A SCIENTIFIC APPROACH TO THE DESIGN AND DEVELOPMENT OF A MODEL TO IMPROVE THE ASSESSMENT LEVEL BY FUZZY LOGIC

Dr. C.S. Chethan Kumar
Associate Professor
Department Of Industrial Engineering And Management
M. S Ramaiah Institute Of Technology,(Autonomous Institute, Affiliated to the VTU Belgaum), **INDIA**

Vivek Krishna Kumar
M.Tech Student
Department Of Industrial Engineering And Management
M. S Ramaiah Institute Of Technology,(Autonomous Institute, Affiliated to the VTU Belgaum), **INDIA**

Prof. Deepak Kumar
Assistant Professor
Department Of Industrial Engineering And Management
M. S Ramaiah Institute Of Technology,(Autonomous Institute, Affiliated to the VTU Belgaum), **INDIA**

ABSTRACT

Today, Increased competition forces Manufacturing Organizations (such as FIEL) to adopt new Manufacturing Paradigms for producing products, as customer demands are Dynamic in Nature. This situation resulted in the evolution of a new manufacturing paradigm called "Agile Manufacturing." Incorporating more efficient and contemporary supply chains (a major component) which have acquired agile characteristics is a must. In this regard, the quantification of Supply Chain Agility gains extreme importance as it indicates the Strategic Agile Position of an Organization from the supply chain perspective. This project begins with the development of a Supply Chain Agility Assessment Model. The model is comprehensive in nature as it includes Five Enablers and Twenty Two different Agile Supply Chain Criteria and various Agile Supply Chain Attributes. The Fuzzy logic approach is used to compute the Supply Chain Agility. The output of the Project will include the Supply Chain Agility Index, Fuzzy Performance Important Index of Various Agile Supply Chain Attributes and Identification of Principal Obstacles. The improvements for supply chain agility improvement are derived from within the company. The implementations of the results lead to enhancement of profitability and increase in customer domain of the organization.

Keywords: Agile Manufacturing, Supply Chain Management, Agile Supply Chain Enablers and Criteria's, and Fuzzy Logic Approach.