Halal-Logistics Value Chain On Firm Performances: A Conceptual Framework

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Abstract—Various studies on logistics have been conducted to examine Logistics Service Provider (LSP) firm performances from many angles. This is important since logistics service has become an important industry globally and the trend also absorb in Malaysia’s commercial market. Growing in innovation trend has also effected logistics when demand on green logistics take place in international stages on awareness over environmental issues. In line with this development, halal-value concept also emerges and constructively contributes to the sustainability of the industry. Therefore, there is a discrepancy in the study of business models, particularly on the firm performance that have not yet been tested in the role of halal and green logistics as a catalyst for marketing strategies that can benefit a company. Thus, this theoretical paper will delve into previous literatures related to business performance to see the direct relationship between halal and green logistics as independent variable toward firm’s performance. Through this theoretical study, halal-green logistics will be dedicated as element of sustainability marketing in firm’s performance; in which environmental issues and contamination issues will be highlighted and addressed accordingly. This study will propose Resource-based View Theory as underpinning theory to prove inclination of relationship between variables. Finally, the paper will put forward Halal-Logistics Value Chain conceptual framework as initiative to facilitate the global community of researchers and practitioners in understanding the diversity, meaning, and evolution of the halal-green logistics phenomenon in the context of emerging economies, also as improving firm performance.

Keywords—firm performance; halal-value creation; green-logistics; halal-logistics value chain; Resource-based View Theory

I. INTRODUCTION

The business environment today poses a very difficult challenge for a firm to remain resilient to uncertainty. The Covid-19 pandemic is certainly one of the impacts due to the interdependent nature of global industry players as well as the content of negative economic impacts will also happen on business performance. Sustainability in marketing strategies is therefore a must for companies if they wish to remain resilient; not just on this compilation alone, but other constraints that are more challenging to the business activities in the long term. To this end, the business community aims to stay engaged by applying various approaches in order to remain competitive on the marketplace and to ensure that challenges and competition continue to be addressed. Sustainable approaches begin to take place in the corporate world by looking at responsive marketing strategies for the environmental and consumer demand to accomplish this objective. Thus, this policy has led to a new field in science emerging in the market sector known as green market. Moreover, the halal idea also dominates current developments in line with the worldwide Muslim community’s demographic reality, in which by 2030 the Muslim world population is estimated to reach 2.2 billion, or 26.4 per cent of the world’s total population [5]. The government’s intention to develop as an international halal-hub in Malaysia, as a municipality, has started to take its toll. Hence, this study believes that halal and green strategies may be essential to Malaysia’s marketing strategies for corporate sustainability and efficiency.

Recently, although most customers are familiar with halal food and cosmetics, it is important to note that halal concept also includes everything from finance to travel and even fashion to all aspects of the life. Significant increase in the awareness and demand for halal goods and services have emerged from both Muslim and non-Muslim consumers, and that denotes a trigger for the birth of relevant market strategy [19]. So then, the preceding question arises as to how far the halal-value creation concept is the best way toward the firm performance? Green Millennial Muslims are concerned not only with the production of the commodity (both livestock and non-livestock) or service, but also with the manner in which they have been processed, and this school of thought extends from beginning to end to all aspects of production – resources must be halal and tayyab, while at the same time maintaining respect to employees [17].

In addition, study will also select halal-value creation and green-logistics as the variable to check the sustainability of firm performance since previous logistics studies have shown that firms are willing to adopt halal in their logistics operations. Increasing interest in green logistics as environmental
organizations internationally reiterated their demand for environmental conservation; encouraging people to take responsibility for harmful activities impacting the earth [8]. For the purposes of this research, the implementation of halal-logistics will lead to the conceptual framework of halal value chain consisting of minimizing costs as well as maximizing profit (economy), product / service (quality) also enhancing skills, knowledge and welfare of people (society) and the planet (environment) [13]. On the other hand, green logistics is implemented by green packaging, green warehouse, inventory and material handling; green transport and green management system [12].

II. MATERIALS AND METHOD

A. Halal Concept and Business Opportunity

Although most customers are familiar with halal food and cosmetics, it is important to note that halal concept also includes everything from finance to travel and even fashion to all aspects of life. Significantly increased awareness and demand for halal goods and services from both Muslim and non-Muslim consumers rise to the demand for market strategy [19]. So then, the preceding question arises as to how far the halal-value creation concept is the best way toward the firm performance? Green Millenial Muslims are concerned not only with the production of the commodity (both livestock and non livestock) or service, but also with the manner in which they have been processed, and this school of thought extends from beginning to end to all aspects of production – resources must be halal and tayyab, properly respected and employees must not be exploited [17].

Halal (through Quran and hadith) can be represented as being produced or slaughtered in a permissible manner [3][19], permeates beyond dietary requirements and is embedded in a Muslim's daily routine and belief, such as behaviour, expression, social contact, etiquette, gesture and attire, to ensure that life is within the limits of Sharia law [17], while tayyab means clean, sacred, safe, quality and not detrimental, sees that what we consume is supported by an ethical supply chain. Malaysia ’s goal in responding to the above question was to champion halal logistics: new logistics disciplines are classified as halal transport, halal warehousing, and halal terminals [29]. Halal-value creation can therefore be seen as a marketing strategy for firm performance and benefit the whole of Malaysia's industries.

B. Halal-Green Logistics Concept and Business Performance

International Logistics and Transport Summit attracted significant legislation at both national and international level to improve the environmental performance of both issues. However, in addressing the issue to boost firm performance, the logistics sector is what social entrepreneurs in Malaysia have struggled to comprehend. Green concept has always been related to the universal sustainability characteristic in different fields. Green technology alone focuses on degradation of the environment, zero greenhouse gases, better environment in all forms of life, saves energy / natural resources and encourages reusable sources, while the Green House concept was implemented to minimize energy inefficiency and consequent emissions. It remains capable of enhancing air quality and home comfort. Previous studies have shown that business output can be positively affected by progress in logistics and the distinction between logistics services (Ralston et al. 2013), including skilled logistics professionals, affecting logistics performance (Jhawar et al. 2014), because employees’ skills can directly or indirectly influence the performance of a firm [21]; Mothilal et al. 2012).

Studies by Shang and Marlow (2005), Cho et al., (2008) Yang (2012) and Karia and Wong (2013) have also found a positive relationship between logistics capabilities and resources and logistics performance. Nationally, in Nation Entrepreneurial Policy (DKN) 2030, the government’s commitment has clearly outlined which goal of sustainable economic growth can be fostered through an innovative and creative entrepreneurial, new approach and digital economy. Until then, without impacting future generations, the present needs will be fulfilled (Kementerian Pembangunan Usahawan, 2019). Furthermore, green demand especially among Muslims (with strong faith in sensitivity to halal and tayyab issues) and non-Muslims has been widespread over the years since attempts to measure and minimize environmental impacts have been widely recognized through logistics activities.

As a result, as well as developing new theoretical concept on halal logistics, many research tends to focus on green logistics. The ideas are to describe logistics systems and strategies that use advanced technologies and equipment to reduce environmental damage during operations, but the Shariah-compliant processes are a must in handling and distribution of goods / services along the entire supply chain (Kamaruddin et al., 2012). The importance of halal logistics services as an emerging sub-sector that could enhance Malaysia ‘s role on a global scale; a global-renowned halal hub business is clearly demonstrated through Malaysia’s Third Industrial Master Plan (IMP3) 2006-2020 as a master plan focused on halal-green logistics services. There is a distinction between conventional logistics and halal logistics, for example, even though both practices operations are very similar. Halal logistics only supplies halal shipments [36] halal logistics segmentation that focuses on avoiding contamination with non-halal elements, minimizing the risk of contamination, should minimize hardship and (most of the requirements) should be based on existing halal standards [28][31], for example the Halalan-Toyyiban Assurance Pipeline (MS2400:2010) and the International Halal Logistics Standard (IHIAS 0100:2010). At present, minimal literature on halal logistics efficiency, in particular the application of the green-halal principle to the operation of the company, demonstrates a gaping void. Therefore, the scope for this research in the field of social entrepreneurship can be recognized as inevitable. Since supply chain demand has also been recognized globally in the context of halal consumption and consumerism, green logistics has already indicated its success from various research.

C. Resource-based View Theory

This study recommends Resource-based View (RBV) theory, which consist of valuable, rare, imperfectly imitable and not substitutable; generally known as VRIN criteria as proposed
[2]. The theory indicates that resources are the primary determinants of firm's performance [20]. Moreover, the theory also represents an interdisciplinary discipline that is developed within the disciplines of economics, ethics, law, management, marketing, supply chain management and general business [7]. In order to analyze VRIN effects on variables, it has indicated that the right capabilities to transform distinguished logistics resources into enhancing a better performance can be considered as a key source of leading competitive advantage as each tangible and intangible resource has to support, create or influence the performance value either service advantage, cost advantage or innovation advantage (Karia & Wong 2013). Therefore, to prove the sustainability of firm performance inclined to other factors. This study recommends Halal Logistic Value Chain as independent variable since studies have shown that firms are ready to adopt halal and green into their logistics operations (Tarmizi et al., 2014)

III. DISCUSSION

A. Halal-Value Creation Construct Scale

Halal market scope is very promising for halal manufacturers to disseminate their goods internationally. Storage, distribution, delivery or transportation are part of the halal logistics mechanism where "from farm to fork" involves the entire supply chain network right from the source to final consumption [25]. Halal logistics, as defined by [29] does not vary significantly from conventional methods such as controlling the production, transport, storage and handling of commodity components (e.g. products, semi-finished or finished food and non-food objects) in the supply chain network with Shariah values being followed. [29] argues that halal logistics relates to the process for procurement handling, storage, transition and control of material component, livestock, a partially completed or full inventory of consumable and non-consumable products and that those procedures must comply with 'Shariah.' Product/service with halal branding, in particular food as referred to [28], can be suspected if it comes into direct contact with non-halal during processing, storage, transport and handling.

To date, some previous studies have succeeded in identifying the indispensable problems in halal logistics, mainly in three predominant areas; transportation and movement, storage and warehousing, also in terminal operations and processing [31][29][25][26]. For instance, [13] pioneering the study to conceptualize hala- value creation as service innovation on logistics service providers have discovered a new way of thinking about organizational management or a holistic way of delivering a range of services for different customer needs, minimizing costs and optimizing profit (economy), product / service (quality), people (society) and the planet (environment) benefits which is already under way. Hence, this research determines to test halal value-creation construct consisting of product, profit, people and planet, since the capabilities of the halal logistics service are linked to how efficiently input resources are converted into the production of halal value for customers [12]. [12] listed the explanations as below for each construct:

1) Product / Service

For the purpose of quality and effectiveness of operations, product / service liability tends to optimize firm or public benefit by having a beneficial impact on transportation (on the right product, at the right time and the right place; for effective costs of operation), customer satisfaction, sources and expertise (upgrading facilities, technology and skill worker). Most criteria to be considered in order to achieve the objective of halal logistics in product/service construct are concerned with logistician or firm ability to comply with the standard operating procedure, ensuring guaranty of the safety of goods from receiving to arrive at the particular destination, provide all customers with the best services including delivery systems and complaints, and provide only the best services for customers or be the best for customers.

2) Profit

The following construct is the profit objective to maximize company and public interest. This construct tends to provide quality, safety, purity, nutrients, healthy, and hygiene products, with the principal of performing services with concepts of trust, dedication, honesty, timeliness, and discipline. Indication of construct can be deliberate as delivering at right place and right time as promised (to ensure loyalty), equipment upgrading, technology acquisition, training for employees (to ensure efficient and effective operation cost), technology capability (to speed up operations as it eliminates unnecessary operation line, time, expense, and toward paperless concept) and also customer feedback such as complaint, quality of product/service received and delivery time as promised by company. These are an effort in ensuring the objective of halalness as zero defects, sharia complaint, avoid thievery, corruption, monopolies and hoarding which need to be seriously taken into account on profit source matters.

3) People

The third construct is people. This construct is dedicated to shaping good conduct, moral obligation and avoiding wrong-doing as part of firm responsibility toward their employees. The action by decorating commitment to the worker (doing jobs with genuine and conscientious work), continued employee engagement and ability (well-trained employee doing excellent outcomes), career development, job satisfaction and social welfare. Thus, firms will dedicate an objective of ensuring employee commitment; work performance with sincerity and responsibility, assuming employees as the greatest asset, bringing in selected people (the best labour) to do more work as an attempt to reduce operational cost and increase sales, and recruiting workers with skills and knowledge.

4) Planet

The final construct is planet (environment). This construct is also directly related to green logistics in terms of environment conservation. Firm commitment can be described as maximizing environmental benefits and care of its environment toward human well-being. Working on safety and green environment by adopting reduce, reuse and recycle concepts will promote green reverse logistics or in transportation emission reduction, which complies with protection and environment regulations aimed to protect animal welfare or avoid harm to others. These action can be foregrounded through
practicing 3R activities: reduce, reuse and recycle as listed on Green Environment (1800), employing green transportation system (reduce emission and pollution) guided by Safety Environment (1400), and implementing safety committee with OSHA standard (wear safety helmet, thick leather shoes, gloves and masks for safety).

B. Green-Logistics Constructs Scale

In order to understand the role of logistics in the concept of halal value, this study focuses on green-logistics as it supports human and environmental sustainability as a whole. Logistics which incorporates all warehouse management, inventory control, freight transport, procurement, materials handling and all related information processing, are acknowledged as the center of economic development of human and/or product movement. Green literature has identified green logistics practices, such as transportation modes of choice and transportation planning, environmentally-friendly, cars fuel substitutes, eco-friendly driving and supply chain choices, environmental management system and recorded pollution and energy data. These are identified in previous literatures. It is also imperative to note that green logistics adoption by firms not only provides a positive impact on organizational efficiency; which improves the environment (decreases pollution/emissions) and economic performance (costs reduction, materials and resources saving, and enhanced competitiveness) [35][14][1]. In fact, it also functions as sustainable manufacturing and distribution of products, geared to minimizing to zero impact on the environment as possible while taking into account cost and social factors [16]. Therefore, green logistics practices are considered to be strategies or attempts to reduce the negative impact of logistics operations on the environment that minimizes environmental damage as well as improve value for customers / society and earth. Based on literatures, constructs for green logistics as follows:

1) Green Packaging

Green packaging construct can efficiently meet its functional requirements of product/commodity life cycle, as is also stressed by [4] where green packaging must not harm the environment or human health, support the reverse logistics concept to be reused and recycled to fulfill the criteria for sustainable development [15][10][22]. [9] also stressed as four main decisions to be taken in the redesign of packaging including selection of materials, sizes, groupings (package number) and graphic artwork (or aesthetic design of packaging). This is also related to packaging’s three main functions that need to be addressed, which include the functions of commercial, logistics (direct logistics), and climate (reverse logistics). In addition, to bring the packaging redesign into practice [24] listed three structural levels consisting of packaging (also known as consumer packaging), packaging (a collection of several primary packages; known as transport packaging) and packaging (including several primary or secondary packages packed together on a pallet). The approach of using selected packaging materials method will promote climate, economic and social sustainable growth, such as recycling, product reuse, inclusion of green packaging suppliers, introduction of reverse logistics and reduction of waste and material usage and unpacking time [12].

2) Green Transportation

Green transportation construct or sustainable transportation is the effective use of sustainable transport modes and proactive transport planning; it decreases the impact on the environment, while increasing the health and capacity flow of goods across the supply chain. It has improved delivery efficiency, reduced errors, and saved resources [15] Y.Liu & Z. Yuan 2012. To monitor and minimize pollution emanation (such as leakage of fluids like oil or gas), proper vehicle maintenance would help ensure the vehicles are in a safe and efficient working condition, the life of the vehicles will be extended, and the risk of accidents will be decreased accordingly. This green mode of transportation will help businesses to save operating costs and minimize the amount of environmental damage [6][33]. Moreover, proper selection of transportation routes will resolve circuitous and repetitive movement, shortening routes and minimizing unloaded prices. Also to be considered are logical architecture of cargo outlets and distribution center networks to this whole strategy, which would eventually reduce noise pollution and gas emissions from transportation [4][15]. The idea is to save money by applying full vehicle freight loads, as in turn more units of goods, and to share the same overhead transportation [6][24]. This distribution management approach and the use of green vehicles will improve climate, economic and social sustainable development, e.g. using less diesel, biofuels, solar and natural green vehicles [12].

3) Green Warehousing

Green warehouse construct refers to facilities (storage area, warehouse or building) that safeguard products, reduce the impact on the environment and help organizations save operating costs. Since items for storage purpose are temporarily processed before the goods are delivered or sent to the intended destination, warehouse green concept helps firms and/or logistics companies to easily manage and make full use of the facility [24]. As example, green storage provides eco-friendly features of a facility, such as roof-mounted solar panels, heat-absorbing solar walls, natural lighting, sufficient flooring, etc. as elements of energy-saving and cost-effective construction materials [12][24]. Introduction of skylights and clerestory windows in buildings enables natural light as the basis for interior lighting. The sun's power harnesses, minimum usage of energy and carbon dioxide emissions, increased efficiency of the indoor atmosphere for employees at the facility, daylight dimming, switching, and using motion sensors [22][24] also contribute to the sustainable environment and human benefits. Therefore, [12] sees these approaches able to maximize energy and inventory, reduce movement, such as using solar warehouses, utilizing warehouse layout and inventory strategy, or energy-efficient building, wind or solar power plants.
4) Green Management System

Green management system is a construct related to cutting edge innovation, system or technology that allows firm not just to enhance administration and management efficiently but also to support the adoption of biological technology, information and communication technology (ICT), monitoring technology and a diversity of particular technologies in the logistics management process [23]. Green technology is the use of cutting edge innovation, system or technology that allows companies to enhance administration and management efficiently. It also refers to the adoption of biological technology, information and communication technology (ICT), monitoring technology and a diversity of particular technologies in the logistics management process [23].

[34] agreed that technology is an essential tool in moderating the effects of logistics services on the environment like transportation management system, freight forwarding software, warehouse management system, and software for e-shipping documents as the four most environmentally beneficial innovations for logistics firms. It also includes biological application, technology control, and software for managing the supply chain [24]. Therefore, it is deemed essential to develop strategic planning, economic and social sustainable development, control and assessment of green logistics activities that improve climate e.g. support and engagement from top management, total involvement, education and training [12]. Based on the literature reviews discussed above, as well as the discussion and arguments presented, this paper would like to propose a Halal-Logistics Value Chain construct scales as shown in Table 1 and Figure 1.

TABLE 1 : Halal-Logistics Value Chain Constructs Scale

<table>
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<tr>
<th>HALAL VALUE</th>
<th>SCALE</th>
<th>GREEN LOGISTIC</th>
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| **A Profit**<br>(E.g. Maximised Interest Of Firm And Public) | • Delivery as promised, at the right time, in right place  
• efficiency: upgrading equipment, technology acquisition (would speed up operations due to the fact that it cuts unnecessary work, time and cost, and is paperless)  
• effectiveness : employee education | *Transportation  
*System-Techno.  
*Packaging/Warehouse/Transportation |
| **A Product Or Service**<br>(E.g. Zero Defect, Shariah Compliance, Cheating, Corruption, Monopolies, Hoarding) | • Fulfillment of consumer demand or deliver as promised  
• quality of service given to customer  
• feedback to customer complaints  
• product/service liability  
• compliance with standard operating procedure  
• safety of goods from receiving till arrive at the destination  
the best services, fairly to all customers, want the best for customers or to be the best for customers | *Transportation/System-Techno.  
*Packaging/Warehouse/Transportation  
*System-Techno.  
*Packaging/Warehouse/Transportation  
*Packaging/Warehouse/Transportation  
*Packaging/Warehouse/Transportation  
*System-Techno. |
| **People**<br>(E.g. Good Action, Moral Practices, Avoiding All Kinds Of Sins), | • Employee’s commitment: performed work with sincere and responsible  
• Looking at employee as greatest asset  
• bringing in fewer people (good ones) to do more work reduces operational cost and increased sales  
• inclination towards recruiting workers with skills and knowledge | *Packaging/Warehouse/Transportation  
*Packaging/Warehouse/Transportation  
*System-Techno.  
*System-Techno.  
*System-Techno.  
*System-Techno.  
*System-Techno. |
| **The Planet**<br>(E.g. Maximised Benefits Of Environment And Others: Animal Welfare Or Avoid Harm to Other) | • Green environment (1800)  
• Practicing 3r activities: reduce, reuse and recycle  
• Practicing reverse logistics service  
• Employing green transportation system (reduce emission and pollution)  
• Safety environment (1400)  
• OSHA: wear safety helmet, thick leather shoes, gloves and masks for safety  
• Safety committee | *Warehouse  
*Packaging  
*System-Techno.  
*Transportation  
*System-Techno.  
*System-Techno.  
*System-Techno.  
*System-Techno. |

*Adaptation: Karia & Asaari 2015 in “Enhancing Halal Sustainability: Resources and Capability of Operations in Third-party Logistics (3PL).}

![Figure 1. Halal-Logistics Value Chain Constructs Scale](image-url)
misery (Brigham & Houston, 2004) and to remain competitive in the sector through strategies that guarantee the future of the business (Najmi et al. 2005). These include the firm’s recognition of success, ability to meet customer expectations and desires, understanding of organizational processes, and issues and behavior to be corrected (Robbins & Coulter, 2007). This set of aspects also determines the relevant decisions based on whether or not performance improvement is achieved (Parker, 2000). Two approaches to measuring firm performance through objective financial measurement based on absolute performance measurement or subjective financial measurement which involves performance measurement through self-report (Rauch et al., 2009; Shuhymee Ahmad, 2011). Objective measurement is based on accounting data such as return on assets (ROA), return on investment (ROI) and return on sales (ROS) (Daily et al., 2002). Among the most recent are economic value-added (EVA), market value added (MVA) and balanced scorecard (Robbison & Coulter, 2007). Therefore, based on the previous studies, this study proposes the conceptual below:

Figure 2. Conceptual Framework

IV. CONCLUSION

The model in this study shows the entire proposed framework for intensive research and future analysis. As shown in this study, Figure 3.1 points out the relationship between each of the variables of halal-logistics value chain (independent variable), and firm performance (dependent variable). The halal value-creation and green logistics variables is literally discussed and acknowledged to be responsible for formation of independent variables as the main objective of study is to determine the construct of halal-logistics value chain. In order to examine the impact of independent variable on dependent variable, Resource-based View theory is employed to serve as mediator variable. Therefore, this paper believes the conceptual framework will provide initiative and promote an understanding of the diversity, context and evolution of the halal-green logistics phenomenon in emerging economies by the global community of researchers and practitioners, which concomitantly improves firm performance.

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