

UNIVERSITI TEKNOLOGI MARA

**THE ANTECEDENTS OF SUPPLY
CHAIN INNOVATION AMONG
MANUFACTURING FIRMS IN
MALAYSIA: A MEDIATING ROLE
OF COMPETITIVE ADVANTAGE**

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Thesis submitted in fulfillment
of the requirements for the degree of
Doctor of Philosophy
(Business Management)

Faculty of Business and Management

June 2025

ABSTRACT

This study aimed to investigate the relationship between supply chain management practices (SCMPs), competitive advantage (CA), and supply chain innovation (SCI) in Malaysian manufacturing firms. Recognizing the necessity of innovation for maintaining market position and addressing uncertainties, firms are increasingly focusing on developing innovative strategies within their supply chains. A quantitative research approach was utilized, employing a stratified sampling technique and a self-administered questionnaire survey. The survey targeted senior managers, middle managers, or support staff who were responsible for supply chain management or logistics functions within Malaysian manufacturing firms. Collected data were used to test the research framework and hypotheses, and multiple regression analysis was conducted to establish the relationship between SCMPs, CA, and SCI. The study identified that strategic supplier partnership, customer relationship management, level of information sharing, quality of information sharing, postponement, lean practices, and supply chain integration significantly enhance supply chain innovation. Competitive advantage was found to mediate the relationship between SCMPs and SCI, accounting for 30.18% of the effect ($r = .3018$). This indicates that SCMPs directly impact SCI, and competitive advantage amplifies this effect. The findings provide valuable insights for supply chain practitioners and manufacturers. By integrating the right SCMPs and leveraging competitive advantage, firms can significantly improve their SCI. Practitioners are encouraged to consider the mediating effect of competitive advantage when designing supply chain innovations to enhance manufacturing performance. Despite its valuable insights, the study highlights several knowledge gaps and limitations. There is a lack of understanding regarding what constitutes a comprehensive set of SCMPs, and the role of competitive advantage in mediating the effect between SCMPs and SCI is not well explored. Additionally, the research did not consider other potential contributing factors to SCI, such as marketing mix strategies, inventory management, or logistics functions. The research was conducted solely within the manufacturing industry, making the findings industry-specific. Thus, the conclusions may not be applicable to other sectors such as fashion, tourism, or entertainment. However, this study is among the first to address the mediating effect of competitive advantage between SCMPs and SCI. It suggests successful dimensions of SCMPs that can be implemented to gain a competitive advantage and foster supply chain innovation within the Malaysian manufacturing industry. In summary, the study underscores the critical role of strategic supply chain management practices and competitive advantage in driving innovation, providing a framework for other industries and regions to explore similar dynamics.

Keywords: Supply chain management practices, competitive advantage, supply chain innovation

ACKNOWLEDGEMENT

Alhamdulillah, praises and thanks to Allah because of His Almighty and His utmost blessings, I am able to complete this research within the duration of time given even though have to face many challenges and hardships with dedication and hard work I got through it.

First and foremost, I would like to take this opportunity to express my gratitude by giving special thanks to my main supervisor, Professor Dr Veera Pandiyan for giving moral support, guidance and encouragement throughout this research. It was an honour to be his supervisee as he without hesitation spent time guiding and monitoring my progress until I finished my research even though he had a lot of other important things to handle.

Next, my appreciation goes to my Co-supervisor, Associate Prof Dr Shereen Noranee for spending most of her time assisting and helping me while completing this paper. Her concern and support always pushed me to do better as she had contributed so much, in sharing their knowledge and expertise with me which I have utilized in completing this research.

Other than that, I also would like to express my gratitude and special appreciation to the backbone of my life which are my beloved parents, Abdul Rasib Bin Ali, and my supportive husband Wan Hamdi Bin Mohamed Fisol for their unconditional love and undefined amount support since the beginning. Without their support and blessing, I would not able to complete this research smoothly.

Last but not least, I also place on record my sense of gratitude to my dearest friend Nor Asleena Asnordin, which are directly or indirectly have lent her helping hand in this research. All of the help and encouragement given by her are much appreciated.

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CHAPTER 1

INTRODUCTION

The primary purpose of this chapter was to clearly and precisely define the main area of the research study and the motivation for such an endeavour. This chapter was organised into the following sections: introduction, background of study, statement of problem, research questions, research objectives, general aim of study, justification for current research, theoretical perspective, and contribution of research, research boundaries also delimitation of study and summary of chapter. Accordingly, this chapter also has discussed the justification of research from various aspects such as the justification for selecting Malaysia as the country of research, the justification for the selection of manufacturing as a scope of study, and the justification for the selection of supply chain as the area of study. Finally, this chapter provides the outline of the thesis in detail to provide a clear and holistic view of the study. This study in general has discussed the relationship between supply chain management practices, competitive advantage, and supply chain innovation among manufacturing firms in Malaysia.

1.1 Background Of The Study

1.1.1 Importance of Supply Chain Innovation

Supply Chain Innovation (SCI) refers to the integration of innovative processes, technologies, and strategies that improve the efficiency, agility, and competitiveness of supply chains. As globalization and digitalization continue to influence business operations, SCI has become essential for companies to remain competitive, improve customer satisfaction, and reduce operational costs (Chong et al., 2023; Gunasekaran et al., 2022). In Malaysia, SCI has emerged as a critical focus area for businesses aiming to enhance supply chain resilience and sustainability amidst global challenges such as disruptions caused by the COVID-19 pandemic and the increasing demand for environmentally-friendly solutions (Sia et al., 2023; MITI, 2021).

The adoption of advanced technologies like artificial intelligence (AI), blockchain, and IoT has become central to Malaysia's efforts in modernizing its supply chain management systems (Rahman et al., 2022). Moreover, the government has also