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A Study to Examine the Importance of Forecast Accuracy to Supply Chain Performance, the Contributing Factors and the Improvement Enablers in Practice

A thesis presented in partial fulfilment of the requirements for the degree of Master of Logistics and Supply Chain Management at Massey University, Albany, New Zealand.

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ABSTRACT

Forecast accuracy plays a critical role in supply chain performance. Various researches have studied this topic from different angles, inspired by these studies, objectives are set up to investigate the recognition of the importance of forecast accuracy in supply chain performance in practice, identify the contributing factors and improvement enablers recognised in practice. This research attempts to comprehensively examine the findings and conclusions that are drawn from literatures in the real supply chain environment, at the same time aims to discover good practices as well as issues from the supply chain practice for future studies, and provides recommendations to the practitioners based on findings and conclusions from both literature review and this research.

An exploratory research approach utilizing a combined quantitative and qualitative method has been taken. The research starts with an on-line questionnaire, then complemented by follow up telephone interviews subject to the candidates’ willingness to participate. Information collected through the survey and interviews are analysed using different Excel tools and methods, conclusions and recommendations are then drawn based on the findings and discussions.

It has been concluded that the importance of forecast accuracy for supply chain performance has been well recognized in practice. The contributing factors and improvement enablers identified from the literature review have been commonly acknowledged by the practitioners, however, the level of understanding on these subjects varied among these businesses, and different opinions and approaches have also been discovered. In some cases, actions taken to seek improvement are well lagging behind. Furthermore, new views, fresh ideas, good practices, issues and constraints are also revealed through this research. Recommendation based on both literature review and the research findings are then made to the practitioners. At the same time, suggestions are given for future studies.
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Chapter 1 – Introduction

1.1 Introduction
Supply chain and supply chain management have been developing rapidly in the last two decades as a result of the economic globalization, technology development, growing consumer power and an increasing global focus on sustainability. Among various supply chain focuses and processes, supply chain forecast and its accuracy has been one of the major focus areas drawing attention from both researchers and practitioners. Numerous studies have investigated forecast accuracy from different angles, and best practices from real business world have also emerged and been spreading.

However, most academic studies are based on models with certain assumptions which are either simple or ideal, though they provide a theoretical insight to supply chain issues and performance evaluation, they do not suffice as true practical solutions (Zhao & Xie 2002, p313, Acar, Yavuz & Gardner, 2012, p842), and quite often, focusing on single subject or a limited areas, these studies do not provide highly practical guidance in the real supply chain field. There appears to be a lack of review based on real world practice, where the theories and conclusions from the academic studies can be investigated and examined in a live environment extensively.

1.2 Research Goals and Objectives
Originated from the researcher’s previous supply chain working experience and inspired by the relevant academic literatures, a project has been set up to pursue an exploratory study on the subject of supply chain forecast accuracy. The research aims to examine the findings and conclusions drawn from related literatures in the real supply chain environment. Three objectives have been defined as below.

- To evaluate the development of supply chain management and the recognition of the important role forecast accuracy plays in supply chain performance in the real business world.