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# Growth, Employment an Output Generation in MSME in India – An Analysis

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# Growth, Employment and Output Generation in MSME in India: An Analysis Anil K. Yadav and Yogesh Kumar

#### Abstract

In this paper we have attempted to understand the dynamics of MSMEs –that is to say, how much the number of units is increasing and how much is the contribution of MSME's in the economy? We have also explored the elasticity of employment with respect to output. We are basically trying to analyse the growth, employment and output pattern of the MSMEs in India.

It emerges from the analysis that the growth rate had been quite high for the period 2001-02 to 2011-2012. Similarly, employment generation has been higher. The Output also has been showing an upward trend. The two-way analysis in the changes of attributes is attempted in the paper, viz.(i) Absolute changes in the figures of different attributing factors, and (ii) Relative changes in the figures of these attributes. Employment generation as well as fixed investment levels (valued at current prices) was found to be going up during 2001-02 to 2011-12.

It is evident from the analysis that the growth rate of the number of enterprises had been quite high for the period 2001-02 to 2011-2012. The Output despite showing upward trend in both the time periods i.e., 2001-02 to 2005-06 and 2006-07 to 2001-2012, yet the growth rate has substantially reduced in the second period. In contrast to this fact, both employment as well as investment growth picked up in the second period.

It is noticed that the average productivity of employment has continuously been rising from 2001-02 to 2011-12. The average productivity has also been found to be rising in case of investment in the first period, while it remained constant in the second period.

Marginal productivity of employment reflected a rise in both the periods in the case of employment, though it began with a much lowered value in the second period. As against marginal productivity of employment trend, marginal productivity of investment trend reflected a rise only in the first period, while it reflected a declining trend in the second period.

So far as output growth with respect to employment and investment growth are concerned in the two time periods, it was found that investment to output elasticity was to the tune of 0.83 to 0.85 in the first period, while in the second period, there was a substantive lowering of input (capital, herein) to output elasticity (0.74 in 2006-07 to 2007-08) with a further falling trend (0.65 during 2010-11 to 2011-12). On the other hand, input to output growth ratio reflected from employment elasticity with respect to output in the first period reflected a decline from 0.38 to 0.23 but remained almost same level (0.75) in the second period.

The paper also highlights the growth rate of exports and notes that it has been very impressive. The export of the MSME had been growing at 14.82 percent whereas the output had been growing at 20.58 percent during 2001-02 to 2011-12. The export as percentage of Output had also been quite higher. It had been as high as 30.18 percent in 2005-06 and was lowest in 13.51 percent during 2006-07.

#### Introduction

Micro, Small and Medium Enterprise (MSME) is an important sector. It accounts for around 38 percent contribution to the Gross Domestic Product (GDP). It employs around 8.05 crore people. These many people are employed in around 3.6 crore enterprises throughout the country. As compared to this, the large industries are employing only around 2.89 crores. It is believed that MSME has much more potential than the existing capacity to address the structural problems such as unemployment, regional imbalances, unequal distribution of national income and wealth. It is understood that MSMEs have the comparative advantage over the cost and also the forward and backward linkages as compared to the other sectors. Hence, MSMEs play a crucial role in generating employment and also to boost the success of "Make in India" campaign. This view gets strengthened by the arguments of Sathyanarayana and Kishor (2013) that the MSME sector has emerged as a highly vibrant and dynamic

- \* The views expressed in this paper are of the authors and not of the institute in which they are employed.
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sector of the Indian economy over the last five decades. They also pointed out that MSMEs are generating higher employment opportunities at a comparatively lower capital cost as compared to large industries. Similarly, Rajgopal (2010), Rao (2011), Azad (2010), Drabu (2010), Yadav (2010) stressed on promoting the MSMEs and suggested that all sorts of facilities be extended to these enterprises.

Looking at the importance and success of MSMEs, the government has also initiated a large number of schemes and the programmes. These are: Prime Minister's Employment Generation Programme (PMEGP), Credit Limited Capital Subsidy Scheme (CLCSS) for Technology up-gradation, Scheme of Fund for Regeneration of Traditional Industries (SFURTI), and Micro and Small Enterprises Cluster Development of new enterprises and development of the existing ones (Economic Survey, 2015-16, Vol.II). The Central government has also reduced the tax in the present budget (2017-18) from 30 percent to 25 percent. These are all the measures taken in order to provide a boost to the MSME sector.

#### **Definitions of Micro, Small and Medium Enterprises**

In Accordance with the provision of Micro, Small and Medium Enterprises Development (MSMED) Act, 2006, the Micro, Small and Medium Enterprises (MSME) are classified in two categories:

- Manufacturing Enterprises The enterprises engaged in manufacturing or production pertaining to any industry specified in the first schedule of the industries (Development regulations) Act, 1951 or employing plant and machinery in the process of value addition to the final product having a distinct name or character or use are manufacturing enterprises. The Manufacturing Enterprises are defined in terms of investment in Plants and machinery.
  - 2. Service Enterprises The enterprises engaged in providing or rendering of services are defined as services enterprises in terms of investment in equipment.

The limit for investment in plant and machinery/equipment for manufacturing/service enterprises, as notified vide S.O. 1642(E) dated 29-03-2006 are as under:

	Manufacturing Sector
Enterprises	Investment in plant and machinery
Micro	Does not exceed twenty-five lakh rupees
Enterprises	
Small	More than twenty-five lakh rupees but does not exceed five crore rupees
Enterprises	
Medium	More than five crore rupees but does not exceed ten crore rupees
Enterprises	
	Services Sector
Enterprises	Investment in equipments
Micro	Does not exceed twenty-five lakh rupees
Enterprises	
Small	More than twenty-five lakh rupees but does not exceed two crore rupees
Enterprises	
Medium	More than two crore rupees but does not exceed ten crore rupees
Enterprises	

In this paper we have attempted to understand the dynamics of MSMEs –that is to say, how much the number of units is increasing and how much is the contribution of MSME's in the economy? We have also explored the elasticity of employment with respect to output.

### Database and Methodology

The data used in this paper has been taken from the survey of Micro, Small and Medium Industry of the Ministry of Micro, Small and Medium Industry. This survey was for the year of 2006-07, the rest of the data are just a forecast and not the actual data. This forecast has been done through the compound rate of growth. Hence, the data for the year 2007-08 show a very high figure, it may be the actual figure. But since there are no other data we have to use these data but with a cautious note. The paper has mainly used percentage for the analysis. We have also used the graphs to depict growth and elasticity of employment. We have made efforts to calculate the average and marginal productivities. In addition to this, we have also calculated the correlation among the variables.

#### **MSME** at a glance

Table 1 shows the number of Enterprises, employment, Fixed Assets and Output. It may be observed that the number of Enterprises have been increasing and so the other parameters. The number of enterprises has increased from 108.21 lakh in 2001-02 to 447.73 lakh in 2011-2012. This is an increase of around 15.58 percent. So far as employment is concerned, it has risen from 249.33 lakh to 1012.58 lakh. This has

SI. No.	Year	Total	Employme	Market	Gross Output
		Working	nt (In	Value of	(in crore)
		Enterprise	Lakh)	Fixed	
		(in lakh)		Assets (in	
				crore)	
1	2001-02	105.21	249.33	154349	282270
2	2002-03	109.49	260.21	162317	314850
3	2003-04	113.95	271.42	170219	364547
4	2004-05	118.59	282.57	178699	429796
5	2005-06	123.42	294.91	188113	497842
6	2006-07	361.76	805.23	868544	1351383
7	2007-08	377.37	842.23	917437	1435179
8	2008-09	393.7	881.14	971407	1524235
9	2009-10	410.82	922.19	1029331	1619356
10	2010-11	428.77	965.69	1094893	1721553
11	2011-12	447.73	1012.59	1176939	1834332
	CAGR				
	2001-02				
	to 2011-				
	12	15.58%	15.04%	22.53%	20.58%

Table 1: MSME Enterprises, Employment, Fixed Assets and Gross Output in India

Source: <u>www.msme.gov.in</u>; MSME Annual Report 2011-12, Quick results of third All India Census of Small Scale Industries 2001-2002, Final Report: Fourth All India Census of Micro, Small, & Medium Enterprises 2006-07, Annual Reports 2012-13 of MSME, Central Statistics Office , ministry of SPI

increased at the rate of 15 per cent while the fixed assets have gone up from 1,54,349 crore to 1,176,939 crore registering 22.53 per cent rise. The output however was 2,82,270 crore in 2001-02 and has risen to over 18,34,332 units in 2011-12 showing an increase of 20.58 percent.

In this section we have observed that there has been an all-round increase in the Micro, Small and Medium enterprises. This is mainly due to government interventions and also due to the individual's pursuit for the betterment.

#### **Growth of MSME Sector**

In order to examine the growth of MSME sector in 21<sup>st</sup> Century, an attempt has been made here to look into different primary attributes of the sector and their progress since 2001-02. Several attributing factors included number of enterprises, monetary value of fixed-assets, employment, and gross output during 2001-02 to 2011-12. Following Goldsmith (1962) and Hulten (1990), the perpetual inventory method is used, taking base year as the beginning of the productivity levels of inputs and outputs. These assumptions are contingent on researcher's biases, and capital and labour input variations may vary from researcher to researcher. However, the perpetual inventory method is a widely preferred mode of measuring inputs (Majumdar, 1995). The approach is similar to the empirical approach adopted by Lieberman, Lau and Williams (1990).

The two-way changes of the attributes are used for the following analysis:

- 1. Absolute changes in the figures of different attributing factors, and
- 2. Relative changes in the figures of these attributes.

Table 2 depicts the annual growth in the number of Enterprises, investments, employment and the output levels. It has been observed that there seems to be almost a constant rise with respect to working enterprises as well as the employment. While the working enterprises in the first five years showed an increase of 4.1 percent per annum for each of the year during 2001-02 to 2005-06, the rise was between 4.3 percent and 4.4 percent in the duration 2006-07 to 2011-12. As against the enterprises' trend, the employment trend always depicted a higher rise; while it was almost at 4.3 to 4.4 percent during 2001-02 to 2005-06, it depicted the rise between 4.6 to 4.9 percent during 2006-07 to 2011-12. So far as the market value of fixed asset is concerned, while the rise during 2001-02 to 2005-06

was around 5 to 5.3 percent, there was a much higher rise noticed in the period 2006-07 to 2011-12 (from 5.6 to 7.5 percent). The same has been graphically presented in figure 1 below.

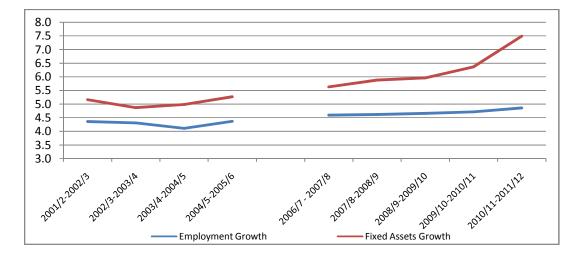


Figure 1: Growth of Employment and Fixed Investments during 2001-02 to 2011-12

The rise in absolute figures of output however presented a contrasting picture in the two time periods, 2001-02 to 2005-06 and 2006-07 to 2011-12 not only with respect to employment rise but also investment rise. In the first period (2001-02 to 2005-06) of lower employment and investment rise, output per annum showed a much higher rise with a further increasing trend from 11.5 percent per annum to 17.9 percent per annum, but the same recorded a remarkable decline in growth rates during the second period (2006-07 to 2011-12 depicting) almost a yearly growth of about 6.3 per cent.

Period	Yearly Growth in Attributes				
			Market Value of		
	Total Working	Employ	Fixed	Gross	
	Enterprise	ment	Assets	Output	
2001/2-2002/3	4.07	4.36	5.16	11.54	
2002/3-2003/4	4.07	4.31	4.87	15.78	
2003/4-2004/5	4.07	4.11	4.98	17.90	
2004/5-2005/6	4.07	4.37	5.27	15.83	
2005/6-2006/7	193.11	173.04	361.71	171.45	
2006/7-2007/8	4.32	4.59	5.63	6.20	
2007/8-2008/9	4.33	4.62	5.88	6.21	
2008/9-2009/10	4.35	4.66	5.96	6.24	
2009/10-					
2010/11	4.37	4.72	6.37	6.31	
2010/11-					
2011/12	4.42	4.86	7.49	6.55	

# Table 2: Year to Year Growth in Number of Enterprises Employment, Investment andOutput Levels of MSME Sector from 2001-02 to 2011-12

Source: Computed from Annual Report of MSME, Government of India, 2015-16

#### Elasticity of Employment to Investment and Output

It may be observed from Table 3 that so far as employment elasticity with respect to fixed investment is concerned, a decline was noted in both the periods, 2001-02 to 2006-07 and 2007-08 to 2011-2012. Barring 2004-05 to 2005-06, when a sharp decline was noticed from about 0.83 to 0.48 the trend had a slow negative slope all through. It may be noted that employment elasticity in the first period declined every year during 2001-02 to 2005-06 i.e., from 0.85 to 0.83, and in the second period i.e. during 2007-08 to 2011-12 employment

elasticity of investment declined much sharply. There was almost 16 percent decline from 0.81 per cent to 0.65 per cent.

It may further be noted from Table 3 that the elasticity of employment with respect to output was very low and varied between 0.23 to 0.38 levels during 2001-02 to 2005-06. It was not only much higher during 2007-08 to 2011-12, but also the value was found to be almost same throughout i.e., around 0.75 (Table 3 and Figure 2).

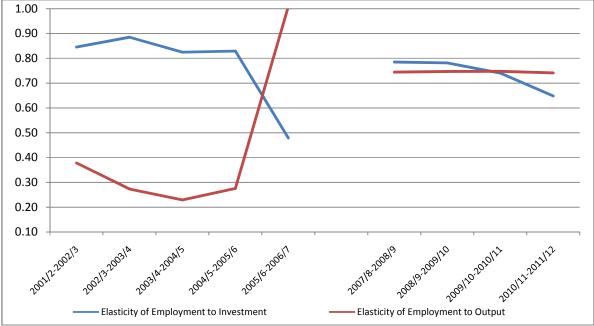
SI. No.	Period	Employmen t Growth	Output Growth	Market Value of Fixed Assets Growth	Employment Elasticity to Output	Employment Elasticity to Investment
1.	2001/2- 2002/3	4.36	11.54	5.16	0.38	0.85
2.	2002/3- 2003/4	4.31	15.78	4.87	0.27	0.84
3.	2003/4- 2004/5	4.11	17.9	4.98	0.23	0.82
4.	2004/5- 2005/6	4.37	15.83	5.27	0.28	0.83
5.	2005/6- 2006/7	173.04	171.45	361.71	1.01	0.48
6.	2006/7 - 2007/8	4.59	6.2	5.63	0.74	0.81
7.	2007/8- 2008/9	4.62	6.21	5.88	0.74	0.78
8.	2008/9- 2009/10	4.66	6.24	5.96	0.75	0.78
9.	2009/10-	4.72	6.31	6.37	0.75	0.74

 Table 3: Employment Elasticity to Output and Investment, 2001-02 to 2011-12

	2010/11					
10.	2010/11- 2011/12	4.86	6.55	7.49	0.74	0.65

Source: derived from tables 1& 2

Figure 2: Elasticity of Employment to Fixed Investment and Elasticity of Employment to Output, 2001-02 to 2011-12



### **Employment and Investment per Enterprise**

Employment per enterprise reduced from 2.37 to 2.26 in ten years' duration i.e., from 2001-02 to 2011-12 and in 2011-12. It was just about 0.95 times than that of 2001-02 figure. Fixed investment per enterprise in the same duration showed an increase from about Rs. 1,46,700 per enterprise to Rs. 2,62,900, while output per enterprise went up from about Rs. 2,68,300 to Rs. 4,09,700, registering an increase of 179 per cent and 153 per cent respectively for fixed investment per enterprise and output per enterprise. The Compound Annual Growth Rates for employment per enterprise, fixed investment per enterprise and output per enterprise were (-) 0.47, 6.01 and 4.32 percent respectively during 2001-02 to 2011-12.

	Per Enterprise				
		Fixed Assets per	Gross		
Year	Employment	enterprise	Output		
2001-02	2.37	146706	268292		
2002-03	2.38	148248	287561		
2003-04	2.38	149380	319918		
2004-05	2.38	150686	362422		
2005-06	2.39	152417	403372		
2006-07	2.23	240088	373558		
2007-08	2.23	243113	380311		
2008-09	2.24	246738	387156		
2009-10	2.24	250555	394176		
2010-11	2.25	255357	401510		
2011-12	2.26	262868	409696		
CAGR : 2001- 02 to 2011-12	-0.47%	6.01%	4.32%		
Ratio: 2011-12 over 2001-02	0.95	1.79	1.53		

Table 4: Employment, Investment and Output per Enterprise in MSME Sector,2001-02 to 2011-12

Source: computed from Information provided in Table 1

#### Changes in Output to Changes in Input Attributes

A comparison of the changes in output from one year to next year with changes in inputs,

investment and workers provides how the input-output ratios are changing over the years. It

is observed that per worker output in MSME sector increased sharply during the years 2001-02 to 2005-06 from about Rs. 3 lakh per worker per annum to 5.51 lakh per worker per annum. There was a drastic fall in the year 2006-07 and per worker output reduced to meagre 1.67 lakh. It is pertinent to note that there was again a gradual increase up to Rs. 2.40 lakh in 2011-12.

Almost a similar trend was seen in the case of incremental output to incremental investment ratios. Per rupee investment in MSME resulted in an increase of almost

Table 5: Marginal Productivity of Labour, Capital in MSME sector during
2002-03 to 2011-12

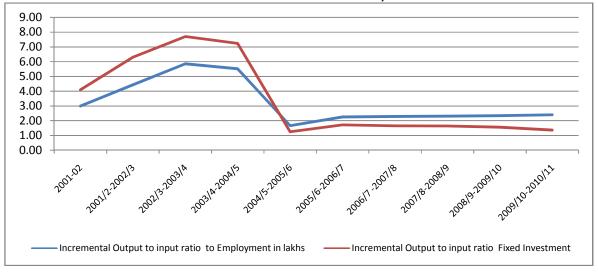
		Incremental Output to Input	Ratio
	Duration	to Employment in lakh	Fixed Investment
2001-	-02 to 2002-03	2.99	4.09
2002-	-03 to 2003-04	4.43	6.29
2003-	-04 to 2004-05	5.85	7.69
2004-	-05 to 2005-06	5.51	7.23
2005-	-06 to 2006-07	1.67	1.25
2006-	-07 to 2007-08	2.26	1.71
2007-	-08 to 2008-09	2.29	1.65
2008-	-09 to 2009-10	2.32	1.64
2009-	-10 to 2010-11	2.35	1.56
2010-	-11 to 2011-12	2.40	1.37
CAGR	2002/3 to 2005/6	22.57%	20.91%

2005/6 to 2011/12	-12.92%	1.54%
2002/3 to 2011/12	-2.41%	-11.41%

Source: computed from Annual Report of MSME, Government of India, 2015-16

Rs.4.09 in output in 2001-02, which went up to 7.23 times in 2005-06. Again, a drastic slump was found in 2006-07 when per rupee investment yielded only about Rs.1.25 increases in output. However, a gradual improvement was noticed during 2006-07 to 2011-12. On the whole, the CAGR for both incremental output to incremental employment, and incremental output to incremental investment depicted a negative growth during 2002-03 to 2011-12 (Table 5).

Figure 3: Incremental Output to Incremental Employment and Incremental Output to Incremental Fixed Investment, 2001-02 to 2011-12



# Table 6: Average Productivity vs. Marginal Productivity in MSME Sector in India,2001-02 to 2011-12

	Average F	Productivity	Marginal Productivity		
Year	Output to Worker	Output to Fixed Asset	Incremental Output to Employment in lakhs	Incremental Output to Fixed Investment	
2002-03	1.21	1.94	2.99	4.09	
2003-04	1.34	2.14	4.43	6.29	
2004-05	1.52	2.41	5.85	7.69	
2005-06	1.69	2.65	5.51	7.23	
2006-07	1.68	1.56	1.67	1.25	
2007-08	1.70	1.56	2.26	1.71	
2008-09	1.73	1.57	2.29	1.65	
2009-10	1.76	1.57	2.32	1.64	
2010-11	1.78	1.57	2.35	1.56	
2011-12	1.81	1.56	2.40	1.37	

Source: computed from Annual Report of MSME, Government of India, 2015-16

Figure 4: Trend of Average Productivity of Labour and Investment

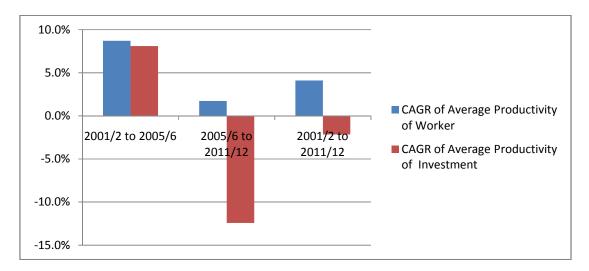
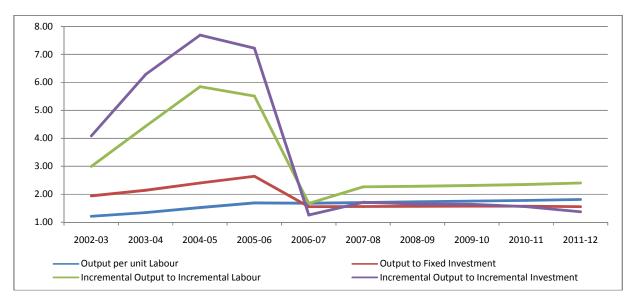


Figure 5: Marginal and Average Productivity of Labour and Investment, 2001-02 to 2011-12



It is found that marginal productivity, that is, incremental output per unit investment as well as per unit labour in MSME sector as a whole were declining ever since 2004-05. Although, there is some improvement, yet it is only marginal. Compound Annual Growth Rate of Marginal Productivity of Labour as well as Investment till 2005-06 from 2001-02 showed more than 20 per cent growth. It was only 1.54 per cent in the duration 2005-06 to 2011-12 whereas it was found to be negative in the case of labour.

Duration	CAGR of				
		1			
	Marginal	Average	Marginal Productivity	Average	
	Productivity	Productivity	of Investment	Productivity of	
	of Worker	of Worker		Investment	
2001/2 to 2005/6	22.57%	8.7%	20.91%	8.1%	
2005/6 to 2011/12	-12.92%	1.7%	1.54%	-12.4%	
2001/2 to 2011/12	-2.41%	4.1%	-11.41%	-2.2%	

Table 7: CAGR of Average and Marginal Output to Input Ratios in MSME

Source: computed from Annual Report of MSME, Government of India, 2015-16

Despite a negative tendency in marginal productivity of labour particularly in later part of the decade (from 2005-06 to 2011-12), average productivity of labour showed a consistent rise, though the growth rate of the average productivity has definitely been restricted after 2005-06. However, average productivity of investment reveals an increase up to 2005-06, a sharp decline during 2005-06 to 2006-07, and almost a constant ratio since 2006-07 (a more clearer picture is evident from the graph below).

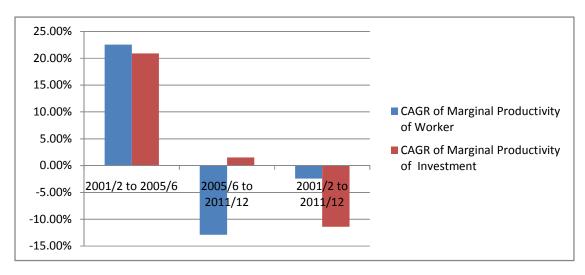


Figure 6: Trend of Marginal Productivity of Labour and Investment

## Output to input relationship

In this section, we have made an attempt to find out how the gross output of the MSME sector varied with respect to the Fixed Investment as well as the Labour engaged. An effort has also been made to look into the relationship with a lag, that is, how output of current year is correlated with previous year's Investment.

- 1. Current output was correlated with Previous year's Labour Yt =  $\propto + \beta Xt-1$ .....(i)
- 2. Current output was correlated with Previous year's Fixed Investments Yt =  $\propto + \beta Xt-1$  ......(ii)

Table 8: Two relationships gave two different values of Correlation, namely r1 and r2.

Particular Relationship	Correlation Coefficients	Value of r	Two Tailed T _Test values
Gross Output vs. Labour	r1	0.99804	0.00033
Gross Output Vs. Fixed Investments	r2	0.895132	0.000379

It is found that both the relationships are significant. Further, the values of 'r' in both cases

being high and positive indicates that labour as well fixed investments are significantly and

positively correlated to the output of MSMEs.

#### Incremental Inputs vs. Incremental Output

Here we have tried to calculate, another relationship i.e., how the incremental outputs are

correlated to incremental inputs during the year.

1. Current output was correlated with Previous year's Labour

 $Yt = \alpha + \beta Xt-1$  .....(iii)

Current output was correlated with Previous year's Fixed Investments

 $Yt = \propto + \beta Xt-1$  .....(iv)

Table 9: Two relationships gave two different values of Correlation, namely r1 and r2.

Particular Relationship	Correlation Coefficients	Value of r	Two Tailed T _Test values
Gross Output			
vs. Labour	r1	0.9994	0.080949
Gross Output			
Vs. Fixed			
Investments	r2	0.998518	0.004252

The correlation values suggest that there has been a positive correlation between output and employment and also output and fixed investment. It is not only a positive correlation but also a very high correlation among them. This means that if one increases the other also increases and in the same direction. This is a special feature in the case of MSME.

#### Exports of MSME

Table 10 shows the exports of MSMEs and also the ratio of exports to the output in MSMEs. It may be seen from the data that exports have been increasing on a remarkable pace over time. The ratio or the percentage of exports to output depicts an upward trend. The growth rate of the exports is quite

			(Rupees in crores)			
SI. No.	Year	Exports	Gross	Exports to	Exports to	Year to
		from MSME	Output (in	Output	Output	Year
		Sector	crore)	Ratio	Percent	Growth of
						Exports
1	2001-02	71244	282270	0.2524	25.240	
2	2002-03	86013	314850	0.2732	27.319	20.73
3	2003-04	97644	364547	0.2679	26.785	13.52
4	2004-05	124417	429796	0.2895	28.948	27.42
5	2005-06	150242	497842	0.3018	30.179	20.76
6	2006-07	182538	1351383	0.1351	13.507	21.50

Table 10: Exports from MSME Sector, Its Growth and Exports to Output Ratio

7	2007-08	202017	1435179	0.1408		
/	2007-00	202017	1430179	0.1400	14.076	10.67
8	2008-09	214387	1524235	0.1407	14.065	6.12
9	2009-10	238752	1619356	0.1474	14.744	11.36
10	2010-11	256834	1721553	0.1492	14.919	7.57
11	2011-12	283847	1834332	0.1547	15.474	10.52
	CAGR	14.82%	20.58%			
	2001-02					
	to 2011-					
	12					

Source: taken from the website of the Ministry and also derived from Table 1 impressive. The export of the MSME sector had been growing at a 14.32 per cent whereas the output grew at 20.58 per cent for the same period. The export as a percentage of output had also been quite high. It had been as high as 30.18 per cent in 2005-06 and lowest in 2006-07 which is 13.51 per cent. It shows that MSMEs have been performing very well in terms of exports.

#### Conclusions

In this paper an attempt has been made to analyse the growth, employment and output pattern of the MSMEs in India. It emerges from the analysis that the growth rate had been quite high for the period 2001-02 to 2011-2012. Similarly, employment generation has been higher. The Output also has been showing an upward trend.

The two-way analysis in the changes of attributes is attempted in the paper, viz.(i) Absolute changes in the figures of different attributing factors, and (ii) Relative changes in the figures of these attributes. Employment generation as well as fixed investment levels (valued at current prices) was found to be going up during 2001-02 to 2011-12.

It emerges from the analysis that the growth rate of the number of enterprises had been quite high for the period 2001-02 to 2011-2012. The Output despite showing upward trend in both the time periods i.e., 2001-02 to 2005-06 and 2006-07 to 2001-2012, yet the growth rate has substantially reduced in the second period. In contrast to this fact, both employment as well as investment growth picked up in the second period.

It is noticed that the average productivity of employment has continuously been rising from 2001-02 to 2011-12. The average productivity has also been found to be rising in case of investment in the first period, while it remained constant in the second period. Marginal productivity of employment reflected a rise in both the periods in the case of employment, though it began with a much lowered value in the second period. As against marginal productivity of employment trend, marginal productivity of investment trend reflected a rise of only in the first period, while it reflected a declining trend in the second period.

So far as output growth with respect to employment and investment growth are concerned in the two time periods, it was found that investment to output elasticity was to the tune of 0.83 to 0.85 in the first period, while in the second period, there was a substantive lowering of input (capital, herein) to output elasticity (0.74 in 2006-07 to 2007-08) with a further falling trend (0.65 during 2010-11 to 2011-12). On the other hand, input to output growth ratio reflected from employment elasticity with respect to output in the first period reflected a decline from 0.38 to 0.23 but remained almost same level (0.75) in the second period.

The paper also highlights the growth rate of exports and notes that it has been very impressive. The export of the MSME had been growing at 14.82 percent whereas the output had been growing at 20.58 percent during 2001-02 to 2011-12. The export as

percentage of Output had also been quite higher. It had been as high as 30.18 percent in 2005-06 and was lowest in 13.51 percent during 2006-07.

#### What next

We have observed in this paper that the MSMEs are playing a very important role in employing a large chunk of the labour force, producing a very high level of output and exporting a lot. Government should protect this sector by giving more support to this sector so that it generates more employment and produce more as compared to the present level. The MSMEs face many hurdles as pointed out by many studies like CII Survey (2010) which raises the question of lack of credit availability, Malia (2010) pointed out that the transaction cost should be reduced and credit flow to the MSMEs be enhanced. Similarly, Gupta (2011) and Datta (2011) also raise the issue of credit cost and availability of more working capital. Hence, we have enough evidence that the sufficient credit is not available to the sector. Therefore, government should help them to make the credit available at a reasonable interest rate in order to boost the "Make in India" scheme successful.

In the present budget of 2017-18, the government has reduced the tax rate on MSMEs by 5 percent i.e., from 30 percent to 25 percent (Budget speech of Finance Minister). It is a good step towards promoting this sector. But the reduction is still not sufficient, in fact, it should be reduced further just to motivate the small and tiny enterprises. The administrative hurdles should also be removed completely which come in the way of establishment of the new enterprises.

Earlier, these enterprises were used by the government as Import Substitution. The concept of Import Substitution has become obsolete with the invent of 'Free Trade'. Therefore, now these enterprises must be given boost to export their maximum produce

since even today they are the ones who are exporting the highest value of produce. Therefore, MSMEs must be given further incentives to enhance their export so that more foreign exchange could be earned.

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