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Mohamad Fared bin Mohamad Makmor, Mohamad Nasir bin Saludin, Mazni binti Saad

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Best Practices Among 3rd Party Logistics (3PL) Firms in Malaysia towards Logistics Performance

Mohamad Fared bin Mohamad Makmor

Faculty of Business and Finance, Universiti Tunku Abdul Rahman (UTAR), Malaysia

Email: faredm@utar.edu.my

Mohamad Nasir bin Saludin

Faculty of Business and Accountancy, Universiti Selangor (UNISEL), Malaysia

Mazni binti Saad

Kulliyah of Languages and Management, International Islamic University Malaysia (IIUM), Malaysia.

Abstract

Studies on best practices among the 3rd Party Logistics (3PL) firms towards logistics performance has been conducted broadly nowadays due to the growing rivalry and the needs for survival in the business especially for small players. Discovering the best practices structure as well as endorsing its significance on firms' overall performance has been validated by solid evidence of research literature and reports. Owners and managers are looking for any practical methods to reduce firm's operational costs and increase efficiency. The Logistics Performance Index (LPI) released by the International Trade and Transport Department of World Bank, which examines logistics performance in 160 countries, ranks Malaysia at the 41 position as in the 2018 report, showing a declining trend from rank 25 and 32 in the 2014 and 2016 reports, respectively. The declining trend give negative signal that the Malaysian logistics performance is getting worst. The purpose of this paper is to study the breadth of best practices as found in the literature, with emphasizing on effort to build a theoretical framework that further discover the adoption of best practices towards logistics performance by 3PL firms in Malaysia. This paper discuss two independent theoretical areas i.e. best practices and logistics performance in relation to the Malaysian's logistics business operations. Exploring this theoretical areas suggest a research gap in which best practices is abstracted as a method that can be used to provide confirmatory test of its theoretical support to a body of knowledge in the ground of logistics studies.

Keywords: Best Practices, 3rd Party Logistics (3PL), Logistics, Performance.

Introduction

The main objective of logistics functions include planning, implementing and controlling the transportation, warehousing, inventory management and control, order processing, information systems and packaging. Although logistics management was first established to reduce the costs, the goals of using 3rd Party Logistics (3PL) firms gradually changed. The reason for big companies dealing with different activities to use 3PL is to achieve specific goals including reduction of costs (Large, Kramer and Hartmann, 2013; Aimi, 2007; Jiang, Frazier and Prater, 2006; Lau and Zhang, 2006), improvement of products' quality (Bardhan, Whitaker and Mithas, 2006), improvement of flexibility (Lau and Zhang, 2006), increase in market coverage and access to extra capacity (Woo-chul, Shinichi and Seung-Bum, 2013; Zafer, 2012). All the above-mentioned issues portray that 3PL firms play an important role in the development of countries (Cheng, Hua and Zheng, 2009).

For many decades, 3PL firms have been under constant pressure to continuously expand the range of services offered and to enhance their customer relationships. Consequently, many 3PL firms have been forced to transform the scope of their business model and service offering as a result of the changing customer requirements (Evangelista, McKinnon and Sweeney, 2013). In this process, core service offerings are being commoditized (e.g. transportation), while value-added services and technological capabilities are considered points of differentiation (Evangelista and Sweeney, 2009). This evolution resulted in a transition from a single activity model toward a more complex business model based on providing a wider range of integrated services (Ashenbaum, Maltz and Rabinovich, 2005). This has given 3PL firms a more critical supply chain role than in the past, as they assume responsibility for a growing number of activities beyond transportation and warehousing (Hertz and Alfredsson, 2003) and are entrusted with the task of coordinating and accelerating physical and information flows at multiple levels of the supply chain (Ojala, Anderson and Naula, 2006).

Due to aggressive rise in competition, 3PL firms especially under the category of small and medium enterprises (SMEs) need to reduce operational costs in order to survive and achieve stability in the business. In this regard, the managers and owners have used different methods, including shipment consolidation, forward and reverse transportation scheduling, tight inventory control and strong promotion of workforce continuous improvement activities to enhance the efficiency and effectiveness of their firms. The common feature of these methods is the focus on business and making possible efforts to reduce costs and increase efficiency.

The International Trade and Transport Department of World Bank, which investigates logistics performance and infrastructures in 160 countries, ranks Malaysia at the 41st position as in the 2018 report, showing a declining trend from rank 25th and 32nd in the 2014 and 2016 reports, respectively (The World Bank, 2014 - 2018). This indicates that despite its commercial opportunities and logistical infrastructures, Malaysia could not manage both in an appropriate manner to become an effective logistics hub in the South East Asian (SEA) region. However, Malaysia's neighboring country such as Singapore benefited from the strategic location of the world major sailing routes at the Straits of Malacca in the SEA region. Other countries include Thailand and Vietnam which rank ahead of Malaysia, despite having weak geographical locations as compared to Malaysia. Singapore, Thailand

and Vietnam, respectively, ranked 7th, 32nd and 39th in the Logistics Performance Index (LPI) 2018 report as the main rivals of Malaysia. It shows that proper improvement and effective management of logistics system and infrastructures could help to increase the overall performance of the Malaysian logistics industry.

Table 1.0 Comparison on overall Logistics Performance Index (LPI) Score and Rank from 2010 to 2018 between top 10 countries with Malaysia.

Overall LPI Score and Rank	2010		2012		2014		2016		2018	
	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank
Germany	4.11	1	4.03	4	4.12	1	4.23	1	4.20	1
Sweden	4.08	3	3.85	13	3.96	6	4.20	3	4.05	2
Belgium	3.94	9	3.98	7	4.04	3	4.11	6	4.04	3
Austria	3.76	19	3.89	11	3.65	22	4.10	7	4.03	4
Japan	3.97	7	3.93	8	3.91	10	3.97	12	4.03	5
Netherlands	4.07	4	4.02	5	4.05	2	4.19	4	4.02	6
Singapore	4.09	2	4.13	1	4.00	5	4.14	5	4.00	7
Denmark	3.85	16	4.02	6	3.78	17	3.82	17	3.99	8
United Kingdom	3.95	8	3.90	10	4.01	4	4.07	8	3.99	9
Finland	3.89	12	4.05	3	3.62	24	3.92	15	3.97	10
Malaysia	3.44	29	3.49	29	3.59	25	3.43	32	3.22	41

Source: Logistics Performance Index (LPI), 2010 - 2018

This paper aims to investigate the best practices by 3PL firms in Malaysia as the *independent variables* identified that have direct relationship to the logistics performance or known as *dependent variable*. There is no authoritative statistics on the scope of best practices in the context of Malaysian logistics industry. Therefore, it is very crucial for research to be carried out so that the 3PL firms are aware on the importance of improving their logistics service performance and to apply relevant strategies in addressing the increasing cost of running the day-to-day operations and other business challenges.

Objective of the study

The overall purpose of the study is to reach a better understanding into best practices among 3PL firms in Malaysia towards improving the logistics service performance.

Significance of the Study

The significance of this study can be divided into three main areas, specifically; theoretical, practical and methodological.

1) Theoretical

This study is to identify the best practices among 3PL firms in Malaysia towards improving the overall logistics service performance.

2) Practical

The study intends to determine the extent of best practices acceptance and its impact on the logistics performance. The aim is to enable the government, the practitioners and the academicians to have better understanding on the importance of best practices idea, plans and execution.

3) Methodological

Many 3PL firms especially under the category of small and medium enterprises (SME) are still struggling to be back into the business as of before the economic crisis that spans the world. Now is the right time to think about how best practices can work towards enhancing the performance of the logistics firms in the competitive global market.

Literature Review

Resource-based Theory

Resource-based theory assumes that the resources of firms are readily accessible, varied and fixed and can be controlled and used to create competitive advantages, depending on their features (Barney, 1991). The focus of this resource-based theory is on how firms could exploit their rare, valuable and costly resources to generate income. Johnson, Scholes and Whittington (2008) stated that firm's resources could be classified according to four comprehensive groups, namely;

- 1) Physical resources such as the building blocks and several types of machineries.
- 2) Financial resources such as the capital, debtors and creditors, shareholders and bankers.
- 3) Human resources such as the skills, expertise and knowledge of employees.
- 4) Intellectual resources such as patents, brands, business systems and customer databases.

With sufficient amount of capital, 3PL firms have the capability to implement any practical improvement methods or techniques in achieving the firm's goals and objectives. The skills and knowledge of employees also very important to ensure the best practices could be carried out efficiently and able to achieve the logistics performance desired.

Best Practices

According to Business Dictionary (2018), best practices can be defined as methods or techniques found to be the most effective and practical means in achieving an objective such as preventing or minimizing pollution while making the optimum use of the firm's resources. Best practice is more of a technique or methodology that, through experience and research, has proven to reliably lead to a desired result. A commitment to using the best practices in any field is a commitment to using all the knowledge and technology at one's disposal to ensure success. A great business leader is someone who has the ability to motivate his or her team and follow business management best practices for success. Business management is the process by which firm gets its employees to produce the greatest results with the least amount of effort using the resources available to them.

3rd Party Logistics (3PL)

According to the CSCMP Glossary, they define Third Party Logistics (3PL) services as: Outsourcing all or much of a company's logistics operations to a specialized company (Robinson, 2014). The term "3PL" was first used in the early 1970s to identify intermodal marketing companies (IMCs) in transportation contracts. Up to that point, contracts for transportation had featured only two parties, the shipper and the carrier. When IMCs entered the picture as intermediaries that accepted shipments from the shippers and tendered them to the rail carriers, they became the third party to the contract, the 3PL. Definition has broadened to the point where these days, every firm that offers some kind of logistics service for hire calls itself a 3PL. Preferably, these services are integrated or "bundled," together by the provider. Services they provide are transportation or freight management (including technology, freight accounting, and services around claims), public/contract warehousing, distribution management and freight consolidation. Tieman (2015) categorize five different types of logistics service providers as highlighted in Table 2.0 below.

Table 2.0 Basic characteristics of five different types of logistics service providers.

Types	Characteristics
1PL	The first party logistics (1PL) is the shipper, a vendor or supplier of goods, who does not outsource its logistics activities to third parties. All logistics activities are performed in-house and under own control. Some examples can be found in the oil & gas and army sector.
2PL	Second party logistics (2PL) the shipper hires a transporter or a warehouse operator (the 2PL) for clearly defined operational activities. The transporter or warehouse operator is a sub-contractor and works under direct control of the shipper. Examples in Malaysia can be found in the cement distribution and chemical and industrial supply chains. The shipper can also outsource a complete package of activities to a third party logistics (3PL) service provider.
3PL	The third party logistics (3PL) organizes all the activities and works with selected subcontractors, transporters and warehouse operators. The 3PL manages the relationship with the customer of the shipper and becomes an actual link in the supply chain.
4PL	The fourth party logistics (4PL) where the logistics service provider not only organizes, but also controls the logistics activities. The 4PL controls the entire supply chain, both sourcing as well as distribution. In the most pure form, a 4PL is independent; non-asset based and subcontracts the physical transportation and warehousing activities to the best logistics service provider for the job. A 4PL is involved in the interface management and orchestrates a complete logistics concept. They have been used in consumer electronics and automotive supply chains.
5PL	The fifth party logistics (5PL) manages networks of supply chains with an extensive e-business focus across all logistic operations. The 5PL model supports a circular economy, an industrial economy that is based on zero waste and its energy, including logistics, from renewable resources.

Source: Marco, Tieman (2015)

Logistics

The purpose of logistics management is to obtain efficiency of operations through the integration of all material acquisition, movement and storage activities (Heizer and Render, 2011). When logistics issues are significant or expensive, many firms opt for outsourcing the logistics function. Logistics specialists can often bring expertise not available in-house. For instance, logistics firms often have tracking technology that reduces transportation losses and support delivery schedules that adhere to precise delivery windows. The potential for competitive advantage is found via both reduced costs and improve customer service. Manufacturing firms recognize that the distribution of goods to and from their facilities can represent as much as 25 percent of the cost of products. Because of this high cost, firms constantly evaluate their means of distribution which include trucking, railroads, airfreight, waterways and pipelines. To improve logistics efficiency, the trucking industry is establishing website such as Schneider National's connection (www.schneider.com), which let shippers and truckers find each other to use some of this idle capacity. Shippers may pick from thousands of approved North American carriers that have registered with Schneider logistics. Internationally, millions of containers are shipped at very low cost via huge ocean-going ships each year. Water transportation is important when shipping cost is more important than speed. Clearly, for national and international movement of lightweight items such as medical and emergency supplies, flowers, fruits and electronic components, air freight offers speed and reliability.

Performance

Performance is measuring the output of a particular business process or procedure, then modifying the process or procedure in order to increase the output, increase efficiency, increase the effectiveness of the process or procedure or even reducing the cost. In organizational development, performance improvement is organizational change in which the managers of firms put into place and manage a program which measures the current level of performance of the firm and then generates ideas for modifying organizational behavior and infrastructures which are put into place to achieve higher output. The primary goals of firm's performance improvement are to increase firm's effectiveness and efficiency and to further improve the ability of the firms to deliver goods and/or services to their customers.

Best Practices towards Logistics Performance

The best practices towards logistics performance are examined into 3 categories as below;

Management Commitment

Accomplishment of any strategic plan always rest on the support and commitment given by the top management (Zhu and Sarkis, 2007). For example, through many prominent factors that may impact the success of lean effort, management commitment is considered as the most important condition for the success adoption of improvement initiatives (Antony, 2001; Coronado, 2002; Henderson, 2000). Bhasin (2012) carried out a research in 68 manufacturing firms to examine the specific barrier to lean success. One of the barriers is insufficient senior management skills for lean implementation. The result disclosed that a greater management commitment towards lean

practices may lead to greater performance of the firm. A study done by Ensieh, Mir and Ali (2018), the results show that “management and leadership” achieves the highest importance weight, depicting that this factor has the highest importance for logistics service providers in Iran. According to Marynell (2013), top management in the firm that wants to implement this continuous improvement initiative must remain high level of commitment and competent to accept and manage the changes.

Skills and Knowledge

Skilled and knowledgeable workforce is another important factor towards logistics performance. Many firm encountered difficulties in any transformation process due to their employees are having low skill levels that do not aid to foster ideology of skill improvement (Kovacheva, 2010). Wu and Chou (2007) believed that proper human resources enhance delivery activities and customer satisfaction in the logistics provider firms. In this regard, Murphy and Poist (2007) also mentioned human resources or workforce with sufficient skill and experience to play an important role in the success of logistics duties. Skilled logistics professionals is another factor that can be mentioned in this regard (Lieb and Randall, 1996; Lieb and Randall, 1999; Lieb, 2008a, 2008b). Lieb and Butner (2007) suggested that skilled logistics professionals increase long-term customer relationships and the growth of profit and revenue. Bagchi and Mitra (2008) in another research announced skilled logistics professionals as enhancing customer acquisition. Knowledge assets have become particularly critical for 3PL logistics service companies to achieve their performance goals as logistics services have become even more complex and knowledge-intensive (Neumann and Tomé, 2006). The management of knowledge is increasingly considered a strategic resource for improving the performance of processes and services carried out by 3PLs (Lee and Song, 2010). In this scenario, the use of sophisticated and integrated knowledge management systems is essential to support the 3PLs’ specific needs, as well as collaboration with other supply chain actors and networks, for e.g. customers and suppliers (Rajesh, Pugazhendhi and Ganesh, 2011).

Financial Competency

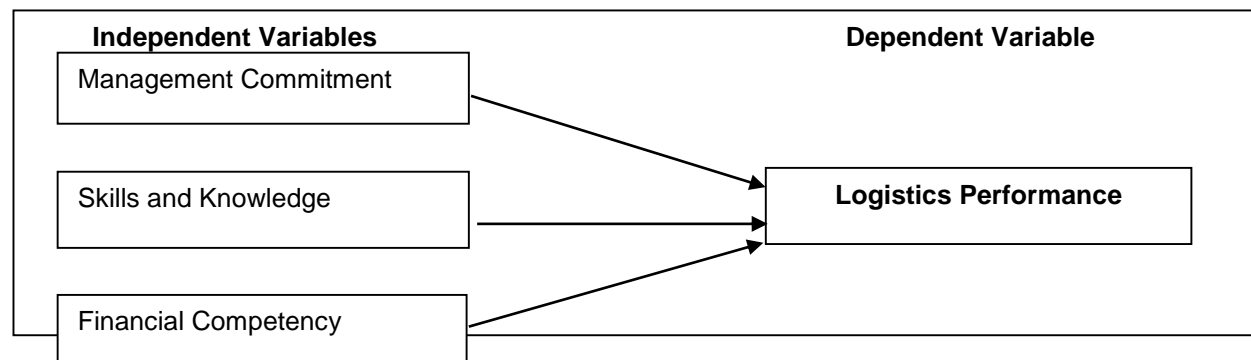
Moving towards logistics performance improvement, strong financial resources are considered a must for firms. These high costs incurred due to lack of internal expertise that capable in performing necessary analysis and performance measurement. This suggests the need to hire an external expertise or consultant. Certain level of financial resources are needed in the transformation process in order to provides training programs, to recruit external consultants and others in order to have the knowledge and skills on the necessary tools and concept (Achanga, Shebab, Roy and Nelder, 2006). For the firm that is financially inept and experiencing poor financial management, financial insufficiency is a major interruption to the performance improvement. Achanga et al. (2006) states that finance is the critical issues contributed to the success of lean implementation. Lack of internal funding to the effort and failure to embrace the implementation may cause discouragement to the employees and causing the failure of the implementation. From a research finding on the obstacles to lean practices, Bhasin (2012) found that 75 per cent of the small firm views cost of investment as the major barrier though it appears to be less significant issue in the medium and large sized firms.

Logistics Performance

Customer satisfaction is a fundamental concept in marketing and business strategy (Bowersox, Closs, Cooper and Bowersox, 2014). According to Kottler (2000), that customer satisfaction consists of the feeling of pleasure or disappointment resulting from the comparison between the expectations of the buyer and perceived performance or result of a product. Sharma, Grewal and Levy (1995) said that customer satisfaction arises the moment a firm manages to provide a logistics service that meets or exceeds the customer's expectations. Mentzer, Flint and Hult (2001) suggest that logistics service quality can influence customer satisfaction. Degree of customer satisfaction depend on whether firms are able to fulfill the requirement of the customer by providing on time and delivery with good quality product or service. Customer satisfaction also depends on the value that delivered to the customers. The intention of lean practitioner is to remove waste and non-adding value processes from daily operation of their firm. Deduction of activities that is useless for the operations and performance of the firm may reduce the operating cost, resources used, more competitive and consequently improve the profitability of the bottom line results. Meidutė-Kavaliausjeinė, Aranskis and Litvinenko (2014) pointed out that logistics service quality increases the competitive advantage of the logistics service providers, since it leads to consumer loyalty, in turn reducing the number of competitors and developing conditions favorable to the development of economies of scale. Lynch, Keller and Ozment (2000); Richey, Genchev and Daugherty (2005) and Richey, Daugherty and Roath (2007) identify that logistics capability influence the quality of the logistics service provided. The study by Liu (2010), conducted among logistics service providers in China, points out that logistical capability is the most critical for quality of service. Gotzamani, Longinidis and Vouzas (2010) analyze companies providing logistics services and conclude that logistics capability have become indispensable for obtaining of logistics service quality, as well as improving financial performance for companies. Glicor and Holcomb (2014) explore the role of logistics capability in the achievement of agility, which has contributed to the increase in logistics service quality. They also point out that the level of agility can determine the extent of efficiency and effectiveness in the quality of logistics services.

Conceptual Framework

Figure 1.0 illustrated below the proposed conceptual framework of the best practices among 3PL towards logistics performance, taking Malaysia as an example.



Source: Developed for the Study.

Conclusions and Recommendations for Future Research

Based on several researches conducted and reviewed, we can conclude that adopting best practices such as high level of management commitment towards any continuous improvement initiatives carried out, fostering the idea of skills improvement and acquisition of new knowledge among the staff and strong financial resources are considered a must for Malaysian 3PL firms. Adopting best practices as illustrated in the conceptual framework above could results with positive logistics performance. These performances are visible across the supply chains members including the 3PL firms that provide various logistics solutions. Logistics performance include increased in the customer satisfaction, reduce overall logistics costs and improve the quality of logistics services provided and served by the 3PL firms. This study suggests in a way that it provides important information for the Malaysian 3PL firms, relevant authority, logistics associations, managers and also researchers by highlighting the logistics performance that could be gained by the Malaysian 3PL firms from the adoption of logistics best practices in their system. This will encourage the Malaysian 3PL firms to seriously consider of adopting the best practices as it can help to increase their customer satisfaction, reduce overall logistics costs and improve the quality of the logistics services rendered to their customers. Further study is needed in understanding on how the Malaysian 3PL firms could incorporate other logistics practices such as agile logistics, green logistics, lean logistics and others with the best practices and to gain greater benefits from it.

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