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# **Entrepreneurship and Micro and Small Enterprises Growth in Assam**

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## **ABSTRACT**

In this paper we examine the structure and growth of micro and small enterprises (MSE) sector in Assam. We analyze the growth of the sector by different enterprise types in terms of different indicators such as number of units, employment, value added and fixed capital. The analysis, based on National Sample Survey data on unorganised manufacturing sector, carried out for the period 1994-95 to 2005-06 reveals that Assam's MSE sector has witnessed drastic decline during the period 1994-95 to 2000-01, while significant growth has been experienced during 2000-01 to 2005-06. However, growth rates are varied across different enterprises. The findings are important in formulating policy for entrepreneurship development and development of the MSE sector in the State.

*Key words:* Entrepreneurship, micro and small enterprises.

## **1. Introduction**

Growth of entrepreneurship plays pivotal role in economic growth of low-income, developing economies by driving the structural transformation from a traditional economy to a modern economy, creating new enterprises, absorbing surplus labour from the agriculture sector, and by raising productivity and employment in both the modern and traditional sectors. Empirics suggest that the vast majority of entrepreneurs in developing countries are involved in micro and small enterprises (Naude, 2010).

The micro and small enterprises (MSE) sector occupies a dominant position in India's industrial scenario in terms of its contribution to employment, value added and export. The sector with more than 99.2 percent of total manufacturing enterprises during 1994-1995 to 2005 -2006, accounted for about 80 percent of total manufacturing employment, around 20 percent of manufacturing value added and about 40 percent of export during the same. The sector is not only huge, but also quite diversified, including a wide range of manufacturing units, dispersed all over the country both in rural and urban areas. Recognizing the role of the MSE sector, the Eleventh and Twelfth Five Year Plans identified the sector as one of the highest priorities for creation of gainful employment opportunities.

Assam is amongst the industrially under-developed States in India. The manufacturing sector contributed about 7.0 percent to Gross State Domestic Product during 2010-11 and during the same year the growth of the sector registered at 3.8 percent at constant (2004 -05) prices and 9.0 percent at current prices (Economic Survey, Assam 2011-12). The industrial scenario of the State is largely confined within the growth of employment oriented MSE sector, which is also popularly referred as unorganized manufacturing sector.<sup>1</sup> During 2005-06, with about 370.8 thousand units, which is more than 99.5 percent of total manufacturing enterprises, the unorganized sector accommodated about 632.5 thousand workers, which is more than 83 percent of manufacturing workers in the State. Notwithstanding the vital role plays by the sector in the process of industrialization as well as employment generation and fulfillment of socio-economic objectives in the State, the sector has not received due attention in the policy

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<sup>1</sup> Conceptually, the classification of MSE sector is different from unorganised manufacturing sector. As per the Micro, Small and Medium Enterprises Act 2006, the MSE sector has been subdivided into Micro, Small and Medium Enterprise, based on their investment in plant and machineries in case of manufacturing sector and/or in equipments in case of service sector. On the other hand, the classification of unorganised manufacturing sector has been done on the basis of number of workers employed. The unorganised manufacturing sector in India is dominated by small and tiny enterprises. Therefore, in this paper we have used the MSE sector and unorganised manufacturing sector synonymously.

sphere and research community in the State. Recognizing the growing significance of the sector in the industrial scenario of the State, the present paper attempts to examine the structure and growth of MSE sector in Assam. The structure and growth of the sector has been analyzed by different enterprise types in terms of different indicators such as number of units, employment, value added and fixed capital. We have also discussed the pattern of factor allocation and factor productivity of the sector in terms of technology indicators such as capital-labour ratio, per worker productivity and ratio of value added to capital.

The rest of paper is organised in the following sections. Section 2 discusses the database used in the study. Section 3 explains the importance of MSE sector in Assam. Section 4 analyzes the structure of MSE sector. Section 5 examines the growth performance of the MSE sector in the States. Section 6 analyzes different technology indicators of the MSE sector. Finally, section 7 concludes.

## **2. Database**

The present study is based on National Sample Survey Organisation (NSSO) data on unorganized manufacturing sector, for three points of time, viz. 51<sup>st</sup> round (July 1994-June 1995), 56<sup>th</sup> round (July 2000-June 2001) and 62<sup>nd</sup> round (July 2005-June 2006). These surveys cover all the units of unregistered manufacturing sector and provide a large variety of estimates for the entire unregistered manufacturing sector.<sup>2</sup> However, these rounds differ from each other in terms of industrial classification and coverage, which leads to a few conceptual and methodological inconsistencies in different rounds of data. For example, the 51<sup>st</sup> round, 56<sup>th</sup> round and 62<sup>nd</sup> round data are based on the National Industrial Classification (NIC) of 1987, 1998 and 2004 respectively. Therefore, required adjustments to the industry groups under the NIC 1987 and NIC 1998 have been made, to make the industry groups comparable with the industry groups under NIC 2004. Secondly, some industrial categories such as ‘repair services’ and/or ‘repair of capital services’ are included in the 51<sup>st</sup> round, but excluded in the 56<sup>th</sup> and 62<sup>nd</sup> rounds; and some industrial categories such as cotton ginning, cleaning and baling, and recycling are included in the 56<sup>th</sup> and 62<sup>nd</sup> rounds, but excluded in

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<sup>2</sup> In the NSS framework, the unregistered (or unorganised) manufacturing sector covers all the manufacturing enterprises that are not covered by Annual Survey of Industries. Per se, the sector includes all the manufacturing enterprises except (a) those registered under section 2m(i) and 2m(ii) of Factories Act, 1948 and Bidi and Cigar Workers (conditions of employment) Act, 1966 and (b) those run by Government (Central Government, State Governments, Local Bodies)/Public Sector Enterprises.

the 51<sup>st</sup> round. These industrial categories have been excluded from the analysis in order to make valid comparison among all the three NSS rounds.

### **3. Importance of the MSE Sector in Assam vis-à-vis India**

The size of MSE sector is huge both in terms of number of units and workers in Assam. Table 1 depicts the structure of manufacturing sector of Assam vis-à-vis all-India. It shows that during 2005-06 more than 99.5 percent of manufacturing enterprises were in the unorganised segment in Assam and the dominance of the sector has remained since 1994-95. The predominance of the unorganized segment in the State is true in respect of employment as well. In 1994-95 the segment accommodated about 83.3 percent of the workers engaged in manufacturing, which declined 81.6 percent in 2000-01 and then increased to 83.1 percent in 2005-06. In other words, the organized sector accounted for only 0.50 percent of manufacturing units during 1994-95 to 2005-06 and about 16.7 percent of manufacturing employment in 1994-95, 18.4 percent in 2000-01 and 16.9 percent in 2005-06. As Saikia (2011a, 2011b) showed and also obvious from Table 1, the MSE sector has played predominance role in the industrial scenario, with more than 99.2 percent of manufacturing enterprises and accommodating about 80 percent of manufacturing employment during 1994-95 to 2005-06. Thus, it is clear that the unorganized manufacturing sector approximately sums up the total manufacturing sector of the State as well as the entire country, especially from the view point of number of units. Contrarily, the MSE sector's contribution to manufacturing gross value added recorded at 26.17 percent in 1994-95, which increased to 33.8 percent in 2000-01 and then declined to 24.9 percent in 2005-06; whereas the sector accounted for about 13 percent of fixed capital employed in the manufacturing sector in 1994-95, 8.7 percent in 2000-01 and 12.5 percent in 2005-06. This is what the major challenges faced by MSE sector in terms of abysmally low level of productivity and low level of technology-in-use.

Table 2 represents the growth of the overall manufacturing sector as well as its two sub-sectors for the State and all-India as well. It reveals that during 1994-95 to 2000-01 Assam's MSE sector has experienced drastic decline both in terms of number of units and employment, and in both the cases the decline is more significant in the MSE sector. Nevertheless, the manufacturing sector has witnessed significant growth in units and employment during 2000-01 to 2005-06, and the growth of MSE sector has been better than the organized sector in terms of both the variables.

**Table 1: Structure of Manufacturing Sector by Industry Type in Assam vis-à-vis all-India**  
(Figures are in percentage)

Variables	Industry Type	Assam			India		
		1994-95	2000-01	2005-06	1994-95	2000-01	2005-06
No. of Units	Organised	0.47	0.50	0.48	0.84	0.77	0.81
	Unorganised	99.53	99.50	99.52	99.16	99.23	99.19
Workers	Organised	16.70	18.41	16.90	21.75	17.72	20.00
	Unorganised	83.30	81.59	83.10	78.25	82.28	80.00
GVA	Organised	73.83	66.24	75.11	79.76	74.77	80.63
	Unorganised	26.17	33.76	24.89	20.24	25.23	19.37
Fixed Capital	Organised	87.02	91.31	87.54	74.22	58.25	68.56
	Unorganised	12.98	8.69	12.46	25.78	41.75	31.44

Note: For organized sector workers imply total number of persons engaged.

Source: NSSO (1998a, 1998b, 2002a, 2002b, 2002c, 2002d, 2008a and 2008b) and CSO, Annual Survey of Industries, various years.

**Table 2: Growth of Manufacturing Sector by Industry Type in Assam vis-à-vis all-India**  
(Figures are in percentage)

Variables	Industry Type	Assam			India		
		1994-95/ 2000-01	2000-01/ 2005-06	1994-95/ 2005-06	1994-95/ 2000-01	2000-01/ 2005-06	1994-95/ 2005-06
No. of Units	Organized	-0.85	5.16	1.84	1.09	1.32	1.19
	Unorganized	-1.62	5.89	1.73	2.71	0.05	1.49
	Total	-1.62	5.89	1.73	2.69	0.06	1.49
Workers	Organized	-1.72	2.71	0.27	-2.38	2.67	-0.11
	Unorganized	-3.63	4.86	0.14	1.86	-0.35	0.85
	Total	-3.30	4.48	0.16	1.01	0.21	0.65
GVA*	Organized	5.78	20.69	12.31	5.80	15.38	10.05
	Unorganized	12.38	10.74	11.63	10.95	7.79	9.50
	Total	7.71	17.70	12.14	6.94	13.65	9.94
Fixed Capital*	Organized	19.18	6.26	13.12	4.78	16.77	10.07
	Unorganized	10.58	15.17	12.64	18.23	6.80	12.89
	Total	18.23	7.16	13.06	9.10	13.03	10.87

Notes: \* GVA (gross value added) and Fixed Capital values are at Current Prices.

For organized sector workers imply total number of persons engaged.

Source: Same as Table 1.

Thus, although the MSE sector of Assam has witnessed severe decline in number of units and employment during 1994-95 to 2000-01, but the sector has managed to enjoy significant growth both in number of units and employment during 2000-01 to 2005-06 and for the entire period 1994-95 to 2005-06 as well. At the same time, the growth of the sector in terms of gross value added and fixed capital is quite satisfactory for both the periods. In view of the growing importance of the MSE sector, in the following sections we have discussed the structure, growth and factor-use pattern of the sector during 1994-95 to 2005-06.

#### **4. Structure of Assam's MSE Sector**

Before analyzing the performance of the MSE sector it is worthwhile to look at the structure of the sector. Table 3 depicts the composition and structural changes in Assam's MSE sector during 1994-95 to 2005-06 in terms of four indicators, namely, number of units, number of workers, gross value added and fixed capital, separately by each of the three enterprises types: OAMEs, NDMEs and DMEs.<sup>3</sup> From the table it is revealed that a very large proportion of Assam's MSE sector has been continued to be constituted by the own account manufacturing enterprises (OAMEs), which are the tiniest self-employing enterprises, dominate in respect of each of the four indicators. For example, in 2005-06, 88.5 percent of the units, 74.6 percent of workers, 55 percent of gross value added and more than 50 percent of fixed capital in the manufacturing sector are concentrated in the OAME sector. On the other hand, these percentages are only of 10.3 percent, 18.1 percent, 31.1 percent and 30 percent respectively for NDMEs and 1.2 percent, 7.3 percent, 13.8 percent and 20.1 percent respectively for DMEs. The dominance of the OAMEs is discernable for the entire study period (1994-95 to 2005-06) in respect of all the four indicators.

Some changes have been taken place in the structure of the MSE sector of Assam between 1994-95 and 2005-06. In terms of number of units the share of OAMEs remained unchanged throughout, the share of NDMEs has marginally declined, which has gained by the DMEs. In terms of number of workers the share of OAMEs remained same during 1994-95 to 2000-01 and then declined marginally during 2000-01 to 2005-06, whereas the share of NDMEs declined during 1994-95 to 2000-01 and then increased during 2000-01 to 2005-06, and that of DMEs has significantly increased throughout the period. In terms of gross value added the share of OAMEs has marginally increased during 1994-95 to 2000-01 and then declined during 2000-01 to 2005-06, whereas that of NDMEs has declined during 1994-95 to 2000-01 and then increased during 2000-01 to 2005-06 and DMEs has increased during 1994-95 to 2005-06. In terms of fixed capital, the share of OAMEs and NDMEs has declined throughout the study period, while that of DMEs has significantly increased during the same.

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<sup>3</sup> The unorganized manufacturing sector is further subdivided into three sectors- own account manufacturing enterprises (OAMEs), non-directory manufacturing establishments (NDMEs) and directory manufacturing establishments (DME). OAMEs are enterprises run without a hired worker on a fairly regular basis. NDMEs are establishments employing up to six workers, at least one of them being a hired worker employed on a fairly regular basis. DMEs are establishments employing six or more (but less than ten) workers, at least one of them being a hired worker.

**Table 3: Structure of Assam's MSE Sector**

Enterprise Type	Year	No. of Units ( <sup>'000</sup> )	Worker ( <sup>'000</sup> )	GVA* (Rs. Lakh)	Fixed Capital* (Rs. Lakh)
<b>OAME</b>	1994-95	262.9 (85.6)	489.5 (78.6)	21526 (58.8)	15483 (59.5)
	2000-01	247.4 (88.9)	392.5 (78.7)	26197 (59.6)	15630 (55.1)
	2005-06	328.1 (88.5)	472.1 (74.6)	35619 (55.0)	25459 (50.1)
<b>NDME</b>	1994-95	42.0 (13.7)	116.3 (18.7)	12472 (34.1)	9296 (35.7)
	2000-01	28.2 (10.1)	81.1 (16.3)	10927 (24.9)	9061 (31.9)
	2005-06	38.2 (10.3)	114.4 (18.1)	20132 (31.1)	15188 (29.9)
<b>DME</b>	1994-95	2.2 (0.7)	17.0 (2.7)	2586 (7.1)	1254 (4.8)
	2000-01	2.8 (1.0)	25.2 (5.1)	6813 (15.5)	3681 (13.0)
	2005-06	4.4 (1.2)	45.9 (7.3)	8959 (13.8)	10201 (20.1)
<b>All Manufacturing</b>	1994-95	307.1	622.8	36583	26033
	2000-01	278.4	498.8	43937	28371
	2005-06	370.8	632.5	64712	50849

Note: \* GVA (gross value added) and Fixed Capital values are at Constant (1993-94) Prices.

Figures in the parenthesis represent percentage to total manufacturing.

Source: NSSO (1998a, 1998b, 2002a, 2002b, 2002c, 2002d, 2008a and 2008b).

Thus, it is clear that the MSE sector of the State has been dominated by the OAMEs, which are the tiniest enterprises, especially in terms of number of units and workers. On the other hand, the presence of NDMEs and DMEs, which are regarded as the modern segment of unorganized manufacturing, in Assam's MSE sector has been very marginal, in terms of number of units and workers; but in terms of gross value added and fixed capital, they have relatively respectable shares.

However, going by absolute numbers there has been overall improvement in number of units during 1994-95 to 2005-06, but a break up in the period shows that during 1994-95 to 2000-01 the number of units has drastically declined, particularly for OAMEs and NDMEs segments, while numbers of DME units has increased; and then during 2000-01 to 2005-06 the number of units has increased in each segments of the MSE sector. But the absolute figures for NDMEs units in 2005-06 are lower than those for 1994-95, while in the other two segments the figures in 2005-06 are higher than those for 1994-95. In terms of numbers of workers there has been improvement in the absolute numbers during 1994-95 to 2005-06 for the overall MSE sector, but except for DMEs segment, the OAMEs and NDMEs segments have suffered sharp decline in workers between 1994-95 and 2005-06. In the OAMEs and NDMEs segments the absolute decline in number of workers during 1994-95 to 2000-01 was much sharper than the increase in number of workers during 2000-01 to 2005-06. Contradictorily, the DMEs segment has experienced significant increase in number of workers throughout the period (from 17 thousands in 1994-95 to 25.2 thousands in 2000-01

and then to 45.9 thousands in 2005-06). However, in terms of gross value added and fixed capital significant improvement is discernable for the MSE sector as a whole as well as all the segments of the sector.

## 5. Growth of Assam's MSE Sector

Table 4 illustrates the growth of Assam's MSE sector by enterprise type in terms of four indicators, viz. number of units, number of workers, gross value added and fixed capital during 1994-95 to 2005-06. During 1994-95 to 2000-01 the overall MSE sector witnessed an annual decline of 1.62 percent in terms of number of units. The decline was largely caused by significant decline in the NDMEs segment (6.42 percent) and OAMEs segment (1.01 percent), while the DMEs segment enjoyed an annual growth rate of 4.1 percent. However, during 2000-01 to 2005-06 the overall MSE sector witnessed an annual growth of 5.89 percent, the growth was uniform among all the three segments of the sector; DMEs sector being enjoyed the highest growth rate (9.46 percent). For the entire period (1994-95/2005-06) the annual growth rate in number of units recorded at 1.73 percent and barring the NDMEs segment, OAMEs and DMEs segments have witnessed significant growth.

**Table 4: Growth of Assam's MSE Sector by Enterprise Type**

(Figures are in percentage)

Enterprise Type	Year	No. of Units	Worker	GVA*	Fixed Capital*
OAME	1994-95/2000-01	-1.01	-3.61	3.33	0.16
	2000-01/2005-06	5.81	3.76	6.34	10.25
	1993-94/2005-06	2.03	-0.33	4.68	4.62
NDME	1994-95/2000-01	-6.42	-5.83	-2.18	-0.43
	2000-01/2005-06	6.26	7.12	13.00	10.88
	1993-94/2005-06	-0.86	-0.15	4.45	4.56
DME	1994-95/2000-01	4.10	6.78	17.52	19.65
	2000-01/2005-06	9.46	12.74	5.63	22.61
	1993-94/2005-06	6.50	9.45	11.96	20.99
All Manufacturing	1994-95/2000-01	-1.62	-3.63	3.10	1.44
	2000-01/2005-06	5.89	4.86	8.05	12.38
	1993-94/2005-06	1.73	0.14	5.32	6.28

Note: \* GVA (gross value added) and Fixed Capital values are at Constant (1993-94) Prices.

Source: Same as Table 3.

The employment situation in MSE sector has witnessed drastic decline (3.63 percent) during 1994-95 to 2000-01, but the sector has enjoyed significant improvement (4.86 percent) during 2000-01 to 2005-06 and a marginal improvement (0.14 percent) for the entire period (1994-95 to 2005-06). Looking at the growth in the sub-sectors, the OAMEs and NDMEs sector have suffered a sharp decline during 1994-95 to 2000-01 and considerable growth during

2000-01 to 2001-05, but a marginal decline for the entire period. Contrarily, the DMEs segment has enjoyed significant growth in workers throughout the entire period.

Unlike in case of number of units and employment, the MSE sector has improved quite considerably in terms of real gross value added and fixed capital.<sup>4</sup> The real gross value added of the overall MSE sector has recorded an annual growth of 3.1 percent during 1994-95 to 2000-01, 8.05 percent during 2000-01 to 2001-05 and 5.32 percent during 1994-95 to 2001-05, whereas the growth of fixed capital of the sector recorded at 1.44 percent, 12.38 percent and 6.28 percent respectively during the same periods. All the sub-sectors have experienced quite considerable improvement in terms of real gross value added and fixed capital during the entire period (1994-95 to 2005-06) as well as during the two sub-periods 1994-95 to 2000-01 and 2000-01 to 2005-06, except the NDMEs which have suffered a decline in real gross value added and fixed capital during 1994-95 to 2000-01.

## **6. Technology Indicators of Assam's MSE Sector**

It is generally believed that the MSE sector uses inferior technology, which results in low productivity, low profits level and stagnation (Sahu, 2007). In this section we have discussed the technology indicators of the sector in terms of parameters such as capital-labour ratio, factor productivity and ratio of gross value added to fixed capital by enterprise types.

### **6.1 Pattern of Factor Allocation**

We have discussed the pattern of factor allocation in terms of capital intensity, measured as capital-labour ratio, which gives the investment per employee. The level and growth of capital-labour ratio of the MSE sector by different segments are reported in Table 5 and Table 6. For the overall MSE sector, the capital-labour ratio (at constant 1993-94 prices) stood at Rs. 4180 in 1994-95, which increased to Rs. 5688 in 2000-01 and then Rs. 8040 in 2005-06 (Table 5). The capital-labour ratio is highest for the DMEs segment, which is relatively capital intensive within the MSE sector, which it is lowest in the OAMEs segment, which is the tiniest segment of the MSE sector.

The real capital-labour ratio of the overall MSE sector recorded an annual growth of 5.27 percent during 1994-95 to 2000-01, 7.17 percent during 2000-01 to 2005-06 and 6.13 percent

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<sup>4</sup> We have used the state gross domestic product deflator for the manufacturing sector (at 1993–1994 prices) to deflate the nominal gross value added and fixed capital.

during 1994-95 to 2005-06 (Table 6). All the sub-sectors of MSE sector have recorded significant growth rate during the overall study period as well as the sub-periods, the highest growth being recorded in the DMEs segment.

**Table 5: Technology Indicators of Assam's MSE sector**

Enterprise Type	Year	Capital-Labour Ratio (Rs.)*	Per Worker Productivity (Rs.)*	Ratio of GVA to Fixed capital
OAME	1994-95	3163	4398	1.39
	2000-01	3982	6675	1.68
	2005-06	5392	7545	1.40
NDME	1994-95	7990	10720	1.34
	2000-01	11172	13473	1.21
	2005-06	13274	17595	1.33
DME	1994-95	7377	15207	2.06
	2000-01	14587	27001	1.85
	2005-06	22202	19502	0.88
All Manufacturing	1994-95	4180	5874	1.41
	2000-01	5688	8808	1.55
	2005-06	8040	10231	1.27

Note: \* Values are at Constant (1993-94) Prices

Source: Source: Same as Table 3.

**Table 6: Growth (%) of Technology Indicators of Assam's MSE sector**

(Figures are in percentage)

Enterprise Type	Year	Capital Labour Ratio*	Per Worker Productivity*	Ratio of GVA to Fixed capital
OAME	1994-95/2000-01	3.91	7.20	3.17
	2000-01/2005-06	6.25	2.48	-3.55
	1993-94/2005-06	4.97	5.03	0.06
NDME	1994-95/2000-01	5.74	3.88	-1.76
	2000-01/2005-06	3.51	5.48	1.91
	1993-94/2005-06	4.72	4.61	-0.11
DME	1994-95/2000-01	12.03	10.04	-1.78
	2000-01/2005-06	8.76	-6.30	-13.85
	1993-94/2005-06	10.53	2.29	-7.46
All Manufacturing	1994-95/2000-01	5.27	6.99	1.63
	2000-01/2005-06	7.17	3.04	-3.85
	1993-94/2005-06	6.13	5.17	-0.90

Note: \* Figures are at Constant (1993-94) Prices

Source: Source: Same as Table 3.

## 6.2 Factor Productivity

We have discussed the factor productivity of the MSE sector by using the partial factor productivity measures; though we are aware about the fact that the partial productivity measures present only a partial picture of the efficiency in factor-use. Table 5 reports two partial factor productivity measures, namely per worker productivity and ratio of gross value

added to fixed capital, and Table 6 reports growth in these two productivity indicators. The per-worker productivity (at constant 1993-94 prices) for the overall MSE sector has increased from Rs. 5874 in 1994-95 to Rs. 8808 in 2000-01 and then to Rs. 10231 in 2005-06. The per-worker productivity has increased in all the three segments of MSE sector, except for DMEs between 2000-01 and 2005-06. The annual growth in per-worker productivity (at constant 1993-94 prices) for the overall MSE sector has recorded at 6.99 percent during 1994-95 to 2000-01, which has slowed down to 3.04 percent during 2000-01 to 2005-06. For the entire period (1994-95 to 2005-06) the growth rate was 5.17 percent. All the three segments within the MSE sector have recorded growth in real per-worker productivity during the entire period and two sub-periods, except the DMEs segment during 2000-01 to 2005-06.

The ratio of gross value added to fixed capital has increased during 1994-95 to 2000-01 for the overall MSE sector and its OAMEs segment, while it has declined for NDMEs and DMEs segment during the same. On the other hand, during 2000-01 to 2005-06, the ratio has declined for the overall MSE sector as well as OAMEs and DMEs segments, but increased for NDMEs segment. Compared with the year 1994-95 the ratio of gross value added to fixed capital in 2005-06 was lower for the overall MSE sector as well as NDMEs and DMEs segments, but higher in OAMEs segment.

## **7. Conclusion**

In this paper we have made an attempt to examine the structure and growth of Assam's MSE sector for the period 1994-95 to 2005-06. The analysis of the paper reveals that the MSE sector plays a dominant position in Assam's industrial economy, especially in terms of number of units and employment. However, the performance of the sector has been abysmal over the years, especially in terms of growth rates and technology indicators. In spite of the huge potentiality of the sector for creation of gainful employment in the State the sector was not able to generate enough employment opportunities for the growing labourforce in the State. However, the sector has shown some sort of improvement in the recent years (between 2000-01 and 2005-06) in terms of employment and number of units as well.

## References

- CSO, Annual Survey of Industries– Summary Results for Factory Sector, Various Issues, Central Statistical Organisation, Government of India, New Delhi.
- Government of Assam (2012), Economic Survey, Assam 2011-12.
- Goswami, A. (1981), “Assam’s Industrial Development: Urgency of New Direction”, *Economic and Political Weekly*, Vol. 16, No. 21, pp. 953-956.
- Kanitkar, Ajit (1994), “Entrepreneurs and Micro-Enterprises in Rural India”, *Economic and Political Weekly*, Vol. 29, No. 9, pp. 25-30.
- Naude, W. (2010), “Promoting Entrepreneurship in Developing Countries: Policy Challenges”, UNU-WIDER Policy Brief November 2010, World Institute for Development Economics Research, United Nations University, Finland.
- Nayak, P. and N. B. Dey (1996), “Productivity in Small Scale Industry in Assam”, *Yojana*, Vol. 40, No.5.
- NSSO (1998a), *Unorganised Manufacturing Sector in India: Its Size, Employment and Some Key Estimates*, NSS 51<sup>st</sup> Round (July 1994–June 1995), Report No. 433(51/2.2/1), National Sample Survey Organisation, Govt. of India, New Delhi.
- NSSO (1998b), *Unorganised Manufacturing Enterprises in India: Salient Features*, NSS 51<sup>st</sup> Round (July 1994–June 1995), Report No. 434(51/2.2/2), National Sample Survey Organisation, Govt. of India, New Delhi.
- NSSO (2002a) *Unorganised Manufacturing Sector in India: 2000–2001, Key Results*, NSS 56<sup>th</sup> Round (July 2000–June 2001), Report No. 477(56/2.2/1), National Sample Survey Organisation, Govt. of India, New Delhi.
- NSSO (2002b) *Unorganised Manufacturing Sector in India: 2000–2001, Characteristics of Enterprises*, NSS 56<sup>th</sup> Round (July 2000–June 2001), Report No. 478(56/2.2/2), National Sample Survey Organisation, Govt. of India, New Delhi.
- NSSO (2002c) *Unorganised Manufacturing Sector in India 2000–2001: Employment, Assets and Borrowings*, NSS 56<sup>th</sup> Round (July 2000–June 2001), Report No. 479(56/2.2/3), National Sample Survey Organisation, Govt. of India, New Delhi.
- NSSO (2002d) *Unorganised Manufacturing Sector in India 2000–2001: Input, Output and Value Added*, NSS 56<sup>th</sup> Round (July 2000–June 2001), Report No. 480(56/2.2/4), National Sample Survey Organisation, Govt. of India, New Delhi.
- NSSO (2008a), *Unorganised Manufacturing Sector in India- Employment, Assets and Borrowings*, NSS 62<sup>nd</sup> Round (July 2005–June 2006), Report No. 525(62/2.2/2), National Sample Survey Organisation, Govt. of India, New Delhi.
- NSSO (2008b), *Unorganised Manufacturing Sector in India: Input, Output and Value Added*, NSS 62<sup>nd</sup> Round (July 2005–June 2006), Report No. 526(62/2.2/3), National Sample Survey Organisation, Govt. of India, New Delhi.
- Onphanhdala, P. and T. Suruga (2010), “Entrepreneurial Human Capital and Micro and Small Business in LAO PDR”, *The Developing Economies*, Vol.48, No. 2, pp.181–202.
- Saikia, D. (2011a), “Unorganised Manufacturing Industries in India: A Regional Perspective”, *African Journal of Marketing Management*, Vol. 3, No. 8, pp. 195-206.
- Saikia, D. (2011b), *Industrial Location under Globalisation in India: Evidence from Unorganised Manufacturing Industries*, Germany: VDM AG & Co. KG.
- Sarma, A. and M. P. Bezbaruah (2009), “Industry in the Development Perspective of Northeast India”, *Dialogue*, Vol. 10, No. 3. pp. 55-64.
- Shinoda, T. (2000), “Institutional Change and Entrepreneurial Development: SSI Sector”, *Economic and Political Weekly*, August 26-September 2, pp. 3205- 3216.