ABSTRACT

Industrial sector in India has been undergoing significant changes both in structure and pattern owing to the policy changes. Since the early 1950s till the early 1980s the evolution of manufacturing sector was guided by protected industrial and trade policies, which restricted the growth of the economy in general and manufacturing sector, in particular. Manufacturing sector was characterized by extensive public sector participation, regulation of the private sector firms, restriction on foreign investment, high tariff and non-tariff restrictions on imports, which held up the growth of the manufacturing sector in India. This has been replaced through the adoption of new economic policy in 1991.

The present thesis examines the performance of organised manufacturing sector during pre and post reforms in terms of five variables. The study found that in post-reform era growth rate decreased in number of factories, employment and total emoluments whereas growth rate increased in gross fixed capital and gross value added. This indicates that the post-reform has promoted the use of capital intensive and labour saving techniques of production leading to poor growth of employment, total emoluments and it has also facilitated the elimination of sick factories in Indian organised manufacturing industries. The comparative profile of pre-reform and post-reform period revealed that during reform period productivities of labour declined but capital productivity decelerated significantly whereas capital intensity and real wage improved significantly.

The study is based on panel data of Annual Survey of Industries (ASI), collected from Centre for Monitoring Indian Economy (CMIE), Industry Outlook, Central Statistical Organization (CSO), Ministry of Statistics and Program Implementation, Government of India, New Delhi and Index numbers collected from Ministry of Commerce and Industry, Department of Industrial Policy and Promotion, for the period of 22 years from 1990-91 to 2011-12. L/K labour intensity ratio was used to classify the selected organised manufacturing industries into labour intensive and capital intensive industries. The non parametric data envelopment technique based on Malmquist Productivity Index was used to investigate the impact of economic reforms on Total Factor Productivity (TFP) growth and its sources in selected ten labour intensive and ten capital intensive Indian organised manufacturing industries.
DEA result reveals that the Labour Intensive Industries have negative Total Factor Productivity Growth of -6.1% mainly due to Technological Change which is -4%. Meanwhile, the Capital Intensive Industries have positive Total Factor Productivity Growth of 6.7%, mainly contributed by Efficiency Change of 1.6% and Technological Change of 5.0%. Eight out of ten Organised Manufacturing Capital Intensive Industries have shown positive Total Factor Productivity Growth during the economic reforms period, whereas seven out of ten Organised Manufacturing Labour Intensive Industries showed negative Total Factor Productivity Growth due to lack of technological change.

The determinants of employment in selected organised manufacturing industries result revealed that according to Hausman test fixed effect model is feasible to LII and random effect model is feasible to CII. The employment determinant of labour productivity co-efficient is negative and statistically significant in both proposed industries which implies not only capital intensive industries are main cause for jobless growth but also labour intensive industries. The determinant of lag real wage rate was negative and insignificant implying that real wage rate does not reduce employment. The co-efficient of real fixed capital is positive and significant in LII whereas it is negative in CII implying that increase in the amount of real fixed capital reduced employment level, which may be due to the economic reforms period’s massive rationalization, adoption of capital intensive techniques in production process and downsizing are the main cause for not favourably associate with employment. Other determinants like real gross value of output and number of factories are positive and significantly influence employment in both types of industries.

The relative efficiency trends in selected industries has been estimated using Constant Returns to Scale (CRS) and Variable Returns to Scale (VRS) models of DEA and study period has been classified into early reform period and later reform period. With respect to labour intensive industries three out of ten industries relatively performed better during early-reform period whereas, seven out of ten industries performed better during later-reform period. It was found that during study years labour productivity was affected in almost all selected labour intensive industries except Footwear, Furniture and Jewellery and Related Articles industries. Declining technical co-efficient emoluments and fixed capital ratio confirms that economic reforms have negatively influenced labour intensive industries. An average
of seven years stand on production frontier as evident from the value of scale efficiency score equal to one indicates efficiency. It was found that for 60% of the study period there was inefficiency with value of scale efficiency scores less than one. With respect to capital intensive industries Basic Chemicals, Agricultural and Forestry Machinery and Air and Spacecraft and Related Machinery industries relatively performed better during early-reform period; whereas, seven out of ten industries performed better during later-reform period. Lower labour-capital ratio confirms that economic reforms positively influenced capital intensive industries. An average of five years stand on production frontier as evident from the value of scale efficiency score equal to one and more than 70% of the study period exhibited inefficiency with value of scale efficiency score less than one.

Supporting industries which are efficiently increasing their labour like Knitted and Crocheted Fabrics, Footwear and Luggage, Handbags and the Like, Saddlery and Harness industries for employment creation is needed for the economy. As India is a labour abundant country with huge working population, policy maker has to focus on employment creation. Along with the labour intensive industry, capital intensive industries also play a major role in fulfilling the domestic as well as changing market needs. Further, the study suggests that the technological competitiveness of the industries should be improved according to the changing needs. All these efforts might improve the competitive ability of Indian organised manufacturing sector.