

HALAL PRODUCT REVIEW BASED ON TOTAL QUALITY MANAGEMENT AND A SUPPLY CHAIN MANAGEMENT PERSPECTIVE

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Abstracts

Halal products are produced through toyib processes so that they can be used and consumed by consumers, especially Muslims. Toyib, which is a prerequisite for halal products, is translated as a form of guarantee of the procurement process, material handling, products, and transportation in accordance with Islamic law. The collaboration between producers and suppliers, distributors, and consumers is the key to implementing supply chain management (SCM) of halal products. Then, the participation of all business actors in the supply chain network to engage in continuous improvement is an articulation of the implementation of total quality management (TQM). The previous literature shows that research that examines halal products from the perspective of TQM and SCM is still limited. Therefore, this paper investigates halal products from the viewpoint of TQM and SCM. Both perspectives are used with the consideration that the toyib process is not only the responsibility of the producer, but also the responsibility of the supplier, distributor, and consumer. The combination of TQM and SCM is expected to produce a production process for halal products that conforms with Islamic law.

Keywords: Halal products; total quality management; supply chain management

1. Introduction

Conceptually, halal is a value according to Islamic belief. The concept of halal is contextually implemented in a product. There was a shift in the view that consumers, in choosing a product, not only consider the quality aspects, but also the halal aspect (Tieman, 2011). Halal products have become a necessity for not only Muslim consumers, but also consumers of various other religions. Products with halal guarantees have become a common need. However, consumers need a guarantee that a halal product is produced through a process following Islamic law (Spiegel et al., 2012). A halal product is processed by producers with contributions by suppliers and distributors. The supplier is in charge of providing raw materials, while the distributor's function is to send goods to consumers. Thus, the production process is an activity that involves suppliers, internal producers, distributors, and consumers (Manzouri et al., 2013). This activity illustrates that the production of a product is a complex process. Each entity in the supply chain for a complex business activity has different interests, different performance measures, and different ownership of resources. This complexity can be described and controlled with a supply chain management (SCM) approach (Wiengarten et al., 2016).

The pivot of SCM is the integration of planning, implementation, and control of the flow of raw materials, finished products, information, and finance from suppliers to consumers (Chen et al., 2009). The integration of this process can be applied in the context of total quality management (TQM). Previous literature shows that researchers (Ab Talib et al., 2015; Ali et al., 2017; Ali dan Suleiman, 2018; Khan et al., 2018; Marco et al., 2012; Tieman, 2011) have conducted a discussion on halal SCM. However, research examining halal products from the perspective of SCM and TQM is still limited. Manzouri et al. (2013) merely studied halal products with a lean SCM approach. Other research from Tieman dan Ghazali (2014) investigated quality assurance in the logistics activities of halal products. Then, Norasekin and Jamil (2019) limited their research to discussing halal supply chain and traceability. This previous literature shows that there is a research gap when it comes to examining halal products with TQM and SCM approaches. In point of fact, the creation of a quality product is the result of interaction between supply chain entities consisting of suppliers, producers, distributors, and consumers (Fynes et al., 2005; Huo et al., 2019). Therefore, the halal product production process requires TQM and SCM approaches. Based on this description, this paper contributes to reviewing halal products from the viewpoint of TQM and SCM.

This paper consists of four chapters. In chapter one, the novelty and contribution of this research are discussed. Then, chapter two discusses the literature on halal products, TQM, and SCM. Next, chapter three is the formulation of a halal product framework that is reviewed in terms of its TQM and SCM aspects. Lastly, chapter four presents conclusions and suggestions for further research.

2. Literature Review

The following section is a description of the literature on halal products, TQM, and SCM.

2.1. Concept of Halal Products

Halal is a term in the Quran which means that something is permitted to be used. This term can be attached to an object so, contextually, it can be articulated as being attached to a product. Therefore, halal products can be defined as those that have complied with Islamic Sharia meaning that the product is permitted or allowed to be used, utilized, and consumed in a *toyyib* or good manner (Tieman, 2011). Halal can be interpreted as a permit to consume certain goods or use them under Islamic law (Ambali dan Bakar, 2014). Halal is not only seen in terms of the product, but also the process which means that all activities related to the production process must meet Islamic law (Tieman dan Ghazali, 2014). Opposite to halal is haram which means forbidden and illegal. Halal products are products that fit the needs of Muslim consumers. Halal products can be in the form of food, cosmetics, and medicines. The halal logo is placed on the product packaging and it characterizes the product as having met the halal criteria (Tieman, 2011).

2.2. TQM and Halal Products

The way consumers view the quality of a product as an essential factor is of consequence to the producer. Manufacturers or producers realize that the demand for quality cannot be ignored. Therefore, producers must ensure that all processes are quality-oriented (Handfield dan Melnyk, 1998). The quality-oriented concept is known as TQM that, conceptually, is an organizational system that focuses on consumers by involving all organizational resources (Gunasekaram et al., 1998). These resources can consist of employees, leaders, machinery, and technology. All of these resources become the organization's capital in creating a quality culture as an organizational outlook on life. This perspective means that the organization is always aware that the orientation to quality must be articulated through strategies and programs, including the production process. This articulation requires the involvement and empowerment of all parties in the organization (Ehigie dan McAndrew, 2005). Mandeep et al. (2019) explained that the elements of TQM are (1) leadership commitment; (2) focus on consumers; (3) employee involvement; (4) training and education; (5) continuous improvement; (6) process management; (7) information analysis; (8) quality assurance; (9) teamwork; and (10) supplier management. The concept of TQM can be translated into the production process to ensure the product produced has a halal guarantee. Halal products are produced through the integration of all organizational functions which emphasize the concept of quality. Systems built by producers or organizations must make halal a value which is then translated as a strategy oriented to customer satisfaction. Manufacturers must stand in continuous improvement activity of produce quality halal products. Therefore, this paper examines halal products with a TQM perspective.

2.3. SCM and Halal Products

A halal product is produced through a long process and involves many parties, including internal and external producers (suppliers, distributors, and consumers). Each process that takes place internally and externally must have the same perspective on the concept of halal (Ab Talib et al., 2015). Therefore, SCM is the suitable approach because this concept emphasizes integration which means harmony of perspective and sharing of resources (Perdana et al., 2019). Halal products have high standards to ensure that the production process and the halal products themselves are in accordance with Islamic law. This means that halal products are good for consumption and have gone through processing that takes into account the rules of *toyyib* (Ali et al., 2017). Tieman (2011) formulates halal SCM as a risk-oriented concept in the activity of transportation, storage, and handling of halal products. This concept aims to control the risk of process contamination or unclean raw materials in the production process. Halal SCM aims to ensure *toyyib* is applied in all activities from suppliers to end consumers. Halal products are the result of supply chain networks that collaborate on planning, implementing, and controlling the flow of raw materials, finished products, information, and finance (Khan et al., 2018). Stevens and Johnson (2016) and Perdana et al. (2019) explained that the core of SCM is integration that is characterized by collaboration in activities, processes, and sharing of resources between entities in the supply chain network. Supply chain integration consists of integration of suppliers, internal, consumers, and logistics service providers. In its development, Mandeep et al. (2019) added information and communication technology and corporate culture as a part of SCM. Therefore, this paper uses the SCM construct from Stevens and Johnson (2016), Perdana et al. (2019), and Mandeep et al. (2019) to develop the conceptual framework of halal products.

3. A Conceptual Framework

This paper adopts the concepts of TQM and SCM to explain halal products. An important aspect—which is the basis for the use of these two concepts—is a shift in perspective towards halal products. Halal criteria have strict standards that require a reliable process to ensure the entire production process complies with Islamic law. Halal product review from the perspective of TQM and SCM are still limited in number. The previous literature still views quality and supply chains as separate parts. Therefore, this paper discusses halal products not only from the quality aspect, but also from the supply chain aspect. SCM assumes that a product produced by a producer is the result of a

process of interaction with other organizations. The supply chain is a network of suppliers, producers, distributors, and consumers in which each actor is connected in a process of mutual influence. This perspective was later adopted by Khan et al. (2018) in formulating the halal supply chain. The question that then arises concerns the relationship between TQM and SCM in the context of halal products.

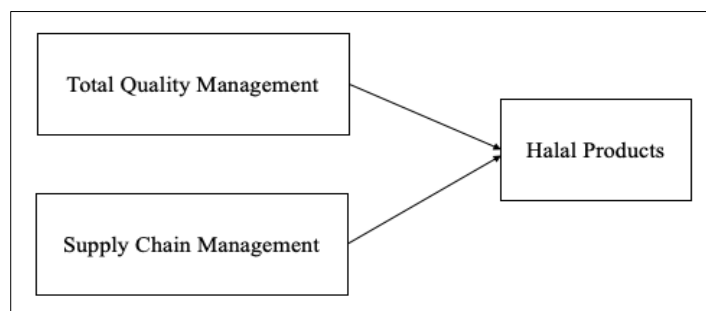


Figure 1. Conceptual Framework for Halal Products Based on TQM and SCM Perspectives

The complexity of the processes along the supply chain network of halal products can be described by lean strategies. This strategy is the basic foundation of TQM. A lean way of thinking is to reduce non value added activities and waste in the supply chain. The lean philosophy could be interpreted as compliance with the halal principle which emphasizes good methods and processes. This paper adopts the concept of TQM from Mandeep et al. (2019) to discuss halal products. According to Mandeep et al. (2019), there are ten elements of TQM, namely leadership commitment, customer focus, employee involvement, training and education, continuous improvement, process management, information analysis, quality assurance, teamwork, and supplier management. However, supplier management in this paper is placed as part of SCM so there are nine elements of TQM. Then, the concept of SCM adopts the concepts of Stevens and Johnson (2016), Perdana et al. (2019), and Mandeep et al. (2019). Halal products in the context of SCM are examined in terms of supplier integration, internal integration, consumer integration, integration of logistics service providers, information and communication technology, and corporate culture. The conceptual framework of this review is in Figure 1. Then, the discussion of halal products in the TQM and SCM review is described in Tables 1 and 2.

Table 1. Halal Products Review Based on a TQM Perspective

Construct	Definition	Review
Leadership Commitment	The leader's commitment to quality indicates that the organization is willing and committed to providing the resources needed to improve quality on an ongoing basis. In addition, the commitment of the leader is a motivator for the organization's members to always be oriented towards quality which ultimately influences organizational behavior (González dan Manuel, 2002)	Commitment to halal products must be demonstrated by all organizational leaders involved in the production process. This commitment can be translated in the form of leadership willingness to standardize quality in accordance with halal criteria. Quality standards are verified and issued by halal certification bodies. The behavior of leaders or employees in the organization must make orientation to quality and halal criteria a perspective of organizational life.
Focus on consumers	Referring to TQM, the organization or producer must commit to serve customers excellently. Consumers are users of the products produced so the whole process must focus on consumers. Furthermore, customer needs are expressed in the form of planning, implementation, and quality control (Satish dan Sampath, 2008).	Customers of halal products need a guarantee that the products consumed meet halal criteria. Therefore, organizations or producers must focus on the needs of consumers. However, the development of a dynamic environment causes customer needs to change so producers must also innovate without compromising halal guarantees.
Employee involvement	Employee involvement is a form of employee participation and contribution to continuous quality improvement. Employees have an active role through identifying activities that do not add value or cause waste and which look for solutions to problems faced on the work floor (Dimitriadis, 2000)	Active employee participation is very much needed in the process of improving product quality and guarantees a proper production process. TQM views employees as being able to make changes despite small changes. Change starts from a simple process improvement as a foothold for major changes oriented towards quality and halal criteria.
Training and education	TQM is a process that requires a long time. Organizations need competent and skilled human resources. Therefore, organizations must conduct training and education so they have human resources who are committed and responsible for quality (Vinod dan Ruby, 2014).	Implementation of TQM requires resources that are ready to translate or adapt the concept operationally. Therefore, organizations must conduct training and provide education on TQM. This training and education must be evaluated on an ongoing basis to guarantee the quality and halal criteria of products.
Continuous improvement	The basic philosophy of TQM is incremental and continuous progress, value enhancement, intensification, and improvement. Change starts from a small activity that provides benefits and improves the process. Continuous improvement can explore the hidden knowledge that the organization has. Such knowledge is the capital, in terms of the quality advantages, that an organization has (Jagdeep dan Harwinder, 2015)	The principle of continuous improvement is that it changes from something simple. These simple changes are carried out sustainably so that, organizationally, they become a way of life in. Therefore, based on this perspective, it is expected that the organization or producer can make improvements and improve the quality of processes, products, and services to get the right products.
Process management	Process management assumes that there are interrelated activities in a system that are the key to implementing TQM. This perspective assumes that quality is the responsibility of all departments in an organization. The orientation of TQM also stresses that planing, doing, checking, and corrective action are a form of process	Changes in the organization are part of a sub-system or department within the organization. This interaction shows the successful implementation of TQM with the results of the organization's internal collaboration. Therefore, each activity in each department must be oriented to the quality and process under Islamic law to produce products that have quality and halal guarantees.

Construct	Definition	Review
	approach that leads to better change (Chountalas dan Lagodimos, 2019).	
Information analysis	Information is an organizational resource for planning and implementing TQM. Organizations are required to be able to process data into information. The result of contextual information analysis is knowledge to improve quality. Knowledge as a result of information analysis makes it possible for the organization to identify the problems faced precisely and formulate solutions to them (Honarpour et al., 2017).	The dynamics of the organizational environment also cause the problems they face to change. This condition requires the organization to be able to adapt to environmental changes. Therefore, organizations must be able to identify, analyze, and translate information as knowledge, especially knowledge about quality and halal standards. Changing consumer needs can also cause the raw material specifications of halal products to change. The existence of knowledge will make the organization able to respond to these changes so that consumers will get a guarantee of quality and halal criteria.
Quality assurance	Quality assurance is all activities and functions needed to produce a quality product or service. Process standardization is an operational form of quality assurance so that all elements of the organization have the same perspective on quality (Chiarini, 2011).	Quality assurance for halal products are indicated through a standardization process. Standardization of this process is translated by standard operational procedures. This standardization encourages organizations to urge for quality and halal criteria. Standard process guarantees also need to be approved by those who have the authority to issue quality and halal certificates.
Teamwork	Quality is the result of collective work by teams in the organization. Each team has different responsibilities, but they influence each other. Therefore, a collaboration between functions within the organization becomes a condition for TQM being implemented optimally (Cooney dan Sohal, 2004).	Quality halal products are the output of collective work by departments and teams within the organization. Collective work can be articulated operationally in the form of collaborative program planning and strategy and collective problem solving. The sectoral ego must be minimized so that the goal of creating quality and halal products can be achieved.

Table 2. Halal Products Review Based on a SCM Perspective

Construct	Definition	Review
Supplier integration	Supplier integration as a collaboration between producers and suppliers in planning, forecasting, product design, and inventory management (Ataseven dan Nair, 2017).	Producers require a guarantee of raw materials provided by suppliers to meet quality and halal standards. Also, producers need certainty that raw materials can be sent on time, in quantity, quality, price, and on target. Therefore, integration between suppliers and producers is the key to achieving this goal.
Internal integration	Internal integration is mixed, there is harmony between all departments, internal organizations or producers, such as production, logistics, marketing, and sales (Ataseven dan Nair, 2017).	Internal integration is a form of alignment of various activities between departments in the organization or producer. This integration needs to be done to mitigate sectoral egos that arise in the organization. Sectoral ego makes planning and implementation ineffective and ineffective resulting in quality and halal guarantees that cannot be fulfilled. Internal integration can be translated in the form of sharing ideas and knowledge between departments.
Consumer integration	Consumer integration is a collaboration between producers and consumers through acquisition of consumer needs and providing feedback (Ataseven and Nair, 2017).	Businesses must be customer-oriented because consumers are the central point of the products produced by organizations. The integration between producers and consumers is expected to increase suppliers and guarantee the process is <i>toyyib</i> .
Logistics service provider integration	Integration of logistics by service providers is collaboration in logistics activities such as material management, transportation, and technology (Halldórsson and Skjøtt-Larsen, 2004; Huo et al., 2017)	An organization must have limited resources in the production process of halal products. An example is a manufacturer who has limited means of transportation specifically for halal products. Therefore, producers can integrate with logistics service providers to distribute halal products effectively and efficiently.
Information and communication technology	Information and communication technology functions to process, store, and disseminate information, and integrate various processes. Various functions and activities of the organization are connected to a system. In the context of SCM, all activities that have been integrated can be controlled in real-time (Zhang et al., 2011).	Information and communication technology is a tool to harmonize the functions of suppliers, producers, distributors, and consumers in the production of halal products. In addition, information and communication technology enable to tracking and tracking processes and activities to guarantee every one of their processes is <i>toyyib</i> .
Organizational culture	Organizational culture is the perspective and values adopted by the organization. Culture is indicated through studies of what can be	The perspective of the organization in the supply chain network consisting of suppliers, producers, distributors, and consumers must uphold the

Construct	Definition	Review
	seen, heard, and touched. Organizational culture has an important role in forming organizations in supply chain networks (Jungbae Roh et al., 2008).	quality and <i>toyyib</i> criteria. Differences in perspective in one supply chain network organization can cause overall failure of the supply chain .

The description in Tables 1 and 2 is the guideline for practitioners and academicians for implementing halal products in the form of TQM and SCM. Practically, the TQM and SCM for halal products articulated in the form of integration between manufacturers, suppliers, distributors, and consumers. Manufacturers must ensure that suppliers have integrity in implementing halal product quality assurance systems. Internally, manufacturers need to assure all process in cross-functional departments meets the *toyyib* criteria. Then, distributors must provide warehouse and transportation systems that fulfilled the *toyyib* criteria. Therefore, SCM is the right approach to increase the certainty that a product meets quality assurance with halal criteria for end consumers. Quality assurance is fulfilled through the implementation of TQM which means there is involvement of all parties in product management. Hence, TQM and SCM is an integrated system from upstream to downstream to regulate the procurement of raw materials, handling of materials, production, transportation, and consumption by consumers.

4. Conclusion and Suggested Future Research

This paper reviews halal products by adopting the concepts of SCM and TQM. The reason for using these two concepts is based on the fact that a halal product is the result of interaction between business actors in the supply chain network consisting of suppliers, producers, and distributors, and consumers. Responsibility for halal compliance is not only imposed on producers, but also suppliers, distributors, and consumers. The supplier is responsible for providing raw materials that meet the halal criteria, so the distributor must ensure that the handling and transportation of materials is correct. Input about needs and feedback from consumers is needed to ensure that halal products are in accordance with consumer expectations. Each process in the supply chain network must meet the quality and *toyyib* rules so that the TQM approach is integrated with the SCM to produce an excellent process and in accordance with Islamic law. The supply chain system which is supported by the TQM approach emphasizes that all activities in production activities must provide added value and not be wasteful and undergo a *toyyib* process so that halal products can be utilized and consumed by consumers.

This paper is still limited in terms of its conceptual framework. Therefore, further research could develop halal product measurement instruments for examining TQM and SCM. These instruments would not only look at the perception of producers, but also the perceptions of suppliers, distributors, and consumers. These instruments are needed to enrich or strengthen theories about halal products.

5. References

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