Agent Based Solution for Retail Supply Chain Management

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Abstract: The entities engaged in the supply chains have become more complex with the expansion of the businesses. Therefore people have used various processes to make the business processes efficient, cost effective and real time. Thus Supply chains have become a main channel of business processes. Supply chain management involves in planning and management of those parties engaged in the chain. Therefore as an intermediary, the retailers' involvement in the supply chains increases the efficiency of the chain. However many problems have been identified in the retail supply chain scenarios such as distribution, distribution strategy, negotiation, communication etc. Due to these problems managing retail supply chains has become a complex problem.

As a solution, the project implements INSITH, a multi agent system (MAS) which assists in the customer order placing process by choosing the most suitable offer for a particular user. The system uses dynamic intelligent agents; namely, Message Agent, Retailer Agent, Supplier Agent and User Profiler Agent to handle customer requests and provide the best offer by going through various agent negotiation processes. Hence INSITH would be sensitive to the user preferences and will provide solutions based on user experiences and the cost.