



Dynamics of Industrial Growth and Workers Employed in Punjab Under Liberalization Era

KEYWORDS

Annual Growth Rate (AGR), Compound Annual Growth Rate (CAGR), Globalization, Liberalization, Industrial Units.

Dr. Bhagwant Singh

Junior Auditor Punjab State Agricultural Board, Mohali.

ABSTRACT

This paper brings out the impact with liberalization on Indian Industries with special reference to Punjab under Liberalization Era. Under this period industrial units of Punjab facing lot of challenges in various areas such as low growth rate of industrial units and employment, stiff market competition, quality of product and shift in labour etc. The paper especially highlighted the impact with liberalization on the growth of employment and industrial units. The annual growth rate (AGR) and compound annual rate (CAGR) has calculated to know the impact. From the data, it was concluded that the policy of liberalization remained unfavorable for growth of the industrial units and their employment in Punjab.

In the present time the role of industries can't be undermined in development process of a country. Therefore the industrial sector is the main source of economic growth is a result of an increase in employment opportunities of a country. In the Indian economy manufacturing industries holds a key position for nearly sixteen per cent of real Gross Domestic Product (GDP) and employment 12.0 per cent of the Indian labour force (Economic Survey, 2014-15). The growth in the sector has been matching the strong place in overall gross domestic product (GDP) growth under the past few years.

The government of India introduced major reforms after post Globalization period. Under this period the advent of Liberalization, industrial sector of Punjab faced many challenges like quality of product, low demand and stiff market competition, etc. Realising the importance of industrial sector, it has decided to conduct a study on these industries. The main object of the study is to examine the dynamics of growth in industrial units and their employment in the industries of Punjab under liberalization era. The whole study based mainly on the secondary, but primary data has also collected from concerning units. Time period was taken from 2001-02 to 2012-13 for evaluation of study. To know the growth rate of industrial units and their employment, the Annual Growth Rate (AGR) and Compound Annual Growth Rate (CAGR) has been calculated. The review of some relevant studies regarding growth rate of industries under liberalization has given as following:

Kiran and Kaur, Manpreet (2008), have traced that the growth of labour was decreased under the liberalization period, while capital increased with high growth rate in registered working manufacturing industries in India under New Economic Policy.

Sonia and Kansal (2009) have traced that the "globalization" had a negative impact on the growth of small scale sector measured in terms of number of units, production, employment and exports etc. Further they said that a fall in the rate of growth of number of units and employment generation in post liberalization period is a matter of serious concern for the policy-makers and planners.

Gautam and Singh R. (2012) found that small manufacturers are affected in the liberalized era and facing lot of problems to run their businesses. They observed that liberalization has resulted into more competition, increased quality consciousness and difficulty in marketing, etc.

Sharma(2014) has found that average annual growth rate of Indian industry has declined in the post reform period as compared with the pre reform period. He also observed the average annual growth rate is also decreased in the manufacturing sector in the post reform period.

Aggarwal, (2014) has examined that 'globalization' had a negative impact on the average growth rate of production and employment in small scale units. The major challenges faced by these units are industrial sickness, non-availability of concessional loans, technological up gradation, delayed payments which are clearly seen through the reduction of their overall performance.

Findings:

Table 1 shows the growth rate of number of factories and workers in Indian industries during 2001-02 to 2012-13. Table shows that annual growth rate (AGR) of number of factories was negative in 2001-02 and 2002-03, it was found positive in other years of the study but remained in fluctuations trend. The highest annual growth rate (AGR) came to be 33.20 per cent in 2010-11 as compare to other year of the study. The overall compound annual growth rate (CAGR) was calculated 4.66 during the given period.

The annual growth rate in percentage of number workers was found negative in 2001-02, 2003-04 and 2012-13 i.e. -2.89, -1.21 and -3.70, respectively. This rate came to be positive during the other years of the study, but remained in fluctuations. The highest annual growth rate (AGR) came to be 10.43 per cent in 2006-07. From this analysis it can be concluded that AGR of both factories and workers drastically decreased at high low rate in 2007-08, it may due to the impact of world depression on Indian economy. The overall compound annual growth rate (CAGR) of both factories and workers remained very low, but it was found higher in factories than that of workers, it may due to more use of capital intensive technology in Indian industries.

Table 1: Growth of Factories and Workers Employed in India
(Per cent)

Year	Number of Factories AGR*	Number of Workers AGR*
2001-02	-2.07	-2.89
2002-03	-0.43	3.42
2003-04	0.87	-1.21
2004-05	5.64	8.42
2005-06	2.79	8.13
2006-07	3.25	10.43
2007-08	1.16	4.03
2008-09	6.10	7.06
2009-10	2.29	4.34
2010-11	33.2	8.13
2011-12	2.78	5.42
2012-13	2.10	-3.70
CAGR**	(4.66)	(4.45)

Source: Annual Survey of Industries, 2001-02 to 2013-14 (various issues)

AGR* depicted Annual Growth Rate in Percentage

CAGR** depicted Compound Annual Growth Rate in Percentage.

Note: Figures in parentheses depict Compound Annual Growth Rate (CAGR) in percentage. Figures without parentheses depict Annual Growth Rate (AGR) in percentage

Table 2 shows the growth rate of number of registered working factories, average number of workers and workers per lakh of population in Punjab during 2001-02 to 2012-13. Table highlights that annual growth rate of registered working factories remained positive during the given period. This rate remained very low in other year of the study except 2005, 2006 and 2008 during the given period. The overall compound annual growth rate (CAGR) came to be the low i.e. 2.16 per cent only during the study. The annual growth rate (AGR) of average number of workers was 2.63 per cent in 2001, after decline a negative growth rate in 2002 it was in increased continuously to 8.28 per cent in 2005 which was the highest rate as compare to other period of the study. This rate remained in fluctuations trend during the other remaining years. The overall compound annual growth rate (CAGR) of average number of workers came to be only 2.83 per cent.

The annual growth rate of workers per lakh of population was also remained large fluctuations, which is clear from the table. The highest rate was found to be 6.34 per cent in 2011, but remained negative percentage i.e. -1.60, -1.64 and -0.09 in 2002, 2005 and 2009, respectively. The compound annual growth rate (CAGR) traced to be 1.82 per cent during the research period which was low than that of number of registered working factories and average number of workers. This analysis concluded the employment opportunities was decreased in Punjab industries due increase in population and low growth rate of industries with liberalization.

Table 2: Growth of Registered Working Factories and Workers Employed in Punjab
(Per cent)

Year	Factories AGR*	Average Number of Workers AGR*	Workers Per Lakh of Population AGR*
2001	1.43	2.63	1.68
2002	0.00	-2.79	-1.60
2003	2.31	2.45	2.44
2004	3.98	4.63	4.60
2005	4.35	8.28	-1.64
2006	4.90	5.31	3.38
2007	1.66	3.51	1.63
2008	4.20	4.42	2.53
2009	0.96	-0.09	-0.09
2010	0.70	3.19	1.33
2011	0.34	2.57	6.34
2012	1.66	1.77	1.63
2013	1.08	1.15	1.17
CAGR**	(2.16)	(2.83)	(1.82)

Source Statistical Abstract of Punjab (Various Issues)

AGR* depicted Annual Growth Rate in Percentage

CAGR** depicted Compound Annual Growth Rate in Percentage.

Note: Figures in parentheses depict Compound Annual Growth Rate (CAGR) in percentage. Figures without parentheses depict Annual Growth Rate (AGR) in percentage

Growth of number of units and workers employed relating to working small scale industries in Punjab has worked out in Table 3. It was found that annual growth rate (AGR) of number of units remained very low which is clear from the table. This rate came to be less than one per cent in all years of the study period except 2009-10 and 2012-13. The low AGR found to be the very lowest i.e. -12.48 per cent in 2007-08; it may due to negative impact of the world depression on Punjab economy. The overall growth rate was also remained very low in negative i.e. -2.20 per cent during 2001-02 to 2012-13.

The annual growth rate (AGR) in employment was 1.29 per cent in 2001-02 after declining trend it rose up to 2.56 per cent in 2004-05. This rate again decreased drastically at negative rate at -1.33 per cent in 2006-07 it may also due to impact of world depression on industrial employment in Punjab. The compound annual growth rate (CAGR) came to be very low positive which was 1.42 per cent only. From this analysis it can be concluded that economic policy of liberalization remained unfavorable for working small scale industries in Punjab.

Table 3: Growth of Units and Workers Employed Relating to Working Small Scale Industries in Punjab
(Per cent)

Year	Number of Units AGR*	Employment AGR*
2001-02	0.56	1.29
2002-03	0.40	1.19
2003-04	0.34	1.08
2004-05	0.37	2.56
2005-06	0.26	0.81
2006-07	-6.30	-1.33
2007-08	-12.48	1.71

2008-09	-3.08	-1.10
2009-10	1.54	3.57
2010-11	-4.67	2.44
2011-12	0.39	3.06
2012-13	1.61	4.26
CAGR**	(-2.20)	(1.42)

Source: Statistical Abstract of Punjab (Various Issues)

AGR* depicted Annual Growth Rate in Percentage

CAGR** depicted Compound Growth Rate in Percentage

Note: Figures in parentheses depict Compound Annual Growth Rate (CAGR) in percentage. Figures without parentheses depict Annual Growth Rate (AGR) in percentage

Growth of number of units and workers employed relating to working Large/Medium industries in Punjab has been given in Table 4. The annual growth rate (AGR) of number of units came to negative in all years from 2001-02 to 2006-07; this rate was calculated very low in negative percentage i.e. -35.24 in 2006-07 as compared to other period of this study. After positive increase up to 5.07 per cent in 2008-09, this rate declined to -1.91 per cent in 2010-11 and then increased drastically to 12.36 per cent in 2012-13 which was the highest one as compare to other time period of this study. The compound annual growth rate (CAGR) of number of units remained negative i.e. -3.04 per cent.

The annual growth rate (AGR) of employment in Large/Medium units in Punjab was remained in up and down trends during the period of 2001-02 to 2012-2013, which is clear from the table 4. This rate came to be lowest in negative (-9.99 per cent) in 2004-05 as compare to the other period of this research. The highest annual growth rate (AGR) of employment was come to be the 13.17 per cent in 2011-12. The overall compound annual growth rate (CAGR) of employment during 2001-02 to 2012-13 was calculated 0.33 per cent only. From this data analysis, it can be concluded that the policy of liberalization also remained unfavorable for Large/Medium units and their employment in Punjab

Table 4: Growth of Factories and Workers Employed Relating to Working Large/Medium Industries in Punjab (Per cent)

Year	Number of Units AGR*	Employment AGR*
2001-02	-1.43	0.62
2002-03	-11.13	-4.14
2003-04	-0.01	5.10
2004-05	-1.45	-9.99
2005-06	-3.31	1.51
2006-07	-35.24	-6.28
2007-08	4.41	10.09
2008-09	5.07	0.20
2009-10	-1.61	1.87
2010-11	-1.91	-5.88
2011-12	5.55	13.17
2012-13	12.36	0.71
CAGR**	(-3.04)	(0.33)

Source: Abstract of Punjab (Various Issues)

AGR* depicted Annual Growth Rate in Percentage

CAGR** depicted Compound Growth Rate in Percentage

Note: Figures in parentheses depict Compound Annual Growth Rate (CAGR) in percentage. Figures without parentheses depict Annual Growth Rate (AGR) in percentage

Concluding Remarks

The policy of liberalization was remained unfavorable for the growth of Indian industrial units and their employment. The growth of industrial units and their employment was decreased with liberalization. Under the this period, it was concluded that the overall growth rate of both number of factories and workers remained very low, but this rate of growth was found higher in factories than that of workers, it may due to the more use of capital intensive technology in Indian industries during Globalization.

The negative impact of liberalization remained higher in Punjab than that of overall Indian industries. The analysis concluded that the employment opportunities has been decreased in Punjab due increase in population and low growth rate of industries after liberalization. Due to this impact, the overall growth rate of 'workers per lakh of population' came to be low than that of number of registered working factories and number of workers in Punjab. The overall growth rate of number of units in small scale industries and Large/Medium units was remained negative but this rate was found very low positive in employment in both types of industrial units in Punjab.

The challenges for industrial sector of Indian industries are many and complex under liberalization; however, these challenges can be overcome with the collective efforts by Government, entrepreneurs, research and development institutions, etc. Moreover, the government should provide the social security to labour by reducing the hire and fire practice, even though the policy of liberalization has been adopted.

REFERENCE

- Aggarwal, Shubhai (2014), "Impact of Globalisation on Indian Small Industries in India" GJRA, Global Journal For Research Analysis, Volume 3, Issue 5, May, 2014, pp 19-20 | Gautam and Singh R. (2012), "Liberalization Impact on Indian Small Industries: An Empirical Study of Punjab" Business Intelligence Journal, January, 2012, Volume 5, No. 1, pp 113-122. | Government of India (2001-02 to 2013-14), Annual Survey of Industries, 2001-02 to 2013-14 (Various Issues), Ministry of Statistics and Programming Implementation, Government of India. | Government of India (2014-15), Economic Survey 2014-15, Government of India, Ministry of Finance, New Delhi. | Government of Punjab (Various Issues, 2001-02 to 2013-14), Statistical Abstract of Punjab, Economic Advisor to Government of Punjab, Chandigarh. | Kiran, Ravi and Kaur, Manpreet (2008), "Productivity Analysis of Indian Manufacturing in Pre and Post Liberalisation Era", Journal of Contemporary Asia and Europe, Volume 1, No. 2, July- Dec. | Sharma, R. K. (2014), "Industrial Development of India in Pre and Post Reform Period" IOSR Journal of Humanities And Social Science (IOSR-JHSS), Volume 19, Issue 10, Ver IV, (Oct. 2014), pp1-7. | Sonia and Dr. Rajeev Kansal (2009), "Globalisation and Its Impact on Small Scale Industries in India" PCMA Journal of Business, Volume 1, No. 2, (June, 2009), pp135-146. |