Achieving Logistics Performance in Military Environmental Dynamism: The Role of Organizational Capabilities

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***Abstract*— This study aims to understand the factors that influence the Malaysian Army logistics performance and the role of process capability. In addition, this study also attempts to examine the role of learning capability between the military environmental dynamism and process capability. It also attempt to include strategic logistics alliances on the relationship between the process capability and the Malaysian Army logistics performance. Since this study is also focusing on how organizational learning capability and process capability play a role in achieving logistics performance, a more comprehensive conceptual framework is required. This research therefore is expected to fill the research gap by developing a new theoretical conceptual model by tying up three theories including dynamic capability, organizational learning, and social exchange theories.**

***Keywords*—** *Logistics performance, military environmental dynamism, organizational capabilities, dynamic capabilities, organizational learning, social exchange theory*

1. Introduction

In international modern warfare, the success of Desert Storm Operation was heavily depended on Desert Shield Operation that moved mountains of logistics supports to Saudi Arabia from United States (Pogonis & Cruikshank, 1992). The underlying success to the Second Gulf War (2nd August 1990-28th February 1991) was due to the logistics abilities. During the Operations Desert Shield and Desert Storm, logisticians faced undefeatable challenges, which to some extent have prompted them to find a new way and reconfigure the logistics processes to ensure the deployment of 350,000 combat troops, equipment and supplies into the battlefield. Not only that, they have to continuously supply food, water, fuel, lubricants, ammunition and spare parts as needed as long as the war lasted to over long geographical distance. With limited resources and large geographical distance, the rush to deliver the supplies and deploy the combat troops into the battlefield, along with the usual fog and friction of operations required diversion from the existing operations. In this situation, it is important for the logistics processes to be agile to support combat readiness.

Military logistics operations include the process of supplying spare parts, sustaining as well as deploying and repatriating weapon systems (Simon, 2001). Differs from commercial logistics services, military logistics encompasses all activities needed to enable the deployed armed forces to continuously maintain its readiness to accomplish mission. Military logistics was born out of the necessities of war and the needs to move and transport troops, equipment and supplies to the battlefield (Glass, Hoffman & Ebig, 2012). According to the Yost (2010), NATO is evolving and military logistics not only deals with transporting, picking, storing and maintaining the weapon systems, it also encompasses the construction and operation of facilities and medical as well as health service support. In military, logistics efficiency appears to be the most crucial factors contributing to the military success. An efficient logistics operation will facilitate in increasing the fighting power of a military organisation as soldiers not only needed weapons, but food and ammunition to carry out their duties well. This is particularly important when military units venture away from their own borders, as they would face greater difficulties in obtaining supplies. Inefficient logistics operations in military would eventually lead to weaker combat power and inability to execute operations. Hence, it is no doubt that logistics service providers play a key role in a military organisation. They need to be able to maintain the competitiveness in uncertain

operational environment. Despite the importance of logistics function in a military organisation, achieving efficiency is difficult and challenging.

In the last 20 years, the military logistics environment has changed dramatically due to the cold war strategies, different types of adversary and a changing military workforce (Rutner, Aviles & Cox, 2012), pressing the military logisticians with difficult choices and creating a need to re-evaluate and improve their processes.

On the Malaysian front, previously the logistics function is operated based on the concept of push-forward system which creates a problem of supply chain disruption. Whilst it is assumed that having abundance of resources would lead to high operational performance, in practice however, the presence of large amount of supplies does not guarantee that the demands of war fighters are met. Instead, the back log of materials congested the logistics systems due to inefficient transportation and units' processes. This problem is heightened with the geographical distance between West Malaysia and East Malaysia. With increased geographical distance, the military logisticians may face difficulties in controlling, transporting and maintaining supplies in a timely manner. This is evident during the recent intrusion on Malaysian soil. The geographical distance between the Peninsular and East Malaysia affect the distribution support, creating a need for the logisticians to adapt and reconfigure their logistics processes in order to supply the materials to the parties needed. In the latest logistics doctrine, two alternative system, pull and directed logistics systems are suggested as alternatives to the push forward system.

The intensity in the Malaysian Army is shown through two types of military normal routines which are military operations and military exercises. In order to be efficient, both operation and logistics system require integration and coordination. This is important to ensure that the right resources are provided, positioned and sustained throughout the execution of operations in the battlefield. In addition to the routine military operations, the commitment of the Malaysian Army in bilateral and multilateral exercises has convinced other countries to collaborate with the other's country military. As emphasized in recent report, the exercises planned are fully executed though there are budget constraints due to the defence diplomacy (MAF Annual Report, 2017).

In one of recent military logistics exercise, a stimulation exercise of a larger scale was executed involving a movement of a brigade which comprises of military units, various types of vehicles and combat equipment amount more than 2,886 in quantity. They were transported through sea freight and air freight from asset of RMN ships, civilian logistics vessels ships and RMAF aircraft (C130H and A400) was made. In that exercise, enormous financial assistance of hundred thousand are required to move and equipped the brigade for high mission capability within days from Peninsular to Sabah. The magnitude of operational and exercises intensity as well as other uncertain incidents require organizational ambidexterity and process innovation in operation routine of the Army's human capital.

The current progress of modernising the warfare capability and the needs to prepare for future threat is costly. The massive costs involved in mitigating potential recent threats that led to the increased defence budget. To note, the Malaysian Military Expenditure from the year 2012 to 2015 increased steadily. However, in 2016 for the budget on procuring and maintaining defence assets are declined. Similarly, huge sum of money spent for logistics, maintenance and sustainment costs for the existing equipment may cause a lack of resources for urgently required new materials to replace aging weapon systems. Generally, in times of significant shortages of the defence expenses, efficiency is important (Markoff, Sanger, & Shanker, 2010). This indicates that it is important for the country's military logisticians to optimise the allocated resources to ensure its capability in adapting and aligning to uncertain situations like previous military operations on Malaysian soil. According to recent report, improvement on capability and readiness is increasing with lean management on resources is highlighted with following action plan.

(1) Human resource element must be upgraded with the new recruitment to balance the old Army who are leaving for retirement/leaving the services.

(2) Lean on the usage of the transportations (land transports, waterborne and airborne) with efficiency.

(3) Control on the maintenance and distribution of spare parts meant only for essentials and only emergency reasons direct outsourcing is approved.

(4) Control on the usage of ammunition and explosive. For training purposive, training and courses must be at minimum level but without compromising the competency of the soldiers.

With lean financial resources, achieving and maintaining logistics performance in military appears to be quite challenging. In response to this situation, the Minister of Defence has embraced on aligning modernisation assets with human capital development. On a similar note, the requirement of the country's COA on innovation practice across the hierarchy creates a need for both exploitation of resources and exploration to achieve reliable and superior workforce. In contemplating both needs, organizational ambidexterity is needed as a learning process (Huber, 1991). Maintaining both exploitation and exploration behaviours simultaneously is expected to sustain a credible workforce, which would positively affect overall Army logistics performance.

In another update on process on operation routine, there are new directives to update the current Army SOP because of change in current environment dynamism. This includes the SOP for Army logisticians. Concurrently, with the findings from recent logistics exercise, the improvement of SOP for military logisticians are compiled for documentation and this on-going process will continue in the future subsequent same magnitude logistics exercise. Therefore, operational process on military logistics routines for future benchmarking is currently progressing for documentation The weaknesses highlighted are important to positive step to improve its performance of time and cost of military logistics operations (Rutner et al., 2012).

Since 1940's the Malaysian Army had endured different scales of internal and external conflicts. These incidents are partly affecting the national sovereignty of Malaysia. The experiences obtained during these incidents are argued to enhance and develop the capabilities of Malaysian Army in combat readiness in uncertain environment. Yet, every year there are numbers of military logisticians leaving the Army force due to the retirement. This phenomenon requires the new workforce to re-stimulate the scenario, so that the past military knowledge is not expendable. In the readiness towards future workforce, organisational learning and dynamic capabilities are required to manage and retain the knowledge, so that the existing Malaysian Army are capable in managing the logistics operations.

Whilst logistics function is crucial for military success, the Malaysian Army are constantly facing various challenges. Their abilities to develop logistics capabilities and achieving performance may be impacted by their processes, environment, and capabilities. The challenges and issues create a need for the country's military logisticians to find new ways to improve their logistics performance by changing their operations strategies (Yoho, Rietjens & Tatham, 2013). Despite the importance of these issues, lack of studies has been conducted to examine this problem from the perspective of military logisticians from practical and scholarly especially in operation defence sourcing (Glas et al., 2013). Majority of studies that explore this issue are drawn from the perspectives of commercial logistics (Rutner et al., 2012). Although these commercial studies do provide insights, the theories, concepts and practiced developed for commercial logistics, may not be applicable for military logistics, as these two groups are expected to have distinctive characteristics, thoughts and behavioural patterns (Rutner et al., 2012) and different contingency logistics planning (Davids, Beeres & Fenema, 2013). This creates an imperative need for the proposed study.

2. Literature Review

The Malaysian Army is facing great challenges in its effort to achieve superior logistics performance. More recently, the interests in organizational learning capability has also increased in parallel with the modernisation of assets, resources and processes within the organization. This section attempts to review the previous literature by examining the underpinning theories, variables and the relationship between the variables. Following this, the section then presents the conceptual model of this study. This study adopts literature from the dynamic capability, organizational learning and

social exchange theories to explain the antecedents of logistics performance of the Malaysian Army.

2.1. Dynamic Capability Theory

Dynamic capability refers to learned patterns of collective activity and strategic routines through which an organization could generate and modify operating practices to achieve new configuration (Teece, 2007). According to the theory, strategic decision-making and alliance management along with the internal organizational resources help assure that substantive capabilities are configured to provide competitive advantage. The theory helps in understanding of how an organization could acquire, deploy and reconfigure resources as well as processes. The theory has received consistent support empirically in logistics management literature. For example, Jin and Edmunds (2015) has devised a conceptual framework investigating the role of resources in enhancing supply chain capabilities, while Beske (2012) illustrate knowledge and business processes as supply chain dynamic capabilities that would facilitate in achieving firm performance. Despite these literatures, little study however exists to explain the issues in the context of military organizations.

In the current economic situations, it is widely accepted that organizations including military units are often faced with lack of resources, pressuring them to operate under severe financial constraints (Zucchella & Siano, 2014). Furthermore, insufficient resources can often direct organizations to focus on short-term rather than long-term goals, discourage them from further exploration, development and exploitation of opportunities existing in the environment. Therefore, the DCT perspective comes in handy as it offers an opportunity to analyse the logistics performance that are associated with internal resources and capabilities. Based on the DCT theory, this study integrates process capability as a construct.

2.1.1. Process Capability

In this study, process capability refers to a systematic and structured approach to analyse and continually improve fundamental organisations' activities with the aim of improving the logistics services (Lee & Dale, 1998). It is intended to align the processes with the organization's strategic objectives and internal customers' needs. This research examines the process capability in terms of benchmarking and process flexibility as approaches in managing the logistics operations to ensure better preparedness in process efficiency (Swink & Schoenherr, 2015).

Benchmarking has emerged as an increasingly popular tool used to gain competitive advantage. It serves as a research and information gathering process that enables a manager to compare one's organization function performance with the others. In a military context, benchmarking is important since this would help army in determining the capabilities of its enemy. The immense research on benchmarking has been documented in the logistics management literature (Taschner & Taschner, 2016; Su & Ke, 2017).

In a turbulent environment, where many organizations face increasing demand variety and uncertainty, flexible processes are becoming an ever more desired capability (Van der Aalst, 2013). A flexible process is believed to lead to performance (Barad & Sapir, 2003), since it enables organizations to redesign existing processes or create new ones to cope with the dynamic environment (Raschke, 2010; Sharifi, Ismail, Qiu, & Tavani, 2013). Within the context of military landscape, logistics units with flexible processes would be able to proactively manage demands from soldiers and enhance the capabilities of the Malaysian Army in combat readiness. A flexible logistics process, for example, may allow shifting of supplies and transportation among different units. A pull-based logistics system is a key source of flexible processes, since it reacts to actual customer demands, rather than push-based logistics system (Chopra & Meindl, 2001). Accordingly, it is expected that with flexible process, military logisticians can deal with internal and external changes effectively, resulting in logistics performance.

In previous military operations, the Malaysian Army was expected to face difficulties due to the lack of logistics capabilities in moving the troops and other supplies to the battlefield within 24 hours. However, sensing the grave necessities, the Army is able to be responsive and agile in innovation manner indicating that environment dynamism would lead to logistics performance. In order to reduce the uncertainty environment, an organization needs to have a flexible process to be optimum in time and cost (Swafford, Ghosh & Murthy, 2006). Thus with dynamics innovation processes, and economic transformation (Nelson & Winter, 1982), organizations creates new knowledge (Nelson, 1995; Dosi, 1997; Metcalfe, 1998).

2.2. Organizational Learning Theory

Organizational learning theory which emerges from the dynamic capability theory deals with capacities of an organization to innovate through better knowledge and understanding (Fiol & Lyles, 1985). With increasing pace and complexity of environments, the importance of innovation hardly needs emphasis. According to Subramaniam and Youndt (2005), innovation entails identifying tools, ideas and opportunities to create new or improved products or services. Yet, an organization may have substantial barriers in implementing change or innovating due to the lack of knowledge. Hence, intensive organizational learning is needed to bridge the knowledge gap to improve the routine processes from time to time. Prior research (Andriopoulos & Lewis, 2010) suggests that as we live in time of "creative age", an organization's most valuable assets are its creative human capital who fuels the innovation efforts. Based on this theory, this study incorporates learning capability which will be examined in terms of learning capability which includes absorptive capacity, organizational mindfulness and organizational ambidexterity.

2.2.1. Learning Capability

In this study, learning capability will be examined in terms of absorptive capacity and organizational mindfulness and organizational ambidexterity. Absorptive capacity refers to an organization's ability to identify value, assimilate and apply new external information and apply it to commercial ends (Cohen & Levinthal, 1990). It does not only associate with organization's direct interface, but also the ability to exploit the environment. Absorptive capacity has been found to accelerate organizational learning in international venturing (Zahra & Hayton, 2008); technology sourcing (Ouyang, 2008; Haro-Domínguez, Arias-Aranda, Lloréns-Montes & Moreno, 2007) and strategic alliance (Muscio, 2007; Garcia-Morales, Lloréns-Montes & Verdú-Joveret, 2007). In the context of this research, the absorptive capacity is expected to transform military units into a hybrid organization (Jay, 2013), which is not only focusing on obtaining efficiency for day to day operation but display creative and innovative initiatives. This type of dynamic capability will enable organizations to exploit the intangible resources in a dynamic environment. With absorptive capacity, an organization is able to acquire, assimilate, transform and utilize knowledge (Patel, Terjesen & Li, 2012; Lawson & Potter, 2012; Gutiérrez, Bustinza & Molina, 2012, Scott, 2015) as well as has course of action in leveraging or responding (Vogus & Sutcliffe, 2012; Ray, Baker & Plowman, 2011; Scott, 2015).

Organizational mindfulness refers to an organization's ability to assess threats that may emerge internally or externally, and capture such detail, so that they are able to respond quickly and reliably to avoid incidents or system failures (Weick & Sutcliffe, 2015). In an organization, this capability is manifested through a workforce who is sensitive to changes in environment. In a complex environment, having a high degree of mindfulness will disallow organizations from failing to misunderstand and underestimate the turbulent conditions (Weick, 2009), allowing for more productive and innovative thinking (Ray et al., 2011, Scott, 2015). In terms of performance, the Malaysian Army has management tools such as SFS, Innovation and Quality Control and the most recent is the MASTs as internal control measurement supporting organizational mindfulness. These management tools are meant for quality, innovation and performance management of the Malaysian Army at large.

Organizational ambidexterity refers to the capacity to excel at both exploration and exploitation, which are pertinent, yet conflicting modes of innovation (Raisch & Birkinshaw, 2008). A best organization is increasingly believed to be those that could simultaneously balance explorative and innovative innovation in an ambidextrous manner (O'Reilly and Tushman, 2013; Gibson & Birkinshaw, 2004). To date, there is a lack of research that investigates the role of organizational ambidexterity as a part of learning capability and moderating factors in the relationship between uncertain environments and logistics performance. While an organization's absorptive capacity enables it to recognize new knowledge (Zahra & George, 2002; Mogos, Descotes & Walliser, 2013), the level of ambidexterity determines how the knowledge will be applied to exploration and exploitation (Sheremata, 2000; Stadler, Rajwani & Karaba, 2014; Gibson & Birkinshaw, 2004; March, 1991). On one hand, an organization may over invest in exploration, and continuously pursuing novel technologies, potentially lock in resources (Auh & Menguc, 2005; Piao, 2014). On the other hand, an organization may pursue exploitation focusing on refining existing products and services, yet forgo the necessary innovations, which may impact the performance (Pe´rez-Bustamante, 1999; Tavani, Sharifi, & Ismail, 2013). In the organization, a single side concentration either on exploration or exploitation creates disaster (Gupta, Smith, &

Shalley, 2006). In the face of environmental uncertainty, an organization with high ambidexterity will be more likely to refine resources and develop new and improved processes as new competency and new learning need to be directed towards logistics performance (Yan, Yu, & Dong, 2016). Within the context of the Malaysian Army, the ability to continuously aligning both exploitation and exploration is expected to spark the imagination, invention and experimentation to create future opportunities, enhance current human resource skills, specialization and capacity to meet today's uncertain environment.

2.3. Social Exchange Theory

Social exchange theory was developed by Homans (1961) in the field of psychology. The theory specifically focuses on voluntary exchange of value by other people or organizations with the aim to maximize their gains in a social system. Social exchange theory has been adapted in supply chain research to examine alliance performance (Yang, Wang, Wong & Lai, 2008), coordination (Holweg & Pil, 2008) and relationship management (Glogor & Holcomb, 2013). Reaping the potential benefits of process capabilities may possess great challenges to an organization, since a comprehensive framework for logistics performance goes beyond the physical movement of supplies and materials along the entities involved (Spillane, Cahill, Oyedele, Von Meding & Konanahalli, 2013). Based on the social exchange theory, this study will integrate strategic logistics alliances.

2.3.1. Strategic Logistics Alliances

Strategic logistics alliances could be defined as the cooperative and exclusive relationships exist between organizations in the supply chain network formed to improve logistics performance (Gunasekaran, Patel, & McGaughey, 2004). In this study, strategic logistics alliances will be examined in terms of logistics coordination and information sharing (Gunasekaran & Ngai, 2004). Logistics coordination refers to the close integration of logistics processes (Simchi-Levi & Zhao, 2003). Given that the military operations are associated with larger geographical distance, the logistics units may face higher degree of uncertainties (Hesse & Rodrigue, 2004). Coordination between the units may produce a seamless connection, which facilitate in reducing various problems including supply chain disruption (Prajogo & Olhager, 2016). It would also permit an organization to adopt pull based system which are associated with timely delivery and reduced inventory costs.

In an effort to coordinate and integrate the logistics processes effectively, information sharing is vital (Wu, 2008). In a commercial logistics, information sharing deals with the mutual sharing of business and market information between supply chain partners. This information include inventory status, sales and forecast data and production delivery schedules. Information sharing enables other members in the supply chain network to view accurate and timely data at different levels in the chain, allowing them to avoid any risks of delays in delivery and the need to keep safety inventory, which is associated with higher costs. Similar phenomenon is also expected to happen in the military organizations. .

2.4. Logistics Performance

Logistics performance, which is the ability to consistently deliver requested products within the requested delivery time frame at an acceptable cost, is highly important in achieving overall performance (Stank, Goldsby, Vickery & Savitskie 2003). In the Malaysian Army, efficient logistics performance appears to be the most crucial factors contributing to the military success. An efficient logistics operation will facilitate in increasing the fighting power of a military organization as soldiers not only needed weapons, but food and ammunition to carry out their duties well. In an increasingly challenging environment which is reflected by uncertain demands and rapid technology development, cost pressures remain high (Do & Kambhampati, 2002). The logistics units in the Malaysian Army have already been facing this challenge for years. It can therefore be seen as a valid logistics performance measure.

In addition to cost, the military organization is also facing complexities owing to the considerable distance that the materials and supplies must traverse between the different nodes along the supply chain. In the military context, it was traditionally thought that having abundance of supplies ensured that logistics service providers would be able to provide everything needed to achieve the desired performance. Yet, responsiveness needs to be integrated in the logistics system to attain a good logistics performance. With an increased focus on the trade-off between inventory reduction and higher delivery frequencies, the number of materials delivered by just-in-time processes is also rising. At all times, on time availability of the supplies

needed especially at the battlefield is essential. Hence, in this study, responsiveness is incorporated as one of the measures used to assess the logistics performance beside cost.

In this research, responsiveness is divided into two which are agility and service recovery. Agility refers to an organization's ability to sense the changes in environment and quickly respond. Agility is important to be incorporated in this context of research since the Army engulf in operation routines that are dynamic based on various locations in Peninsular and East Malaysia. Hence, agility is needed to respond to the operational demand in a timely manner (Stank & Lackey, 1997; Swafford et al., 2006). In a commercial logistics, service recovery refers to an organization's ability to convert a previously dissatisfied customer into a loyal customer. It is an action taken by a service provider in response to service failure.

2.5. Military Environmental Dynamism

Previous literature (Jansen, Tempelaar, Van den Bosch, & Volberda, 2009; Kamasak, Yavuz & Altuntas, 2016) highlights environmental dynamism as the rate of change, unpredictability and instability in external environment. In a highly dynamic environment, organizations may face challenges in responding to the customers' demands and exploring new alternatives. Yet, on the same time, a dynamic environment may also force organizations to strengthen their existing capabilities and develop new ones to enable them to compete. If an environment is perceived to be uncertain, organizations may use their existing knowledge repositories more effectively and enhance their capabilities through learning capabilities. For example, Ramamurti (2012) and Uner, Kocak, Cavusgil & Cavusgil (2013) found that the success of emerging market businesses did not emanate from their low cost advantages, yet through their skills of screening the market's needs. Hence, it is expected that military organizations may utilize and enhance their capabilities to overcome specific competitive challenges in an ambiguous environment. In the Malaysian Army environment, the logistics service providers for the unit may face difficulties to engage and sustain their logistics performance due to the problems such as operational deadlock and technology obsolescence. Hence, they need to enhance their dynamic capability to ensure delivery speed, agility and service responsiveness. Previous military operations by Malaysian Army represent operational uncertainty, which require enormous logistics and supply chain support. This would necessitate the logistics units to reconfigure their processes of benchmarking, flexibility and innovation to meet the operational demand. In order to train, prepare and perform well in the combat operations, it is necessary to understand the environment and its impact on performance and logistics capabilities.

3. Research Framework

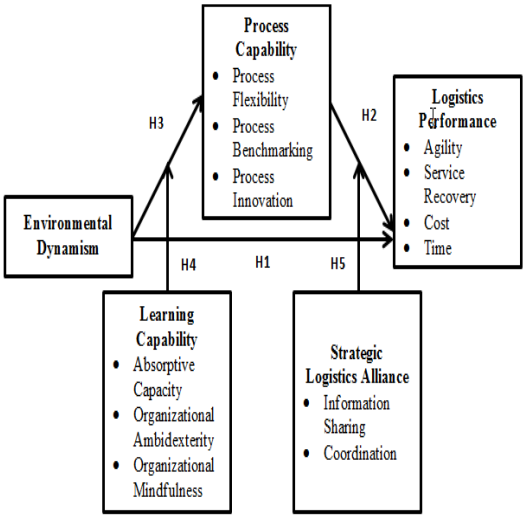

Figure 1. Research Framework

Drawing upon the literature and the theoretical framework, this study proposes the above research framework. Based on the above research framework, five hypotheses are developed to explain the relationships between the variables. The following section outlines the hypotheses developed.

3.1. Environmental Dynamism, Process Capabilities and Logistics Performance

The relationship among environmental dynamism, process capabilities and performance has been studied before. Empirical researches (O'Shannassy, 2008; Kamasak et al., 2016; Patel et al., 2012) highlight that whilst highly uncertain environment may reduce the organisations' ability to respond to the demand changes and explore new opportunities, this kind of environment can also act as a great source of opportunities for them to strengthen their existing capabilities or develop new process, enabling them to overcome their organisational inertia. For example, in order to address challenges in dynamic environments, organisations may invest in benchmarking process,

which would help them to search for the best practice and facilitates organisational learning to attain higher performance (Shang & Marlow, 2005). Similarly, organisations that operate in a dynamic environment would dynamically reconfigure processes to leverage their resources for better performance (Wei, Yi & Guo, 2014). Based on these arguments, this study postulates that:

H1 Environmental dynamism is positively related to logistics performance of the Malaysian Army
H2 Process capability is positively related to logistics performance of the Malaysian Army
H3 Process capability mediates the relationship between environmental dynamism and logistics performance of the Malaysian Army

3.2. Environmental Dynamism, Learning Capability and Process Capability

Prior works have documented that learning capability such as absorptive capacity can enhance an organisation's process capabilities (Zahra & George, 2002; Flatten, Engelen, Zahra & Brettel, 2011). Organisations with high absorptive capacity for instance, could analyse and interpret information about changes in the environment and make necessary configuration and realignment of process capabilities (Souchon & Diamantopoulos, 1997). In the logistics field, having a high absorptive capacity would facilitate them in being more efficient and effective in processing information (Julien & Ramangalahy, 2003), and quickly adjust the mobility of logistics flexibility to uncertain environment (Lioa & Tu, 2007). By contrast, organisations with restricted absorptive capacity are less likely to be able to respond well to the uncertain environmental owing to their limited capability to acquire and assimilate (Flatten, Greve & Brettel, 2011; Descotes & Walliser, 2013). Similarly, organisations with high ambidexterity will be more likely to both continuously improve the existing processes and embrace new possibilities (Lavikka, Smeds, & Jaatinen, 2015) and provide new learning (Sheremata, 2000; Stadler et al., 2014). Based on these arguments, this study postulates that:

H4 Learning capability moderates the relationship between environmental dynamism and process capability.

3.3. Process Capability, Strategic Logistics Alliances and Logistics Performance

Strategic logistics alliances could be defined as the cooperative and exclusive relationships exist between organisations in the supply chain network (Sambasivan, Siew-Phaik, Mohamed & Leong, 2011). Previous studies found that strategic alliances influence the performance of an organisation positively (Todeva & Knoke, 2005; Lee & Cavusgil, 2006). By having alliances, an organisation is taken a step to break down the interorganizational barriers which would eventually allow the sharing of information, key resources, technologies and risks between the organisations involved (van Vijfeijken et al., 2002). Such alliances created could also improve tasks coordination, process flow and reduce waste in supply chain activities; and help organisations to enhance the control of supply chain and distribution function, leading to logistics efficiency and benefited interdependence (Johnson & Johnson, 1989). Based on this argument, this study postulates that:

H5 Strategic logistics alliances moderate the relationship between process capability and logistics performance.

4. Research Methodology

This study employs explanatory and quantitative research method. The context of the study is explained through theory testing and hypotheses are developed based on literature review and context of the study. The research questions are also built based on literature review and context. A survey questionnaire will be used to test the model and hypotheses developed. The unit of analysis is at the organizational level. Based on the population, sample will be selected using a stratified random sampling approach. Stratified will be made based on three types of units, which are combat unit, combat support unit and service support unit. In this study, a sample size of 120 will be used. This sample size is determined based on Krejcie and Morgan's (1970) table of sample size specifying a 5% margin of error. This study targets multiple informants (Wagner, Rau & Lindemann, 2010) to increase validity. The key informants include top management of the unit (i.e. commanding officer/officer commanding unit, second in command of unit, officer commanding of unit headquarters, operation officer, quarter master/logistics officer, military transport officer,

technical officer) who has the command function, responsible and involve in decision-making process relating to the logistics function at the unit level. Since this study adopted multiple informants, three key informants are needed to represent a single unit as Klein and Koslowski (2000) coined. Structural Equation Modeling (SEM) will be utilized as a primary data analysis technique. SEM will be used as it is capable to examine the entire model simultaneously and assessing measurement errors (Hair, Sarstedt, Hopkins & Kuppelwieser, 2014). This study relies on variance-based SEM, using partial lease square (PLS). PLS has become one of the preferred data analysis techniques as it is suitable for small sample size (Hair et al., 2014). Hence, researches that deals with small size owing to the difficulties in obtaining responses can choose PLS as the data analysis technique. This technique is also increasingly used in various areas including supply chain management. Given this consideration, PLS therefore, serves as an appropriate data analysis tool for the proposed study.

5. Conclusion

From a practical perspective, the findings of this study are expected to facilitate the Malaysian Army in formulating strategies and capitalizing on the internal capabilities which may provide platforms and opportunities for more effective logistics management. This is important considering that the performance of logistics function relies on numerous factors. Investigation of the factors that influence logistics performance has been a crucial to the Malaysian Army concern since logistics function is crucial to ensure long-term survival in dynamic and uncertain global environments. In an uncertain economic environment, the country's military requires capabilities to manage their static knowledge resources effectively due to financial constraints. This research will also inform the government on the feasibility of existing or future strategies, since aggressive intervention by the government is needed to develop the country's military logistics capacities and success.

The findings of this study also seek to contribute to the military logistics literature. This research offers understanding of how the Malaysian Army could improve their logistics performance by looking at the organizational processes capabilities, dynamic environments and learning capabilities. Logistics management has been a crucial part of a military organization for decades. From the management perspective there is always concern related to the efficient and timely delivery of troops, equipment and supplies to the battlefield. In an uncertain environment, with restricted financial resources, the Malaysian Army need to be able to innovate by finding new ways of attaining logistics efficiency. The delivery of efficient and effective military logistics services requires highly skilled managerial and operational staff. As highlighted by the Malaysian Minister of Defense, embracing an alignment between asset modernization and human capital development may help the units in achieving performance. In response to this, this study brings together relevant literature streaming from logistics management and strategic management in examining how the Malaysian Army could enhance their logistics performance. Constructs such as ambidexterity, absorptive capacity, organisational mindfulness, process flexibility, benchmarking, innovation and strategic alliances will be integrated in the conceptual framework.

This study also attempts to contribute to a better understanding of logistics performance in a military landscape by integrating several theoretical perspectives. Since this study is also focusing on how organizational learning capability and process capability play a role in achieving logistics performance, a more comprehensive conceptual framework is required. This research therefore is expected to fill the research gap by developing a new theoretical conceptual model by tying up three theories including dynamic capability, organizational learning, and social exchange theories.

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