

Innovation Capabilities and Logistics Service Quality of Malaysian Third- Party Logistics (3PL) Service Providers: A Comprehensive Review of the Relevant Literature

Siti Nur 'Atikah Zulkiffli^{#1}, Maisarah Sebadak^{#2}, Siti Falindah Padlee^{#3}, Juhaizi Mohd Yusof^{#4}

[#] School of Maritime Business and Management, Universiti Malaysia Terengganu, 21030 Kuala Nerus, Malaysia

¹atikahzulkiffli@umt.edu.my

³siti.falindah@umt.edu.my

⁴juhaizi@umt.edu.my

²Corresponding author's e-mail: mysarah1610@gmail.com

Abstract—The purpose of this paper is to provide the foundation for third-party logistics (3PL) firms to become niche logistics providers. The development of this paper is based on a comprehensive literature review drawn from a total of 114 academic researches. The review reveals that 3PL firms need to consider uniqueness in the development of both their capability and service performance. As the focus should be on the capability to perform services with quality, the uniqueness that is embedded will create a competitive edge in terms of unique innovation characteristics over other competitors, locally and abroad. The uniqueness will also magnify the respective 3PL firm's service quality in terms of its greatness. The findings indicate that future research in the area is needed as this will contribute significantly to the body of knowledge, specifically the Resource Based View (RBV) theory.

Keywords— Innovativeness, Transportation, Resource-Based View, Competitive Advantage

1. Introduction

Today, creativity and innovation capabilities are crucial factors needed by firms to develop their competitive advantage and sustain it. Especially for firms that operate in fast-changing market environments. Firms that possess these capabilities are at ease in developing unique marketing strategies and other distinctive organisational processes. Creativity and innovation are actually knowledge-based capabilities of a firm, so they can be considered processes in the development of the firm's competencies and enable the firm to learn about new technologies that can better serve market demands [1].

Building innovation competencies however require a strong set of organisational knowledge, abilities, and motivation to ensure that innovation activities are on the right path to serve market needs and achieve organisational goals. As a strategic orientation, customer orientation and appreciating customer provide the firm with strategic directions to encourage appropriate behaviours so that the firm not only focus on creating superior customer value, but also able to foster a culture that is conducive to developing innovation competencies [2].

According to the Malaysian Government Transformation Programme, transportation is one of the priority areas that play a significant role in the well-being of the people. Specifically, it has contributed much to the development and improvement of the economics, social, political and cultural conditions of the country. Its role and contribution are also important for businesses; hence transportation is one of the key focal points in the Eleventh Malaysia Plan scheduled for 2016 to 2020.

Third-party logistics (abbreviated 3PL or TPL) businesses usually act in close liaison with suppliers and clients in the logistics and supply chain management [3]. For example, 3PL service providers play a vital role to deliver goods and information to the different business partners of the company that engages them [4]. The important role of 3PL as outsourcing logistics services has assisted most companies that sell or produce goods. These third part businesses transport the companies' products and/or services from one destination to another until they reach the end customers. Hence, most companies that sell or produce goods are highly demanding these facilitating agencies or 3PL to assist them, for example, in storing, distributing, and fulfilment services.

Previous studies about innovativeness have primarily focused on inter-organisational relationships. In those studies, it is generally agreed that innovation contributes to higher levels of

logistics service quality. For example, Reference [5] indicated the value of innovation capability as this can improve logistics service quality.

Intense competition in the logistics and supply chain has resulted in many third-party businesses to be on the verge of dilemmas. For example, huge expenditure is expected in their operations to improve performance, but 3PL business providers are not getting sufficient returns on their investments. Further, revenue is becoming less due to the rising cost of operations. In the current highly dynamic and competitive business environment, 3PL businesses in Malaysia need to be innovative in their services in order to improve operating performance. Moreover, previous studies on Malaysia indicated that majority of 3PL businesses are still of the standard 3PL type, offering mainly traditional services such as transportation, warehousing and customs clearance [6]. As a result, the Malaysian Government Transformation Programme was developed to act as a multinational distribution and transportation hub for the logistics and supply chain industry. This is because transportation is one of Malaysia's top priority areas in anticipation of it contributing to the development and improvement of the economic, social, political, and cultural life of the country.

Despite Malaysia being a centre of many multinational distribution and transportation companies, 3PL providers' capabilities coinciding with logistics service quality was not stressed. This could be because many issues on the relationship between innovation capability and logistics service quality have not been adequately addressed in research studies, either in Malaysia or internationally. There is also an issue that 3PL providers need to be innovative as there is close competition between them [7], [8], [9]. According to the Resource-Based View (RBV) theory, a firm can achieve sustainable competitive advantage if its resources meet the following requirements, namely value; rare; inimitability; and non-substitutability [10].

Next, Reference [11] indicated that the Malaysian industry have identified various issues that arise due to the fragmented development of the logistics system. This includes (i) lack of follow up action and coordination; (ii) lack of sophisticated management techniques among the supply chain companies; (iii) the problems with information technology (IT) / Electronic Data Interchange (EDI), (iv) lack of skilled and trained manpower, (v) lack of dissemination of information and expansion of the logistics industry, (vi) no single established source of logistics data and information, (vii) lack of assistance to local service providers (LSP), (viii) lack of research and development (R&D), (ix) lack of regulatory reforms to facilitate the industry; and (x) other issues such as limited understanding of the concepts of logistics. These issues have resulted in

logistics costs soaring high in Malaysia, particularly when dealing with import and export of goods and services [12]. Consequently, Malaysia's progress in logistics has failed to keep pace with its growth in trade.

Particularly in today's dynamic and competitive business environment, third party logistics providers in Malaysia need to be more innovative in terms of the services they provide as this can improve their performance. Moreover, according to Reference [13], the declining productivity in the logistics industry is due to insufficient technological improvement and lack of innovation. Thus, addressing the issue of innovativeness among 3PL service providers is crucial and importantly because of the high competition among these players [8], [9]. Therefore, there is a need to study how Malaysian 3PL providers can develop their innovation capability as this can enhance the quality of logistics services they provide.

2. Literature Review

2.1 Resource-Based View (RBV) Theory

Reference [14] introduced the RBV theory that explains how organisations can achieve and maintain their competitive advantages by simply exploiting and utilizing their very own strategic resources and various capabilities. Relating the RBV theory to a firm's internal resources, Reference [15] argues that organisational performance will be mainly determined by internal tangible and intangible resources, which are assumed to have the following characteristics: (i) heterogeneous in which organisations are able to implement a unique strategy to outperform their rivals by using a mix of their own resources to gain competitive advantage, and (ii) immobile in which the firm's resources are not able to replicate the competitors' resources' strategies such as brand reputation and business processes. Meanwhile, previous studies also mentioned about tangible (for example, physical and human) and intangible (for example, information; knowledge; and relational resources) resources capable of giving a firm the ability to win new contracts and maintain long-term friendly relationships with strategic partners. These resources are hard to replace [16].

From the perspective of the RBV theory, a firm can achieve sustainable competitive advantage if its resources fulfil the following requirements, namely value; rarity; inimitability; and non-substitutability [10]. Next, Reference [16] consider the RBV theory as an appropriate theory to apply to achieve competitive advantage for firms in the 3PL services industry. This is because resources are distributed heterogeneously across different 3PL providers, freight operators, forwarders and 3PL users. This argument was supported by Reference [15] about the suitability of the RBV theory in meeting the required

capabilities and quality of 3PL service providers. Therefore, for this study the RBV theory is a suitable theory to put into practice with regards to the innovation capabilities and logistics service quality of 3PL service providers in Malaysia.

2.2 Innovation Capability

Innovation capability is a strength that firms possess to achieve a high level of competitiveness [17], [18]. Specifically, according to Reference [19], innovation capability is considered a firm's capacity to engage in innovation, such as introduction of new processes, products, or ideas in the organisation. This characteristic is particularly important for 3PL service providers because it enables them to devise ways to outperform their competitors in an environment of intensified competition brought about by the globalization of markets, technological evolution and fluctuating logistics demand. Coincidentally, research also indicated that innovation appears to be the only means by which an organisation can transform change into opportunities for growth [20].

Historically, most managers associated innovation primarily with the development of new products and new technologies. But currently, the scope widens as there is an additional thought that innovation may assist in the development of new service offerings, business models, pricing plans and routes to market, as well as new management practices. Thus, there is now a greater recognition that unique ideas can give a firm a competitive edge over other firms. For example, ideas can transform any part of the value chain and that products and services represent just the tip of the innovation iceberg [21].

Third-party logistics (3PL) service providers usually communicate and cooperate with suppliers and clients in the supply chains [3]. 3PL providers act to outsource elements of a firm's distribution and fulfillment services. Hence, there is a need for 3PL providers to improve by innovating and create competitive advantage for the entire supply chain.

Thus, Malaysian 3PL businesses need to develop innovation capabilities and they also need to develop business networking as this can generate good ideas that can enhance their service quality in the export business. This is because 3PL businesses must create unique and hard to imitate products or services to combat competition. The innovative ideas can exist in various forms, such as marketing innovation [22], [23], technological innovation [24], organisational innovation [25], or the creation of new bundle of resources [26], [27]. When firms differ in their innovation capabilities due to the unique ideas, this is difficult for competitors to copy or imitate. Thus, firms pursue different innovation activities when they specialise in different innovative capabilities as above.

2.3 Logistics Service Quality

Logistics has always been supporting the functions of production and consumption, unlike the traditional courier service companies where the quality of the functions are only considered as a cost to customers. However, since the 1990s, this perception started to change as it is now important for logistics management to create visibility into the services provided by 3PL businesses. This visibility is in terms of satisfying customer demands for service quality, and customer satisfaction and loyalty towards the uniqueness of the capabilities of the service provider.

In the contemporary time, in buyer-3PL relationships, the buying firm relies upon the 3PL provider to offer logistics services designed to meet its needs [28]. The need for logistics service quality contributes to a firm's competitive advantage through two types of services: marketing customer and physical distribution [29], [30].

As indicated by Reference [5], logistics service quality as expected of 3PL providers is a broader concept now than mere physical distribution. This means that 3PL providers must now possess the capacity to include additional dimensions such as timeliness; flexibility; accuracy; responsiveness; problem solving ability; personnel quality; information quality; order quality; and delivering on promises, all for the purpose of fulfilling service quality and creating competitive edge for the 3PL providers [31], [32], [33], [34].

The dominant framework that studies use to measure service quality has been the refined SERVQUAL scale [35]. For example, Reference [36] applied the aspects of service quality found in the marketing literature, such as personnel contact quality; order release quantities; information quality; ordering procedures; accuracy condition; order quality; discrepancy handling; and timeliness. Meanwhile, in the context of third-party logistics, logistics service quality studies have included measures, such as timeliness; flexibility; accuracy; responsiveness; problem solving ability; and delivery on promises as important service quality and service performance dimensions [33],[37].

According to Reference [38], service quality has become an important differentiator or uniqueness among service providers as the competition in the 3PL market increases. Generally, in Malaysia, the poor performance of logistics services in terms of quality is due to the relatively high logistics costs. This has prevented 3PL providers or businesses to concentrate on being competitive over other providers. This situation has put pressure on logistics providers to counter the constraint challenge by offering low-cost high quality services in order to remain competitive in gaining and

retaining contracts pertaining to the international and domestic supply chain [39].

3. Conclusion and Recommendation

Moving forward, while the prospect for Malaysia's logistics industry is positive, there is much room for improvement for the 3PL businesses. To enable the logistics management in handling greater volumes of freight, to speed up the time taken to deliver goods across the supply chains and to lower the cost of this delivery, 3PL providers must be innovative in many aspects, such as marketing innovation; technological innovation; organisational innovation; and the creation of new bundle of resources. These improvements can create competitive advantage for the 3PL providers as they integrate logistics and supply chain to achieve satisfaction and loyalty in the customers.

Unlike the neighbouring countries such as Singapore, Thailand, and Vietnam, the logistics industry in Malaysia is still facing numerous challenges and as such lagging behind in terms of development and competitive advantage. As a solution, Malaysian 3PL service providers can develop their innovation capability to be unique and at the same time promote service quality that is also unique. These can enhance their performance and compete more effectively locally and globally. By doing this, this study is able to contribute fresh findings to the body of knowledge on the significance of innovativeness in terms of its ability to contribute to a higher level of logistics service quality among Malaysia 3PL service providers.

Besides that, the innovation that has been created to improve the firm's logistics service quality also benefits the firm in terms of creating a competitive edge over its other local competitors in Malaysia's dynamic and competitive business environment. By doing so, this may assist 3PL service providers to overcome their business problems and challenges as there is now a greater recognition that unique ideas can give a firm a competitive edge over other firms. The uniqueness that has been created also makes it difficult for competitors to copy or imitate. Thus, firms are able to pursue different innovation activities when they are capable of specialising in different innovative capabilities generated by brilliant ideas.

With regards to the results of this study, they may implicate three government policies, namely the National Priority Areas; Eleventh Malaysia Plan (11MP); and Third Industrial Master Plan (IMP3). This is important as the three policy areas have the potential to contribute significantly to Malaysia's transportation and logistics system so that the firms in the logistics industry can become more competitive in the marketplace.

From the theoretical perspective, this study contributes to the resource-based view (RBV) theory

in terms of integrating the capabilities and logistics service quality of 3PL service providers, and also embedding uniqueness in the capabilities and service quality. In this way, according to the RBV theory, 3PL service providers would have no problem to offer a variety of logistics services as they have already acquired different logistics service capabilities by being unique [15]. Thus, this study has confirmed that this theory is able to provide the theoretical foundation in explaining and illustrating how firm capabilities can enhance logistics service quality.

As for the limitations of this study in relation to the logistics industry, future studies should explore more about the characteristics of the 3PL service providers as they have the potential to contribute much to the workings, development and improvement of the economic, social, political and cultural conditions of Malaysia.

Besides the above, it is also recommended that future studies expand the value of their research by focusing on different sectors or geographical areas. This is important in knowing the innovation capabilities of the firms in the sector or area, and how unique can they become to affect the quality of logistics services they provide so that they become as competitive as their competitors.

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