STRATEGIC IT DEPLOYMENT IN THE AUTOMOBILE INDUSTRY

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ABSTRACT

The intent of this paper is to utilize a previously developed two-dimensional Supply Chain Life Cycle Management framework to analyze the automobile industry regarding Information Technology Deployment efforts base on operational activities along the life-cycle of their supply chains. The automobile industry is a mature industry with low profit margin. It is an accepted principle in the automobile industry that efforts to streamline and reduce cost are easier to achieve than to increase equivalence in revenue. In particular, with a global higher supply than demand, reduction of production capacity and streamlining of remaining capacity is a top priority of the industry. The framework encompasses all aspects of operations and provides a complete and comprehensive view of the whole supply chain. The first dimension of the framework includes both product-related and logistics-related activities. These are activities that involve from product design to production to materials movement and warehousing. The second dimension addresses product and supply chain specific types of characteristics that will impact the use of new Information Technology such as RFID, CRM, and CPFR. These characteristics include the bitability, modularity, and information intensity of the product, cost structure in relation to product versus logistics, and vertical collaboration or standardization opportunities. By reviewing the life-cycle activities with these characteristics in mind, the automobile industry can establish an Information Technology platform to guide new IT implementations for the future. Specific emphasis can be placed in the downstream side of the supply chain in terms of relationship with consumers. CRM is practically non-existent in the automobile industry. On the upstream side, global sourcing, in particular, sourcing of auto parts in China, can provide excellent opportunity for higher efficiencies. These and other potential Information Technology deployments will be examined in details within the two-dimensional framework.

Keywords: Strategic Operations Management, Information Technologies, e-Supply Chain, e-Logistics.