

The Importance of Innovative Logistics Service Capabilities for Assets-based Logistics Service Providers

Darjat Sudrajat, Sevenpri Candra and Agustinus Dedy Handrimurtjahjo
BINUS Business School – Undergraduate Program, Bina Nusantara University, Jakarta, Indonesia

Keywords: Physical Assets Ownership (PAO), Innovative Logistics Service Capabilities (ILSC), Assets-based Logistics Service Providers Performance (AB-LSP Performance), Assets-based Logistics Service Providers (AB-LSP).

Abstract: The purpose of this study is to provide a model to improve the performance of asset-based logistics service providers (AB-LSP) in Indonesia so that they can survive in increasingly fierce competition, especially from foreign logistics service companies. The study used a quantitative approach with causal, verification, or cross-sectional survey method by using SEM-PLS program in processing data. The sample size consisted of 83 asset-based logistics service providers (AB-LSP) in Jakarta area (Jabodetabek) and using probability sampling technique. This study found that the innovative logistics services capabilities (ILSC) mediated in full (indirect-only mediation) the effect of physical assets ownership (PAO) on AB-LSP performance. Theoretically, the research implication confirmed that the dynamic capabilities (DC) theory in explaining the research's model, so that it more effective than the resources-based view (RBV) theory. Whereas practically, the research implication showed that asset-based logistics service providers (AB-LSP) in Indonesia should develop the innovative logistics services capabilities (ILSC) so that they were able to reconfigure or transform their physical assets in order to in line with changes of the business environment both external and internal.

1 INTRODUCTION

Logistics services are activities that provide logistics services (transportation, warehousing, packaging, customs, distribution, inventory management) both partially and integratedly (Mangan and Lilwani, 2016). Meanwhile, based on Permenhub No. PM 74, 2015, logistics services are activities that intended to represent the interests of cargo owners to handle all activities needed for the delivery and receipt of cargo through land transportation, railways, sea and air, including shipping, receiving, loading and unloading, storing, sorting, packing, marking, measuring, weighing, handling document settlement, issuing transportation documents, ordering transport space, distributing cargo, calculating transportation costs, insurance claims for shipping, bill settlement and other costs needed and the provision of information and communication systems and logistics services. In the regulation, there are 23 types of services that can be run by logistics services companies.

The logistics services market in Indonesia in

2020 is estimated at Rp.4,396 trillion, with an average growth rate of 15.4% per year (Frost & Sullivan, in *Bisnis Indonesia*, 29 August 2016). However, this huge potential market cannot be utilized by Indonesian logistics services companies, even 90% of export-import logistics transportation is still controlled by foreign logistics service companies, thus increasing the deficit of service transaction (Krisnamurthi, 2014). According to the Indonesian Logistics and Forwarder Association (ALFI), about 50% of their members are non-active because of their poor performance and competitiveness. The government tried to encourage the companies' competitiveness through physical assets ownership (trucks, forklifts and warehouses), but it was refused by the Association (ALFI). Finally, the government issued Permenhub No 74, 2015 to regulate the industry that requires a minimum capital amount of Rp.25 billion (include physical assets), whereas in the the previous regulation it only Rp.200 million. Therefore, the regulation brought out a problem for the companies.

The physical assets ownership in the logistics

services industry has certain characteristics for the companies' status, especially in the customers' view. The characteristics are distinguished by assets and non-assets based logistics service companies (Hofmann and Osterwalder, 2017; Skender, Mirkovic and Prudky, 2017; Norall, 2013; Saglietto, 2013). An assets-based logistics service company has many or all of the assets needed to run its customer's supply chain. These assets include trucks, warehouses, distribution centers and forklifts. Conversely, a non-assets based logistics service company does not have the assets needed to manage and implement a supply chain. However, the company offers its expertise in negotiating contracts with shipping lines or airlines; maintain relationship management programs with shipping lines or airlines, warehouses, and distribution centers so that they can manage their customers' supply chains at the lowest possible costs (Norall, 2013).

Not all of the company's resources have a positive and significant effect on innovation (Demirkan, 2018; Kim et. Al., 2017; Sivalogathan, 2015). Tangible or physical resources has an insignificant effect on a company's performance (Othman et al., 2015; Sudrajat, 2018). Physical resources have an insignificant effect on innovative capability (Sudrajat, 2018). The innovative capability has a positive and significant effect on firm performance (Donkor et al., 2018; Rajapathirana and Hui, 2017). Innovation mediated the effect of resources on firm performance (Khin and Ho, 2018). In connection with that, there were the gaps, controversies and inconsistencies so it was interesting to be researched and further verified.

2 LITERATURE REVIEW

Strategic management is art and science (David and David, 2017), the process of analysis (Dess et al., 2014; Rothaermel, 2017), decisions (Dess et. al., 2014; Hitt, Ireland and Hoskisson, 2017; Wheelen et al., 2018), actions (Dess et al., 2014; Hitt, Ireland, and Hoskisson, 2017; Wheelen et. al., 2018); what the company does to achieve its long-term performance (Phillips and Moutinho, 2018; Hitt, Ireland, and Hoskisson, 2017; Wheelen et. al., 2018). Based on this literature, strategic management is art and science in analyzing, deciding, and executing the company's programs to achieve its long-term performance.

The resource-based view (RBV) is a model or theoretical perspective that sees certain types of resources as key to superior firm performance

(Rothaermel, 2017; Wheelen et. al., 2018). Physical assets are one of the company's tangible resources (Grant and Jordan, 2015; Rothaermel, 2017). Physical assets ownership in the logistics services industry distinguishes between assets and non-assets based logistics services companies (Norall, 2013; Saglietto, 2013). The dimensions of assets can be analyzed through intrinsic and extrinsic aspects. In this study the ownership of physical assets is defined as the ownership of trucks, warehouses, and forklifts by logistics service providers that used to support their operational activities.

Capabilities constitute company's competencies, skills, or capacities necessary to orchestrate a diverse set of resources and to deploy them strategically (Rothaermel, 2017; Dess et al., 2014; Hitt, Ireland, and Hoskisson, 2017). Dynamic capabilities is a model (Rothaermel, 2017) or process (Inan and Bititci, 2015) in building, integrating, and reconfiguring internal and external competencies to deal with rapidly changing environments through the processes of sensing, seizing and transforming (Teece, 2017). It is not only allow firms to adapt to changing market conditions, but they also enable firms to create market change that can strengthen their strategic position (Rothaermel, 2017). According to Wang and Ahmed (2007), dynamic capability can be analyzed with three main elements encompasses adaptive capability, absorptive capability, and innovative capability.

Innovation is one of the most important aspects of developing business in the future (Schilling, 2017; Corsi and Neau, 2015; Trott, 2017; Andriole, Cox, and Khin, 2018). Presently, the success of a company to compete in the long run depends on its ability to create innovative business models (Ottosson, 2019). Innovation requires the allocation of strategic resources to develop and utilize productive resources (Lazonick, 2015). Innovative capability is a comprehensive set of characteristics of an organization that facilitates and supports innovation strategies. Managing innovation is about building a dynamic capability (Bessant and Tidd, 2015). Innovative capability is the ability to organize and manage the search process (find opportunities for innovation), choose (what will be done and why), implement (how to make it happen), and capture (how to get results).

Logistics service companies require innovative capabilities in exploring business opportunities, for example in exploring information from specific target markets, customer's logistics activities requirements, customer's product characteristics,

customer's logistics operations patterns, market trends or regulation changes, competitors' logistics innovation, and competencies of suppliers. In addition, these companies also need capabilities for products or services development. In this case, for example, the ability to develop new creative ideas include processes, technology and products. Furthermore, another innovative capability is the ability in the learning process. it includes the ability to transfer new knowledge and experiences, create a conducive work environment, understand the company's strategic plan, develop effective team work. In this study, innovative logistics service capabilities are being defined as the ability of logistics service providers to develop new logistics service products or market innovatively.

Performance is the end result of activities. It includes the actual outcomes of the strategic management process (Wheelen, et. al., 2018). Performance is the efficiency and / or effectiveness of an action; efficiency is the number of resources used to get results or output, whereas effectiveness is the level at which the results of an action fulfill specifications, requirements, and expectations that have been set (Bititci, 2015). firm performance is a measure that shows how well a company achieves its goals (organizational and financial goals) primarily is profitability and growth (Sam and Hoshino, 2013). Whereas according to Wu (2009), performance is a level of achievement towards the targets set with the use of economic resources to deal with the external or internal environment (shareholders, competitors, communities). Company performance can be both financial and non-financial, the main financial performance includes profitability and sales growth (Delen, Kuzey and Uyar, 2013; Khan and Singhal, 2015). The profitability ratios that are often used in financial analysis are mainly gross profit margin and net profit margin (Delen, Kuzey and Uyar, 2013; Gitman and Zutter, 2015).

3 RESEARCH METHOD

This research was a quantitative reasearch. Its unif of analysis was the organization, whereas the unit of observation was the company's leaders (managers or directors). Data was collected using questionnaires (Likert scale) and probability sampling (simple random sampling). The sample size consisted of 83 asset-based logistics service providers or companies that registered as members of Association (ILFA) in the Jakarta (Jabodetabek) region. The data was processed using the SEM-PLS program.

As in figure 1, the research consisted of three latent variables: Physical Assets Ownership (PAO), Innovative Logistics Services Capabilities (ILSC) and Assets-based Logistics Service Provider Performance (AB-LSP Performance). Physical Assets Ownership (PAO) comprised three indicators (number of trucks, number of forklifts and warehouse area). Innovative Logistics Service Capabilities (ILSC) consisted of three indicators (ability in exploring logistics service business opportunities, ability in developing new logistics service, ability in learning). Assets-based Logistics Service Provider Performance (AB-LSP Performance) encompassed three indicators (gross profit margin, net profit margin and revenue growth). The research's hypotheses consisted of:

- H₁: Physical Assets Ownership (PAO) has effect on Assets-based Logistics Service Provider Performance (AB-LSP Performance).
- H₂: Physical Assets Ownership (PAO) has effect on Innovative Logistics Services Capabilities (ILSC)
- H₃: Innovative Logistics Service Capabilities (ILSC) has effect on Assets-based Logistics Service Provider Performance (AB-LSP Performance)
- H₄: Physical Assets Ownership (PAO) has effect on Assets-based Logistics Service Provider Performance (AB-LSP Performance) pass through Innovative Logistics Services Capabilities (ILSC)

4 RESULTS AND DISCUSSION

Based on figure 1, the first hypothesis test showed that Physical Assets Ownership (PAO) has an insignificant effect on Assets-based Logistics Service Provider Performance (AB-LSP Performance). The result emphasized that the resource-based view (RBV) theory was not effectively to explain the research's model. It showed that not all of a firm's resources have the potential to be the foundation for a competitive advantage and good performance. It meant also that the physical assets need other resources to shape a unique bundle of resources so that have a significant effect on firm performance. In addition, the result comprehends with sharing economy principles that have been running recently as a transformation from owning the economy system, which is physical assets ownership as a source of firm's competitive

advantage and superior performance was not significant anymore.

The second test showed that Physical Assets Ownership (PAO) has a positive and significant effect on Innovative Logistics Services Capabilities (ILSC). The result indicated that dynamic capabilities (DC) theory were effective in explaining the research's model. It was based on Wang and Ahmed (2007) that innovative capability constitute one of the elements of dynamic capabilities. Resources should be changed or modified into capabilities so that have a significant impact on firm performance. Sustainable competitive advantage only can be achieved if the firms were able to create and develop dynamic capabilities. In this case, logistics physical assets must be developed and modified into dynamic capabilities so that the logistics service providers will be able to explore logistics service business opportunities, develop new logistics service and share new logistics knowledge and experiences.

The third test showed that Innovative Logistics Service Capabilities (ILSC) has a positive and significant effect on Assets-based Logistics Service Provider Performance (AB-LSP Performance). The result showed that Assets-based Logistics Service Providers (AB-LSP) have to create and develop especially innovative logistics service capabilities and generally dynamic capabilities to enhance their performance. In connection with that, in line with Rothaermel (2017) that the firms (AB-LSP) must be able to change its internal resource base as the external environment changes. Indonesian assets-based logistics service providers (AB-LSP) are facing technological change, deregulation, globalization, and demographic shifts, so that dynamic markets today are the rule rather than the exception. As a response, the firm (AB-LSP) may create, deploy, modify, reconfigure, or upgrade resources so as to provide value to customers and/or lower costs in a dynamic environment. The essence of this result is that competitive advantage is not derived from static resource or market advantages, but from a dynamic reconfiguration of an AB-LSP's resource base.

The fourth test showed that Physical Assets Ownership (PAO) has a positive and significant effect on Assets-based Logistics Service Provider Performance (AB-LSP Performance) pass through Innovative Logistics Services Capabilities (ILSC). It was also showed that Innovative Logistics Services Capabilities (ILSC) mediated in full (indirect-only mediation) the effect of physical assets ownership (PAO) on AB-LSP performance. The result

indicated that Indonesian assets-based logistics service providers (AB-LSP) must be able to change and modify their logistics physical assets into innovative logistics service capabilities (ILSC) so that they can enhance their performance. It was comprehended with Khin and Ho (2018) stated that innovation mediated the effect of resources on firm performance.

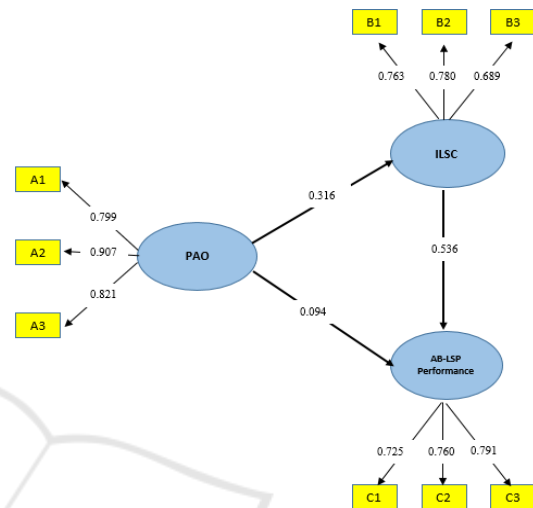


Figure 1: PLS Model (Algorithm).

5 CONCLUSIONS

Innovative Logistics Services Capabilities (ILSC) was importance for Assets-based Logistics Service Providers (AB-LSP) due to their physical assets could not enhance their performance unless they were able to develop or modify the assets into Innovative Logistics Service Capabilities (ILSC) first. Therefore, the physical assets ownership (PAO) could encourage the Assets-based Logistics Service Providers (AB-LSP) to explore logistics service business opportunities, develop new logistics services and share new logistics service knowledge and experiences. In connection with that, the dynamic capabilities (DC) theory was more effective in explaining the research's model than the resource-based view (RBV) theory. Theoretically, the innovative logistics services capabilities (ILSC) mediated in full (indirect-only mediation) the effect of physical assets ownership (PAO) on assets-based logistics service providers performance (AB-LSP Performance).

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