Sustainable Competitive Advantage of Logistics Service Providers in Malaysia: A Systematic Review

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The repercussion of globalization and liberalization have led to numerous competitors entering the market which caused to worldwide of Logistics Service Providers (LSPs) increased. This trend also created an excessive pressure on logistics systems, which makes inevitable adjustments for local LSPs in Malaysia. Currently, there are limited capabilities of LSPs since majority of local LSPs offer only basic services, such as inbound and outbound transportation, warehouse storage and freight forwarding. The current study attempts to explore sustainable competitive advantage and strategies for logistics service providers which contribute the most to sustain in market. This paper used the method called PRISMA statement (Preferred Reporting Items for Systematic reviews and Meta-Analyses). The resources are obtained from Scopus and the Web of Science database. The articles were collected from the years 2010 to 2019. This method was used to run the systematic review, eligibility and exclusion criteria, steps of the review process (identification, screening, eligibility) and data abstraction and analysis. The contribution of study can be seen as to provide a way forward for local LSPs to implement particular strategies that identified act as potential effective tools to sustain and remain competitive in market. These suggestions are hoped to provide basis for concerned parties to employ competitive advantage strategies that are coherent with local LSPs.

**Key words:** Sustainable competitive advantage, logistics service providers, logistics, competitiveness, systematic review.
Introduction

Logistics is about capturing a competitive advantage and creating customer value, not just optimizing costs (Kasarda, 2016). An efficient logistics would help firms to improve efficiency and competitiveness. It is also to act as a backbone of industrial and service development in the modern economy. In highly developed economies, the logistics industry is well-developed. They have excellent infrastructure, international transport system, high level of logistics capabilities and timeliness in delivery. Firms are necessary to do things in a different way in order to survive and succeed. Specifically, they must look to new sources of competitive advantage and engage in new forms of competition (Omerzel & Gulev, 2011).

The international environment faced by the countries in Asia and particularly in Malaysia is gradually aggressive in competitiveness. This emergent competition is not only between firms in the same country but also between countries across many industries. A number of factors are accountable for this growing international trade and investment flows including the increasing growth and openness of countries in Asia, increasing globalization and deregulation, as well as continued industrialisation of the newly emerging economies and enhancements in transportation technology (Tongzon, 2007). This trend has created an excessive pressure on logistics systems, which makes certain adjustments for local LSPs in Malaysia.

Despite fierce competition, some LSPs do not meet customers’ expectations, preventing them from maintaining competitive advantage in the intensely competitive logistics industry (Min & Joo, 2006; Lambourdière, Rebolledo, & Corbin, 2017). It was supported by the survey conducted by Langley & Capgemini, (2007) whereby many LSPs failed to deliver the expected cost reduction, trustworthy relationship, and increasing needs for a wider range of logistics services and geographical coverage and advanced information technology. Furthermore, EPU, (2015) posited that there are also limited capability of LSPs as the majority of local LSPs offer only basic services, such as inbound and outbound transportation, warehouse storage and freight forwarding.

Much has been written worldwide about the resources and capabilities to create competitive advantage (Makadok, 2001; Ma, 2000; Kamukama, Ahiauzu, & Ntayi, 2011; Leonidou, Leonidou, Fotiadis, & Zeriti, 2013; Cheraghalizadeh & Tümer, 2017; Savino & Shafiq, 2018). However, far too little attention has been paid to the sources of competitive advantage of LSP in Malaysia context. Therefore, this study attempts to explore sustainable competitive advantage and strategies for logistics service providers which contribute the most to sustain in the market that fit Malaysia’s situation.
Methodology Applied

This paper used the method called PRISMA statement (Preferred Reporting Items for Systematic reviews and Meta-Analyses). The resources are obtained from Scopus and the Web of Science database. The articles were collected from the years 2010 to 2019. This method used to run the systematic review, eligibility and exclusion criteria, steps of the review process (identification, screening, eligibility) and data abstraction and analysis.

Prisma

PRISMA focuses on ways in which authors can ensure the transparent and complete reporting of systematic reviews and meta-analyses. It does not address directly or in a detailed manner the conduct of systematic reviews, for which other guides are available (Liberati et al., 2009). The PRISMA Statement allows for the rigorous search of terms related to LSPs that cope to competitiveness.

Resources

The review trusted on two main journal databases which are Scopus and Web of Science (WoS). WoS is a vital database consisting almost 3,000 social science journals and established by Clarivate Analytics. Second database used in the review is Scopus, established by Elsevier. Scopus is one of the largest abstract and citation databases of peer-reviewed literature with over 5000 publishers and comprehend with 22,800 plus journals. It consists of diverse subject areas such as business, management and accounting, and social science.

Eligibility and exclusion criteria

At this stage, some eligibility and exclusion criterion are determined (Table 1). Firstly, only article journals are selected. The review article, book series, book, chapter in a book and conference proceeding are all excluded. Secondly, only articles published in English are selected in order to avoid any confusion and difficulty in translating, the searching efforts excluded the non-English publication. Thirdly, with regard to timeline, a period of 10 years is selected (between 2010 and 2019). Lastly, only articles focused in Malaysia are selected in line with this study objective.
Table 1: The inclusion and exclusion criteria.

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Eligibility</th>
<th>Exclusion</th>
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<tbody>
<tr>
<td>Language</td>
<td>English</td>
<td>Non-English</td>
</tr>
<tr>
<td>Timeline</td>
<td>Between 2010 and 2019</td>
<td>&lt; 2010</td>
</tr>
<tr>
<td>Countries and territories</td>
<td>Malaysia</td>
<td>Other countries exclude Malaysia</td>
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Systematic review process

In systematic review process, four stages were involved. At first, keywords used for the search process were identified. Based on previous studies and thesaurus, keywords similar and related to sustainable competitive advantage, strategies and logistics service providers were used (Table 2). At this stage, after cautious screening, 25 duplicated articles were removed. The second stage was screening. At this stage, out of 118 articles eligible to be reviewed, a total of 100 articles were removed. The third stage is eligibility, where the full articles were accessed. After careful examination, a total of 15 articles were excluded as some did not focus on competitive advantage, did not focus on logistics service providers as well as did not focus on Malaysia. The last stage of review resulted in a total of 3 articles that were used for the qualitative analysis as shown in Figure 1.

Table 2: The search string used for the systematic review process

<table>
<thead>
<tr>
<th>Databases</th>
<th>Keywords used</th>
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<tbody>
<tr>
<td>Web of Science</td>
<td>TS = ( sustain* OR maintain OR &quot;keep up*&quot; OR preserve* OR nourish* OR nurtur* ) AND ( &quot;competiti<em>advantage</em>&quot; OR &quot;compet<em>advantage</em>&quot; OR &quot;competiti* edge*&quot; OR &quot;compet* edge*&quot; OR outfox* OR better* OR competiti* OR compet* OR rival* ) AND ( strateg* OR abilit* OR capacit* OR capabilit* OR strength* OR potenti al* ) AND ( &quot;logistics service provider*&quot; OR &quot;third part* logistics service provider*&quot; OR &quot;third part* service provider*&quot; OR &quot;logistics firm*&quot; OR &quot;logistics compan*&quot; OR &quot;freight forward*&quot; )</td>
</tr>
<tr>
<td>Scopus</td>
<td>TITLE-ABS-KEY((sustain* OR maintain OR &quot;keep up*&quot; OR preserve* OR nourish* OR nurtur* ) AND ( &quot;competiti<em>advantage</em>&quot; OR &quot;compet<em>advantage</em>&quot; OR &quot;competiti* edge*&quot; OR &quot;compet*</td>
</tr>
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Data abstraction and analysis

The outstanding articles were assessed and analysed. The data were extracted by reading through the abstracts first, then the full articles (in-depth) to identify appropriate strategies used. Because of lacking number of remaining articles, the authors then discuss the content by authors.

Figure 1. The flow diagram of the study

Adapted from Moher, Liberati, Tetzlaff, & Altman (2009)
Lacking in number of article journal that regards to this study and the literature has not directed sufficient attention to competitive advantage and logistics service providers, and the view of competitive advantage. In Malaysia context, it found that only two authors that study on competitive advantage of LSP as shown in Table 3. The first author is Fernando & Chukai (2018) that discuss on co-create value to sustain in market. They used the DART model to measure co-create value. Meanwhile the second author is Karia (2018a) and Karia (2018b). These two articles are focusing on the impact of resources to LSP in this competitive edge. These two papers stress on two kind of resources namely knowledge resource and technology resource.

<table>
<thead>
<tr>
<th>Title of articles</th>
<th>Authors/year</th>
<th>Competitive advantage strategies</th>
</tr>
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<tbody>
<tr>
<td>Value Co-Creation, Goods and Service Tax (GST) Impacts on Sustainable Logistic Performance</td>
<td>Fernando &amp; Chukai (2018)</td>
<td>Encouraging customers to co-create value has been considered to be an essential strategy for LSPs to achieve the needs of customers and create a competitive edge.</td>
</tr>
<tr>
<td>How knowledge resource does matter in technology and cost advantages of a firm? Evidence from the Malaysian logistics sector</td>
<td>Karia (2018a)</td>
<td>This study reveals that the knowledge resource is too costly and difficult to be imitated, hence becomes the ultimate sources of sustained competitive advantage.</td>
</tr>
<tr>
<td>Knowledge resources, technology resources and the competitive advantage of logistics service providers</td>
<td>Karia (2018b)</td>
<td>This study acknowledges knowledge resources as the most durable and robust resources and the most vital resources that lead to sustained competitive advantages.</td>
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Value co-creation

Competition in the logistics service industry has continuously increased over the last decades which has led to the traditional services offered by logistics service providers (LSPs) becoming commodities and no longer offering attractive profit margins. When the company’s core product becomes a commodity, the company’s performance of supplementary services becomes vital for competitive advantage (Atkacuna & Furlan, 2009). Wang, Persson, & Huemer (2014) revealed that LSP strategy and value creation is a cooperative endeavour. Ercsey (2017) mentioned that the service providers need to reach the competitive edge in order to retain their customers. Previous studies have shown that keeping a consumer can be
up to ten times cheaper than attracting a new one. Therefore, companies have to make efforts to retain customers, attempting to minimise their migration. One strategy is co-creation, which means a mutual creation of value and experience (Zwass, 2010), especially in case of leisure-time services (Ercsey, 2017). Logistics service is an important component of customer service and helps a company maintain its current competitive position in the marketplace (Langley & Holcomb, 1992).

At the point when traditional attributes of logistics service are adjusted to generate value-added services or are formed in unique bundles, they take the shape of logistics capabilities that can be a source of competitive advantage (Morash, Droge, & Vickery, 1996; Lynch, Keller, & Ozment, 2000; Yazdanparast, Manuj, & Swartz, 2010). Thus, in their quest for new ways to establish a competitive edge, managers are recognizing that unique types of customer value can be created through logistics service (Langley & Holcomb, 1992). Supply chain frameworks tend to characterize LSPs as supporting actors to manufacturing firms and as non-value-adding entities (Rabinovich & Knemeyer, 2006). The stream of research on strategy and value creation has tended to overlook LSPs (Wang et al., 2014). According to Porter & Linde (1995), if a firm can create any positive difference that can be preserved, then this difference will enable the firm to outperform its rivals.

Subsequently, the ability to deliver excellent value to customers has turned into a need for organizations, particularly in this high technology age. Formulating customer satisfaction must be stress at the first placed over the perceived value of a customer if organization tries to build and preserve long-term relationship with customer. Value co-creation is enhanced by activities such as matching the processes of customer and service provider, speeding them up in different ways, and spreading positive word of mouth (Nättilä et al., 2014; Thiruvattal, 2017). Prahalad & Ramaswamy (2004b) stated that value was co-created by a firm and its customers. From a company's standpoint, this process enables the company to learn about its customer's needs, wants, wishes, incentives and behaviours concerning a product or service and their features and functions.

Fernando & Chukai (2018) in their study posited that encouraging customers to co-create value has been considered to be an essential strategy for LSPs to achieve the needs of customers and create a competitive advantage. It is in line with previous study conducted by (Bendapudi & Leone, 2003; Mostafa, 2015; Wang et al., 2018) suggest that customer participation in co-creating service values represents the new frontier in achieving a competitive advantage. Instead of being passive recipients of service provisions, customers are viewed as proactive co-creators of service values, whereas the service providers are urged to assume the role as facilitators in the value co-creation process. Moreover, value co-creation is a domain in which a firm has a deep interactive discussion of ideas and intense channels of communication with its customers (Prahalad & Ramaswamy, 2004a). The LSPs
should be creating value jointly through shared experiences with customers. Any interactions in the business system generating these mutual experiences will benefit both parties and will add value to customers and to the strategic capital of value of the firms (Ramaswamy & Ozcan, 2018).

Table 3: Value co-creation using the DART model

<table>
<thead>
<tr>
<th>Area</th>
<th>Findings</th>
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<tr>
<td>Dialogue</td>
<td>Dialogue between LSPs and customers were positively related to operational performance. Operational performance improved because the LSPs allowed their customers to be involved during service creation, a process providing the ability to give feedback for designing logistics according to their needs.</td>
</tr>
<tr>
<td>Access</td>
<td>LSPs in Malaysia often regard customers as outsiders who do not need to be actively involved during service creation. The limited access of customer's involvement for adding value to the service delivery process was not related to financial performance.</td>
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<td>Risk assessment</td>
<td>Risk assessments have been proven to play a significant role in reducing unnecessary operational activities, which, in turn, leads to better operational performance. Risk assessments shared between LSPs and customers through open options to manage risk have led to increases in sales volume.</td>
</tr>
<tr>
<td>Transparency</td>
<td>Transparency in creating value co-creators, a firm and its customers, has been found to positively affect business outcomes. Two-way communication with customers results in building trust and long term relationships. Trust is a cornerstone of transparency, which provides greater possibilities for having customers return for another service from an LSP.</td>
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</table>

Fernando & Chukai (2018) measured value co-creation by using the DART model for managing the co-creation value process by firms and their customer that introduced by Prahalad & Ramaswamy (2004b). It involved four areas of concerns namely open dialogue, access, risk assessment and transparency. The finding shows in Table 3. Value co-creation helps LSPs to achieve sustainable logistics performance by sharing information through dialogues regarding risk assessments and services required and giving more access to customers to tailor their services according to their needs and provides transparency to build trust for developing and maintaining long-term relationships as well as sustain competitive in market.
Knowledge resources are recognized as a source of competitive advantage in logistics industry. Likewise, the field of strategic management agrees that knowledge resources as a source of competitive advantage. Resource Based Theory (RBT) claims that resources must be valuable and rare in order to influence a firm's competitive advantage. However, over time, they should be more difficult to be imitated and substituted in order to be sustainable (Barney, 1991; Prahalad & Hamel, 1990). Technology and knowledge resources are input to attain cost advantage, but technology resources are easily purchased and substitutable, therefore, they do not guarantee sustained competitive advantage (Porter, 1985), while knowledge resources are inimitable, not transferable or easily purchased, therefore they are more likely to sustain the advantage over time (Barney, 1991; Prahalad & Hamel, 1990). Another is preparing for change by upgrading and expanding the skills of employees and improving the firm's scientific and knowledge base (Porter, 1990). The best utilization of resources leads to better performance and a competitive edge for an organization (Barney, 1991).

Management should differentiate knowledge management levels, because the core of the decision-making process could be severely damaged if they were intended as similar. Indeed, knowledge workers (strategists, engineers, technicians, researchers, etc.) can offer experiences in what concerns issues or potentially new circumstances. In an upper level they can also contribute radically to include more evident values into the company's offering in order to generate the customer's preferences. Knowledge workers are the primary expert competence of numerous organizations. In fact, they dominate their expertise fields and, for example, they realize how to optimise the systems software that is relevant to strategic decisions. At the same time, knowledge workers generate most of the value in some industries that disclose knowledge influences competitiveness (Carneiro, 2000).

Because the core competency of the logistics business is service, the knowledge and experience of logisticians must be considered as intangible assets. (Fernando & Chukai, 2018). A LSPs not only must make efficient use of its tangible assets, but also wisely transform its intangible, yet valuable, assets to gain an edge over competitors. The key to the success of logistics performance lies in the knowledge and the abilities of employees to observe the whole process that can deliver service meeting or exceeding customer expectations (Wu & Chou, 2007).

Recently, research in knowledge resources has become an interest in the logistics field (Hartman & Grahl, 2011; Karia & Asaari, 2016). LSPs can simultaneously access, adapt and integrate internal and external resources to create value to customers and improve the
performance of logistics. In addition, Yazdanparast et al., (2010) suggests that knowledge is the fundamental source of competitive advantage. In the logistics industry, every customer is different from the other, and it is rare that there is an off-the-shelf logistics service that may be provided to multiple customers. Therefore, application of knowledge to deliver a unique, customized logistics service to the customer is a powerful source of competitive advantage.

The literature is in line with the study conducted by Karia, (2018b) that acknowledges knowledge resources as the most durable and robust resources and the most vital resources that lead to sustained competitive advantages. She also reveals that knowledge resources elevate and differentiate the status of knowledgeable staff members which empowers competitive advantage in firms pursuing advanced technologies. Based on her findings, from an information and knowledge-based resource perspective, Malaysian LSPs have acquired and developed logisticians with professional or specific skills, knowledge, and experience who are well versed in Logistics Information Technology (LIT) applications to realise cost competitiveness.

**Technology resource**

In recent years, information technology has narrowed the gap in communication. In order to reduce the cost of raw materials, the majority of firms engage in the operations of international procurement. Multinational enterprises, in pursuit of comparative advantages, use national advantage to adopt the production model of the international division of labour and resource sharing, forming corporate manufacturing, logistics, marketing and other activities, which are located in different countries (Lin & Ou, 2011). Karia, (2018a) stated such technologies for example Radio Frequency Identification (RFID), Electronic Data Interchange (EDI), Global Positioning System (GPS) that invested in by logistics firms, have a significant influence on logistics performance and are important for competition if they significantly affect a firm’s competitive advantage.

Managers are required to complete and updated information and, according to their level of activity, they hope to rely on their knowledge workers. Nevertheless, this hope is useless if these experts are not effectively motivated to deepen continuously their levels of knowledge (Carneiro, 2000). Karia, (2018b) added logistics firms are struggling to comprehend how they can exploit and reconfigure their knowledge and technology resources to influence competitive advantages. Otherwise, scholars in information system (IS) literature have found that there are only certain firms have accomplished competitive advantage through technology resources (Rothaermel, 2016; Bilgihan & Wang, 2016; Mithas, Tafti, Bardhan, & Goh, 2012).
Technology-knowledge relationship and which complementary firm resources are the most potential source of sustained competitive advantage (Hazen & Byrd, 2012; Hunt & Morgan, 1996). Thus, technology resources are essential for LSPs to control and support their logistics activities and business processes. The result indicates that Malaysian LSPs have acquired advanced equipment and facilities and continually enhanced the LIT applications. On the other hand, all the technologies that are present in the activities of the chain value have to be expressed and supported by an efficient knowledge level. Some of the knowledge involved in the use and improvement of technologies can be written down in detail in procedures manuals and use instructions.Others are tacitly transmitted and learned through practical knowledge. Moreover, the success of technological modifications needs to be supported by more clarified and enhanced knowledge (Carneiro, 2000).

The findings by Karia, (2018a) presents that technologies are valuable resources for competitive advantage but easy to be purchased and substituted; hence they serve as a temporary competitive advantage. Instead, knowledge resource is the catalyst of cost advantages and provokes the technology resource to give a greater impact on cost advantages. She reveals that knowledge resource is too costly and difficult to be imitated, hence becomes the ultimate sources of sustained competitive advantage. Therefore, competitive advantage for a LSP is achieved through the strategic resources of technology and knowledge (Karia, Wong, Asaari, & Lai, 2015) both are vital for obtaining superior performance (Karia & Wong, 2013).

**Conclusion**

The field of this research in terms of subject is to explore sustainable competitive advantage and strategies for logistics service providers which contribute the most to sustain in market. A number of local studies have identified two particular strategies namely co-value creation and resources utilization as a potential tool to sustain and remain competitive in market. These suggestions are hoped to provide basis for concerned parties to employ competitive advantage strategies that are coherent with local LSPs. Certain limits of this study require further consideration in future research. This paper has limitations in regard to lacking a number of studies that put attention on competitive strategies for LSP in Malaysia. The researcher also only focuses on two main databases of resources. Hence, future studies may add to the number of other database resources that hope to provide more comprehensive literature that theme and sub-theme for competitive strategy in future studies.
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