

Abstract

In India, 95% of enterprises are small and medium enterprises (SMEs), and they play a major role in generating employment and contribute significantly to the export of the country. In recent years, these enterprises are finding themselves in an intensely competitive environment and as a result the growth of these enterprises has slowed down considerably. Literature has suggested that development of appropriate subcontracting relationship with the large enterprises (LEs) would be beneficial to the SMEs as this would help them to overcome the constraints of infrastructural resources. This thesis is an attempt to find the attributes of such subcontracting relationship between Indian SMEs and a large enterprise and the relative importance of these attributes that leads to the growth of the SMEs.

A questionnaire survey was undertaken to identify the existing subcontracting relationships among the SMEs and a large Indian automobile manufacturing company. The survey found that there is little support to the SMEs from the large enterprise in technical, human resource or financial aspects. 'Increased quality standards', 'stringent delivery requirements', 'uncertainty in contracts', 'considerable delays in payments' and 'increased pressure to reduce costs' are found to be important growth constraints for the SMEs. Factor analysis has shown that there are considerable gaps between the SMEs' expectations and perceptions of the subcontracting relationships. Such gaps were most prominent in terms of 'early development of new product', 'adoption of market-oriented pricing', 'customer oriented investments' and 'focusing on customer needs'. A path model has also been developed to identify the technological and the financial factors as the most prominent factors for improving the subcontracting relationship.

Many of the influencing variables for growth of subcontracting relationships with LEs are dynamic in nature and depend on the market conditions. A detailed feedback loop study for the growth of the SMEs has been undertaken considering the factors of business growth, work adjustment due to rework and delays, effect of learning and enrichment,

and teamwork. Specific causal mechanisms are developed for capacity addition decision and delays, quality improvement, delivery, customer expectations, fostering new components development, and price reduction. All these causal mechanisms are combined into a system dynamics model. The model is validated with detailed data collected from an SME which is an automobile ancillary unit. Policies are considered with regard to varying degree of support from the LE to the SME in technical, financial, and human resource aspects. It has been found that a combined policy performs the best in bringing the SME to the path of sustained growth.

Keywords: *Small and Medium Enterprises, Large Enterprises, Subcontracting, Questionnaire Survey, Statistical Modeling, Feedback loop Study, System Dynamics Modelling*