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Growth & Trends in Indian Apparel Manufacturing

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Abstract

The apparel manufacturing sector in India is a significant part of the economy and contributes vastly to employment and exports. Despite challenges, it has grown considerably over the years due to natural supportive factors in the economic environment and efforts made by the government and industry participants. Post the introduction of the Agreement on Textiles and Clothing (ATC), the apparel sector became open and offered opportunities for growth in the export market. This paper conducts a trend analysis using data from the Annual Survey of Industries to study the changes in the Indian apparel industry over two decades after the ATC came into effect. The findings reveal that the industry has grown positively across industry characteristics with a variation in magnitude. There is immense scope for the sector to further improve performance and improve its competitiveness and contribution to the economy.
Keywords: apparel, manufacturing, India, trend analysis, ATC

Introduction

The apparel manufacturing sector in India has been a significant contributor and has grown tremendously over the years despite challenges on account of favourable economic factors such as domestic demand, availability of raw material and lower costs (D'Souza, 2016). Apparel or clothing exports contribute around 42% of the total textiles exports from India (Ministry of Textiles, 2017) and India has 3-5% share in the global apparel output for various types of apparel categories, ranking amongst the top 5 apparel exporting countries (United Nations Conference on Trade and Development (UNCTAD), 2016). However, factors such as scale, skill development, cycle time, environmental standards, technology, and innovation continue to be stress factors for the industry (Balaram, Yadav, & Baisya, 2003; Chandra, 2006).

For many decades apparel trade was highly restricted. With the formation of the WTO, the Agreement on Textiles and Clothing (ATC) provided for phasing out the Multi-Fibre Arrangement (MFA) over the decade from 1995 to 2005, with most products moving out only post 2005 (Ramaswamy & Gereffi, 2000). With this, apparel trade became free of quantitative restrictions, providing opportunities to developing nations to increase exports. To sustain and enhance participation in global trade, it is important for the

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domestic industry to grow and improve competitiveness. The policy support extended by the government and efforts by the private sector together provide a favourable economic environment for expansion. The manufacturing sector in India, specifically apparel manufacturing has immense potential to grow (PwC Strategy&, 2017). Apparel manufacturing is notified as a priority sector in the Indian economy generating significant employment (Ministry of MSME, 2014). Although majority of enterprises in the sector continue to be small-scale, the industry is no longer restricted for small-scale manufacturing (Department of Industrial Policy & Promotion (DIPP), 2001).

There are many studies that have used data from government agencies to study trends and productivity performance in detail for manufacturing sectors (Pandey & Dong, 2009; Singh, 2013; Takii & Ramstetter, 2005). In the Indian context, some studies have analysed productivity trends for the organized manufacturing sector by considering all or most of the industries at an all-India level or for a number of states (Babu & Natarajan, 2013; Deshmukh & Pyne, 2013; Goldar, 2004; Gupta, 2010; Kumar, 2006; Mitra, Sharma, & Véganzonès –Varoudakis, 2012; Pandey & Dong, 2009; Unel, 2003) and studied impact of economic reforms There are few studies that have examined a single industry in detail (Bhandari & Maiti, 2007; Gambhir & Sharma, 2015; Sharma, 2007; Sharma, Upadhyay & Tyagi, 2010). Particularly for the apparel industry, studies were focused on examining productivity & efficiency and considered a shorter time period (Bhavani & Tendulkar, 2001; Bheda, Narag, & Singla,2001, 2003; Gambhir & Sharma, 2017; Hashim, 2005; Joshi & Singh, 2009, 2010, 2012; Shanmugasundaram & Panchanatham, 2011). However, there is a dearth of studies that examine the growth pattern of the industry in detail for the recent decades. In this light, it is relevant to examine the changes in the Indian apparel industry after the ATC came into effect.

The paper is organised in sections as follows - the second section discusses the methodology and data used. The third section discusses the findings in terms of changes in industry characteristics and performance ratios, and the government policy support extended to the industry. The last section concludes.

Data and Methodology

The growth and developments in the apparel manufacturing sector of India have been studied by analysing secondary data from government reports of the Annual Survey of Industries (ASI) and data for apparel exports have been extracted from CMIE Economic Outlook and CMIE Industry Outlook databases. The data is restricted to the performance at two-digit classification as per NIC code- 2008 i.e. group '14' 'Manufacture of Wearing Apparel'. With ATC being adopted in 1995, theperiod considered is 1995-96 to 2014-2015.

Trend Analysis involves analysing the secondary data on the industrial performance and the apparel exports in India to understand the growth pattern and export behaviour over the relevant time. Trend

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analysis has been used widely to study the growth in an industry over time by many authors, and particularly for textiles and apparel (Bandara & Naranpanawa, 2015; Godley, 1995; Kessler, 2004; Ramaswamy & Gereffi, 1998; Sieling & Curtin, 1988; Someya, Shunnar, & Srinivasan, 2002; Suphachalasai, 1990; Yang & Zhong, 1998). Data was organised into tables, graphs, and charts extensively to identify trends, if any.

Findings and Discussion

To judge the overall growth pattern of an industry it is necessary to study various industry characteristics such as the number of factories, the output, exports, employment etc. and performance ratios. The detailed growth pattern and trend over the study period is discussed in the following sub-sections. The relevant data tables are provided in the appendix.

Industry Characteristics – Growth & Trends

Number of Factories The total number of factories and the number of factories in operation have increased considerably over the two decades. However, the increase in the number of factories has been more than the increase in the factories in operation in the recent few years. This may be because there is some time lag between when a factory is set up and when it starts operating and producing output. The Y-o-Y % change shows a fluctuating trend. Post 2005, the growth in number of factories has not been consistent from year to year. The years 2008-09 and 2010-11 saw a magnificent increase in the total number of factories followed by slow growth in recent years. However, the factories in operation have shown a positive growth barring the year 2014-15. Maximum growth in factories in operation is seen in the year 2008-09. In the two years following that the number of factories grew more than proportionately to the number of factories in operation. The percentage change in the total number of factories and the factories in operation more or less follow a similar trend over the study period except in the recent years.

Output The output and value added in the apparel manufacturing sector in India have increased considerably in absolute value over the study period. However, 2014-15 saw a dip in the gross value of output and value of products and by-products over the previous year. The value added is extremely low when compared to the gross value of output. This highlights the low value addition in apparel manufacturing sector in India.

In terms of the Y-o-Y percentage change in output and value added, there is no clear trend. In the decade post 2005, the change has been positive for all parameters except in the last year 2014-15. Within the apparel sector, the largest share in output is of the industry code 141, followed by 143 i.e. manufacture of knitted and crocheted apparel. The manufacture of fur articles (code 142) has a negligible share (Table 1). Over the years 2008-09 to 2014-15, the share of knitted and crocheted apparel has increased to almost one-third of the total.

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Table 1: Percentage Share of Sub-Industries (Three-Digit Code) in Gross Value of Output

Year	Manufacture of Wearing Apparel (14)	Manufacture of wearing apparel, except fur apparel (141)	Manufacture of articles of fur (142)	Manufacture of knitted and crocheted apparel (143)
2008-09	100	74.42	0.43	25.15
2009-10	100	71.14	0.19	28.68
2010-11	100	69.61	0.08	30.31
2011-12	100	72.56	0.42	27.02
2012-13	100	63.65	0.1	36.25
2013-14	100	70.79	0.08	29.13
2014-15	100	67.18	0.14	32.68

Source: Author's compilation based on data from ASI, CMIE Economic Outlook

Earnings There has been an increase in the earnings in the apparel sector in terms of net income and profits over the study period. The net income has increased more than ten times in value while profits have grown by a little less than five times. The Y-o-Y percentage change shows no clear trend but the change in profits is steeper than the change in net income. In 2014-15, the net income and profits have shown a negative change over the previous year.

Employment The employment in apparel manufacturing sector has increased significantly from 1995-

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96 to 2014-15 in terms of the number of persons engaged, the total employees and the total workers. The Y-o-Y % Change trend for workers and employees is almost overlapping that of the number of persons engaged. The sharpest increase has been in the years 2008-09 with the rate slowing down between the recent years 2009-10 to 2014-15. The number of workers and persons engaged per factory has also increased over the study period. However, since number of factories has increased along with the employed persons the rate of change is not that high.

The personnel engaged in supervisory and managerial roles in the sector have shown a consistent or flat trend as percentage of the total persons engaged. This implies a high labour-staff ratio in the Indian apparel manufacturing sector. However, there is great fluctuation in the Y-o-Y percentage change.

The Y-o-Y percentage change in the directly employed women and the total directly employed workers are fluctuating but similar in nature. The change in directly employed women is steeper as compared to the total workers. The share of women in directly employed workers has declined over 1998-99 to 2014-15. This is a cause of concern and necessitates further investigation as growth of apparel sector is generally seen as a vehicle to increase economic participation and employment of women in the economy.

Capital Over the study period, there has been an increase in the value of capital in apparel manufacturing sector. The maximum value of invested and productive capital has been reported in the year 2012-13 followed by a dip in the values in 2013-14 and 2014-15. Hossain and Karunaratne (2004) had reported that capital deepening had a significant and positive impact on technical efficiency in Bangladesh. It is hoped that a similar impact would be seen in the Indian apparel sector.

The Y-o-Y percentage change in capital is fluctuating significantly. Working capital has shown a steeper change as compared to other types of capital post 1998-99. While invested, productive and fixed capital show a negative change in the recent years, working capital has shown an increase. The gross value of plant & machinery in the sector has grown ten times in value from 1998-99 to 2014-15. The Y-o-Y percentage change has been highly variable with the curve peaking in the year 2008-09. The capital formation in the sector has also shown a fluctuating Y-o-Y percentage change. However, maximum growth has taken place in the year 2012-13. This may be the result of government policy support leading to expansion by existing firms and new entrants in the sector. Any increase in investment, capital or introduction of new technology takes time to translate into productivity and efficiency gains. Since there is a time lag in capital formation and utilization, the maximum value of inputs is seen in the following year 2013-14. This emanates from the time lag in implementation as well as that needed for more skilled workers, better management and advanced input combinations.

Other Inputs The input consumption in the sector has increased over the study period in tune with the output growth. The Y-o-Y percentage change is also similarly fluctuating. Maximum value of input is accounted by the materials consumed, followed by wages & salaries and fuel consumption.

The remuneration to supervisory & managerial personnel has increased significantly as compared to the

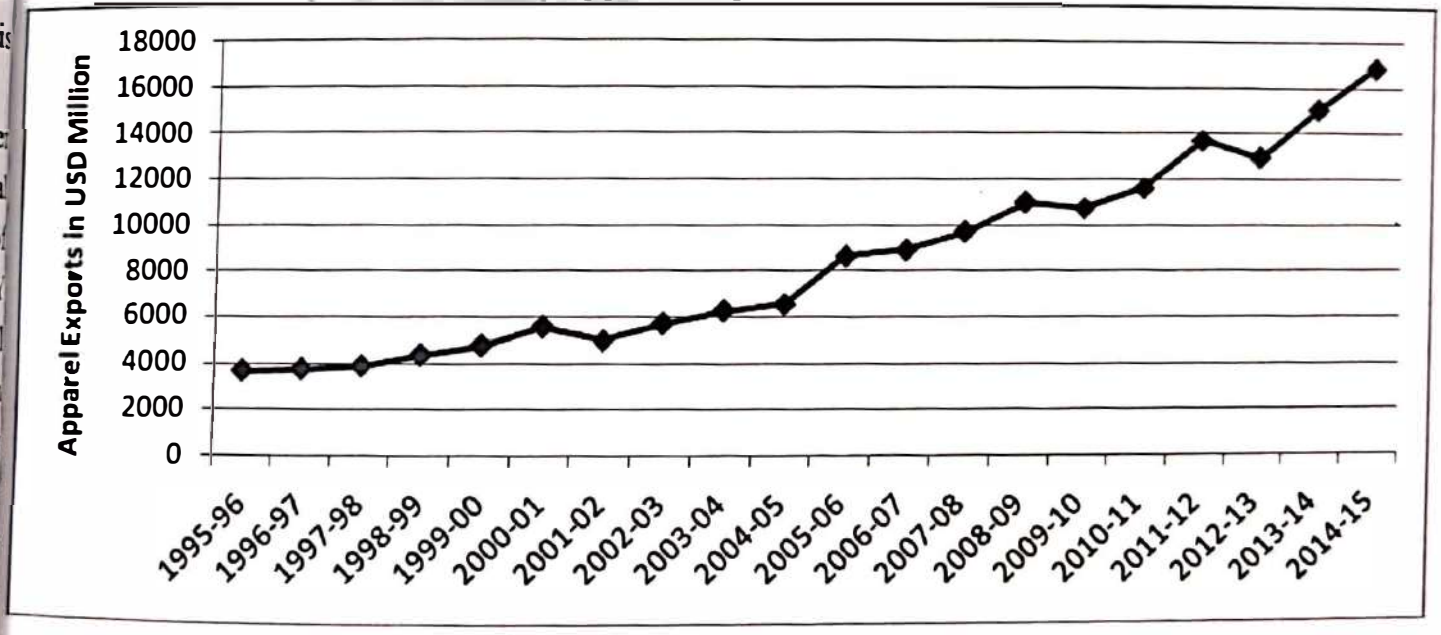
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increase in worker's remuneration. The Y-o-Y percentage change is also similarly positioned for both but steeper for supervisory & managerial remuneration. Given the increased competition, firms may be enhancing compensation to managerial personnel to attract talent and improve management.

The fuels consumed in absolute terms have grown for all types of fuels over the study period. With mechanization of apparel manufacturing processes, electricity is the primary type of fuel used and has the highest value in terms of fuel expenditure. This is followed by petroleum products. The apparel sector makes comparatively lesser use of coal and other types of fuels in the manufacturing process. The value of coal consumed has gone down in terms of annual percentage change in the recent years. This is a significant development as countries are promoting sustainable and eco-friendly manufacturing. By promoting electricity generation through renewable sources of energy, it is possible to reduce the carbon footprint of the industry.

Exports The apparel exports of India have shown an upward trend from 1995-96 to 2014-15 (Figure 1). The value of exports has increased by more than five times over the two decades. The increase has been sharper post-2005, with the maximum annual percentage change in 2005-06 (Figure 2).

Figure 1: Apparel Exports in USD Million

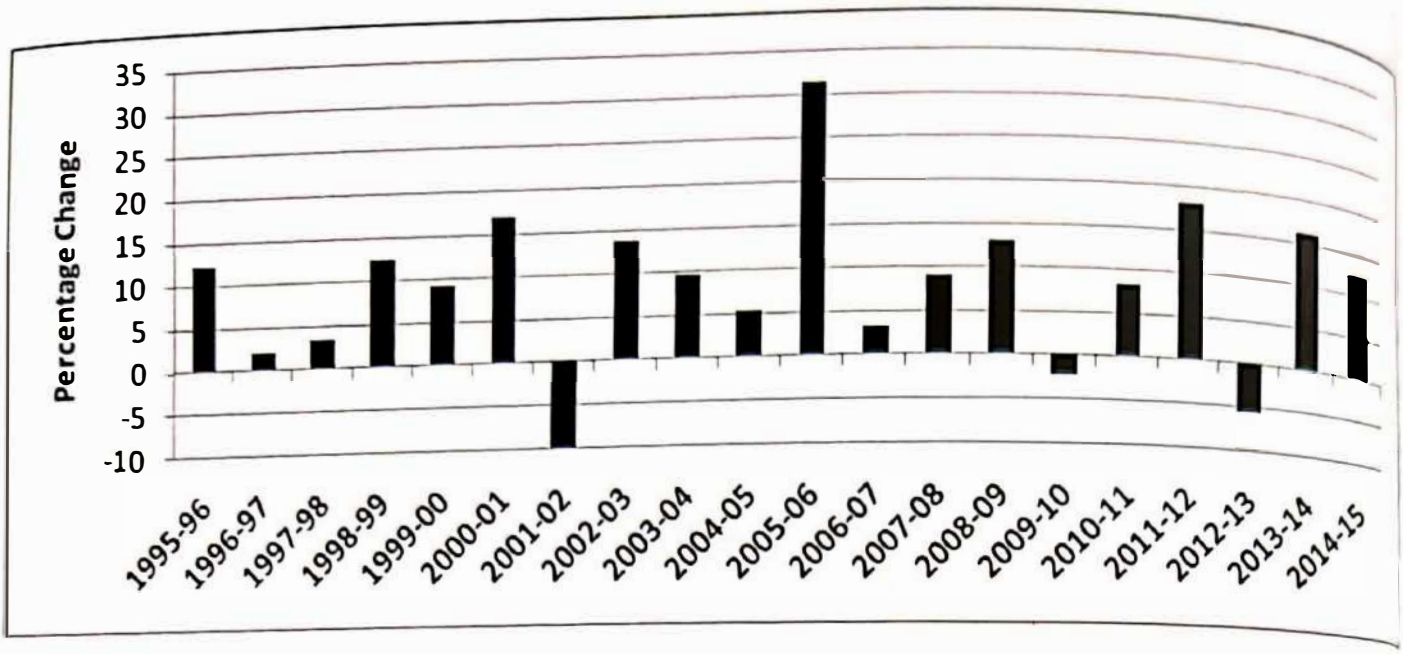


Source: Authors compilation based on data from CMIE Industry Outlook

Apparel is a consumer product and demand is elastic and subject to change based on economic influences. As seen in Figure 2, the years 2001-02, 2009-10 and 2012-13 show a negative change in apparel exports as an aftermath of crises in the world economy.

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Figure 2: Apparel Exports (% Change)



Source: Authors' compilation based on data from CMIE Industry Outlook

To counter such trends, India must focus on increasing exports to non-traditional markets and identifying new apparel markets in the sector. Further, an increase in exports of higher value added or higher quality products can also increase the value of total exports (Suphachalasai, 1990).

There has been some change in the country-wise share of exports over the two decades as well. USA has remained the major destination for Indian apparel exports but its share has come down drastically to a little more than one-fifth. UAE and Spain have emerged as major destinations.The export market is concentrated in certain geographies, mainly North America, Europe and Middle East; and India should focus on diversification into different markets. India needs to diversify its export basket and compete effectively with competitors to tap market opportunities (Ghosh, 2004).

Debt & Investment With the expansion and promotion of apparel manufacturing in India, there has been an increase in the debt access and investment in the sector as well. The increase in outstanding loans and interest paid has been highest in terms of the absolute values and annual percentage change in the year 2008-09 and on the positive side in following years. This is consistent with the growth in capital formation and establishment of factories in these years. With the expansion, firms are need of funds and turn towards debt financing. However, firms need to maintain a stringent watch on their liquidity and profitability to make sure that the cost of debt is feasible. The declining trend of interest paid as a percentage of the total outstanding loans is a positive sign, as interest though tax-deductible is a non-productive expense for a firm.

The study period has seen an increase in the investment projects announced over the two decades. Maximum new projects were announced in 2005-06 and completed in 2006-07. However, there was a lull in the years 2011-12 to 2013-14 in terms of new project announcements. Despite a fall in output and

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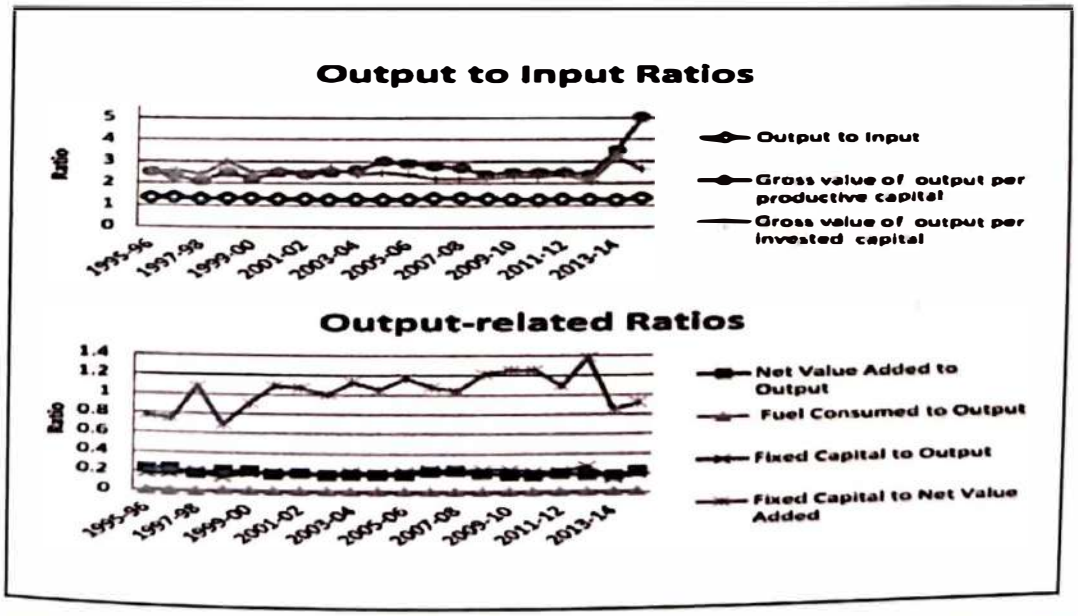
employment in 2014-15, on a brighter note, there were more new project announcements and completions in 2014-15 and 2015-16. In terms of geographical distribution, majority of the new investment projects are concentrated in southern states of Tamil Nadu and Andhra Pradesh that have been traditional hubs of apparel manufacturing in India. However, there are projects being set up in north-eastern states where the manufacturing industry is poorly developed. This may be because of incentives offered by the government to promote industry in north-east India.

Performance Ratios Apart from the various industry characteristics, it is beneficial to study the changes in certain performance ratios for the industry over the study period. As seen in Figure 3, as a crude measure of productivity, the output to input ratio has been consistent or showing a stagnating trend. This highlights that an increase in output does not mean an increase in productivity (Tangen, 2005). Productivity is a relative concept and needs to be studied separately and in-depth to understand the actual performance pattern of an economic entity.

A positive trend is the growth in the ratio of gross value of output per productive capital in the industry in the years from 2012-13 to 2014-15. The gross value of output per invested capital also showed an increase but dipped in the year 2014-15. The ratio of fixed capital to Net Value Added (NVA) is showing a fluctuating trend while the ratios fuel to output, NVA to output and fixed capital to output are showing consistency. Apparel manufacturing is not so fuel-intensive and growth of the industry along with promotion of renewable sources of energy would assist in the country's goal of sustainable manufacturing.

In terms of performance per factory, there has been a growth in gross output, NVA as well as fixed capital over the two decades. However, the value-added per factory is very low as compared to the gross output. In terms of performance per persons engaged, the gross value of output has shown a distinct upward trend while Gross Value Added (GVA), NVA, Net Income and fixed capital have shown a slight increase. Profits have been consistent, with a flat trend.

Figure 3: Output to Input Ratios and Output-related Ratios

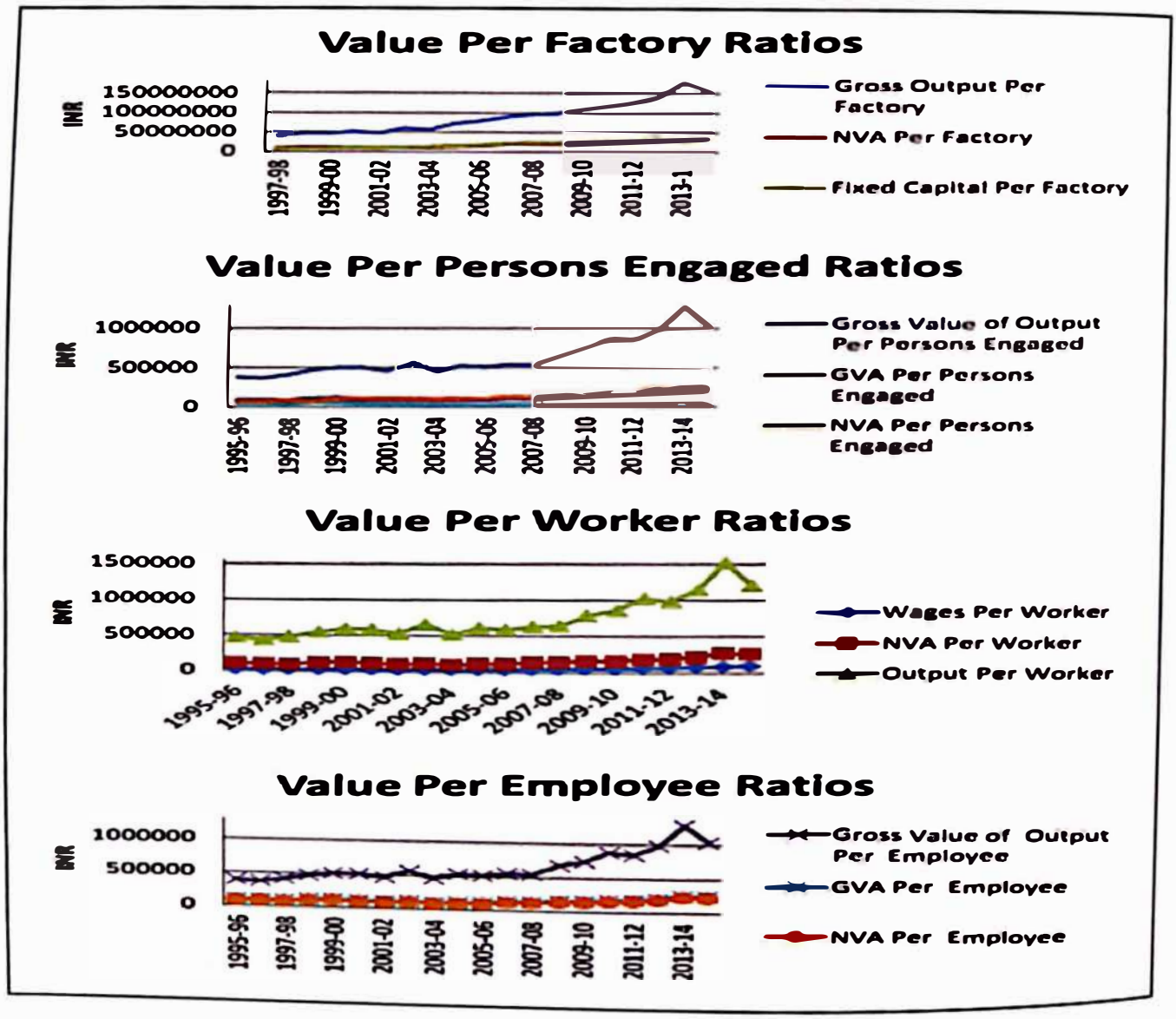


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Source: Based on data from ASI, CMIE Economic Outlook

In terms of per worker performance, wages have remained fairly consistent in the first decade while increasing slowly in the decade 2005-06 to 2014-15. While Rath and Madheswaran (2008)found that an increase in labour productivity leads to demand for higher wages invariably, the reverse has not been established. NVA has shown a similar trend but with higher growth in the second decade. The output has shown a positive, upward trend indicating improvement in per worker performance in the years till 2013-14. However, this ratio has shown decline in the year 2014-15. Firms must monitor and take active steps to improve per worker production performance.

Figure 4: Value Per Factory, Value Per Persons Engaged, Value Per Worker and Value Per Employee Ratios



Source: Based on data from ASI, CMIE Economic Outlook

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Shanmugasundaram and Panchanatham (2011) suggested that labour productivity can be enhanced through training programmes focussed on knowledge and skills. In terms of per employee performance, there has been a slight upward and overlapping trend in GVA and NVA with the rate of change increasing post-2005-06. The gross value of output has also shown a significant upward trend with a decline in the year 2014-15.

Government Policy Support & Outlook

The apparel sector in India is a focus sector for manufacturing and export promotion. A vast number of central and state government policies and schemes exist for these sectors in view of their importance to exports and employment in India. The government support is extended in various ways related to different aspects of technology upgradation, skill development, marketing, and export promotion etc. The government policy support helps the manufacturers to decrease costs and offer better prices, enhancing competitiveness against the major competing countries of China, Bangladesh, and Vietnam (Shah, 2017). The central Government of India announced a special package for the apparel sector of INR 60 billion in June 2016. This is aimed at promoting employment and exports in the textile and apparel value chain. The package includes focus on Labour Law Reforms, Additional Incentives under ATUFS, Enhanced Duty Drawback coverage, and Income Tax benefits. The Apparel Export Promotion Council (AEPC) is also concentrating its efforts to promote exports and assist existing exporters in tapping new markets (Ministry of Textiles, 2017). The government policy support to apparel manufacturing and export sector in India is broad based and keeps changing according to the changes in the economic environment and the requirements of the sector at large.

Conclusion

This paper has studied the growth and trends in the apparel manufacturing sector in India. The characteristics discussed include number of enterprises, output, capital & inputs, earnings, debt & investment, exports, and employment. The apparel manufacturing sector in India has grown tremendously in recent years in terms of all these characteristics. Post the expiry of ATC, the apparel industry has seen significant growth in terms of exports. However, the major destinations for exports remain the same. Moreover, the growth in exports is much lower than the growth in other industry variables related to output and input. Regional variation in manufacturing performance persists among Indian states and is affected by infrastructural facilities such as transport, energy, and information & communication technology (ICT) (Babu & Natarajan, 2013; Kumar, 2006; Mitra et al., 2012). The government policy support extended to the sector should enhance infrastructure pan-India, increase employment, and help the industry improve competitiveness. On a positive note, the apparel sector is expected to tap into the market opportunities and show growth in output and exports in the recent future.

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Limitations & Future Scope

The paper is limited by its data set, study period and choice of methodology. A detailed empirical investigation into the causal relationships of industry characteristics would enhance understanding of the industry growth pattern.

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Appendix

Industry Characteristics for Manufacture of Wearing Apparel (NIC 14)

Table A1 Total Factories & Factories in Operation (1995 to 2015)

Year	Number of Factories		Factories in Operation	
	Total	Y-o-Y % change	Total	Y-o-Y % change
1995-96	3557	7.76	-	-
1996-97	3143	-11.64	-	-
1997-98	3191	1.53	2942	-
1998-99	3148	-1.35	2831	-3.77
1999-00	3413	8.42	3252	14.87
2000-01	3374	-1.14	3174	-2.4
2001-02	3283	-2.7	3093	-2.55
2002-03	3307	0.73	3096	0.1
2003-04	3190	-3.54	3006	-2.91

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2004-05	3397	6.49	3271	8.82
2005-06	3649	7.42	3501	7.03
2006-07	3661	0.33	3505	0.11
2007-08	3653	-0.22	3550	1.28
2008-09	5761	57.71	5490	54.65
2009-10	6143	6.63	5739	4.54
2010-11	9226	50.19	6259	9.06
2011-12	9168	-0.63	6284	0.4
2012-13	9275	1.17	6494	3.34
2013-14	9525	2.7	7047	8.52
2014-15	9856	3.48	6529	-7.35

Source: Authors' compilation based on data from ASI, CMIE Economic Outlook

Table A2 Gross Output, Value of Products and Value Added (1995-96 to 2014-15)

Year	Gross Value of Output		Value of Products and by-Products		Gross Value Added		Net Value Added	
	INR Million	Y-o-Y % change	INR Million	Y-o-Y % change	INR Million	Y-o-Y % change	INR Million	Y-o-Y % change
1995-96	102,683.6	22.6	93,097.6	22.83	25,396.5	-0.44	23,477.2	-2.6
1996-97	92,601.7	-9.82	76,774.7	-17.53	23,970.0	-5.62	22,129.8	-5.7
1997-98	117,581.2	26.98	100,279.2	30.61	25,483.6	6.31	22,712.1	2.6
1998-99	131,365.2	11.72	111,990.6	11.68	32,025.9	25.67	29,461.2	29.7
1999-00	149,932.9	14.13	127,524.3	13.87	36,383.2	13.61	32,734.6	11.1
2000-01	166,247.3	10.88	143,017.4	12.15	36,357.7	-0.07	32,208.8	-1.6
2001-02	145,674.6	-12.37	126,256.2	-11.72	32,807.3	-9.77	28,984.5	-10.0
2002-03	188,511.4	29.41	166,352.8	31.76	39,183.7	19.44	34,722.5	19.8
2003-04	172,066.8	-8.72	147,911.0	-11.09	37,758.5	-3.64	33,103.6	-4.7
2004-05	237,478.9	38.02	204,655.9	38.36	50,285.1	33.18	44,698.9	35.0
2005-06	277,961.8	17.05	239,015.7	16.79	59,351.0	18.03	53,123.8	18.9
2006-07	312,126.1	12.29	276,557.3	15.71	76,695.6	29.22	69,832.1	31.5
2007-08	340,773.1	9.18	295,035.9	6.68	84,344.9	9.97	76,938.6	10.2
2008-09	537,570.6	57.75	459,610.1	55.78	122,646.5	45.41	108,999.5	41.7
2009-10	637,069.5	18.51	524,874.1	14.2	134,845.9	9.95	119,626.9	9.8
2010-11	765,616.2	20.18	650,657.6	23.96	154,336.6	14.45	137,643.1	15.1
2011-12	779,302.7	1.79	658,080.4	1.14	170,033.3	10.17	154,283.1	12.1
2012-13	904,285.3	16.04	794,063.8	20.66	191,484.1	12.62	174,545.5	13.1
2013-14	1,249,526.6	38.18	1,104,995.0	39.16	244,935.1	27.91	226,373.2	29.7
2014-15	1,018,389.3	-18.5	870,633.6	-21.21	244,176.2	-0.31	221,483.8	-2.2

Source: Based on data from ASI, CMIE Economic Outlook

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Table A3 Net Income & Profits (1995-96 to 2014-15)

Year	Net Income		Profits	
	Total INR Million	Y-o-Y % change	Total INR Million	Y-o-Y % change
1995-96	19,908.60	-9.61	12,743.90	-22.58
1996-97	18,602.70	-6.56	11,777.50	-7.58
1997-98	18,059.2	-2.92	9,198.90	-21.89
1998-99	25,713.10	42.38	15,869.60	72.52
1999-00	28,577.30	11.14	16,476.50	3.82
2000-01	27,345.70	-4.31	12,563.70	-23.75
2001-02	24,899.50	-8.95	9,900.90	-21.19
2002-03	30,693.90	23.27	13,040.00	31.71
2003-04	28,688.00	-6.54	8,958.70	-31.3
2004-05	39,072.70	36.2	13,309.10	48.56
2005-06	45,962.40	17.63	12,865.80	-3.33
2006-07	60,605.70	31.86	21,120.90	64.16
2007-08	64,295.50	6.09	19,035.70	-9.87
2008-09	86,504.40	34.54	20,492.00	7.65
2009-10	96,269.00	11.29	21,999.70	7.36
2010-11	111,324.00	15.64	20,734.40	-5.75
2011-12	122,789.80	10.3	23,625.60	13.94
2012-13	147,221.90	19.9	30,508.70	29.13
2013-14	197,455.90	34.12	58,601.10	92.08
2014-15	192,493.50	-2.513 17	40,795.50	-30.3844

Source: Authors compilation based on data from ASI, CMIE Economic Outlook

Table A4 Employment (1995-96 to 2014-15)

Year	Workers			Employees Other than Workers		Employees		No. of Persons Engaged		
	Total Numbers	Y-o-Y% change	Per Factory	Numbers	Y-o-Y% change	Total Numbers	Y-o-Y% change	Total Numbers	Y-o-Y% change	Per Factory
1995-96	218,828	4.38	66	44,965	29.2432	263,793	7.92	269,043	8.27	81
1996-97	212,218	-3.02	87	36,099	-19.7176	248,317	-5.87	250,758	-6.8	104
1997-98	241,8 48	13.96	82	42,433	17.54619	284,281	14.48	286,391	14.21	97
1998-99	240,722	-0.67	85	38,557	-9.13	278,779	-1.94	278,779	-2.66	98
1999-00	251,328	4.62	77	45,130	17.05	296,456	6.34	296,458	6.34	91
2000-01	282,441	12.38	89	46,978	4.09	330,969	11.64	329,419	11.12	104

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2001 -02	272,524	-3.51	88	43,134	-8.18	317,089	-4.19	317,088	-3.74	103
2002 -03	285,544	4.78	92	48,253	11.87	335,559	5.82	335,560	5.83	108
2003 -04	327,509	14.7	109	50,076	3.78	379,137	12.99	379,136	12.99	126
2004 -05	387,606	18.35	118	61,08 3	21. 98	450,175	18.74	450,175	18.74	138
2005 -06	468,131	20.77	134	72,090	18.02	541,848	20.36	541,846	20.36	155
2006 -07	492,927	5.3	141	77,905	8.07	570,832	5.35	572,392	5.64	163
2007 -08	528,055	7.13	149	100,709	29.27	628,764	10.15	630,253	10.11	178
2008 -09	679,807	28.74	124	115,506	14.69	795,312	26.49	797,878	26.6	145
2009 -10	742,873	9.28	129	119,814	3.73	862,688	8.47	865,062	8.42	151
2010 -11	744,521	0.22	119	126,394	5.49	870,914	0.95	872,962	0.91	139
2011 -12	792,313	6.42	126	128,557	1.71	920,870	5.74	922, 725	5.7	147
2012 -13	790,975	-0.17	122	129,442	0.69	920,418	-0.05	922,950	0.02	142
2013 -14	823,850	4.16	117	152,214	17.59	976,064	6.05	978,709	6.04	139
2014 -15	844,952	2.56	130	141639	-6.94746	986,591	1.078515	988,651	1.02	152

Source: Authors compilation based on data from ASI, CMIE Economic Outlook

Table A5 Supervisory & Managerial Personnel and Directly Employed Workers (1998-99 to 2014-15)

Year	Super visory & Managerial			Directly Employed Workers (DEW)		Directly Employed Women		
	Total	Y-o-Y % change	% of Persons Engaged	Total	Y-o-Y % change	Total	Y-o-Y % change	% of Total DEW
1998 -99	18912	0.35	6.78	229243	-2.75	142976	-8.01	62.37
1999 -00	20865	10.33	7.04	238780	4.16	153733	7.52	64.38
2000 -01	20421	-2.13	6.2	266093	11.44	169917	10.53	63.86
2001 -02	20060	-1.77	6.33	253147	-4.87	156440	-7.93	61.8
2002 -03	21019	4.78	6.26	266087	5.11	161255	3.08	60.6
2003 -04	23325	10.97	6.15	300569	12.96	181624	12.63	60.43
2004 -05	29307	25.65	6.51	343599	14.32	200135	10.19	58.25
2005 -06	33734	15.11	6.23	406061	18.18	229537	14.69	56.53
2006 -07	35647	5.67	6.23	435587	7.27	255108	11.14	58.57
2007 -08	43207	21.21	6.86	462574	6.2	257805	1.06	55.73
2008 -09	52007	20.37	6.52	591103	27.79	310694	20.52	52.56
2009 -10	50006	-3.85	5.78	633123	7.11	318841	2.62	50.36
2010 -11	55533	11.05	6.36	636842	0.59	307373	-3.6	48.27
2011 -12	63742	14.78	6.91	682134	7.11	343315	11.69	50.33
2012 -13	57951	-9.09	6.28	693308	1.64	336718	-1.92	48.57
2013 -14	66444	14.66	6.79	720476	3.92	353014	4.84	49
2014 -15	60301	-9.25	6.1	754063	4.66	386251	9.42	51.22

Source: Authors compilation based on data from ASI, CMIE Economic Outlook

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Table A6 Capital & Depreciation (1995-96 to 2014-15)

Year	Invested Capital		Productive Capital		Working Capital		Fixed Capital		Depreciation	
	INR Million	Y-o-Y % change	INR Million	Y-o-Y % change	INR Million	Y-o-Y % change	INR Million	Y-o-Y % change	INR Million	Y-o-Y % change
1995-96	41,727.80	36.51	41,841.80	16.97	23,525.00	9.14	18,316.80	28.83	1,919.30	36.73
1996-97	36,159.50	-13.34	40,336.30	-3.6	23,693.00	0.71	16,643.30	-9.14	1,839.00	-4.18
1997-98	49,948.40	38.13	56,302.40	39.58	31,719.70	33.88	24,582.70	47.7	2,771.40	50.7
1998-99	44,520.70	-10.87	52,390.00	-6.95	32,139.90	1.32	20,250.10	-17.62	2,564.70	-7.46
1999-00	59,743.30	34.19	66,780.40	27.47	36,945.40	14.95	29,835.00	47.33	3,648.60	42.26
2000-01	63,642.80	6.53	66,327.00	-0.68	31,327.40	-15.21	34,999.60	17.31	4,148.90	13.71
2001-02	58,509.20	-8.07	59,888.30	-9.71	28,806.20	-8.05	31,082.10	-11.19	3,822.80	-7.86
2002-03	68,785.40	17.56	76,196.40	27.23	41,540.40	44.21	34,656.00	11.5	4,461.20	16.7
2003-04	71,812.40	4.4	67,048.90	-12.01	29,660.20	-28.6	37,388.70	7.89	4,654.90	4.34
2004-05	93,744.30	30.54	80,316.20	19.79	33,298.60	12.27	47,017.60	25.75	5,586.20	20.01
2005-06	116,008.10	23.75	96,736.70	20.44	34,815.00	4.55	61,921.70	31.7	6,227.00	11.47
2006-07	139,558.00	20.3	112,216.80	16	37,041.50	6.4	75,175.30	21.4	6,863.70	10.22
2007-08	153,849.40	10.24	127,317.10	13.46	47,391.30	27.94	79,925.80	6.32	7,406.30	7.91
2008-09	243,773.30	58.45	223,243.50	75.34	91,675.40	93.44	131,568.10	64.61	13,646.90	84.26
2009-10	282,152.40	15.74	254,397.90	13.96	104,624.80	14.13	149,773.10	13.84	15,219.10	11.52
2010-11	328,974.60	16.59	312,041.50	22.66	139,963.40	33.78	172,078.10	14.89	16,693.50	9.69
2011-12	328,027.70	-0.29	311,195.30	-0.27	143,469.50	2.51	167,725.80	-2.53	15,750.20	-5.65
2012-13	438,468.90	33.67	382,669.30	22.97	141,455.70	-1.4	241,213.60	43.81	16,938.60	7.55
2013-14	391,123.00	-10.8	353,873.70	-7.52	160,624.90	13.55	193,248.80	-19.88	18,561.90	9.58
2014-15	385,458.90	-1.45	202,671.40	-42.73	135,001.70	15.9522	202,671.40	4.88	22,692.40	22.25

Source: Authors compilation based on data from ASI, CMIE Economic Outlook

Table A7 Plant & Machinery and Capital Formation (1995-96 to 2014-15)

Year	Gross Value of Plant & Machinery		Gross Capital Formation		Gross fixed capital formation		Net Fixed Capital Formation	
	INR Million	Y-o-Y % change	INR Million	Y-o-Y % change	INR Million	Y-o-Y % change	INR Million	Y-o-Y % change
1998-99	9,682.80	-41.8	3,820.70	N.A.	3,504.20	N.A.	939.5	N.A.
1999-00	13,518.40	39.61	9,162.70	139.82	6,446.30	83.96	2,797.80	197.8
2000-01	16,101.00	19.1	9,191.00	0.31	7,752.30	20.26	3,603.40	28.79
2001-02	16,225.30	0.77	6,402.20	-30.34	5,264.60	-32.09	1,441.80	-59.99
2002-03	15,567.80	-4.05	11,652.30	82	7,985.00	51.67	3,523.80	144.4
2003-04	17,122.00	9.98	9,698.30	-16.77	7,648.00	-4.22	2,993.00	-15.06

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2004 -05	24,066 .10	40.56	21,005.60	116.59	11,534.80	50.82	5,948.60	98.75
2005 -06	30,994.70	28.79	28,942.80	37.79	18, 462.90	60.06	12,235.80	105.69
2006 -07	37,349.00	20.5	31, 602.30	9.19	21,917.00	18.71	15,053.30	23.03
2007 -08	42,172.90	12.92	29,814.50	-5.66	18,786.50	-14.28	11,380.30	-24.4
2008 -09	75,771.80	79.67	38,928.70	30.57	24,332.00	29.52	10,685.10	-6.11
2009 -10	90,413.50	19.32	39,063.00	0.34	20,758.20	-14.69	5,539.10	-48.16
2010 -11	101,578.10	12.35	56,157.30	43.76	27,594.50	32.93	10,900.90	96.8
2011 -12	91,048. 10	-10.37	30,003.20	-46.57	28,176.40	2.11	12,426.20	13.99
2012 -13	96,580.50	6.08	119,777.40	299.22	76,696.10	172.2	59,757.50	380.9
2013 -14	105,270.40	9	51,56 2.30	-56.95	31,557.80	-58.85	12,995.90	-78.25
2014 -15	110,250.90	4.73	48,569	-5.81	33,714.60	6.8 3	11,022.20	-15.19

Source: Authors compilation based on data from ASI, CMIE Economic Outlook

Table A8 Inputs (1995-96 to 2014-15)

Year	Total Inputs		Wages & Salary		Fuels Consumed		Materials Consumed	
	INR Million	Y-o-Y % change	INR Million	Y-o-Y % chan ge	INR Million	Y-o-Y % change	INR Million	Y-o-Y % change
1995 -96	77,287.10	32.69	6,147.20	27.7 8	1,243 .70	25.05	55,454.20	35.98
1996 -97	68,632.90	-11.2	5,806. 60	-5.54	1,334.10	7.27	44,631.90	-19.52
1997 -98	92,097.60	34.19	7,450.00	28.3	1,718.00	28.78	62, 051.50	39.03
1998 -99	99,339.30	7.86	7,658.60	2.8	1,978.80	15.18	65,418.30	5.43
1999 -00	113,54 9.70	14.3	9,538.50	24.55	2,696.10	36.25	72,725.60	11.17
2000 -01	129,889.60	14.39	11,552.60	21.12	3,232.00	19.88	85,825.40	18.01
2001 -02	112,867.40	-13.11	11,93 9.60	3.35	3,189.20	-1.33	75,639.00	-11.87
2002 -03	149,327.60	32.3	14,125.60	18.31	3,737.70	17.2	100,8 55.40	33.34
2003 -04	134,308.20	-10.06	15,855.30	12.25	3,987.70	6.69	86,937.40	-13.8
2004 -05	187,193.80	39.38	20,971.40	32.27	5,213.40	30.74	116,600.20	34.12
2005 -06	218,610.80	16.78	27,062.30	29.04	6,924.60	32.82	136,987.60	17.48
2006 -07	235,430 .50	7.69	32,279.90	19.28	6,928.10	0.05	152,765.20	11.52
2007 -08	256,428.20	8.92	37,549.60	16.33	7,878.60	13.72	166,911.00	9.26
2008 -09	414,924.10	61.81	54,876. 60	46.14	11,734.90	48.95	268,081.00	60.61
2009 -10	502,223.60	21.04	62,865.20	14.56	14,772.80	25.89	326,792.30	21.9
2010 -11	611,279.60	21.71	76,767.20	22.11	16,174.90	9.49	405,392.90	24.05
2011 -12	609,269.40	-0.33	83,351.90	8.58	14,961.10	-7.5	399,522.20	-1.45
2012 -13	712,801.20	16.99	99,260.60	19.09	18,950.40	26.66	480,953.00	20.38
2013 -14	1,00 4,591.5 0	40.94	119,592.00	20.48	21,248.40	12.13	642,750.20	33.64
2014 -15	774,213.10	-22.93	135,584.10	13.37	20,958.30	-1.37	503,889.80	-21.60

Source: Authors compilation based on data from ASI, CMIE Economic Outlook

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Table A9 Remuneration (1995-96 to 2014-15)

Year	Workers' Remuneration		Supervisory & Managerial Remuneration		Employers Contribution	
	INR Million	Y-o-Y % change	INR Million	Y-o-Y % change	INR Million	Y-o-Y % change
1998-99	5,257.70	3.21	1,558.40	8	1,593.70	13
1999-00	6,576.40	25.08	1,755.20	12.63	1,846.00	15.83
2000-01	7,770.60	18.16	2,329.70	32.73	2,347.50	27.17
2001-02	8,066.60	3.81	2,477.10	6.33	2,206.90	-5.99
2002-03	9,624.20	19.31	2,805.80	13.27	2,556.10	15.82
2003-04	10,895.70	13.21	3,276.20	16.77	2,830.80	10.75
2004-05	13,902.50	27.6	4,906.80	49.77	3,490.30	23.3
2005-06	18,073.70	30	6,018.30	22.65	4,385.40	25.65
2006-07	21,226.40	17.44	7,413.60	23.18	5,131.00	17
2007-08	24,275.30	14.36	9,044.10	21.99	5,462.50	6.46
2008-09	34,521.80	42.21	13,707.40	51.56	7,539.20	38.02
2009-10	40,521. 20	17.38	14,586.70	6.41	7,540.90	0.02
2010-11	48,408.70	19.47	18,920.10	29.71	9,454.10	25.37
2011-12	53,329.10	10.16	20,532.70	8.52	10,930.00	15.61
2012-13	64,255.50	20.49	23,936.10	16.58	12,279.50	12.35
2013-14	72,958.20	13.54	30,885.60	29.03	13,554.90	10.39
2014-15	81,993.80	12.38	30,564.80	-1.04	16,113 .70	18.88

Source: Authors compilation based on data from ASI, CMIE Economic Outlook

Table A10 Fuels Consumed (1995-96 to 2014-15)

Year	Coal Consumed Value		Petroleum Products Value		Electricity Purchased Value		Other Fuels Value	
	INR Million	Y-o-Y % change	INR Million	Y-o-Y % change	INR Million	Y-o-Y % change	INR Million	Y-o-Y % change
1998-99	18.3	N.A.	743	N.A.	1,197.90	N.A.	20	N.A.
1999-00	24.8	35.86	935	25.88	1,657.50	38.37	78.9	294.64
2000-01	30	20.79	1,326	41.89	1,775.00	7.09	100.6	27.48
2001-02	37.2	24.08	1,152	-13.14	1,825.50	2.84	174.3	73.38
2002-03	22.3	-39.99	1,369	18.83	2,168.20	18.78	178	2.08
2003-04	16.5	-26.05	1,412	3.11	2,367.30	9.18	192.1	7.96
2004-05	25	51.54	2,170	53.7	2,862.10	20.9	156.4	-18.62
2005-06	128.2	411.95	2,710	24.9	3,831.70	33.88	254.4	62.7

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2006 -07	35.3	-72.46	2,717	0.24	3,795.10	-0.96	380.9	49.73
2007 -08	250.5	609.52	3,091	13.78	4,148.90	9.32	387.9	1.84
2008 -09	163.3	-34.82	4,172	34.96	6,354.60	53.16	1,045 .00	169.39
2009 -10	373.7	128.84	4,752	13.9	8,594.60	35.25	1,052.80	0.75
2010 -11	594.3	59.04	5,566	17.14	8,915.00	3.73	1,099.60	4.44
2011 -12	305.6	-48 .57	5,507	-1.06	8,317.20	-6.71	831.5	-24.38
2012 -13	397.6	30.09	7,129	29.46	10,444.00	25.57	979.8	17.83
2013 -14	260.3	-34.53	7,249	1.68	12,894.10	23.46	845.2	-13.74
2014 -15	209.7	-19.44	6,879.10	-5.10	12,931.40	0.29	938.1	10.99

Source: Authors compilation based on data from ASI, CMIE Economic Outlook

Table A11 Country-wise Share of Exports (1995-96 to 2014-15)

Year	World	USA	UAE	UK	Germany	France	Spain	Netherlands	Italy	Saudi Arabia	Canada	Denmark	Belgium	Japan	South Africa
1995-96	100	31.02	3.19	9.85	12.25	7.14	1.32	4.37	3.42	0.71	3.33	1.1	1.23	3.21	0.81
1996-97	100	33.9	3.56	9.51	11.43	7.03	1.52	4.1	2.88	0.81	3.58	1.05	1.17	2.35	0.59
1997-98	100	33.44	4.48	8.02	9.8	7.4	1.26	3.53	3.11	1.22	3.7	1.05	1.15	2.02	0.89
1998-99	100	32.68	9.26	6.69	9.01	7.15	1.25	3.3	2.91	1.56	4.06	1.44	1.33	1.67	0.91
1999-00	100	31.03	10.29	7.28	6.7	7.16	1.45	3.1	2.9	2.05	4.27	1.39	1.42	1.6	0.85
2000-01	100	33.15	9.75	7.28	6.39	6.28	1.45	2.84	2.83	1.98	4.21	0.96	1.27	2.07	0.77
2001-02	100	29.15	7.28	8.44	7.24	6.76	1.44	3.76	3.01	2.27	4.36	0.93	1.61	1.66	0.86
2002-03	100	30.33	6.95	8.97	8.19	6.94	2	3.93	2.96	2.28	4.51	1.19	1.48	1.15	0.71
2003-04	100	25.96	9.83	8.62	7.97	6.99	2.46	3.6	3.57	2.64	3.87	1.51	1.45	1.24	1.03
2004-05	100	30.35	7.97	10.01	6.85	7.2	3.18	3.12	4.43	2.57	3.82	1.64	1.43	1.29	0.86
2005-06	100	33.1	5.18	10.96	7.87	7.41	4.18	3.4	4.45	2.27	3.19	2.14	1.54	1.37	0.69
2006-07	100	32.5	5.89	10.63	7.27	7.54	3.47	3.94	4.99	2.15	3.07	2.18	1.88	1.38	0.59
2007-08	100	29.24	7.13	12.35	8.89	7.29	3.79	3.83	4.37	2.21	2.6	2.1	1.94	1.08	0.65
2008-09	100	24.79	8.62	11.8	10.25	7.24	4.58	3.92	4.06	2.3	2.45	2.15	2.14	1.23	0.66
2009-10	100	24.8	9.06	11.96	9.87	6.66	5.07	3.77	3.83	2.34	2.23	2.25	1.98	1.23	0.77
2010-11	100	25.44	9.49	11.33	9.31	6.03	4.78	3.74	3.64	2.17	2.1	2.35	2.63	1.25	0.79
2011-12	100	23.26	9.83	10.92	8.43	5.93	4.26	4.03	3.71	2.29	1.9	2.25	2.47	1.59	0.95
2012-13	100	23.92	11.07	11.56	7.63	5.14	4.47	3.31	2.97	2.33	1.76	1.95	1.97	1.67	0.81
2013-14	100	22.82	11.57	11.08	7.94	5.12	4.1	3	3.02	2.01	1.65	1.7	2.11	1.47	0.82
2014-15	100	21.49	15.75	11.04	7.25	5.3	4.06	2.59	2.63	1.78	1.44	1.53	1.51	1.2	0.67
2015-16	100	22.8	20.07	10.63	6.57	4.9	4.38	2.25	2.25	1.86	1.48	1.26	1.11	1.09	1.07

Source: Authors compilation based on data from CMIE Industry Outlook

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Table A12 Outstanding Loans & Interest Paid (1995-96 to 2014-15)

Year	Outstanding Loans		Interest paid		
	Total INR Million	Y-o-Y % change	INR million	Y-o-Y Change %	As % of Outstanding Loans
1995-96	12,146.60	65.08	2,850.00	73.29	23.46
1996-97	10,539.70	-13.23	2,914.10	2.25	27.65
1997-98	16,276.50	54.43	3,892.60	33.58	23.92
1998-99	13,130.50	-19.33	2,913.80	-25.15	22.19
1999-00	16,087.50	22.52	3,352.30	15.05	20.84
2000-01	20,397.00	26.79	3,924.40	17.07	19.24
2001-02	21,802.30	6.89	3,107.40	-20.82	14.25
2002-03	21,471.00	-1.52	2,983.30	-3.99	13.89
2003-04	23,275.30	8.4	3,118.50	4.53	13.4
2004-05	32,541.00	39.81	3,626.90	16.3	11.15
2005-06	38,836.10	19.35	4,754.50	31.09	12.24
2006-07	58,646.40	51.01	6,139.30	29.13	10.47
2007-08	59,567.30	1.57	8,276.40	34.81	13.89
2008-09	99,369.20	66.82	15,088.70	82.31	15.18
2009-10	105,250.70	5.92	15,830.90	4.92	15.04
2010-11	130,592 .10	24.08	17,711.40	11.88	13.56
2011-12	154,343.20	18.19	23,375.40	31.98	15.15
2012-13	132,309. 80	-14.28	23,115.50	-1.11	17.47
2013-14	146,350.90	10.61	23,578.70	2	16.11
2014-15	137,481.90	-6.06009	24,507.90	3.94	17.83

Source: Authors compilation based on data from ASI, CMIE Economic Outlook

Table A13 Investment Trends (1995-96 to 2015-16)

Year	New projects announced	Projects completed	Projects dropped	Projects abandoned/ shelved/stalled	Projects Outstanding	
					Total	Under Implementation
1995-96	49	20		2	59	42
1996-97	13	12	15		46	32
1997-98	4	5	9		38	23
1998-99	5	5	10		30	16
1999-00	5	3	12		23	15
2000-01	29	8	4		46	31
2001-02	20	8	10		49	33
2002-03	22	5	1		65	23

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2003-04	30	5	16	2	74	
2004-05	41	9	14	2	93	21
2005-06	66	15	10	4	134	26
2006-07	46	35	22	5	126	57
2007-08	23	25	19	10	105	54
2008-09	8	14	15	9	84	48
2009-10	30	11	19	5	83	33
2010-11	23	14	24	3	68	27
2011-12	5	8	10		55	28
2012-13	1	3	12	2	41	26
2013-14	1	4	14	2	24	22
2014-15	18	8	6		30	12
2015-16	16	13	3		30	14
						9

Source: Authors compilation based on data from CMIE Industry Outlook

Table A14 Output Related Performance Ratios (1995-96 to 2014-15)

Year	Net Value Added to Output	Fuel Consumed to Output	Fixed Capital to Output	Fixed Capital to Net Value Add ded	Gross value of output per productive capital	Gross value of output per invested capital
1995 -96	0.23	0.01	0.18	0.78	2.5	2.5
1996 -97	0.24	0.01	0.18	0.75	2.3	2.6
1997 -98	0.19	0.01	0.21	1.08	2.1	2.4
1998 -99	0.22	0.02	0.15	0.69	2.5	3
1999 -00	0.22	0.02	0.2	0.91	2.2	2.5
2000 -01	0.19	0.02	0.21	1.09	2.5	2.6
2001 -02	0.2	0.02	0.21	1.07	2.4	2.5
2002 -03	0.18	0.02	0.18	1	2.5	2.7
2003 -04	0.19	0.02	0.22	1.13	2.6	2.4
2004 -05	0.19	0.02	0.2	1.05	3	2.5
2005 -06	0.19	0.02	0.22	1.17	2.9	2.4
2006 -07	0.22	0.02	0.24	1.08	2.8	2.2
2007 -08	0.23	0.02	0.23	1.04	2.7	2.2
2008 -09	0.2	0.02	0.24	1.21	2.4	2.2
2009-10	0.19	0.02	0.24	1.25	2.5	2.3
2010 -11	0.18	0.02	0.22	1.25	2.5	2.3
2011 -12	0.2	0.02	0.22	1.09	2.5	2.4
2012 -13	0.19	0.02	0.27	1.38	2.4	2.1
2013 -14	0.18	0.02	0.15	0.85	3.5	3.2
2014 -15	0.22	0.02	0.2	0.92	5.02	2.64

Source: Authors compilation based on data from ASI, CMIE Economic Outlook

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Table A15 Per Factory Performance Ratios (1997-98 to 2014-15)

Year	Per Factory (INR)		
	Gross Output	NVA	Fixed Capital
1997-98	39,966,417.40	7,719,952.41	8,355,778.38
1998-99	46,402,401.98	10,406,640.76	7,152,984.81
1999-00	46,104,827.80	10,065,990.16	9,174,354.24
2000-01	52,377,851.29	10,147,700.06	11,026,969.12
2001-02	47,098,157.13	9,370,999.03	10,049,175.56
2002-03	60,888,695.09	11,215,277.78	11,193,798.45
2003-04	57,241,117.76	11,012,508.32	12,438,023.95
2004-05	72,601,314.58	13,665,209.42	14,374,075.21
2005-06	79,394,972.86	15,173,893.17	17,686,860.90
2006-07	89,051,669.04	19,923,566.33	21,448,017.12
2007-08	95,992,422.54	21,672,845.07	22,514,309.86
2008-09	97,918,142.08	19,854,189.44	23,965,045.54
2009-10	111,007,056.98	20,844,554.80	26,097,421.15
2010-11	122,322,447.68	21,991,228.63	27,492,906.22
2011-12	124,013,796.94	24,551,734.56	26,690,929.34
2012-13	139,249,353.25	26,877,964.27	37,144,071.45
2013-14	177,313,268.06	32,123,343.27	27,422,846.60
2014-15	155,979,368.97	33,923,081.64	31,041,721.55

Source: Authors compilation based on data from ASI, CMIE Economic Outlook

Table A16 Per Persons Engaged Performance Ratios (1995-96 to 2014-15)

Year	Per Persons Engaged (INR)					
	Gross Value of Output	GVA	NVA	Net Income	Profits	Fixed Capital
1995-96	381,662.41	94,395.69	87,261.89	73,997.84	47,367.52	68,081.31
1996-97	369,287.12	95,590.17	88,251. 62	74,185.87	46,967.59	66,371.96
1997-98	410,561.78	88,981.85	79,304.52	63,057.85	32,120.07	85,836.15
1998-99	471,216.27	114,879.17	105,679.41	92,234.71	56,925.38	72,638.54

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1999-00	505,747.53	122,726.32	110,419.01	96,395.78	55,577.86	100,638.20
2000-01	504,668.22	110,369.17	97,774.57	83,011.91	38,138.97	106,246.45
2001-02	459,413.79	103,464.34	91,408.38	78,525.52	31,224.46	98,023.58
2002-03	561,781.50	116,771.07	103,476.28	91,470.68	38,860.41	103,278.10
2003-04	453,839.26	99,590.91	87,313.26	75,666.78	23,629.25	98,615.54
2004-05	527,525.74	111,701.23	99,292.28	86,794.47	29,564.28	104,442.94
2005-06	512,990.41	109,534.81	98,042.25	84,825.58	23,744.38	114,279.15
2006-07	545,301.30	133,991.39	122,000.48	105,881.46	36,899.36	131,335.34
2007-08	540,692.55	133,827.05	122,075.74	102,015.38	30,203.27	126,815.42
2008-09	673,750.37	153,715.86	136,611.74	108,418.08	25,683.12	164,897.52
2009-10	736,443.75	155,880.04	138,287.08	111,285.67	25,431.36	173,135.68
2010-11	877,032.68	176,796.47	157,673.64	127,524.45	23,751.78	197,119.81
2011-12	844,566.58	184,273.00	167,203.77	133,073.02	25,604.16	181,772.25
2012-13	979,777.13	207,469.64	189,116.96	159,512.32	33,055.64	261,350.67
2013-14	1,276,709.01	250,263.46	231,297.76	201,751.39	59,875.92	197,452.77
2014-15	1,030,079.67	246,979.17	224,026.27	194,703.19	41,263.80	204,997.92

Source: Authors compilation based on data from ASI, CMIE Economic Outlook

Table A17 Per Worker and Per Employee Performance Ratios (1995-96 to 2014-15)

Year	Per Worker (INR)			Per Employee (INR)		
	Wages	NVA	Output	Gross value of output	GVA	NVA
1995-96	20,028.97	107,286.09	469,243.42	389,258.24	96,274.35	88,998.57
1996-97	18,874.46	104,278.62	436,351.77	372,917.28	96,529.84	89,119.15
1997-98	21,064.47	93,910.64	486,178.10	413,609.07	89,642.29	79,893.13
1998-99	21,886.84	122,641.56	546,849.16	471,216.27	114,879.17	105,679.41
1999-00	26,166.60	130,246.53	596,562.66	505,750.94	122,727.15	110,419.76
2000-01	27,512.29	114,037.27	588,608.95	502,304.75	109,852.28	97,316.67
2001-02	29,599.59	106,355.77	534,538.61	459,412.34	103,464.01	91,408.09
2002-03	33,704.79	121,601.22	660,183.37	561,783.17	116,771.42	103,476.59
2003-04	33,268.40	101,076.92	525,380.37	453,838.06	99,590.65	87,313.03
2004-05	35,867.61	115,320.45	612,681.18	527,525.74	111,701.23	99,292.28
2005-06	38,608.21	113,480.63	593,769.27	512,988.51	109,534.41	98,041.89

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2006 -07	43,061.95	141,668.24	633,209.58	546,791.53	134,357.57	122,333.89
2007 -08	45,971.1 6	145,701.8 7	645,336.38	541,972.98	134,143.97	122,364.83
2008 -09	50,781.77	160,338.89	790,769.44	675,924.17	154,211.81	137,052.50
2009 -10	54,546.60	161,032.77	857,575.25	738,470.34	156,309.00	138,667.63
2010 -11	65,019.93	184,874.70	1,028,333.92	879,095. 07	177,212. 22	158,044.42
2011 -12	67,308.12	194,724.94	983,579. 34	846,267.88	184,644.20	167,540.59
2012 -13	81,235.82	220,671.32	1,143,253.96	982,472.42	208,040 .37	189,637.21
2013 -14	88,557.63	274,774.78	1,516,691.87	1,280,168.72	250,941.64	231,924.55
2014-15	97,03 9.60	262,125.90	1,205,262.90	1,032,230.48	247,494.86	224,494.04

Source: Authors compilation based on data from ASI, CMIE Economic Outlook

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