ABSTRACT

The growth and development of the Small Scale Industries (SSIs), or the Micro, Small and Medium Enterprises (MSMEs) sector since 2006, has a direct impact on the growth of the manufacturing sector as well as overall growth of the Indian economy. This sector contributes significantly in terms of output, employment and exports of the overall industrial sector of India. Majority of the enterprises operating in the MSMEs sector is unregistered and micro in their size and scale of production. Given the smallness of size and scale, competitiveness of these unregistered enterprises by means of efficiency and productivity growth is very crucial for survival and long term economic growth. Further, the manufacturing sector of India is dichotomized into registered and unregistered manufacturing. There is evidence on strong difference in productivity and employment potential between the two. Given the importance of productivity growth and efficiency of inter-sectoral allocation of resources for long term growth and competitiveness of the unregistered manufacturing, estimating the determinants and the strategies for productivity enhancement e.g. through industrial cluster approach is important.

In this background, this study aims to analyse first, competitiveness of the unregistered SSIs of India in terms of efficiency and productivity growth and second, efficiency of inter-sectoral allocation of resources for productivity growth of the unregistered manufacturing sector of India. In addition, it also analyses the key determinants of efficiency and productivity growth and the importance of clusters for improved competitiveness of unregistered SSIs.

Efficiency and productivity change is measured using non-parametric Data Envelopment Analysis (DEA) and Malmquist productivity growth index under the bootstrap technique for the time period 1994-95 to 2010-11. The determinants of efficiency is analysed both at the industry and at the micro enterprise level using simulation technique and Ordinary Least Square regression model. A theoretical model and its empirical estimation involving industry level panel data regression and numerical simulation technique is used to study the efficiency of inter-sectoral allocation of resources for productivity growth of the unregistered manufacturing sector for the aforementioned period. Using Location Quotient (LQ), a comparative analysis of economic performance indices such as size, productivity, and employment...
intensity is done between clustered and non-clustered unregistered SSIs by major industrial groups for 2005-06. In addition, using logistic regression, the determinants of clustering of small enterprises is estimated. Overall competitiveness of the unregistered SSIs is measured at the industry level using three broad economic performance indices such as size, contribution, and efficiency and productivity change for two distinct periods: 2001-02 and 2006-07. Size indices are categorized into value added, employment, and exports per unit while contribution indices are contribution to Gross Domestic Product, employment, and exports. Using the BORDA rule/ranking, all these individual indices are combined and based on these ranks, industries are classified by competitiveness.

Major findings and conclusions of the thesis include the followings: First, technical efficiency of the unregistered micro and small enterprises is low at various industries disaggregate. Chemicals, transport equipment, and basic metals are the most efficient industries while tobacco manufacturing, textiles, and rubber are some of the least efficient industries. Higher scale of operation and productivity difference of the existing inputs are crucial factors behind efficiency differential among the industries. Second, efficiency is very low at the micro enterprise level. The gender of ownership, location, problems of power supply, credit inaccessibility, lack of demand, financial dues, problem of marketing agreement with large units, and sources of loans are the major determinants of efficiency at the enterprise level. Third, except leather, TFP growth for the majority of the industries is declining due to technological regress and non-improvement of technical efficiency. Fourth, factor market misallocation results in depressed manufacturing TFP growth and labour market misallocation is stronger than capital. Fifth, manufacture of wood products is the most competitive while manufacture of basic metals is least competitive. Sixth, clusters are important source of competitiveness through size and productivity improvement and employment generation. Cost of labour input, input-output ratio, capita-output ratio, and state level characteristics such as manufacturing base and export potential are the major determinants of clustering. These findings and conclusions have relevant policy implications for competitiveness and long term growth of the unregistered SSIs of India.