

GROWTH TRENDS IN STRUCTURAL CHARACTERISTICS OF MANUFACTURING INDUSTRIES OF INDIA DURING PRE AND POST REFORM PERIOD

ASHAQ HUSSAIN GANIE

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Abstract

India is one of the leading industrialized nations in the world. Manufacturing sector is the key pillar for economic growth as it provides a significant multiplier to the economy both in terms of output and employment. During 1991 new industrial policy was introduced with an aim to correct the distortion and weakness of the industrial structure of the country. The economic reforms of 1991 brought drastic changes in Indian economy. Under this reform, the government of India abolished industrial licensing, dismantled price controls, diluted reservation of small- scale industries and virtual abolished monopoly law enabled industry to blossom. The primary objective of this model was to make the economy of India the fastest developing economy in the globe with capabilities that help it match up with the biggest economies of the world. Keeping this in view the study intended to analyze the growth trends in structural characteristics of manufacturing industries in India during pre and post reform period. And to analyze the growth trends in important structural characteristics of manufacturing industries in major states of India. To analyses these objectives the study used secondary data collected from Annual survey of Industries (ASI), Central Statistics Office (CSO). The Period of the study were divided into Pre-reform period (1981-1991) and Post reform period (1991- 2017). To reach the objectives of the study Compound Growth Rate (CGR) and Coefficient of Variation (CV) was used.

Keywords: Manufacturing Industries, Economic Reforms, Growth Trends

1. INTRODUCTION

Industrial sector plays a vital role in the economic development of India because the sector can solve the problems of poverty, unemployment, backwardness, low production, low productivity, and low standard of living and transform the old into new technology etc. With Gross value Added (GVA) of Rs. 50.40 lakh crores, the industry sector contributed 27.48%. to GDP in 2019-20. According to CIA Fact book sector wise Indian GDP composition in 2017 are as follows Agriculture (15.4%), Industry (23%) and Services (61.5%). GDP of industry sector is \$560.97 billion and 6th rank in the world. According to IMF and CIA World Fact book 20 largest countries by industrial output (in nominal terms) at peak level as of 2018 (billions in USD) India got the 7th place in the industrial output 619 billion in USD. Under industrial sector, manufacturing sector is a key pillar for economic growth as it provides a significant multiplier to the economy both in terms of output and employment. Prime Minister of India had launched the 'Make in India' program to place India on the world map as a manufacturing hub and give global recognition to the Indian economy. According to Annual Survey of Industries (ASI) the five states (Maharashtra, Gujarat, Tamil Nadu, Uttar Pradesh and Karnataka) are contributing to more than 50 percentage of Indian Industrial output. Besides these top 5 states own 53 per cent of India's total factories (Annual Survey of Industries 2017)). During 1991 new industrial policy was introduced with an aim to correct the distortion and weakness of the

industrial structure of the country. The economic reforms of 1991 brought drastic changes in Indian economy. Under these reforms, the government of India abolished industrial licensing, dismantled price controls, diluted reservation of small- scale industries and virtually abolished monopoly law enabled industry to blossom. The primary objective of this model was to make the economy of India the fastest developing economy in the globe with capabilities that help it match up with the biggest economies of the world. As per the studies Ravindra Kumar Sharma (2014), Vineet Singh (2016), Sukanta Kundu (2017), Dr. Tamma Koti Reddy and Krishna Reddy Chittedi (2007) the industrial sector of Indian economy shown less growth during post reform period compared to pre reform period, on the other hand Burange (1999) claimed that there was growth after reforms. Keeping this in a Study on Growth trends in characteristics of manufacturing industries during pre and post reform period is of significant importance.

2. OBJECTIVES AND METHODOLOGY

- To analyze the growth trends in structural characteristics of manufacturing industries in India during pre and post reform period.

- To analyze the growth trends in important structural characteristics of manufacturing industries in major states of India.

To analyses these objectives the study used secondary data collected from Annual Survey of Industries (ASI), Central Statistics Office (CSO). The Period of the study were divided into Pre-reform period (1981-1991) and Post reform period (1991- 2017). The analysis of data was done by using Compound Growth Rate (CGR) and Coefficient of Variation. For the analysis of growth trends in important structural characteristics of manufacturing industries in major states of India the data was available only for the period (2010 -2107).

3. RESULTS AND DISCUSSION

An analysis of Structural Characteristics of Indian Manufacturing Industries during (1981- 2017) has been done using compound Growth rate. The period of analysis is divided as Pre reform period (1981 -1991) and Post reform period (1991 – 2017) as well as overall period (1981 – 2017) and for the purpose of analysis 22 variables were taken into consideration the summary of the results reveals that in terms of variables namely Number of Factories, Working Capital, Number of Workers, Net Income, Net Fixed Capital Formation and Profits. The CGR seems to be more during the Post reform period which indicates that Indian manufacturing industries has responded positively to the measures under taken during reform period. However, in terms of variables such as Fixed Capital, Invested Capital, Outstanding Loan, Wages to Workers, Total Emoluments, Fuels Consumed, Material Consumed, Total Inputs, Products, Value of Output, Depreciation, Net Value Added, Rent Paid, Interest Paid, Gross Fixed Capital Formation and Gross Capital Formation of the Per reform period CGR seems to be higher, this indicates that the reform has mixed impact

on the industry as the some of the variables have not responded positively.

The Coefficient of variation is an indicators of consistency during the reference period reveals that the variables namely Number of Factories, Number of Workers employed have maintained consistency during the reference period which means in both these variables the variation were minimum, whereas in all other variables Working Capital, Fixed Capital, Invested Capital, Outstanding Loan, Wages to Workers, Total Emoluments, Fuels Consumed, Material Consumed, Total Inputs, Products, Value of Output, Depreciation, Net Value Added, Rent Paid, Interest Paid, Gross Fixed Capital Formation ,Gross Capital Formation, Net Income, Net Fixed Capital Formation and Profits the C.V seem to more than 100 which denotes there had been huge fluctuation in these variables during the reference period. Since these variables are measured in terms of money the huge variation may also be due to fluctuation in the price rate (Inflation).

The comparison of manufacturing industries in major states shows that Karnataka had registered the highest CGR (3.53) in Number of Factories with C.V of (7.49 %), followed by Gujarat (2.98) with C.V of (6.64%). The CGR in Number of Factories was found negative for Maharashtra (-0.39) the Coefficient of Variation (C.V) was observed lowest for Tamil Nadu (0.97%) low (C.V) indicates minimum variation in Number of Factories of Tamil Nadu.

In case of Fixed Capital Invested in manufacturing industries of major states the highest CGR was noticed in Gujarat (14.91) with C.V of (31.50 %) followed by Tamil Nadu (10.85) with C.V of (24.24%) respectively, and the CGR was lowest for Maharashtra (6.12) with C.V of (14.72%).

Table 1 An Analysis of Structural Characteristics of Manufacturing Industries in India during Pre and Post Reform Period

Structural Characteristics	Pre-Reform 1981-1982 to 1990-1991 CGR	Post Reform 1991-1992 to 2016-2017 CGR	Overall Period CGR	C.V
Number of Factories	1.13	2.96	2.53	31.03
Fixed Capital	15.00	12.06	13.23	118.33
Working Capital	10.80	11.18	12.09	108.35
Invested Capital	14.41	12.11	13.09	116.3
Outstanding Loans	11.95	9.59	10.58	100.11
Number of Workers	0.11	2.41	1.74	23.79
Wages to Workers	12.47	9.85	10.08	104.07
Total Emoluments	12.47	11.45	11.44	114.03
Fuels Consumed	15.59	10.74	12.06	102.49
Material Consumed	15.88	14.55	14.98	120.75
Total Inputs	15.23	14.58	15.08	121.12
Products	15.66	13.89	14.51	118.29
Value of Output	15.10	14.14	14.77	119.32
Depreciation	18.26	12.05	13.61	111.84
Net Value Added	14.07	12.48	13.57	111.98
Rent Paid	20.43	10.71	14.50	104
Interest Paid	17.41	8.57	10.91	102.9
Net Income	12.77	13.86	14.33	116.51
Net Fixed Capital Formation	10.64	11.12	11.33	109.10
Gross Fixed Capital Formation	13.44	11.36	12.44	107.57
Gross Capital Formation	14.71	11.04	12.20	104.62
Profits	11.83	16.70	18.17	121.81

Table 2 An Analysis of Important Structural Characteristics of Manufacturing Industries in Major States of India (2010– 2017)

States		Number of Factories	Fixed Capital	Working Capital	Number of Workers	Wages to Workers	Total Emolument
Maharashtra	CGR	-0.39	6.12	21.01	1.84	10.31	11.30
	C.V	2.51	14.72	46.76	4.88	20.74	22.45
Gujarat	CGR	2.98	14.91	-14.36	3.53	13.79	14.28
	C.V	6.64	31.50	33.16	8.18	28.19	28.98
Tamil Nadu	CGR	0.27	10.85	3.49	4.21	13.5	14.43
	C.V	0.97	24.24	20.59	9.91	27.18	28.48
Uttar Pradesh	CGR	1.84	9.14	-5.48	3.27	13.21	13.51
	C.V	4.00	18.89	31.44	7.99	26.78	27.68
Karnataka	CGR	3.53	8.46	2.27	4.4	15.13	14.79
	C.V	7.49	17.33	8.74	9.88	29.71	29.40

Table 3 An Analysis of Important Structural Characteristics of Manufacturing Industries in Major States of India (2010 – 2017)

States		Products	Value of Output	Net Value Added	Net Income	Profit
Maharashtra	CGR	4.48	4.88	6.67	7.67	5.79
	C.V	10.87	11.89	14.36	16.51	14.87
Gujarat	CGR	6.03	6.13	13.88	14.27	14.48
	C.V	14.54	14.62	28.48	29.73	31.84
Tamil Nadu	CGR	6.89	6.81	7.92	8.38	1.70
	C.V	14.58	14.51	17.92	19.87	20.52
Uttar Pradesh	CGR	8.07	8.36	11.23	11.49	9.10
	C.V	17.01	17.36	34.77	38.87	49.33
Karnataka	CGR	8.48	8.76	10.68	11.83	9.31
	C.V	17.79	18.31	23.78	26.99	27.47

As for as the Working Capital Invested in manufacturing industries of major states were concerned, Maharashtra had registered the highest CGR (21.01) with C.V of (46.76 %) followed by Tamil Nadu (3.49) with C.V of (20.59%). The Compound Growth Rate of Working Capital was found negative in Gujarat (-14.36) and Uttar Pradesh (-5.48) the coefficient of variation was least (8.74 %) for Karnataka.

In the case of Number of Workers Employed in manufacturing industries of major states the highest CGR was noticed in Karnataka (4.4) with C.V of (9.88%) followed by Tamil Nadu (4.21) and C.V was highest in Tamil Nadu (9.91 %). The CGR was lowest for Maharashtra (1.84) with C.V of (4.88 %).

As for as the Wages to Workers in manufacturing industries of major states were concerned CGR was highest for Karnataka (15.13) with C.V of (29.71%) followed by Gujarat (13.79) with C.V of (28.19%) and the CGR was lowest for Maharashtra (10.31) with C.V of (20.74%).

For Total Emoluments to Workers in manufacturing industries of major states Karnataka had registered highest CGR (14.79) with C.V. of (29.40 %) followed by Tamil Nadu (14.43) with C.V of (28.48%) the lowest CGR was found in Maharashtra (11.30) with C.V of (22.45%)

The comparison of Manufacturing Industries in Major States displays that Karnataka had registered the highest CGR (8.48) and C.V (17.79 %) in Products followed by Uttar Pradesh (8.07) with C.V of (17.01%) and C.V was lowest for Maharashtra (10.87 %).

In the case of Value of Output in manufacturing industries of major states the highest CGR was noticed in Karnataka (8.76) with C.V of (18.31 %) followed by Uttar Pradesh (8.36) with C.V of (17.36%). The CGR was lowest for Maharashtra (4.88) with C.V of (11.89 %)

In Net Value Added made in manufacturing industries of major states Gujarat had registered the highest CGR (13.88) with C.V of (28.48%) followed by Uttar Pradesh (11.23). C. V was highest for Uttar Pradesh (34.77 %) and the CGR was lowest for Maharashtra (6.67) with C.V of (14.36 %).

In the case of Net Income Earned in manufacturing industries of major states the highest compound growth rate (CGR) was noticed for Gujarat (14.27) with C. V of (29.73%), followed by Karnataka (11.83). the highest C.V was found for Uttar Pradesh (26.99%) the CGR was lowest for Maharashtra (7.67) with C.V of (16.51%).

As for as the Profits earned in manufacturing industries of major states were concerned, Gujarat had shown the highest CGR (14.48) and Uttar Pradesh had shown highest C.V (49.33), the lowest CGR was noticed for Tamil Nadu (1.70) and lowest C.V was found for Maharashtra (14.87) the low Coefficient of variation indicated minimum variation of Profit in Maharashtra.

4. CONCLUSION

It can be concluded that economic reforms had mixed impact on growth of important structural characteristics of manufacturing industries in India. The variables like Number of Factories and Number of Workers had shown growth rate of more than double of pre-reform period and also the variables Working Capital, Net Income, Net Fixed Capital Formation and Profits had also shown better growth rate than pre reform period. Number of Factories, Number of Workers Employed have maintained consistency. While the variables such as Working Capital, Fixed Capital, Invested Capital, Outstanding Loan, Wages to Workers, Total Emoluments, Fuels Consumed, Material Consumed, Total Inputs, Products, Value of Output, Net Value Added, Net Income, Net Fixed Capital Formation, Profits etc., the C.V seem to more than 100

which denotes there had been huge fluctuation in these variables during the reference period. Since these variables are measured in terms of money the huge variation may also be due to fluctuation in the price rate (Inflation). The State wise analysis shows that Karnataka, Tamil Nadu and Gujarat performed well in most of the selected structural characteristics whereas Uttar Pradesh performed moderate and Maharashtra had comparatively performed least in selected structural characteristics during the study period.

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