Design And Development Of An Expert System For Dynamic Resource Allocation For A Service Sector

G. Sadasiva Prasad, Dr. K. Rajagopal and Dr.K. Prahlada rao

Abstract – Any service sector should have proper and efficient coordination of all the subservice systems, resulting in satisfactory services of the system. This forms a major issue in many service sectors. To this end, literature review revealed that, there existed many research attempts to identify various service subsystems, the factors effecting them, interdependence of one on the other, the overall coordination of the subservice systems etc. However literature has not provided a generalized analysis of all the subservice systems to evolve an Expert System and to dynamically allocate resources based on the specific demands of the overall service system. An attempt is made in this paper to address above issue by systematically analyzing the various subsystems and to divert the facilities there in dynamically, to various clients for a satisfactory service. A road transport sector is chosen for a brief case study and the methodology for design and development of an expert system for dynamic resource allocation is attempted. The major contribution of present work is to design and develop a generalized dynamic resource allocation system for a service sector with special reference to road transport sector. This study is expected to pave way for fixing expert systems for dynamic resource allocation which can be used for specific applications.