RFID Implementation in an Automobile Supply Chain for Improved Visibility

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Abstract: In today's competitive word every business sector has to undergo fierce competition from its opponents and also meet varying customer demands from time to time. To meet the needs of its customers every company is required to have a foolproof supply chain. The complex nature of the supply chain requires it to be integrated at all ends of the chain. To achieve this goal, modern information technology methods are necessary to be a part of the supply chain. This work envisions the concept of implementing Radio Frequency Identification (RFID) over an automotive sector supply chain. Basically, starting with the importance of supply chain integration, the topic further delves into the importance of information technology in a supply chain. The concept of RFID and its functioning are explained in detail. The paper further describes the Supply Chain Operations Research (SCOR) model that is used to model the given scenario along with its attributes and performance metrics. A detailed study is conducted for the company under consideration, where the entire supply chain of the company is broken down into parts and then analyzed. Then a new 'to-be' system deploying RFID is developed.

Keywords: Supply Chain Modeling, SCOR model, RFID