Besley and Burgess 2004). At the same time, some other scholars have questioned the argument that India's labour market is rigid, and even pointed to some

problems in the methodologies used in studies that attributed jobless growth to labour regulations (Bhattacharjea 2009; see also the review in Thomas 2018).

It is notable that despite the stagnancy in the growth of factory employment, total manufacturing employment in India (according to NSS household surveys) increased by 23 million (from 32.2 million to 55.2 million) between 1983 and 2004-05 (see Table 2). This suggests that the expansion of manufacturing employment in India during the period from the early 1980s to the middle of the 2000s occurred largely in micro and small units in the unorganised sector.

The pattern of manufacturing employment growth in India from the mid-2000s onwards has been markedly different from the pattern observed during the two earlier decades. On the one hand, between 2004-05 and 2011-12, factory employment rose sharply from 8.5 million to 13.4 million - in a clear break from the pattern of jobless growth in the factory sector during the two earlier decades (see Table 2 and Figure 1). At the same time, however, the growth of total manufacturing employment during the 2004-12 period was at a significantly slower pace than during the two earlier decades.

The net increase in total manufacturing employment (according to NSS) in India during the eleven years between 1993-94 and 2004-05 was 15.4 million (increasing from 39.8 million to 55.2 million) -- thus resulting in an annual growth of 1.4 million manufacturing jobs a year. This growth slowed

down to only 0.9 million manufacturing jobs a year between 2004-05 and 2011-12 (a net increase of 6.1 million, from 55.2 million to 61.3 million, during the seven-year period). It is also important to note that, between 2004-05 and 2011-12, the net increase in employment in the manufacturing sector was only 10.6 per cent of the net increase in non-agricultural employment in India (Thomas 2015).

It appears that almost the entire increase of manufacturing employment (15.4 million) between 1993-94 and 2004-05 was in the unorganized sector (as there was hardly any increase in factory employment during the same period. On the other hand, between 2004-05 and 2011-12, increase in factory employment (by 4.9 million) accounted for most of the net increase in manufacturing employment (by 6.1 million) (see Table 2).

Contract workers have constituted an increasingly large proportion of the incremental employment in India's organised manufacturing sector during the recent years. Table 3 shows that, in 2014-15, workers employed through contractors accounted for 27.4 per cent of all persons employed in India's factory sector (see Table 3). Thus within India's formal manufacturing sector, growth of employment since the mid-2000s has occurred along with a growing informalisation of the workforce.

III. THE GROWTH OF THE GARMENT AND TEXTILE INDUSTRY

This section examines the structure and growth of the textile and garment industries in India. As already shown, textiles,

garments and leather industries have combined shares of 34.7 per cent in total manufacturing employment, 20.6 per cent in factory employment and 7.9 per cent in value added by the factory sector (see Table 1).

A major structural change in Indian industry has been the steady decline in employment suffered by the textile factories since the early 1980s. Factory employment in the textile sector declined from 15.2 lakh in 1979-80 to 12.3 lakh in 1988-89, and after showing some signs of revival during the first half of the 1990s, it declined further to 11.8 lakh by 2002-03 (see Figure 2).

It is important to note that even as factory employment in textiles stagnated during the 1980s and 1990s, total employment (factory as well as non-factory) in the textile industry (estimated from NSS household surveys) increased from 58.8 lakh in 1983 to 66.5 lakh in 1993-94, and to 101.4 lakh in 2004-05 (see Table 4). As the big textiles mills (cotton and jute) closed down from the 1980s onwards, especially in Bombay, Calcutta and Ahmedabad, the industry shifted to the unorganised sector. Small-scale spinning units and power looms expanded, particularly in centres such as Bhiwandi and Coimbatore.

Despite the stagnation in the growth of textile factories, factory employment in the garment sector grew sharply in India from the late 1980s onwards: from 63,000 in 1986-87 to 1.3 lakh by 1991-92 and 4.5 lakh by 2004-05 (see Figure 2). As in the textile industry, a vast segment of the workforce in the garment industry too has been outside the factory sector,

engaged in small tailoring units or household enterprises. In 2004-05, there were a total of 76.5 lakh garment workers according to NSS, although employment in garment factories (according to ASI) numbered only 4.5 lakh (see Table 4). The ratio between factory employment (according to ASI) and total employment (as measured by NSS) was 5.9 per cent in the garment industry in 2004-05, up from 1.1 per cent only in 1983. On the other hand, this ratio had declined in the textile industry from 25 per cent in 1983 to 12.5 per cent in 2004-05 (see Table 4).

Factory employment in the textiles, garments and leather industries in India staged a revival from the early 2000s onwards. Between 2004-05 and 2011-12, factory employment increased from 12.6 lakh to 14.6 lakh in the textile industry; from 4.5 lakh to 9.2 lakh in the garment industry; and from 1.5 lakh to 3 lakh in the leather industry (see Table 4 and Figure 2).

At the same time, despite the increase in factory employment, total employment recorded by the NSS declined in the textile sector from 101.4 lakh in 2004-05 to 95.9 lakh in 2011-12 (see Table 4). This implies that the growth of the textile industry in the unregistered sector may have halted or even reversed between 2004-05 and 2011-12. In the garment industry, total employment (as measured by NSS) increased to 99.1 lakh by 2011-12, although the pace of employment growth slowed down after the mid-2000s. By 2011-12, the ratio between factory employment (according to ASI) and total employment (as measured by NSS) rose to 9.3 per cent in the garment industry (up from 5.9 per cent in 2004-05) and 15.2 per cent

in the textile industry (up from 12.5 per cent in 2004-05) (see Table 4).

The garment industry has been one of the largest generators of manufacturing employment in India since the 1990s. Between 1993-94 and 2011-12, employment in India's garment factories increased by 7.1 lakh (from 2.1 lakh to 9.2 lakh), which was approximately 15 per cent of the total increase in factory employment (46 lakhs) during this period. In comparison, the increase in factory employment in the textile industry during this period (1993-2012) was only 1.7 lakhs. At the same time, there had been a remarkable expansion in total employment (including employment in the unregistered sector) in both the textile and garment industries -- by 29.4 lakh (from 66.5 lakh to 95.9 lakh) and 26.8 lakh respectively - between 1993-94 and 2011-12 (see Table 4).

Despite the recent revival in factory employment, the growth of the textile and garment industries in India has been far less than the growth achieved in these sectors by some other countries, notably China. In 2016, exports of textiles and garments from India amounted to \$16 billion and \$18 billion respectively (see Table 5 and also see Figure 3). At the same time, compared to exports from India, exports from China (in 2016) were six times higher in the textiles sector and nine times higher in the garments sector. Not only China, but Bangladesh and Vietnam too have experienced much faster rates of growth of exports of garments compared to India. Between 1990 and 2016, while India's share in global exports of garments increased from 2.3 per cent to 4 per cent, China's

share increased from 8.9 per cent to 36.4 per cent and Bangladesh's share rose from 0.6 per cent to 6.4 per cent (see Table 5).

Regional Aspects

The major centres of the factory-based production of textiles in India are in Tamil Nadu, Gujarat, West Bengal, Maharashtra and Punjab. These five States, together, accounted for close to 70 per cent of the employment in registered factories in the textile sector in India in 2011-12. However, if we consider the total (that is, organized and unorganized sectors combined) employment in the textile industry, Uttar Pradesh topped the list with 24 lakh workers, although factory employment in the textile industry in that State was only 40,000 (both in 2011-12). Factory employment as a share of total employment in the textile sector amounted to approximately 20 per cent in Tamil Nadu (3.3 lakh factory workers out of a total 15.8 lakh textile workers), 24 per cent in Gujarat, and 25 per cent in Maharashtra. But this share was much lower in West Bengal and Uttar Pradesh: 10 per cent and only 2 per cent respectively (see Table 6; see also Thomas 2015b).

In the garment industry, the ratio between factory workers and total workers was only 11.3 per cent, which was smaller than the corresponding ratio in the textile industry (17.8 per cent). The two major Indian States with respect to the factory-based production of garments are Karnataka (2.9 lakh factory workers) and Tamil Nadu (2.7 lakh factory workers). There is a sizeable presence of garment factories also in Haryana (85,000 factory workers), Uttar Pradesh (81,000 factory workers) and Punjab (45,000 factory workers). Bangalore in

Karnataka and Tirupur in Tamil Nadu are two of the major centres of factory-based production of garments. The National Capital Region (NCR) (which extends over the States of Delhi, Uttar Pradesh and Haryana) and Ludhiana in Punjab are two of the major garment-manufacturing centres in the northern part of India (see Table 6).

According to NSS data, the size of the workforce attached to the garment industry is large in West Bengal (14.6 lakh workers), Uttar Pradesh (11.2 lakh workers), as well as in Maharashtra and Andhra Pradesh. However, factory employment in the garment industry is small in these States; most of the garment workers in these States work outside the factory sector. In 2011-12, the ratio between factory workers and total workers in the garment industry was 45 per cent in Karnataka, 28 per cent in Tamil Nadu, and 50 per cent in Haryana, but 7 per cent in Uttar Pradesh, 8 per cent in Punjab, and less than 5 per cent each in West Bengal, Maharashtra and Andhra Pradesh (see Table 6).

It is notable that as proportions of total persons employed, contract workers are relatively low and directly employed workers are relatively high in the textile, garment and leather industries in India. In 2014-15, directly employed workers accounted for 76.3 per cent and 72.1 per cent respectively of all persons employed in the garment and textile industries. In comparison, the corresponding proportion was 41.8 per cent for automobile manufacturing and 50.1 per cent for the factory sector as a whole. Workers employed through contractors accounted for only 9.2 per cent in the garment

industry, much less than the average for the factory sector, which was 27.4 per cent (see Table 3).

The proportions of workers employed through contractors are relatively low and the proportions of directly employed workers are relatively high in the southern States of Tamil Nadu, Karnataka and Andhra Pradesh. For instance, in Karnataka, workers employed through contractors accounted for only 0.8 per cent of all factory employees in the garment industry. The corresponding proportion for Haryana was 32.5 per cent (see Table 7).

In India, the garment industry is characterized by relatively high share of women workers. Directly employed women workers as a proportion of all employees was 39.1 per cent in the garment industry compared to 10 per cent only in the factory sector as a whole (see Table 7). Compared to the nation-wide averages, Tamil Nadu and Karnataka employ a relatively high proportion of women workers. In the garment industry, directly employed women workers as a proportion of all employees were 62.5 per cent in Karnataka compared to 9.6 per cent only in Haryana and 39.1 per cent in India as a whole (see Table 7).

Table 1: Industry-wise distribution of Employment and Value Added, All Manufacturing and Factory Sector, 2011-12

Industry category (NIC 2008 codes)	As shares of total, in %			Employment in million numbers		Factory employment as % of total employment
	Factory sector (ASI)		Total employment (NSS)	Total (NSS)	Factory sector-Manufacturing (ASI)	
	Value added	Employment				
Food products, beverages, tobacco products (10, 11, 12)	9.3	16.3	18.9	11.4	2.2	19.5
Textiles, garments, leather goods, footwear (13, 14, 15)	7.9	20.6	34.7	20.9	2.7	12.9
Wood products, furniture, jewellery, toys, precision devices (16, 31, 32)	1.9	2.9	16.0	9.7	0.4	4.1
Chemicals, petroleum, rubber and plastic products (19, 20, 21, 22)	26.2	13.6	5.6	3.4	1.9	56.1
Minerals, metals, metal products (23, 24, 25)	18.6	20.5	15.9	9.6	2.7	28.1
Machinery, equipment, instruments (26, 27, 28)	15.6	11.1	4.2	2.5	1.5	57.7
Motor vehicles, transport equipment (29, 30)	10.6	7.7	2.6	1.5	1.1	69.8

Manufacturing/Factory sector	100.0	100.0	100.0	60.2	12.9	21.4
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Source: Estimates based on unit-level data of NSS and ASI.

Table 2: Employment in Manufacturing and Factory Sector, numbers in millions

Year	1. Total Workforce	2. Total Manufacturing	3. Factory sector	2 as % of 1	3 as % of 2
1983	303.4	32.2	8.2	10.6	25.5
1993-94	374.4	39.8	8.8	10.6	22.1
2004-05	457.8	55.2	8.5	12.1	15.4
2011-12	472.5	61.3	13.4	13.0	21.9

Note: Total manufacturing employment given in Table 2 (61.3 million) is different from the manufacturing employment cited in Table 1 (60.3 million). This is because the estimates in Table 1 are based on unit level data of the NSS while the estimates in Table 2 are based on summary results provided in NSS reports.

In India, the factory sector also comprises some industries that are outside manufacturing, including: extraction of salt; electricity, gas and water supply; sewerage and waste collection; publishing of books and periodicals, and so on. Factory-sector employment given in Table 2 (13.4 million in 2011-12) refers to employment in the entire factory sector including industries that are outside manufacturing. However, in Table 1, we have given employment in the factory sector in manufacturing activities alone (12.9 million in 2011-12).

Source: Estimates based on NSS and ASI.

Table 3: Structure of factory employment in India, 2014-15, as % of all persons engaged

Category	Textiles	Garments	Leather and related products	Motor vehicles	All
1. Workers	84.4	85.5	85.2	77.4	77.5
1.1. Directly Employed	72.1	76.3	67.3	41.8	50.1
1. 1a. Men	57.9	37.2	39.9	39.5	40.1
1. 1b. Women	14.2	39.1	27.4	2.3	10.0
1. 2. Employed through contractors	12.2	9.2	17.9	35.5	27.4
2. Employees other than workers	15.3	14.3	14.4	22.5	22.0
2. 1. Supervisory and Managerial	6.5	6.1	6.6	11.1	9.8

All persons engaged	100	100	100	100	100
All persons engaged, in 1000 numbers	1538	989	327	893	13,881

Source: Estimates based on ASI

Table 4: Estimates of the Number of Workers in Textiles Garments and Leather Industries in India, in 100,000 numbers

		Textiles	Garments	Leather	Textiles, Garments and Leather
1983	All	58.8	48.0	6.5	113.3
	Factory	14.5	0.5	0.7	15.8
1993-94	All	66.5	72.3	9.8	146.0
	Factory	12.9	2.1	1.2	16.2
2004-05	All	101.4	76.5	13.2	192.7
	Factory	12.6	4.5	1.5	18.6
2011-12	All	95.9	99.1	13.8	208.8
	Factory	14.6	9.2	3.0	26.9

Source: Estimates based on NSS and ASI.

Table 5: Exports in Textiles and Clothing (in billion dollars and percentage)

	Value in billion dollars	Share in world exports, in %					
		1980	1990	2000	2005	2010	2016
Textiles							
China	106	4.6	6.9	10.3	20.2	30.5	37.2
European Union	65			36.0	34.8	27.0	23.0
India	16	2.4	2.1	3.5	4.1	5.1	5.7
Vietnam	7			0.2	0.4	1.2	2.4
Apparel							
China	161	4	8.9	18.3	26.6	36.7	36.4
Bangladesh	28	0	0.6	2.6	2.5	4.2	6.4
Vietnam	25			0.9	1.7	2.9	5.5
India	18	1.7	2.3	3.0	3.1	3.2	4.0
Cambodia	6				0.8	0.9	1.4

Source: World Trade Statistical Review, various reports

Table 6: Estimates of Manufacturing Employment in India and Selected States in 2011-12: All Manufacturing (according to NSSO) and Factory Sector (according to ASI), in 1000 numbers.

	Textiles (T)		Garments (G)		Leather (L)		TGL combined		Manufacturing	
	All	Factory	All	Factory	All	Factory	All	Factory	All	Factory
Tamil Nadu	1676.0	329.6	976.6	269.7	262.5	118.5	2915.0	717.9	6598.5	1940.8
Maharashtra	566.1	139.3	872.2	36.6	58.8	4.6	1497.0	180.5	5961.2	1880.6
Gujarat	1045.3	247.2	646.8	17.4	13.1	0.6	1705.0	265.2	5148.4	1383.8
Andhra Pradesh	331.4	90.8	824.6	23.6	30.0	9.6	1186.0	123.9	4019.4	1362.8
Karnataka	210.1	20.3	641.1	286.5	5.0	5.8	856.0	312.5	3265.7	906.5
Uttar Pradesh	2408.0	39.0	1128.2	81.2	490.4	67.1	4027.0	187.3	8755.6	864.3
West Bengal	1670.7	174.0	1460.5	7.7	236.9	38.9	3368.0	220.7	8417.6	654.3
Punjab	186.5	109.6	579.6	45.1	50.3	5.2	816.0	159.8	1877.8	600.0
Haryana	99.9	43.8	169.7	84.9	20.1	21.1	290.0	149.7	1216.0	582.4
Delhi	92.7	3.4	415.7	27.6	77.5	5.4	586.0	36.4	1199.6	116.2
Rajasthan	338.0	96.8	360.0	17.2	46.5	6.4	745.0	120.4	2554.2	474.9
Kerala	168.8	27.0	332.3	7.7	7.5	3.1	509.0	37.8	1810.9	393.4
Bihar	86.9	3.9	378.1	0.0	12.0	0.9	477.0	4.8	1674.2	126.6
Madhya Pradesh	83.2	37.9	352.3	1.4	26.4	4.1	462.0	43.4	2075.1	314.8

India	9360.1	1458.1	9812.7	922.7	1362.2	304.8	20535.0	2685.6	60163.6	13430.5
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Source: Estimates based on NSS and ASI.

Table 7: Directly Employed Workers, Directly Employed Women Workers, and Contract Workers: As Proportions of all Persons Employed, in selected industries in India, 2014-15, in %

	Directly-employed workers			Contract workers			Directly-employed women workers		
	Textiles	Garments	All	Textiles	Garments	All	Textiles	Garments	All
Tamil Nadu	83	82.5	66.3	5.2	5.7	15.5	38.9	44.5	25.8
Karnataka	71.8	85.7	59.4	11.5	0.8	17.5	24.6	62.5	24.8
Gujarat	70.7	77	47.9	14.7	10.2	27.5	1.7	32.3	2.4
Haryana	58	51.2	36.9	20.5	32.5	41.2	3	9.6	2.2
Maharashtra	51.7	60.4	40.6	31.6	15.7	28.7	4.2	17.2	5.1
Andhra Pradesh	83.2	89.1	59.8	6.1	4.1	20.5	30	71.6	18.1
Uttar Pradesh	60.5	60.4	48.5	16.8	22.6	27.7	3	9.6	2
West Bengal	87.5	44.8	55.1	4.7	21.5	24.6	1.7	9.5	1.8
Punjab	81	82.6	55.6	3.2	0.3	24.6	13.6	6.8	3.9
India	72.1	76.3	50.1	12.2	9.2	27.4	14.2	39.1	10

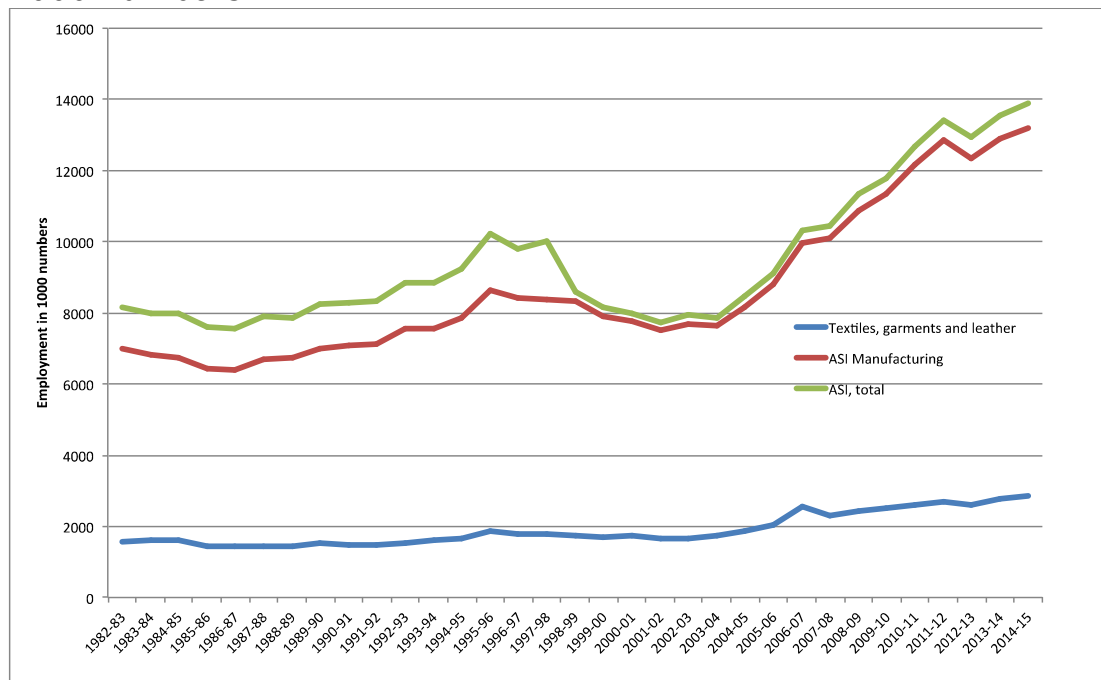
Source: Estimates based on ASI.

Table 8: Employees per factory, Gross Value Added per employee and Emoluments per employee in Selected States, 2014-15

	Employees per factory, in number			As Indices, Index for India = 100					
				Gross Value Added per employee			Emoluments per employee		
	Textiles	Garments	All	Textiles	Garments	All	Textiles	Garments	All
Tamil Nadu	76	118	73	83.6	84.3	61.6	85.5	85.5	90
Karnataka	89	471	96	97.4	89.2	87.9	131.5	98	112.3
Gujarat	156	77	82	93.6	102.9	160.1	100.9	110.4	101.8
Haryana	74	295	113	104.9	105.5	94.2	102.5	114.8	102.9
India	112	151	73	100	100	100	100	100	100

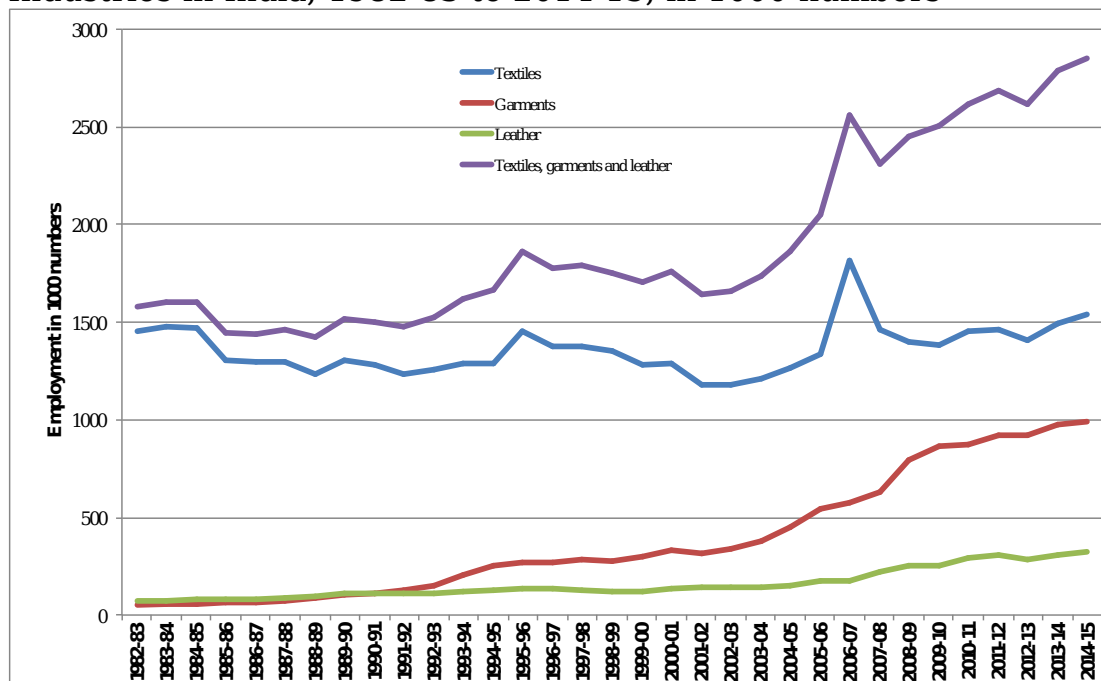
Source: Estimates based on ASI.

Figure 1: Employment in India's Factory Sector, 1982-83 to 2014-15, in 1000 numbers



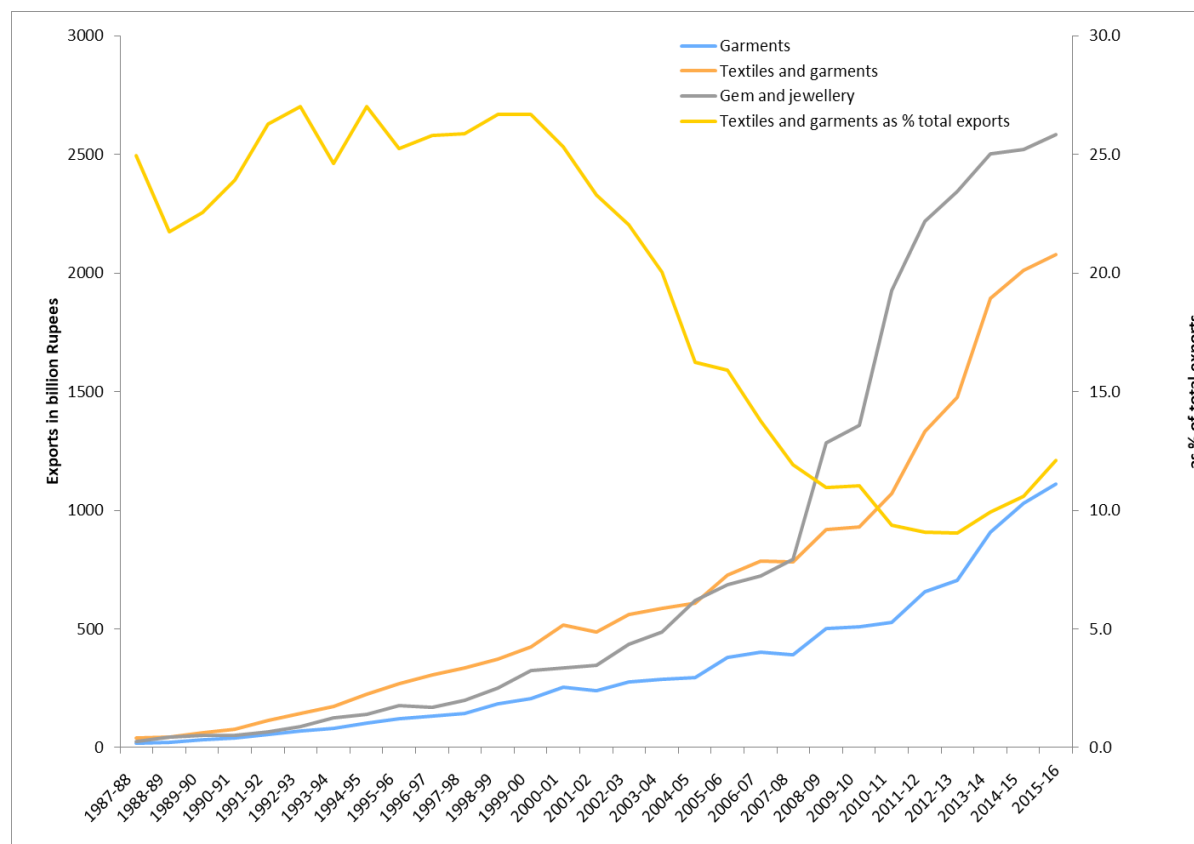
Source: Annual Survey of Industries

Figure 2: Factory Employment in the Textiles, Garments and Leather Industries in India, 1982-83 to 2014-15, in 1000 numbers



Source: Annual Survey of Industries

Figure 3: Exports from India of Textiles and Garments, in billion Rupees and as % of Total Exports, 1987-88 to 2015-16



Source: Reserve Bank of India

IV. SETTING THE CONTEXT: THE GARMENT INDUSTRY IN BANGALORE

The next three sections focus on the growth of the garment industry in India. The analyses in these sections are based mainly on the field study carried out by one of the authors on the garment industry in Peenya Industrial area in Bangalore during the period from September to December 2017.

As discussed in the previous section, garment industry has been one of the important generators of factory employment in India since the 1990s, especially for females. At the same time, however, the growth of the garment industry in India over the last quarter century has been far less impressive than the growth of the garment industry in China, Bangladesh and Vietnam.

Economists and policy makers are of the opinion that apparel manufacturing has great potential in India, given the labour-intensive nature of this industry on one hand and the availability of vast reserves of cheap labour on the other. The country has a large domestic market for textiles and garments. Moreover, the entire value chain in the cloth industry has a presence in the country - including growing of cotton, spinning, weaving to garment making (Jordan et al 2014). Therefore, it is important to understand why the performance of the apparel industry in India has so far failed to meet the potential the country has in this industry.

According to the proponents of the labour rigidity argument (referred in an earlier section), an important consequence of labour regulations in India is the predominance of small factories and the

relative absence of middle-sized factories in the country.⁵ Several scholars have studied the problem of the ‘missing middle’ in Indian manufacturing (Dhar & Lydall 1961; Mazumdar & Sarkar 2013). Firms use non-permanent workers to stay below the threshold size and thereby avoid costs attributed to larger firm size. The intensity in the use of contract workers is highest for firms in the 50-99 size group (Ramaswamy 2013). A study by (Ahluwalia et al, 2018) finds that after the expiry of the Multifibre Agreement (MFA) in 2005, States with flexible labour regulations performed better in the garment industry compared to States with restrictive regulations.

It is indeed true that the average size of a factory is relatively small in India. In 2014-15, average numbers of workers per factory were 112, 151 and 73 respectively in the textile industry, garment industry, and the factory sector as a whole in India (see Table 8). In comparison, the median factory size in Bangladesh’s garment industry ranges from 650 to 1200 workers. Some estimates suggest that Bangladesh has 5.1 million garment workers of which 56 per cent are women (Labowitz and Baumann-Pauly 2015; also see Yousuf et al 2015).

At the same time, however, as already noted, many studies have debated the argument that labour regulations form the chief

⁵ The labour regulations referred here include the Industrial Disputes Act (IDA) of 1947, the Industrial Employment (Standing Orders) Act of 1946, the Trade Union Act of 1926 and the Contract Labour Act of 1970. The IDA requires firms with 100 or more workers to seek government provision to retrench or lay off any worker. The Industrial Employment Standing Order Act requires the employers in firms with 100 or more works to seek government permission to reassign any employee to a different task. The Trade Union Act allows any seven employees to form a union. The Contract Labour Act restricts the use of contract workers for certain tasks (Bhagwati and Panagariya, 2013).

constraint to employment creation in Indian manufacturing (see Thomas 2018; Halder and Deakin 2015; Sood et al 2014; and Thomas 2013). These studies point to the growing share of contract or other informal workers, who are outside the purview of the labour regulations, in the factory sector. The implementation of labour laws has become increasingly weak in a number of Indian States. At the same time, studies have also shown that a number of other factors have indeed constrained the growth of Indian manufacturing. They include the slow growth of investment in the country; poor state of infrastructure including of power generation and roads; insufficient availability of credit, especially to micro and small industries; rising import competition and the general macroeconomic environment that has not been supportive of manufacturing growth (Thomas 2013; Thomas 2018). Given such a context, this paper aims to understand the range of factors that may have had an impact on the growth of garment industry in India.

Garment Industry in Bangalore: Some Distinctive Features

There are a few aspects that make Bangalore an appropriate location for a field study on the garment industry in India. First, as already shown, Karnataka has the highest number of factory employees in the garment industry among all Indian States. Within Karnataka, the largest concentration of garment factories is in Bangalore Urban District and employs almost 4 lakh workers in the formal sector. The ratio between factory-sector workers and all workers in the garment industry was 45 per cent in Karnataka, which was higher than in any other Indian State (in 2011-12). Also, directly employed workers constitute 85.7 per cent of all garment

employees in the factory sector in Karnataka, compared to the corresponding Indian average of 76.3 per cent.

Thirdly, and perhaps most importantly, garment factories in Karnataka are larger compared to the rest of India with respect to the size of employment. In 2014-15, the average number of workers per garment factory was 471 in Karnataka compared to national average of only 112 (see Table 8). Also the garment industry in Karnataka employs a relatively large number of women workers. Directly employed women workers as a proportion of all persons employed was 62.5 per cent in Karnataka compared to 39.1 per cent in India as a whole.

Thus in some respects the nature of the growth of the garment industry in Bangalore and in Karnataka, in general, is similar to the way this industry has been growing in countries such as China and Bangladesh - in large factories and with a predominance of women workers. In any case, it is clear that compared to the rest of India, the garment industry in Bangalore suffer less from the problem of small size of factories.

The early significant growth of the garment industry in Bangalore can be traced to the 1970s. The growth accelerated during the 1990s when garment firms in Mumbai relocated in large numbers to Bangalore (Mezzadri 2012). Garment units in Bangalore are mostly integrated factories producing woven goods. They are different from garment units in Tirupur, which are known for knitting works, and units in Ludhiana or West Bengal, which are known for embroideries (also see Uchikawa 2017). Garment units in Bangalore maintain stable relationships with the major global companies in the business. The existence of a strong industrial base

built by public sector units, availability of skilled labour, peaceful industrial relations and good weather are some of the advantages offered by Bangalore for the garment industry.

As already shown, Bangalore's garment industry is characterized by relatively large units, with limited subcontracting and with limited use of contract workers. (RoyChowdhury, 2005). Bangalore specialises in the production of woven varieties, in which the scope for small scale putting out is very limited.⁶ The big global apparel brands insist on low turn-around time. Subcontracting affects the quality of output and turn-around time. Hence firms prefer to run much of their operation in house (except washing, which some of the firms outsource). This could also be why Bangalore's garment factories are known for the quality of their products.

The major localities in Bangalore with a concentration of garment factories are Pennya, Bomanahalli, and Mysore Road. In the early years Mysore road was the major location for the industry. However, over the years, with the increase in land prices, garment factories began to be set up in other places. The majority of garment workers in Bangalore hail from nearby rural areas such as Chikamangalur and Chitradurga.

According to data obtained from the Directorate of Factories and Boilers, Karnataka, there were 750 garment factories in Bangalore's urban and rural districts combined in 2015-16. The number of workers per factory ranged from 10 (the smallest as per the requirements to register a factory) to 9500. There were 185 factories that employed more than 500 workers, and 278 factories

⁶ According to a prominent NGO worker who has been associated with the garment sector for more than 15 years.

that employed between 100 and 500 workers. Medium-sized players in the industry own one or two garment factories, each of which employ between 100 and 250 workers. In comparison, the big players control 10 to 50 factories operating in different parts of Karnataka as well as other States.

The very small factories (10-50 workers) mostly operate out of the houses of their owners and often employ family members as workers. For instance, in one of the factories we visited two brothers and their wives were working full time in a home-based unit and not drawing any salary. Typically, wage payments in small factories are on a piece rate basis whereas in the larger factories, workers receive monthly payments. The small and medium garment factories depend largely on domestic demand, including the demand for uniforms for public schools and institutions.

As part of our field study, we conducted detailed interviews with exporters, garment manufacturers, and workers in the Peenya industrial area during the period from September to November 2017. Most of the large units had multiple factories and our interviews with senior managers of these units were held in their head offices located either in Peenya or Mysore road. In addition, we had interviews with non-governmental organizations (NGOs) and labour unions working with garment workers and activists. We interviewed 25 firm owners/managers and 115 workers in Peenya industrial area. Of the firm owners/managers interviewed, 17 of them employed more than 500 workers, 3 had medium sized factories and 5 had small factories employing 10-20 workers. All of them were registered factories. This section presents only some of the preliminary results based on an analysis of the qualitative and quantitative data we collected during the field study.

V. LIMITS TO THE GROWTH OF GARMENT INDUSTRY

This section discusses the various constraints faced by the garment industry in Bangalore. We investigate the extent to which labour-related issues have affected the growth of the industry. We also examine the impact of other factors, especially those relating to market demand, on growth.

Circumventing the Labour regulations

Our field study showed that employers have found different ways to circumvent the existing labour regulations, and in any case, enforcement of labour regulations has been weak. Consider for instance the requirement that workers have to be paid Provident Fund (PF) and gratuity. A worker is eligible for gratuity only if she manages to complete five continuous years with a single employer. However, we find that employers find ways to prevent women from being eligible to claim gratuity. Some of the women workers we talked to reported that the employers actively encouraged them to terminate their current contract and claim PF benefits just before they were about to complete five years. These workers would then re-join the same factory within a week or so on a new contract. With such an arrangement, employers ensure that they do not have to pay gratuity to workers, which otherwise increases with every year of service put in by the worker. Workers do not complain much either as the lump sum amount they receive as PF benefits can be put to use for their many immediate needs. Mezzadri (2012) also observed similar strategies adopted by employers in Bangalore's garment export firms.

There are other examples of how employers flout labour laws. It is mandatory to have crèches for the children of factory workers within the factory compound. Most of the factories abide by this law, but at the same time do not allow women with infants to come to work to avoid sparing these workers for nursing breaks or child care (field interviews). Also factories should be closed on public holidays, as per the law. However, in some instances, when we telephoned workers to fix interviews, some of the workers told us that they were working on Sundays to compensate for a public holiday that fell on that week. Finally, it is important to note that none of the employers we talked to found inspections from labour officers as a major cause of concern.

Pressure from Unions and Buyers

Active intervention by trade unions in organizing workers and demanding for their rights can discourage investments by firms, especially in a labour-intensive industry such as garments. In fact, one of the factors that aided the growth of the garment industry in Bangalore was the relative absence of a strong union movement in the industry until the 2000s. Organising women workers, who were mostly first generation industrial workers, had been a huge challenge for NGOs and trade unions. In the early years, labour activism was centred on self-help groups, which provided credit for workers and entrepreneurs. These were flexible and sustained micro level approaches rather than unionisation in the traditional sense (RoyChowdhury 2005; Jenkins 2012).

In recent years, garment workers began organizing themselves around issues of critical concern for them - unequal wages, maternity benefits, discrimination in the work place and lack of

child care benefits. The traditional trade unions have not been successful in addressing many of these issues (RoyChowdhury, 2005). Garment workers in Bangalore have organized themselves into *Munnade*, a women's social movement and later an independent trade union - the Garment and Textile Workers' Union. It has now evolved into the Garment Labour Union, which is very active among the workers and have opened two offices, one in Peenya Industrial Area and the other at Mysore road. They have a Worker Resource Centre which provides tuition for the workers' children. They distribute pamphlets to workers at the factory gates and also have group gatherings on Sundays at workers' residences. Garment Labour Union is now set to join the Hind Mazdoor Sabha (HMS).

Our interviews with garment workers revealed that factory managers have been discouraging the workers from joining unions. Workers who join unions are seen as potential trouble makers and managers isolate them and give them unattainable production targets, which slowly result in their termination. Hence, fearing loss of their jobs, women workers hesitate to join the unions. When we tried to approach workers for interviews, the first question they asked was whether cooperating with us would affect their jobs. Among the more than 5 lakh garment workers (according to estimates by the NGO, Civil Initiatives for Development) in Bangalore, only around 10,000 workers are registered members of the trade unions. All these are factors that reduce the effectiveness of trade unions. This is probably why none of the owners of firms we interviewed said that workers' unions created problems for them. In fact, one of the owners mentioned that unions play a positive role whenever they had to resolve some issues with workers.

One of the ways in which trade unions and NGOs fight for workers' rights is by exerting pressure on the global apparel companies, which source from Bangalore's factories, to ensure labour welfare. The campaigns adopted by the NGOs include even naming and shaming of some of the global brands. The brands, conscious about their image, often pressurise the factories to improve the worker conditions. The closing down of the hostels in which the migrant workers were put up, by one of the manufacturers, was due to the intervention of buyer companies (field interviews). Manufacturers in Bangalore respond to pressures from the buyer companies to maintain good working conditions because of their fear of losing future orders.

Challenges in Ensuring Labour Supply

One of the important challenges that the garment industry in Bangalore faces is in ensuring a steady labour supply. Women workers from rural Karnataka continue to form the major source of labour supply for the garment factories. These are mostly second generation industrial workers, mainly from rural districts such as Tumakuru, Chitradurga and Shivamoga. Workers' age ranges between 20 and 50 years. Most of these workers are educated till the primary level and some of them have completed 12th class. Typically, workers live with their families in Bangalore.

Garment workers in Bangalore work for relatively long years in the industry, particularly so in comparison with garment workers in Tirupur who often see employment in the industry as a short-term strategy to make money for marriage (Sumangali Scheme) or for raising capital to go back to the village (Vijayabaskar 2011; Krishnamoorthy 2016; Rahul 2017). Although garment workers in

Bangalore remain with the industry for long years, they frequently change their employers. Therefore, retaining workers becomes an important challenge for the factories. Vacancy boards in front of the factories are now a frequent sight in Peenya industrial area. Old timers say that labour was plentiful and there was never a need for vacancy board ten years back. One of the larger firms, employing more than 5000 workers, said that their attrition rate is 8-10 percent in a month, which means that almost their entire workforce is replaced in a year.

Another strategy adopted by the employers has been to recruit migrant workers from States such as Bihar, Odisha and Uttar Pradesh (Mohan 2017). The wages of migrant workers are lower than that of local workers. There have been cases in which the costs of training the migrant workers were borne by the governments of the States where the workers came from. Migrant workers are more vulnerable than local workers - they are new to the city, do not know the language and are typically put up in hostels with little possibilities for interaction with the outside world. The potential for unionisation is also low among migrant workers.

However, migration has not picked up as a major source of labour supply to the garment factories in Peenya. Migrant worker's rights came into question and brand pressure to adhere to the laws became a major issue. Some of the factories hence closed down the hostels and sent the workers back. These factories now rely on local workers despite their higher wages.

Retaining workers in the garment industry has become a challenge as workers now have greater opportunities in other sectors with the

expansion of the IT industry in Bangalore and the opening up of a large number of commercial establishments in the city. A job as a cleaning or security staff in a mall or as a marketing employee (for younger literate workers) is considered easier than work in a garment factory. For a garment factory worker every minute is important as she is compelled to stick to the Standard Allowed Minute (SAM) for each task.

It is clear that employers prefer women rather than men as workers in the garment units. On the one hand, employers find it easier to work with women workers. "Managing 10 men workers is similar to managing 100 women workers. They are also very quality conscious and their line of control is better", said one of the manufacturers. Women workers in Bangalore are perceived as skilled tailors, whereas in the northern States tailoring job is typically performed by male workers, and women work as helpers.

Wages earned by women workers in the garment industry is considered a secondary source of income for their families. The average monthly salary a garment worker receives after the deduction of PF is in the range of Rs. 7000 to Rs.9000, which as a single source of family income is inadequate to meet the increasing rent and living expenses in a city like Bangalore. The manufacturers themselves agree that the cost of living is high in Bangalore and that the workers will not be able to survive on the minimum wages.

Although perceived as exploitative by many, work in the garment factories has positively transformed the lives of many women workers in Bangalore, just as it did in Bangladesh (Kabeer 2004). Garment manufacturing provides a steady source of income for

many women workers. Latha, one of the workers described how she was able to put her children in a hostel, away from her alcoholic and often abusive husband, because of the income she earned from the industry. Old timers also say that the conditions have far improved in recent years with the introduction of minimum wages and social security benefits. Facilities such as canteens and medical rooms are provided in the factories.

At the same time, the gains made by the workers have been limited. Even with minimum wages, salaries are pretty low and nowhere near to living wages. Most of the salary is spent on paying rent and educating the children, with rent taking the lion's share. Women workers who support their families without an additional income from husbands or other family members find this particularly difficult. Most of the workers have to face some sort of verbal abuse from their supervisors. When we asked the workers whether they would like to send their children for work in the garment factories, a majority of the workers replied in the negative.

Social security measures introduced by the government of Karnataka and Tamil Nadu have had a significant positive impact on the lives of garment workers in these States. At the same time, these measures have made it harder for the employers to retain workers. One of the garment manufacturers complained, "Government freebies are not helping us". With the increase in living expenses in Bangalore, on the one hand, and the improvement in social security measures and support mechanisms in the villages on the other, some of the workers find it worthwhile to migrate back to their villages.⁷

⁷ This was also seen in the case of Tirupur. See Vijayabaskar (2011).

Market Constraints

The shifts in the global apparel industry are exerting pressures on Indian garment manufacturers. Introduction of 'fast fashion models'⁸ in garments pioneered by Zara, the global fashion retail chain is a case in point. This has reduced the lead time - the time between the initiation and completion of a production process - and limited the order size which is a strategy by the retailers to avoid clearance sales (Tokatli 2007). The entry of mass retailers like Walmart into the Indian market has also increased the challenges for Indian firms. They are faced with the choice of either being able to deliver quickly to retailers like Zara or produce in large quantities for mass retailers like Walmart (Jordan et al 2014).

Indian firms face stiff global competition from Chinese garment firms, which have set the benchmark for both speed and volume of production (Jordan et al 2014). They are able to retain their market share despite the rise in wages and the introduction of rapid fashion segments. Other important competitors are Bangladesh, followed by Srilanka, Vietnam and Cambodia.

The garment manufacturers in Bangalore point out that their business has been sluggish during the past two or three years. On top of this, the brands have been squeezing the manufacturers by refusing to revise their prices. "If you received an order last year to make a shirt for 5\$, the buyers would continue asking us to deliver it for the same price thereafter, even if our costs have increased in the meantime. In case, we ask them to revise the price, there is no

⁸ In fast fashion models, clothing is produced in shorter time frames. New products are taken to the stores every few weeks compared to the earlier trend of two seasons in a year. For more information, see Bhardwaj and Fairhust (2009) and Tokatli (2007).

guarantee that we will get their order as competition has increased now from other countries”, mentioned one of the manufacturers (field interviews).

Nowadays the brands try to cut their costs by reducing the inventories they keep and delivering the products just in time (field interviews). This implies that firms will have to maintain their workforce during the lean seasons to respond quickly to the orders they may receive. While the exporters take any time between 3 weeks to 6 months to make payments to the factories, the factories will have to make payments to workers on a regular basis. This is indeed a huge challenge for medium-sized firms producing for domestic brands such as Pantaloons, Aditya Birla and Arvind. They face poor demand conditions during the lean seasons. A manufacturer employing 220 workers told us that he roughly required around Rupees 35-40 lakhs to pay salaries to his workers during this time, which would effectively drain whatever profits he made during the earlier months.

At the same time, manufacturers have to often purchase the fabric with ready cash payment. The cost of fabrics and other inputs have also been on the rise, with many of the large garment exporters sourcing them from China (field interviews). In India, the structure of the fabric manufacturing industry has been affected by a number of factors, including strict environmental regulations. While the big firms which could meet these standards survived, many of the local and small firms have been closed down. All these have increased the costs of garment producers. Despite such challenges, medium and small garment firms say they receive very little assistance, especially working-capital assistance, from banks (also see Stein 2002; Banerjee and Duflo 2011).

There has been a sharp reduction in the duty drawback benefits offered by the Central Board of Excise and Customs to the apparel industry (from 7.3 per cent to 2 per cent in 2017). Duty drawbacks are aimed at providing some form of relief for textile and garment exporters to overcome some of the disadvantages they face on account of domestic taxes, exchange rate fluctuations and uncertainties in the global demand⁹. The reduction in duty rates has come as a shock to exporters who are already facing severe competition from the global market¹⁰.

At the time of interviews in September and October 2017, most of the manufacturers said that they were quite unclear about the Goods and Services Tax (GST), which was introduced in 2017. The delay in receiving GST refunds had squeezed their working capital and hence they were a little apprehensive. But, many of them were also hopeful that GST will be beneficial for the industry in the long run.

VI. EMERGING CHALLENGES

Labour costs and Profits

The owners of garment firms in Bangalore point out that labour costs account for more than 60 per cent of the factory costs in the garment industry and their profits have been considerably shrinking during the past few years. They are not happy with the government of Karnataka's insistence on minimum wages. The minimum wages for garment workers in Karnataka range between

⁹ <http://www.livemint.com/Politics/JlaI3OfbrbS87rP79nKlgL/Govt-notifies-new-duty-drawback-rates-from-1-October.html>

¹⁰ <http://www.financialexpress.com/market/commodities/headwinds-hit-readymade-garment-exports-in-april-september/905317/>

Rupees 302 and Rupees 322 per day. The manufacturers say that the profits in the industry were reasonably high until 2013, but the situation changed with the wage revisions in 2014, leading to a 30 percent increase in the overall costs. ‘We could manage with a 5 to 10 percent increase in the costs, but beyond that we will not be able to make profits’, according to some of them.

Trade unions have demanded that minimum wages should be hiked so that workers receive a minimum of Rupees 18,000 per month. This proposal is under consideration in the Indian Parliament. Garment firms in Bangalore say that, if this proposal is accepted, it will further depress their profits. The government has introduced Fixed Term Employment (employment on a contract basis for a fixed period) in apparels to deal with the seasonal nature of the industry.¹¹ There are, however, concerns that this would, in effect, legalise and expand employment of contract workers.

Automation

Automation in the garment industry may give rise to formidable challenges in the future. On the one hand, automation will drastically reduce future labour absorption in this industry. One of the manufacturers we interviewed mentioned that there are machines, which could downsize the workforce needed to stitch a garment by more than half. “I would need 16 workers with the new machine in place of the 40 workers that I employ now” (ie, in a batch), he says. At the same time, however, automation in the garment industry is going to be extremely expensive. Most of the machines have to be imported and a particular machine will cater

¹¹ Press Information Bureau, Ministry of Textiles and Employment, 7 October 2016.

to only a particular design. So manufacturers are also concerned about the nature of automation that will be appropriate for the industry.

It appears that government support is crucial for the future growth and survival of the industry. One of the ways in which the government can attract investments while ensuring labour welfare is by providing wage subsidies (Basole 2016). Arvind Limited has recently signed an MoU with the Gujarat government to set up a mega apparel facility in that State, which will create employment for women workers with the help of wage subsidies from the government.¹²

Relocation – to other States and Countries

Relocation of factories is relatively easy in the industry, given its low levels of capital per worker. In fact, manufacturers use relocation as an effective strategy to overcome the problems of labour supply, increasing wages and unions. Some of Bangalore's manufacturers have begun to relocate their factories to rural areas of Karnataka and also to Andhra Pradesh (Hindupur) and Jharkhand. Lower wages and incentives provided by the respective governments are the major attractions. One of the manufacturers mentioned that they have begun relocating to African countries as well, where the labour costs are much lower. This firm has already set up 'sheds' in Ethiopia. Relocation seems to be an effective strategy for the manufacturers while negotiating with the workers, as the fear of loss of jobs would keep the latter on their toes.

¹² Live Mint October 17, 2017 available at <http://www.livemint.com/Companies/6fx62lDzDq11UdiSLquQ3I/Arvind-Limited-signs-MoU-with-Gujarat-govt-for-Rs300-crore-a.html>

While garment firms in Bangalore shows that it is possible to run large-sized factories in India providing employment to female workers in large numbers, there is a question as to how long might this model sustain. Some of the major exporters have been closing down their factories in Bangalore because of labour shortages, increase in operating costs including labour costs, and other reasons¹³. The owners of some of the other garment firms we talked to noted that the decision to gradually exit the garment industry is the correct one. It will be difficult to make more profits in the garment industry in the future without greater support from the government. In fact, the only big export-oriented firm that has expanded in Bangalore in recent years is the one whose business is sustained on mass production.

Another possible strategy for the garment manufacturers is to produce for the domestic market and develop and market their own brands - rather than being suppliers to global brands in export markets. By entering into marketing of their products, firms get to keep a larger share of the value added. However, gaining entry into the markets by selling their own brands requires huge marketing expenditure, which is difficult for small firms. Integrating the value chain and bringing all the process together becomes ultimately important.

Some of the owners pointed to the difficulties in maintaining a large workforce, especially when there are alternative investment

¹³ Hinduja, the founding members of Gokaldas, one of the early exporter group in the garment industry sold their stakes to Blackstone in 2007. Gokaldas thereafter has struggled to maintain profits and have closed down 10 of their factories in the last decade (field interviews).

See <https://economictimes.indiatimes.com/gokaldas-exports-ltd/infocompanyhistory/companyid-13003.cms> and http://www.business-standard.com/article/companies/hindujas-step-down-from-gokaldas-111040200050_1.html for further details.

opportunities in sectors such as IT, which require fewer workers and lesser space and yet offer higher returns. At the same time, it is also clear that a growth strategy based on low and flexible labour alone will be unsustainable in the long run. Future growth will depend on how well the industry is able to integrate the supply chain, which in India is highly fragmented now.¹⁴

VII. SUMMARY AND CONCLUSIONS

This paper is an attempt to understand the reasons for the relatively slow growth of labour absorption into the manufacturing sector in India. After two decades of jobless growth, employment in India's factory (or organised) sector rose sharply from the mid-2000s: from 8.5 million in 2004-05 to 13.4 million in 2011-12. At the same time, however, the growth of total (organized and unorganized combined) manufacturing employment in India slowed down during the 2004-12 period compared to the two earlier decades.

Garment industry has been one of the important generators of factory employment in India since the 1990s, especially for females. Between 1993-94 and 2011-12, factory employment in the garment industry contributed approximately 15 per cent of the total increase in factory employment in India. Nevertheless, the growth of the garment industry in India over the last quarter century has been far less impressive compared with the corresponding growth in countries such as China, Bangladesh and Vietnam. Also the growth of the garment industry in India has so far failed to meet the potential the country has in this industry.

¹⁴ Despite higher costs, Zara's operations in Spain derive advantages from faster outputs and integrated value chains (Tokatli, 2007).

As proportions of total factory employees, contract workers are relatively low and directly employed workers are relatively high in the textile and garment industries. The proportions of contract workers are particularly low in the garment industry in the southern States, notably Karnataka. The garment industry, particularly in the southern States, is also characterized by relatively high share of female workers.

The fieldwork research for this paper covered factory owners and workers engaged in the garment industry in the Peenya Industrial area in Bangalore, Karnataka. The nature of the growth of the garment industry in Bangalore is in many ways similar to the way this industry has been growing in countries such as China and Bangladesh – in large factories and with a predominance of women workers. The argument that labour regulations have prevented the emergence of large factories does not apply to the garment industry in Bangalore.

In the case of Bangalore's garment industry, we find that there are different ways through which garment manufacturers circumvent labour regulations and that labour inspections have not been a major concern for the manufacturers. At the same time, trade unions, NGOs and global apparel companies exert pressures on factory owners to ensure better conditions for workers. For the factory owners, retaining workers in the garment industry has become harder because of a number of reasons: rising costs of living in the city, the emergence of employment opportunities in sectors such as IT and commercial establishments, and growing social security mechanisms in rural areas. Strategies such as subcontracting, recruiting of migrant workers, and employing workers on a contract basis have not been successful in the

Bangalore's garment industry due to various factors. Garment manufacturing has positively transformed the lives of many women workers, although the wages they receive from the garment industry have not risen in proportion with the costs of living in the city.

The garment firms in Bangalore face stiff competition from firms in other countries such as China, Bangladesh, Srilanka, Vietnam and Cambodia. The introduction of 'fast fashion segments' has created new challenges for the already sluggish business. The global brands, which source from Bangalore's firms, have been squeezing the profits of these garment factories, more so during the recent years. Small and medium-sized garment factories receive very little support from banks, especially to meet the working capital needs of the industry. Also, automation is an emerging challenge for both the manufacturers and workers.

Government support is appearing to be crucial for the future growth and survival of the industry. It is often argued that labour regulations hinder industrial growth and limit the size of firms. While garment firms in Bangalore show that it is possible to run large-sized factories in India creating significant employment opportunities for female workers, there is a question as to how long might this model sustain.

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