

The impact of Information Technology on the agility of Indian small and medium sized enterprises

ABSTRACT

SMEs in India is one of the biggest factors to boost economy and produce large employment opportunities. Considering the population factor of India and its diversified markets which deals with region-specific demands, Indian SMEs are of utmost important for the nationwide growth and prosperity. The poor implementation of IT tools is one of the key challenges that specially affects the Indian SME sectors. Considering the continued digital revolution in businesses worldwide, Indian SMEs need an immediate and utmost attention with regards to adopting new innovative technologies in achieving higher levels of enterprise agility. Previous researchers have emphasized that IT adoption and/or upgradation to latest IT infrastructure results in effective knowledge sharing among internal departments of SMEs, which leads to effective coordination and communication among internal structures of SMEs and consequently may affect the overall enterprise agility positively.

An extensive literature analysis carried out on 'IT' and 'agility', reveals that there are not enough empirical evidences on the subject of IT adoption of Indian SMEs and its effect on their enterprise agility. Hence there exists a research gap. The subject of the research is therefore, the enterprise agility of Indian SMEs and the two major aspects of agility. i) The identification of opportunities and its exploitation, ii) creation of new opportunities. Both of these aspects are analyzed in the context of innovative IT and the scope of its applicability in Indian SMEs and consequently the impact it creates on enterprise agility. In this context, the four agility features as pointed out by (Trzcieliski, 2006) are considered as part of agility framework used for this research, which include Brightness, Flexibility, Intelligence and Shrewdness. While each of the four agility dimensions deals with specific aspect of enterprise agility which are helpful to analyze agility of Indian SMEs in a very structured and transparent way, and to propose suitable measures in order to improve technological and managerial aspects of Indian SMEs.

A quantitative research methodology is adopted which include a standard questionnaire distributed among SMEs belonging to the State of 'Telangana' in India. A closed-ended questionnaire model along with Licker scale measurement tool is used to collect responses. A standard data processing tool 'Statistica' is used, while Spearman's Rank correlations have been used to check correlations between variables. The post hoc multiple comparison tests have also been applied. After processing the statistical data, the results are then discussed in detail with respect to influence of ICT on four agility dimensions. Each of the agility dimensions are examined and discussed according to the established correlations among the dependent (Agility) and independent (ICT) variables. The changes that are needed in the

direction of ICT usage and its improvement in Indian SMEs are then proposed, which also include improvements in ICT skills of employees and managerial expertise. The proposed measures also correspond to the improvement in each of the four agility dimensions which significantly and positively affects the overall enterprise agility of Indian SMEs.

The research concludes with the theoretical contributions, managerial implications, limitations and prospective research. The research has successfully answered all the research questions which are related to sensing market opportunities, customer responsiveness, introduction of innovative products and exploring new markets. While it has also positively verified all the hypotheses related to Indian SME's IT capabilities and its positive influence on sensing and exploitation of opportunities, on customer responsiveness, and on opportunity creation in the Indian markets. Hence the theoretical knowledge and conceptual understandings provided by this research is useful for both SME managers and employees to effectively operationalize their IT solutions, and thereby improving the enterprise agility of Indian SMEs. Furthermore, the research has successfully identified key IT technologies and the areas where they can be improved in order to achieve higher levels of enterprise agility in Indian SMEs while also contributing to the managerial aspects of the research. The research has not only contributed to minimize the theoretical research gap that exist in the literature related to IT and agility studies in SMEs, but also has effectively proposed suitable managerial changes that are applicable for SME employees, owners, managers and practitioners. Finally, this research has contributed to set a new direction for future researches that are yet to be conducted in the areas of IT and agile business, particularly in the context of Indian SMEs.