

Halal Sustainable Supply Chain Model: A Conceptual Framework

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Abstract

The purpose of this research paper is to introduce an optimised framework halal supply chains management, called the “Halal Sustainable Supply Chain Model” (HSSCM). In this research the main logistics business processes are defined, which are the determinants for the halal sustainable supply chain performance. The research used an extensive literature review to identify halal sustainable supply chain determinants focusing on halal policy, moral responsibility, global ethics, environmental purchasing, and sustainable packaging; and sustainable supply chain activities. The findings show that halal policy, moral responsibility, global ethics, environmental purchasing, and sustainable packaging determine the sustainable halal supply chain activities. More empirical research is needed to further refine the HSSCM for different product–market combinations. This research shows that halal sustainable supply chain management is different from supply chain management, which requires a halal policy, halal logistics control and halal supply chain resources. The HSSCM can be an important instrument to design and manage halal food supply chains in extending halal integrity from source to point of consumer purchase. As there is an evident scarcity of academic research in the field of halal sustainable supply chain management, it provides an important reference for supply chain management and halal logistics.

Keywords: Halal sustainable supply chain, global ethics, environmental purchasing, and sustainable packaging

Introduction

The importance of sustainability and halal supply chain development in societies, especially in the food industry, has become obvious to everyone. Over the last 30 years, attention to this issue among customers and manufacturing companies has grown to the point where it is now considered a basically issue within the corporate supply chain (Delmas & Pekovic, 2015). In the world of supply chain management, halal factor is now being highlighted. According to

Lada, Harvey Tanakinjal, and Amin (2009) supply chain is required the halal approach, where the value chain and its supply chain should be fully aligned with the halal requirement. Zailani et. al., (2010) added that halal food integrity is now in high concern and the industry should focus on the supply chain of the halal food. Several issues arise in providing halal integrity in supply chain management such as the increase in complexity of the supply chain, the rise of supply chain cost, the level of corporate moral responsibility in providing halal environment and to provide a sustainable halal supply chain process.

To provide a sustainable halal supply chain environment while protecting global ethics among players is important especially for Muslim country Malaysia. Additionally halal is part of lifestyle that have been teaching and practicing by Muslims people not only at Malaysia but also Muslim around the world (Hassan et al., 2016). In comparing among global ethics between Muslim countries and non-Muslim countries, they practice the same principle that is honesty, integrity, trust, fairness and respect. The halal environment not only focuses the way the good process but also covers on hygienic and cleanliness, and halal Syariah compliant practices. While global ethics in halal supply chain concern more on manufacturing process, inventory and logistic process, the sustainability of this process should be included in the area within the halal framework. Highest challenges to provide a sustainable halal supply chain is maintaining and practicing the global ethics, to make sure all raw materials purchased and used are halal, ways to produce goods follow standard procedure in Islam, and gaining consumer confident in providing halal products.

The ability to continuously improving supply chain management operations while reducing costs and increasing quality has been one of companies challenges in competitive environment of the global economy. The sustainability has becoming a key issue and a competitive advantage strategy adopted by organizations due to emergence of customer driven markets (Ravet, 2011). The implementation of sustainable supply chain management (SSCM) can be a key

enabler to push firms in focusing on alleviating environmental issues while indirectly providing economic and social benefits (Zailani et. al., 2012). Thus, SSCM acts as a catalyst that could alleviate environmental issues focus in firms' perspective and enhance the economic and social benefits from the corporate perspective. Hence, it would be beneficial for the Muslim community having a halal SSCM in place since the existence of SSCM. Therefore, the purpose of this research is to determine the factors of Halal Sustainable Supply Chain Management for supply chain management performances.

Literature review

Global Ethics

Ethics refer to moral value, social and civil code of human's behaviour. Global ethics define as ethical issues or problems arising from globalization that arise such as world poverty and international aid, peace, environment problems and security, interference, and human rights. Simangunsong, Hendry, & Stevenson (2016), stated that a variety of infrastructures, climates and cultures and interaction by the production of goods and services will influence globalization of supply chains.

Relationship between global ethics to halal sustainable supply chain performance.

According to Yusuf et al., (2014) if company implements global ethics in its supply chains, it will help the company to differentiate its goods or services for better serve to customers need. It is showed that if any organization practices and maintains its global ethics especially in its supply chain, it will give more incentive and opportunities and competitive advantage to organization. Practicing in sustainable supply chain can minimize the negative impacts of firms supply chain. Nowadays many companies realize that unpractised global ethics in their supply chain might affect their business. Ethical companies make sure their entire

products are adequate in quality and hazardous product can be used and easy to disposed. By recycling and reducing waste companies can cut cost for their production. Company also can remake new technology that can minimize negative effect to make sure all activities happen in that company follow code of ethics. As we know sometimes new technology such as mobile phone, medical equipment has higher radiation that will harm human health. Yusuf et al., (2014) added that many organization practices unethical in global supply chain especially in human rights such as not concern about health of their employee, leading to lower medical but greater in work productivity. Many unethical issues happen at work area such as workers accident during do their jobs, workers do not follow standard procedure given and workers affected by dangerous chemical until harmed their health. To practice global ethics in supply chain, eliminate practices such as labour child, provide more benefits to workers, maximum safety in work area, and avoid any potential ethics that might affect human rights especially for workers. In short, the hypotheses are:

H1: There is a significant relationship between global ethics and halal sustainable supply chain performance.

Environmental Purchasing

Environmental purchasing or also known as green purchasing refers to the procurement of products and services which does not harm the environment and has less effect on human health (Irwan & Harlina, 2015). This activity related from early stages from purchasing raw material, production, manufacturing, packaging, distribution, reuse, operation, and maintenance until to disposal of the product or service. This is an act of a good firms or organizations that is also ecologically responsible to exercise the business activities by procuring the meet needs for materials, goods, utilities and services from the beginning to the end of the project.

Relationship between environmental purchasing to halal sustainable supply chain performance

Carter and Kale (2000) had mentioned that environmental purchasing activities have proven to bring a positive impact for the companies based on the improved net income value and cost of the goods sold. Activities and relationships developed in response to concerns related to natural environment and the environmental purchasing for an individual firm is the set of purchasing policies held where this provided more holistic definition of environmental purchasing applied in the research (Zsidisin & Siferd, 2001). The activities such as final disposal of the firms products, the resource reduction, packaging, recycling, reuse, supplier selection, evaluation and development and also the acquisition of the raw materials would be the concerns related to environmental packaging. According to Jiménez & Lorente (2001), with focuses more on cost, quality and delivery, the sustainability in their purchasing of inputs on top of the traditional purchasing area is been considered as the environmental purchasing issue. In order to survive, companies, their suppliers and stakeholders need to respond to the changing business environment and implement the latest trends (Irwan & Harlina, 2016). The buzzword currently is environment and the pressures it brings about for a company and its supply chain. Thus, we suggest the following hypothesis:

H2: There is a significant relationship between environmental purchasing and halal sustainable supply chain performance.

Sustainable packaging

According to Aday & Yener (2014) packaging is defined as a container that can hold and protect the main product and at same time it has the characteristic such as design, symbols, shape, facilitates handling and also commercialization. Throughout the years, the purpose of packaging had been changed and it has related to the sustainable environment which means that the packaging must be

friendly environment. Based on Sonneveld et al., (2005) sustainable packaging is defined as packaging that can be recycled continuously and does not expose any risk to ecosystem and has an added value to society during its movement processing in supply chain in covering and protecting the product.

Relationship between sustainable packaging to halal sustainable supply chain performance.

Throughout the years, the purpose of packaging had been changed and now it is as a marketing tool to appeal customer. (Simms & Trott, 2010) has claimed that new product opportunities can be done through packaging as a new conceptual thinking. Due to this, it more concerned on the packaging that been keep on increase especially in innovation. According to Vernuccio, Cozzolino, & Micheline (2010) it is compulsory for packaging innovation to encounter ethical standard in the society. Loucanova, Kalamarova, & Parobek (2017) supported that because it has become a requirement from customer that innovation packaging function must have an information, protection function and also ecological. Packaging innovation relates to the sustainable environment which means that the packaging must be friendly environment. Hsu, Tan, & Zailani (2015) discover that it necessary for sustainable packaging to concerned on environment and should minimize the negative environmental impact. They also agreed that contribution of product success in supply chain came from packaging because efficiency of it distribution can reduce environmental impact due to spoilage or waste. In globalization, the attention on green packaging have increase and their main focus is to reduce waste and at same time to improve quality by using different characteristic of packaging such as size, shape or material that may be have a different impact to environment. (Hsu et. al., (2013) supported that sustainable packaging take a consideration of cost performance, convenience, compliance and environmental impact. Restated as a proposition, we offer the following statement:

H3: There is a significant relationship between sustainable packaging and halal sustainable supply chain performance.

Halal supply chain management

According to Alserhan (2010) in development of halal supply chain model, the model must be assured that all right intention. The top management have to decide the policy and objective thus the rules which have been set and approved by the top management as a basis of its supply and chain in the company procedure. According to Tieman, Van der Vorst, & Che Ghazali (2012) in the guideline by Department of Standards Malaysia (2010) regarding halal where halal supply and chain is responsibility of the company toward the procedure or operation of the company are comply to the halal standard with high integrity, obtaining halal certification, give a guaranty to the consumer or customer about the halal confidence level comprising the process of the goods, the condition of the raw material, machinery, labour in producing the goods. Lastly to be comply with the inspection and testing required by the Halal Malaysia certification body. This supported by Sennheiser & Scho (2007) where supply chain objectives which is comprising logistic and customer service objective are formulated in direct areas of supply chain in halal food chains.

Logistics control

Logistics is a core operation function in the halal supply chain model, which is a basis for the effective decision making in managing the supply chain. According to Kraljic (1983) it defines that logistic control is the organisation operation process which determine the planning and control of the raw sources from the staring of development process, purchasing the material, manufacturing and the distribution strategy of the product to the targeted customer with the main objective to satisfy their needs within the standard of operating cost. According to (Hofmann, 2010) the element of important in the logistic control are the

arrangement or the levels of the decision maker, the type of decision to be make, and lastly the level of the coordination with the logistic control. A research by (Seuring, 2009) an supply chain which is integrated can be enhanced if the chain of the participant can function with every party to improve the overall supply chain process.

Supply chain resources

Supply chain resources are information regarding the organization. The company who certified as halal the committee is required to comply the Department of Standards Malaysia (2010). Whereby the halal committee that appointed in the organisation must take a responsibility where all the operating procedure is comply with the standards of halal practice. According to (Tieman et al., 2012) the committee of halal in the each company is responsible for the compliance with the management practice, standard operating procedure, as regulated in the halal standard. Basically the halal committee is the party who proposed and drafting the halal policy in the company and must comply as what the top management has been approved and to execute the procedure. Halal committee is the enforcer in the company where it to make sure all the operation is comply with the officer instruction, preparing an internal audit in order to make sure all the resources is trusted. In formal terms we suggested this hypotheses :

H4: There is a significant relationship between halal supply chain management and halal sustainable supply chain performance.

Corporate moral responsibilities

The corporate moral responsibility of sustainable supply chain demonstrates that, in order for the entire supply chain to be sustainable, the members involved in the supply chain must view sustainability as a perfect duty. If the entire supply chain is occupied with truthfully sustainable corporations under the clear and shared goals of sustainability, then the supply chain will be truly

sustainable. Nonetheless, if the members involved in the supply chain lacks clear goals, the sustainability efforts will be left to individual supply chain member, resulting in an intermittently sustainable supply chain. If the entire supply chain sees sustainability as an imperfect duty, its efforts toward sustainability is more likely to be limited to certain areas of sustainability as different supply chain members may have different choices for moral duty fulfilment (Ha-Brookshire, 2017).

Sustainable supply chain performance

Hoole (2005) stated that because of the globalization, supply chain has become an important part in sustainable supply chain performance in the industry. Supply chain performance have their short term and long term objectives. Short term objective is to reduce cycle time and inventory at same time can increase productivity. For the long term objectives is to gain a profit from supply chain performance and to increase market share (Zailani et. al., 2012). According to Mentzer et al., (2001) supply chain and organizational performance is the significant role in supply chain management. Based on Zailani et al., (2012) organizational should have a responsibility in sustain the supply chain performance that include reducing pollution, waste and also take a full responsibility from acquiring raw material to the final disposal of the product. Olhager & Selldin (2004) claimed that there is a key in measuring the supply chain and firm performance. While Bai & Sarkis (2014) supported that supply chain management performance is rely on the development of it program in evaluation and monitoring and by add of sustainable element such as environmental and social responsibility the set of performance have become more complexity. Giving by Hervani, Helms, & Sarkis (2005) development, performance monitoring and supplier selection in the example of supply chain performance measurement. It also can be measure on how well the firm supply chain movement in the industry that a concerned on the sustainability which referring to our economic,

environmental and social aspects (Zailani et al., 2012). Therefore, it is hypothesised that:

H5: There is a significant relationship between moral responsibility and halal sustainable supply chain performance.

Proposed conceptual framework

From the literature review, it indicates that issue in sustainable supply chain and halal supply chain management have been studied. However, the previous studied had focus on two independent variable which is Environmental Purchasing and Sustainable Packaging. The framework of the conceptual model, Figure 1, is given as below:

H1: There is a significant relationship between global ethics and halal sustainable supply chain performance.

H2: There is a significant relationship between environmental purchasing and halal sustainable supply chain performance.

H3: There is a significant relationship between sustainable packaging and halal sustainable supply chain performance.

H4: There is a significant relationship between halal supply chain management and halal sustainable supply chain performance.

H5: There is a significant relationship between moral responsibility and halal sustainable supply chain performance.

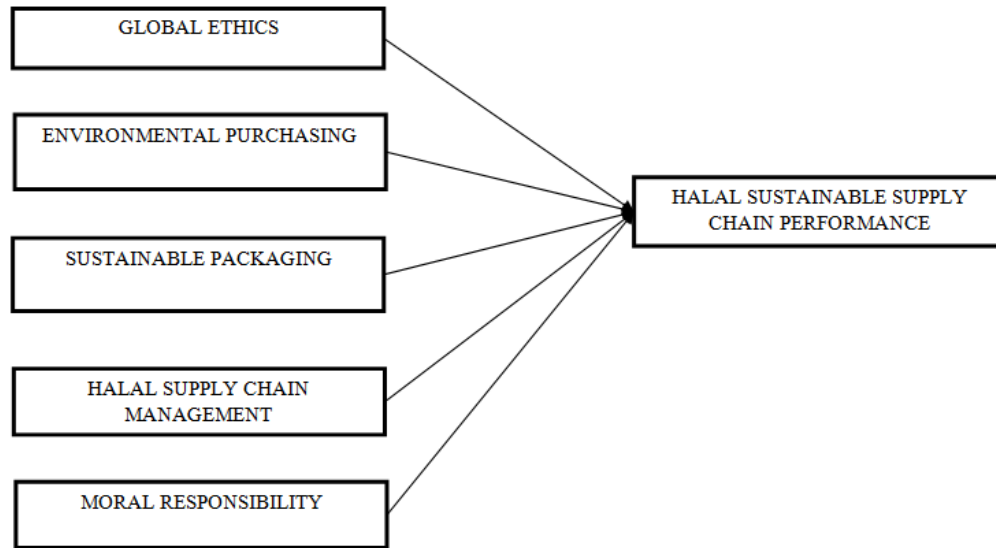


Figure 1

Conclusions

The propose framework shows an association between global ethics, environmental purchasing, sustainable packaging, moral responsibility, halal supply chain management and halal sustainable supply chain performance. Halal sustainable supply chain performance is an important part in the industry due to the increase in globalization around the world. Globalization has made supply chain become more complex and it affects the integrity level conscience of each organizations.

By implementing global ethics moral responsibility and halal supply chain management, the industry can improve their quality of the product by focusing highly on hygiene and cleanliness. At the same time, by supporting environment purchasing and sustainable packaging also can enhance halal sustainable supply chain performance. The right practices of halal sustainable supply chain performance can give positive implication to economic, environment and social aspects. This study suggests finding another independent variable to overcome the

limitation of the previous study, which identify supply chain practices that can contribute to the halal sustainable supply chain performance in order to reduce the negative impact in environment.

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