

Economic growth and employment generation in the industrial sector of India: some reflections

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Abstract

Objectives: To study the pattern of employment at gender and rural-urban level along with India's GDP and industrial growth. To analyze the effect of industrial growth on industrial wages.

Methods/Statistical Analysis: The study is based on secondary time series data and collected data was calculated by simple percentages, Annual Average Growth Rate (AAGR) and Compound Average Annual Growth Rate (CAGR) method. The data is collected from various sources like Reserve bank of India, National Sample Survey Reports, World Bank database, International Labour Organization database (ILOSTAT), Planning Commission reports and reports published on Employment- Unemployment survey, 2016 by Labour Bureau of India.

Findings: The Industrial Sector which is supposed to work as 'engine of growth' didn't able to raise the employment growth, employing only 23.79% of the total labour force in 2016-17. Nevertheless, this sector has the potential to generate more employment in the economy as it contributes 26.2% in total Gross Domestic Product (GDP) of India. The study found that there is slow growth in the employment level and fall in industrial share in total GDP. The industrial employment growth is also slow compared to the GDP growth rate in the last decade. After the post reform period this industrial employment growth didn't go in line with industrial growth rate. All these results contradict and pose question mark on the government administration and policy makers.

Application/Improvements: This study tries to enhance the understanding about the changing pattern of industrial employment with respect to economic and industrial growth that will help to frame a more inclusive industrial policy.

Keywords: Economic Growth, Industrial Employment, Industrial Sector, Rural-Urban, Wages.

1. Introduction

During post-economic reform period, India witnessed high growth rate compared to pre-reform period. This high economic growth, however, didn't generate desired employment growth in the economy which resulted in a serious problem of high rate of unemployment. Government initiative to make Indian industries internationally competitive is somehow failed to generate employment in India. The Industrial Sector which is supposed to work as 'engine of growth' didn't able to raise the employment growth, employing only 23.79% of the total labour force in 2016-17. Moreover, the favorable economic growth in different industrial sector didn't succeed in reducing the dependence of labour on the agriculture sector where large chunk (about 48%) of labour is still engaged in it. Though, the industrial sector has the potential to generate more employment in the economy as it contributes 31.12% in total Gross Domestic Product (GDP) of India [1]. After the post reform period this industrial employment growth didn't go in line with industrial growth rate.

The economic reforms of 1991 had shown the convergent of whole Indian economy into a new era of industrialization in India with the introduction of three magic words Liberalization, Privatization and Globalization which divides the whole economy in two major phases Pre reforms period, before 1991 and post Reforms period, after 1991. The post reforms era from its initiation to at present displayed major transformation in industrial sector of the country. Almost, each sector under Industries reflects increase in economic growth of the country though with some ups and down in the whole period. In addition to it, new development through various programmes has been introduced time to time to contribute in the growth of industrial sector such as 'Make In India' movement which includes two acknowledged 25 main sectors which can effects whole industrial growth in highly progressive way.

Moreover, throughout the whole scenario of increasing growth in industrial sector has one major objective of generating more employment opportunities in the different industrial sector. As only increase in economic growth does not reflect the real growth of any country. So, every policy or program so far made for industrial growth has majorly focused in employment intensive industries as, the new national manufacturing policy under Make in India program has the main objective of generate 100 million more job opportunities by 2022 in manufacturing sector. But it is showing that all the efforts for reducing unemployment through industrial growth going in vain as because of increase in unemployment rate while the industrial growth is positive. Without an increase in employment rate growth rate remains merely a figure which only calculates the economic growth for showing the economic position of country in the global world. It is more a ridiculous situation that even introducing many programs on rural and urban level for job creation are not getting the expected results.

2. Objectives of the study

1. To study the employment trend at gender and rural urban level in the industrial sector in India since economic reforms.
2. To examine the employment growth rate of Industry with respect to industrial and economic growth of India.
3. To analyze the trend of wage rate of industrial workers with respect to industrial and economic growth of industrial sector in post economic reform period.

3. Data and Methodology

This study is based on the secondary data, collected from various sources like Reserve bank of India, National Sample Survey Reports, World Bank database, International Labour Organization database (ILOSTAT), Planning Commission reports, Government of India. This study is based on times series data and collected data will be calculated and analyzed by simple percentages and Annual Average Growth Rate (AAGR) and Compound Average Annual Growth Rate (CAGR) method.

4. Industrial employment pattern

During the post economic reform period the industrial policy focused on increase in economic growth as well as employment generation in the economy. Numerous steps were taken for raising the investment in the industrial sector so that there can be an increase in the employment.

Table 1. Contribution of industrial sector in total GDP and employment level in industrial sector

Year	% share of Industry GDP	Employment share from Industry	Year	% share of Industry GDP	Employment share from Industry
1992	27.9	15	2005	30.7	18.8
1993	27.8	14.9	2006	31.6	19.8
1994	28.7	15.4	2007	31.7	20.6
1995	29.7	16.1	2008	31.7	20.7
1996	29	15.9	2009	31.1	21.3
1997	28.9	15.9	2010	30.1	21.8
1998	28.3	15.6	2011	30.2	23.5
1999	27.6	15.8	2012	29.4	24.4
2000	28.4	16.3	2013	28.4	23.8
2001	27.6	15.9	2014	27.7	23.9
2002	28.8	16.6	2015	27.2	23.9
2003	28.6	17	2016	26.6	23.7
2004	30.4	18.3	2017	26.2	23.8

Source: World Bank

No doubt, there is increase in the industrial output but the increase was not enough to justify the amount of reforms which were done during 1991-92. The share of industrial output in the total GDP was 27.9% in 1992 which increased to only 28.4% in 2002 (as shown in Table 1 (a)). After ten years, there is only 0.4% rise in industrial share in total GDP. In 2008, the share raised to 31.7% which was the highest ever after the economic reforms. Most recent data (2017) on industrial share in GDP shows the clear picture of falling contribution of industry (26.2%) in the total GDP of the India. This shows the inability of the economic reforms to raise the industrial contribution in the total Gross Domestic Product of the country. Similar scenario can be experienced in the case of employment share from the industry. In 1992, the industrial sector contributed 15% to the total employment generated in the economy. During the period from 1992 to 2017 the employment share from industry has risen to only 23.8%. This shows the ineffectiveness of the economic reforms on the employment generation. The highest share from the industry was experienced in the 2012 when the share rose to 24.4%. After that there is a falling trend in the industrial employment. This shows the discouraging trend on the part of employment generation as well as share in total GDP in the economy.

The employment generation remains stagnate till 2002 but shows a positive slope afterwards. This shows a positive change in the industrial employment during the period 2003 to 2012 when employment rose from 17% to 24.4%. Overall there is stagnancy in the employment generation and the share in total GDP. This puts question mark on the effectiveness of the reforms done during the 90s in the Indian economy. The investment which took place in these 25 years made nominal change on the employment aspect. Moreover, the share in total GDP did not show any brighter side after the reforms which is also falling year by year. This has been the case with each and every segment in the industrial sector. The major rise after the economic reforms went to those companies which do not generate enough employment which resulted in the lack luster performance of the industrial sector on the employment generation.

1. Gender issue in industrial employment

There is a clear evidence of minimal growth in the industrial employment during post economic reform period as shown in the previous table. In the process of analyzing the structure of employment in industrial sector, there is visible amount of gender disparity in the employed population along with the lower level of overall employment.

Table 1 (b). Gender wise distribution of industrial workers

Years	Total Industrial Employment (%)	Industrial Employment		Years	Total Industrial Employment (%)	Industrial Employment	
		Male (%)	Female (%)			Male (%)	Female (%)
1992	15	16.3	11.4	2005	18.8	20.9	13.8
1993	14.9	16.3	11.3	2006	19.8	21.8	14.6
1994	15.4	16.9	11.8	2007	20.6	22.7	15.1
1995	16.1	17.6	12.4	2008	20.7	22.8	15.1
1996	15.9	17.4	12	2009	21.3	23.4	15.5
1997	15.9	17.5	11.8	2010	21.8	23.8	15.7
1998	15.6	17.2	11.3	2011	23.5	25.3	17.6
1999	15.8	17.5	11.3	2012	24.4	26.1	19
2000	16.3	18.1	11.8	2013	23.8	25.6	18.2
2001	15.9	17.7	11.4	2014	23.9	25.8	18.1
2002	16.6	18.4	12.1	2015	23.9	25.8	18
2003	17	18.8	12.3	2016	23.7	25.7	17.7
2004	18.3	20.3	13.5	2017	23.8	25.8	17.7

Source: ILOSTAT

In 1992, the overall employment in the industrial sector was 15%, which included 16.3% share of male workers and 11.4% female workers (as shown in Table 1 (b)). Further, in 2001, the employment rate in industry rose to a nominal figure of 15.9% consisting 17.7% of males and 11.4% of females. Apart from the slow growth in employment, there is a widening of gap between male and female employment. Currently in 2017, 25.8% of males and 17.7% of females are the part of employment in industrial sector in India. This trend shows the growing tendency of disparity between male-female labour force participation. The main point of concern is that there is hardly any substantial rise in the employment in the industrial sector despite the large amount of investment which is taking place in the economy. There is sheer ignorance of employment generation aspect during the post reform period.

The failure of investment and growth policies shows the faultiness in the whole mechanism of liberalization and globalization under which there is high level of investment is made for economic growth.

2. Rural- Urban divide

There is always been a visible difference when it comes to the rural urban development. There is a lop-sided development which is in favour of urban areas and less favourable to the rural areas. Similar thing has been experienced in case of employment structure in the industrial sector in India. The employment level in the urban areas is much higher than the participation of workers (both male and female) in the rural areas. In 1992, the rural male and female labour in industry was 10.4% and 7.8% respectively whereas the urban male and female labour in industrial sector was 34.3% and 30.8% respectively. In 2012, 22% males and 16.7% females were working in the rural areas as against 35.3% males and 34% females in urban areas.

Table 1. Distribution of industrial workers at rural-urban level in India

Year	Rural Male (%)	Rural Female (%)	Rural (%)	Urban Male (%)	Urban Female (%)	Urban (%)	Rural + Urban
1992	10.4	7.8	9.1	34.3	30.8	32.6	20.8
1993	10.9	7.4	9.2	34.4	30.6	32.5	20.8
1994	11.2	8.3	9.8	32.9	29.1	31.0	20.4
1995	10.3	8.3	9.3	32.9	34.3	33.6	21.5
1996	11.4	8	9.7	33.5	30.9	32.2	21.0
1997	10.6	7.2	8.9	34	32.4	33.2	21.1
1998	10.2	6.6	8.4	32.2	28	30.1	19.3
1999	12.6	8.9	10.8	32.8	29.3	31.1	20.9
2000	13.6	13.3	13.5	35.6	34.2	34.9	24.2
2001	14.5	10.9	12.7	32.1	33.2	32.7	22.7
2002	13.8	8.7	11.3	33.7	31.5	32.6	21.9
2003	14.1	9.5	11.8	33.6	31.2	32.4	22.1
2004	16	9.4	12.7	34.7	30.9	32.8	22.8
2005	15.5	10.2	12.9	34.4	32.4	33.4	23.1
2006	16.5	12	14.3	34.3	33	33.7	24.0
2007	16.2	9.7	13.0	34.3	32.3	33.3	23.1
2008	17.8	11.4	14.6	34.5	32.8	33.7	24.1
2009	19.3	13	16.2	34.6	33.3	34.0	25.1
2010	20.7	14.9	17.8	35	33.7	34.4	26.1
2011	21.3	15.3	18.3	35.1	33.6	34.4	26.3
2012	22	16.7	19.4	35.3	34	34.7	27.0

Source: Various NSSO rounds (Figures in %)

This evidently shows that more job opportunities are being generated in the urban areas rather than in the rural areas. There is clear cut discrimination in the growth and development model after the post reform period in the neo- liberal economy. Overall, there is again a case of slow employment generation in both rural and urban areas. In the span of 20 years the rural employment increased from 9.1% to 19.4% in 2012 and 32.6% to 34.7% in urban areas. Though the employment in industrial sector is higher in the urban areas but there is stagnation in the employment level. This again put forward the issue of jobless growth in the urban areas.

5. Growth pattern of employment

During the post economic reforms period, various promotion campaigns were run by the Government about the employment schemes and other development schemes. These all campaigns of Govt. didn't quite push the employment growth in the economy along with the rise in economic growth. The campaigns slogans like '*India shining*' and '*Bharat Nirmaan*' proved to be least beneficial for creating more jobs. In 1994, the total employment growth rate was 3.6%, whereas it was 3.4% for males and 4.3% for females. Many years witnessed even the negative growth in the Industrial employment. In 2001, the industrial employment growth rate fell to -2.5% (as shown in Table 2 (a)).

Table 2 (a). Employment growth rate of industrial worker at gender level in India

Years	Total Industrial Employment (%)	Industrial Employment (Male %)	Industrial Employment (Female %)	GDP (Growth Rate)^	Industry (Growth Rate)^
1992	NA	NA	NA	5.5	3.2
1993	-0.5	-0.3	-1.2	4.8	5.5
1994	3.6	3.4	4.3	6.7	9.2
1995	4.7	4.5	5.2	7.6	11.3
1996	-1.5	-1.0	-3.5	7.5	6.4
1997	-0.2	0.1	-1.3	4.0	4.0
1998	-2.0	-1.4	-4.2	6.2	4.1
1999	1.4	1.7	0.3	8.8	6.0
2000	3.4	3.3	3.8	3.8	6.0
2001	-2.5	-2.1	-3.5	4.8	2.6
2002	4.3	4.0	6.1	3.8	7.2
2003	2.3	2.4	2.2	7.9	7.3
2004	8.0	7.8	9.3	7.9	9.8
2005	2.6	2.8	2.6	9.3	9.7
2006	5.3	4.7	5.8	9.3	12.2
2007	4.2	3.9	3.5	9.8	9.7
2008	0.5	0.2	-0.1	3.9	4.4
2009	2.9	2.7	2.2	8.5	9.2
2010	2.3	2.0	1.4	10.3	7.6
2011	7.5	6.3	12.3	6.6	7.8
2012	3.9	2.8	7.7	5.5	3.3
2013	-2.3	-1.9	-4.1	6.4	3.8
2014	0.6	0.9	-0.3	7.4	7.0
2015	-0.2	0.0	-0.7	8.2	9.8
2016	-0.7	-0.4	-1.7	7.1	6.8
2017	0.3	0.3	0.0	6.6	5.5

(Source: ILOSTAT) ^ World Bank

The CAGR remained 1.80% for the total employment generated in the industrial sector. This shows the snail like growth of employment in the economy after the economic reforms. The recent data from 2014 to 2017 shows less than 1% employment growth in the industrial sector which automatically describes the poor performance of the industry on the front of employment generation. There is ample amount of economic growth in the economy after the reforms but this hasn't raised the employment growth rate. In 2016, when the GDP growth rate was 7.1% and the industrial growth rate was 6.8% the industry witnessed negative employment growth in the same year [2]. There is hardly any positive relation visible between economic and employment growth. In the span of economic reforms (1992 to 2017) there are only 3 times when the industrial employment growth surpassed GDP growth rate. In 2006, when the industrial growth was 12.2%, the employment growth grew by only 5.3%. This shows the irresponsiveness of employment growth to the economic and industrial growth.

1. Rural- Urban growth pattern

The industrial employment didn't quite rise above or follow the similar growth path as GDP growth rate. At the rural and urban level, the situation of employment growth is more volatile and depressing. In the year 1993, the economic growth was 4.8% whereas the rural employment growth was 0.5% and -0.2 in urban areas (as shown in Table 2(b)). Astonishingly, in 1998, the rural and urban employment fell by the amount of -5.6% and -9.3% whereas the industrial output growth was 4.1% [3]. Similar pattern was seen in 2007, when there is again high negative growth in employment in rural an urban industrial sector. There are only few instances where the employment grew more than the GDP and Industrial output. Huge amount of fluctuations in the job market is not preferable in any sense. There is a clear cut matter of lack of job insecurity among the rural as well as urban industrial workers. They do not have the permanent job status in the industrial sector. The high economic growth and industrial growth didn't able to ensure the decent growth rate of employment generation in rural-urban regions.

Table 2 (b). Employment growth rate of industrial worker at rural and urban level in India

Year	Rural Employment (G.R)	Urban Employment (G.R)	Rural + Urban (G.R)	GDP^ (G.R)	Industry^ (G.R)
1992	NA	NA	NA	5.5	3.2
1993	0.5	-0.2	0	4.8	5.5
1994	6.6	-4.6	-2.2	6.7	9.2
1995	-4.6	8.4	5.3	7.6	11.3
1996	4.3	-4.2	-2.3	7.5	6.4
1997	-8.2	3.1	0.5	4	4
1998	-5.6	-9.3	-8.6	6.2	4.1
1999	28	3.2	8.6	8.8	6
2000	25.1	12.4	15.7	3.8	6
2001	-5.6	-6.4	-6.2	4.8	2.6
2002	-11.4	-0.2	-3.3	3.8	7.2
2003	4.9	-0.6	0.8	7.9	7.3
2004	7.6	1.2	2.9	7.9	9.8
2005	1.2	1.8	1.6	9.3	9.7
2006	10.9	0.7	3.6	9.3	12.2
2007	-9.1	-1	-3.4	9.8	9.7
2008	12.7	1.1	4.3	3.9	4.4
2009	10.6	0.9	3.8	8.5	9.2
2010	10.2	1.2	4.1	10.3	7.6
2011	2.8	0	1	6.6	7.8
2012	5.7	0.9	2.6	5.5	3.3

Source: Handbook of Indian Economy, Reserve Bank of India, ^World Bank

6. Wage rate analysis

The Indian workers are always characterized with low earners when we compare it to the other countries' workers. There are large numbers of workers which are working at lower wage rate. The rise in industrial output didn't guarantee them enough amount of earning. The story of industrial sector workers of India is also not different from the other sectors. There are numerous instances of low level of wage rate given in the Indian industrial sector. In Table 3, the trend of average daily wage rate shows the rise in the earnings of industrial workers in the past two decades.

Table 3. Industrial wage rate growth w.r.t GDP and industrial growth

Year	Avg. Daily Wage(IW)	Wage G.R (%)	GDPG.R (%)	Industry G.R (%)
1992	NA	NA	5.5	3.2
1993	NA	NA	4.8	5.5
1994	81.86	NA	6.7	9.2
1995	90.10	10.1	7.6	11.3
1996	101.17	12.3	7.5	6.4
1997	111.90	10.6	4.0	4.0
1998	123.77	10.6	6.2	4.1
1999	141.64	14.4	8.8	6.0
2000	150.84	6.5	3.8	6.0
2001	158.35	5.0	4.8	2.6
2002	166.14	4.9	3.8	7.2
2003	178.05	7.2	7.9	7.3
2004	184.81	3.8	7.9	9.8
2005	187.85	1.6	9.3	9.7
2006	206.54	9.9	9.3	12.2
2007	216.82	5.0	9.8	9.7
2008	227.10	4.7	3.9	4.4
2009	245.28	8.0	8.5	9.2
2010	280.08	14.2	10.3	7.6
2011	294.10	5.0	6.6	7.8
2012	310.96	5.7	5.5	3.3
2013	330.70	6.3	6.4	3.8
2014	356.26	7.7	7.4	7.0

Source: *ibid*

In 1994, the avg. daily wage rate was Rs.81.86 and it rose to Rs.184.81 in 2004. Hence, there is a rise in the wage rate but the comparison of wage rate growth with industrial growth shows us a different picture. Till 1999, avg. daily wage rate grew more than the GDP and industrial output (14.4% in 1999). After 1999, the growth of wages started lowering down and growth number came down to single digit. In 2004, the rise in wage rate was only 3.4% compared to 9.8% rise in industrial output and 7.9% rise in GDP growth rate. Since then, there is not enough growth in the wages of industrial workers when we compare it to industrial growth. After 2010, there is again a rising trend in the wages but it isn't able to sustain the growth. The volatility in the wage rate is not a good indicator of workers' working conditions. This volatility is due to the reason of informal nature of the jobs in the industrial sector.

7. Conclusion

The industrial sector in India is the main engine when it comes to the GDP growth and employment generation yet the reforms and policies made for the employment generation are not sufficient. No doubt, this sector provides employment to many people but there is nominal growth in the employment generation. The falling share of industry in GDP growth and labour force poses question mark on the government administration and policy makers. The wage rate growth of the workers is also not very promising. More than 25 years after the economic reforms the situation still seems to remain same as there is lot of things which require serious efforts to improve. If India is eyeing for the super power nation, this sector too has to be accelerate in the coming future.

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