



GREEN LOGISTICS IMPLEMENTATION: CASE STUDY IN DHL

EXPRESS SDN BHD



2023

GREEN LOGISTICS IMPLEMENTATION: CASE STUDY IN DHL

EXPRESS SDN BHD

LINA CHEOW WEN FONG

**This thesis submitted in fulfilment of the requirements for the degree of
Bachelor of Technology Management (Supply Chain Management And
Logistic) with Honours**



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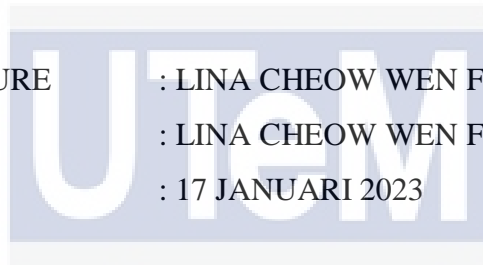
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DECLARATION OF ORIGINAL WORK

I hereby declare that all the work of this thesis entitled “GREEN LOGISTICS IMPLEMENTATION: CASE STUDY IN DHL EXPRESS SDN BHD” is original done by myself and no portion of the work encompassed in this research project proposal has been submitted in support of any application for any other degree or qualification of this or any other institute or university of learning.



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APPROVAL

'I hereby admit that I have read this thesis and in my opinion, this thesis meet the scope and quality for the purpose of awarding Bachelor Degree of Technology Management (Supply Chain Management And Logistic)'.

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DEDICATION

I would like to appreciate the dedication of my beloved family members who educated me and motive me to learn until degree level. And also, I express a deep sense of gratitude to my lecturer whom also my supervisor for my final year project, ASSOCIATE PROFESSOR TS. DR. Chew Boon Cheong and my fellow friends. They have provided me fully support and advice throughout this research. Without their blessing and encouragement, this research is impossible to complete within short period of time.



ACKNOWLEDGEMENT

I would want to use this chance to express my gratitude to everyone who has helped me in the course of my study. First and foremost, I would like to convey my sincere thanks to ASSOCIATE PROFESSOR TS. DR. Chew Boon Cheong, my supervisor, for his clear and compassionate supervision on my research study. Without him, I will not be able to carry out and complete my research study efficiently. I am grateful to him for providing me with the opportunity to gain knowledge from him and get experience with various research methods.

Next, I want to express my gratitude to my family and friends for their compassion, tolerance, and emotional support throughout this research process. They play a significant role in my life because they are always there to provide me with mental support whenever I am confronted with any challenges and difficulties along this journey. It means a lot to me and I really appreciate them for their kindness and loving.

Lastly, I would also like to extend my thankfulness to Universiti Teknikal Malaysia Melaka (UTeM), for giving me the opportunity to do research. Upon completing this research study, it has allowed me to obtain significant researching experience, promoting my personal growth and development as well as broadening my knowledge and wisdom.

Abstract

The market and environmental orientation are necessary for today's logistics industry since transportation is one of the logistics processes that significantly impact the environment. The market orientation is one of the orientations which can take into account while making the logistics greener and more eco-friendly. In this case study, DHL Express Sdn. Bhd. was selected among the logistics industry to investigate how the market and environmental orientation influences the green supply chain of DHL Express SDN BHD. Exploratory research design and qualitative research method were adopted in this study because they allowed the researcher to better comprehend the existing problem by gaining information from respondents in DHL Sdn Bhd through interview sessions. In conclusion, DHL Express Sdn. Bhd. has transformed sustainability exceptionally well in the logistics industry, with the pioneer of green logistics. Inevitably, the company has implemented strategies in green logistics activities to reduce the environmental and carbon footprint. By gaining insights into the orientation, this research is beneficial to the researcher in developing a case study that helps a business to construct a more substantial value offering.

Abstrak

Orientasi pasaran dan alam sekitar adalah perlu dalam industri logistik hari ini memandangkan pengangkutan merupakan salah satu proses logistik yang mempunyai kesan ketara terhadap alam sekitar. Orientasi pasaran merupakan salah satu orientasi yang boleh diambil kira sambil menjadikan logistik lebih hijau dan mesra alam. Dalam kajian kes ini, DHL Express Sdn. Bhd. telah dipilih dalam kalangan industri logistik untuk menyiasat bagaimana pasaran dan orientasi alam sekitar mempengaruhi rantai bekalan hijau DHL Express SDN BHD. Reka bentuk kajian penerokaan dan kaedah kajian kualitatif telah diguna pakai dalam kajian ini kerana ia membolehkan pengkaji lebih memahami masalah sedia ada dengan mendapatkan maklumat daripada responden di DHL Sdn Bhd melalui sesi temu bual. Kesimpulannya, DHL Express Sdn. Bhd. telah mengubah kemampanan dengan sangat baik dalam industri logistik, dengan perintis logistik hijau. Tidak dapat tidak, syarikat telah melaksanakan strategi dalam aktiviti logistik hijau untuk mengurangkan jejak alam sekitar dan karbon. Dengan mendapatkan pandangan tentang orientasi, penyelidikan ini bermanfaat kepada penyelidik untuk membangunkan kajian kes untuk seterusnya membantu perniagaan membina penawaran nilai yang lebih kukuh.

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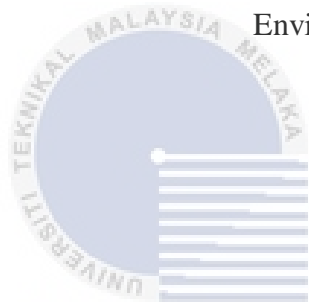
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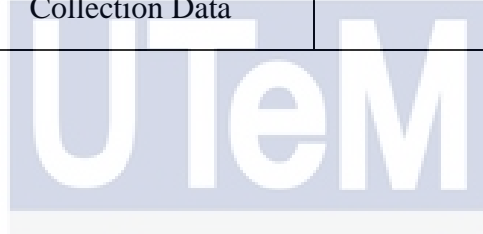
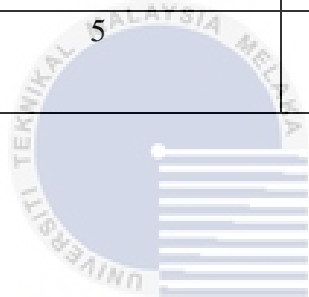


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CHAPTER 1

INTRODUCTION

1.1 Background of Study

In recent years, environmental awareness has increased due to human activity's impact on the world. Human actions, particularly in business, had several harmful effects on the environment, resulting in global warming, health hazards, gas emissions, and other issues. There is widespread recognition that logistics activities considerably influence the environment in the supply chain. Transportation is one of the logistical activities that significantly affect the environment by emitting carbon dioxide (CO₂) and other greenhouse gases (GHGs), and is frequently cited as one of the main causes of the consequences of global warming that are currently endangering the globe. It is because the transportation industry in Malaysia emits around 26.2 million metric tonnes of carbon dioxide (CO₂) in 2020.

The idea of a green supply chain was developed in the middle of the 1980s in an effort to lessen the severity of the environmental problem by incorporating green practises into standard supply chain management (Syed Abdul Rehman Khan et al., 2016). The green practices include eco-friendly buying, eco-friendly manufacturing processes, eco-friendly distribution and warehousing, eco-friendly transportation utilising biofuels, and eco-friendly product end-of-life management (Syed Abdul Rehman Khan et al., 2016). Furthermore, adopting a greening strategy in the supply chain assists in reducing elements that have a detrimental influence on the supply chain

process. Of particular concern is that the greening strategy leads green logistics to emerge as a trend in the supply chain.

Green logistics is an environmentally friendly logistics system that involves greening various logistics processes, such as transportation, warehousing, and distribution, and green recycling of reverse logistics (Lu et al., 2019) refers to (Wu et al., 1995). The statement above shows that green logistics are crucial in developing a sustainable supply chain because green logistics reduce freight distribution's environmental and energy footprint, focusing on material handling, waste management, packaging, and transport, as cited in (Rodrigue et al., 2020). The practice of green logistics and logistics reversal operations provides the potential for a logistics company to expand its growth and lower its total production costs. Logistics efficiency may be improved further by enhancing transportation system efficiency, i.e., via green transportation (Khan SAR, 2019). Similarly, green logistics can help organizations in enhancing a business's commercial performance along with its environmental image and providing for more effective usage of resources while enabling recycling and increasing market shares (Tüzün et al., 2017) refers to (Yangınlar and Sarı, 2014). It has been determined that encouraging green management and logistics offers significant advantages for the economy, and environmental well-being, as well as improving the organization's growth. It is because logistic activities have significantly contributed to the increase in air pollution, impacting the environment and the economy. The adoption of a greening strategy in the supply chain assists in reducing elements that have a detrimental influence on the supply chain process.

Despite the fact that sustainable practices increase environmental performance as well as competitive and financial benefits, only a few logistics companies have taken all environmental concerns into account. Many third-party logistics (3PL) companies are still encountering roadblocks and difficulties regarding environmental concerns since green logistics is still a relatively new concept. Logistics service providers (LSP) are unable to provide or deliver green logistics services because of the high implementation costs and lack of experience and knowledge in this field. Hence,

this study guides adopting green logistics for the logistics industry in Malaysia to boost its value and streamline the supply chain.

1.2 Problem Statement/Research Questions

Today, many logistic companies in Malaysia still do not implement green logistics because they are not known for their high degree of sustainability and they always operate the traditional approach to logistics. Besides, the companies face significant obstacles and challenges in implementing green logistics. As stated by Gajendrum (2017); Pannirselvan et al. (2016); Bohdan (2018); Rensburg (2015), one of the main barriers to implementing green logistics is a lack of top management support. This is because top management support is necessary for any strategic program's success (Hamel and Prahalad, 1989; Zhu and Sarkis, 2007; Chen et al., 2020). The top management has a significant ability to influence, support the actual formation, and implementation of green logistics across the organization (Sarkis, 2009; Chen et al., 2020). Besides, Pannirselvan et al. (2016); Bohdan (2018); Rensburg (2015), state that the lack of commitment of top management was another barrier because top management actually provides continuous support in the strategic plans and action plans for successfully implementing green logistics (Ravi and Shankar, 2005; Chen et al., 2020).

Other than that, this is due to several causes, one of that is the invisibility of logistics to consumers. Generally, logistics is not sustainable since it is challenging for logistic organisations to implement green logistics practises when shipping options include expedited and on-demand delivery. This is because it will prevent you from consolidating shipments or making the most of shipping processes. This lessens their significance and, as a result, there is less reason for a business to invest in its environmental sustainability. Besides, most of the transport in Malaysia is still

dependent on fossil fuels. The traditional approach to logistics which is being implemented often leaves environmental sustainability on the sidelines.

Eventually, transportation is recognized as one of the major elements in the logistics chain, which joints the separated activities. This is because transportation generally involves the physical movement of goods from one point to another point by various types of transportation modes. The transportation networks have a significant impact on the effectiveness of the logistics system and make up one-third of the total cost of logistics. According to Solaymani (2019), the transport sector derives more than 90% of its energy from fossil fuels, ranks among the top global producers of carbon dioxide (CO₂) emissions. CO₂ emissions from the transport sector represented 28.8% of total fossil fuel combustion in Malaysia, well above the global average of 24.5% (International Energy Agency-IEA, 2019). Road transport is also the largest CO₂ emitter among all transport subsectors (International Energy Agency-IEA, 2019). Therefore, this study aims to provide information and knowledge on the orientation that implement in the logistic industry as well as to discuss the market and environmental orientation influence with the green supply chain in order to transform more logistic companies into greener and environmentally friendly. The research questions are constructed as below:

- i. How does the market orientation influence the green supply chain of DHL Express SDN BHD?
- ii. How does the environmental orientation influence the green supply chain of DHL Express SDN BHD?

1.3 Research Objectives

Research objectives derived from the formulation of the problem statement are to explore the orientation that implements in the logistic industry and to examine the

impact of market and environmental orientation on the green supply chain. By studying a number of orientations and impacts to be considered when developing the implementation of green logistics, this research will contribute to the logistics companies in Malaysia to transform their logistics into greener and environmentally friendly. Briefly, the research objectives of this study are stated below:

- i. To investigate the market orientation that influences the green supply chain of DHL Express SDN BHD.
- ii. To investigate the environmental orientation that influences the green supply chain of DHL Express SDN BHD.

1.4 Scope, Limitations and Key Assumptions

The scope of this research focuses on exploring the orientation in implementing green logistics and understanding the roles that relational factors, so that can contribute to transforming those logistics companies into green logistics. This study provides a theoretical framework of orientation for understanding the impact of the interdependent structure of orientation. This research will be conducted in a qualitative method, and the respondents of this research include 8 managerial staff and executives who are working in the DHL logistic transportation and warehousing department which is located in Selangor.

Few limitations are being extracted and identified in this study. Firstly, the limitations of the study which is conducted by the researcher only focus on green logistic implementation in DHL Logistics Malaysia. The sample selected for this study was specifically managerial staff and executives who are working in the DHL logistic transportation and warehousing department which is located in Selangor. The results obtained in this study may not be applicable to managerial staff and executives outside of this designation.

The key assumption of this study is that the researchers believe that respondents will answer all prepared questions honestly and carefully during the interview session, as well as provide the best possible answers and responses within their best understanding of the green logistics involved in the primary data collection. This would help to gain accurate data, findings, and results.

1.5 Importance of the study

This study discusses the orientation implemented in the logistics industry and the impact of market and environmental orientation on the green supply chain. The findings help the researcher to gain more understanding of how this orientation helps the firm to enhance its performance outcomes. By determining the orientation implemented in green logistics, this research is beneficial for both the researcher and the logistics companies or industries in Malaysia that plan to transform their logistics into greener and environmentally friendly.

1.6 Summary

In brief, this research is aimed to generate the orientation that is implemented in green logistics. Moreover, it also examines the influence of orientation toward a green supply chain in order to transform the logistics company in Malaysia into greener and environmentally friendly. Green logistics plays a crucial component of the supply chain since they are concerned with the movement and storage of products in the supply chain. The purpose of this research can reduce the environmental externality of

logistics operations and achieve a sustainable balance between economic, environmental, and social benefits.

In order to collect accurate data and information, the researcher selects DHL Express SDN BHD which is the pioneer of green logistics to conduct the case study for this research. Through this company, the researcher can understand the orientation that is implemented in green logistics and investigate the orientation that influences the green supply chain of DHL Express SDN BHD. DHL Express SDN BHD specializes in offering a wide range of products and services, including domestic and international parcel delivery and end-to-end supply chain solution management. The researcher can get accurate data and honest answers from the respondents in DHL Express SDN BHD during the interview sessions.



CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

In this chapter, the researcher will introduce a literature review of the study. The discussion introduces and develops the concept of orientation such as green market orientation (GMO), environmental orientation (EO), supply chain orientation (SCO) as well as offering initial empirical insight into how this orientation helps the firm to enhance the performance outcomes. The researcher will show the hierarchy of green logistics competency in the theoretical framework of this study.

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2.2 Definition

2.2.1 The Marketing Concept

The marketing concept is essentially a business philosophy (cf. Barksdare and Darden, 1971; McNamara, 1972; Min et al., 2007; Nikolay Dragomirov, 2015), and the philosophical foundation of market orientation (Jaworski and Kohli, 1993; Min et al., 2007; Nikolay Dragomirov, 2015). Samarakoon Mudiyansele Ajantha Kumara Samarakoon (2020) refer to Kohli and Jaworski (1990), they conceptualize a market orientation as the implementation of the marketing concept. Min et al. (2007); Vemic and Milan B (2017) refer to Kohli and Jaworski (1990) state that the marketing concept consists of three pillars: customer focus, coordinated marketing, and profitability.

Min et al. (2007) refer to Webster (1992) proposes that marketing as a culture means a basic set of values and beliefs about the importance of the customer that guides the firm: the marketing concept provides the philosophical foundation of an individual's activities or behaviors (called a market orientation) within a firm. Besides, Min et al. (2007) refer to Cravens (1995) describe the customer is at the center of the relationship-marketing paradigm because the marketing concept guides the firm's behavior (called relationship marketing) to develop, maintain, and enhance the inter-firm relationship to satisfy customers. In the marketing concept, the philosophical foundation of a firm's activities should be compatible with the philosophy of the supply chain partner, so all partner in the supply chain strives to be efficient and effective to satisfy the customer at a profit within and among the supply chain partner.

2.2.1.1 Market Orientation

Chahal et al. (2014) refers to Cass (2000), marketing orientation is a crucial requirement for market-oriented firms to embrace a market emphasize. Most researchers perceive that the key element of marketing orientation is recognising the requirements and expectations of customers (Chahal et al. 2014) refers to (Kobylanski and Szulc, 2011). The concept of marketing orientation is defined as the degree to which an organization obtains and uses information from customers, develops a strategy which will meet customer needs, and implement that strategy by being responsive to customer needs and wants (Chahal et al. 2014) refers to (Chiou and Chang 2009; Woodalla and Swailes 2009; Avlonitis and Gounaris 1999).

Kenneth Wilburn Green et al. (2015) refer to Lafferty and Hult (2001), they describe market orientation as both a managerial and cultural phenomenon. Market orientation has developed to represent the firm's focus on all its stakeholders, including, but not limited to, customers, competitors, suppliers, and governmental agencies (Kenneth Wilburn Green et al., 2015) refer to (Slater and Narver, 1995). Our conceptualization of market orientation follows some researchers Menguc and Auh (2006); Naidoo (2010); Wilden et al. (2019), who take market orientation as an