

The Supply Chain Operation Reference Model Adaptation in the Developing Countries: An Empirical Study on the Egyptian Automotive Sector

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Abstract : The Supply Chain Operation Reference (SCOR) model is considered one of the most widely implemented supply chain performance measurement systems (SCPMSs). Several studies have been proposed on the SCOR model adaptation in developed countries context; while there is a limited availability of previous work on the SCPMSs application generally and the SCOR model specifically in developing nations. This paper presents a research agenda on the SCOR model adaptation in the developing countries. It aims at investigating the challenges of adapting the SCOR model to manage and measure supply chain performance in developing countries. The research will exemplify the system in the Egyptian automotive sector to gain a comprehensive understanding of how the application of the SCOR model can affect the performance of automotive companies in Egypt, with a necessary understanding of challenges and obstacles faced the adaptation of the model in the Egyptian supply chain context. An empirical study was conducted on the Egyptian automotive sector in three companies considering three different classes: BMW, Hyundai and Brilliance. First, in-depth interviews were carried out to gain an insight into the implementation and the relevance of the concepts of supply chain management and performance measurement in the Egyptian automotive industry. Then, a formal survey was designed based on the SCOR model five main processes (plan, source, make, deliver and return) and best practices to investigate the challenges and obstacles faced the adaptation of the SCOR model in the Egyptian automotive supply chain. Finally, based on the survey results, the appropriate best practices for each process were identified in order to overcome the SCOR model adaptation challenges. The results showed that the implementation of the SCOR model faced different challenges and unavailability of the required enablers. The survey highlighted the low integration of end-to-end supply chain, lacks commitment for the innovative ideas and technologies, financial constraints and lack of practical training and support as the main challenges faced the adaptation of the SCOR model in the Egyptian automotive supply chain. The research provides an original contribution to knowledge by proposing a procedure to identify challenges encountered during the process of SCOR model adoption which can pave a way for further research in the area of SCPMSs adaptation, particularly in the developing countries. The research can help managers and organizations to identify obstacles and difficulties of the SCOR model adaptation, subsequently this can facilitate measuring the improved performance or changes in the organizational performance.

Keywords : automotive sector, developing countries, SCOR model, supply chain performance

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