

Technical Efficiency Performance among Micro Enterprises in Dibrugarh District (Assam): A Stochastic Frontier Analysis

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This study analyses technical efficiency performance among micro enterprises in Dibrugarh; a developed and industrialised district in Assam using the Stochastic Production Frontier Model. It is based on cross sectional firm-level data collected through a field survey from 115 micro manufacturing enterprises. The results indicate the presence of a high degree of technical inefficiency in the production process. Output is more responsive to labour than capital, which points that higher productivity can be obtained by increasing labour and not by increasing mechanization. The enterprises are subject to decreasing returns to scale, suggesting that they are of supra-optimal size and need to adopt a policy of rational downsizing.

Further, an attempt has been made to identify firm-specific and entrepreneurial background variables responsible for inefficiency using Coelli's Inefficiency Effects Model. It is found that skilled labour ratio, firm-age, gender and experience of the entrepreneur significantly affect technical efficiency in the firms. From policy perspective, the strong influence of skilled labour points to the need for skill upgradation and training of the local labour force. The influence of age of firms is a pointer to the benefits of the principle of learning-by-doing and accumulated knowledge. Thus, along with the establishment of new enterprises, government support policies must focus on reorganization and rehabilitation of existing old firms. The empirical evidences also point to the need for industry-specific and gender-specific policy guidelines.

I Introduction

Micro and small enterprises play a dominant role in the economies of developed as well as developing countries. Small enterprises, with lower level of investment per worker, tend to achieve a higher productivity of capital than do the larger, more capital-intensive enterprises (UNIDO, 1969). The most common criterion of defining a small industrial enterprise is the number of employees or the level of fixed assets. In India the path breaking MSMED (Micro, Small and Medium Enterprises Development) Act 2006 defines erstwhile SSIs (small scale industries)

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