

Comparison of Supplier Management in Halal Food Supply Chain

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Abstract: The aims of this paper are to describe supplier management in Halal food supply chain in according with an existing framework and to explore how the size of enterprises influences the supplier management. In this study, the researcher conducted case study research and collected the data from one small and medium-sized enterprise (SME) and one multinational enterprise (MNE) producing Halal foods in Malaysia with Malaysia Halal certification. The findings showed specific risk consequences, supply risk sources, risk drivers and risk mitigating strategies of supplier management in Halal food supply chain. Moreover, there were differences between the supplier management of SME and MNE: the type of risk mitigating strategies and the range of monitoring. Therefore, it is assumed that bargaining power and resources based on the size of enterprises influenced the type of risk mitigating strategies and the range of monitoring in Halal food supply chain.

Key words: Case study research • Halal food supply chain • Medium-sized enterprise (SME) • Multinational enterprise (MNE) • Supplier management

INTRODUCTION

Halal food supply chain (HFSC) is one of the unique supply chains due to Islamic teaching (Shariah law) in which Muslims must adhere to concepts of Halal (lawful or permitted) and Haram (unlawful or prohibited). HFSC must take specific requirements into consideration such as no porcine materials, no alcohol, no meat not slaughtered in Islamic way and so forth [1-4]. Indeed, some concepts of conventional supply chain can be seen in HFSC but the requirements for Halal foods still characterize HFSC [5]. Therefore, it is assumed that supplier management in HFSC is different from supplier management in other supply chains.

However, research on supplier management in HFSC has been scarcely conducted through the use of empirical methods, although there are empirical researches related to HFSC such as Halal assurance system [6, 7] and Halal logistics [8, 9]. Currently, there is only conceptual research in regard to supplier management in HFSC [10] despite the criticality of it; one of Japanese companies—Ajinomoto—suffered from recall and boycott of its Halal foods in Indonesia in 2001 since

Ajinomoto could not perceive the usage of porcine enzyme in its supplier operation as one of supply risks [11]. Unlike the situation in which there are a few researches on supplier management in HFSC, many other researches that focus on supply risks in other supply chains have been empirically conducted [12-15]. Therefore, the findings or frameworks emerged from the researches on other supply chains would help explore supplier management in HFSC.

With this in mind, this study particularly focuses on how the size of enterprises influences supplier management in HFSC based on the finding of Zsdisin and Ellram [16] which indicated that larger enterprises tend to engage improvement of supplier processes. Hence, this study attempts to compare supplier managements of one small and medium-sized enterprise (SME X) and another multinational enterprise (MNE Y) producing Halal foods. The specific aims of this study are to describe supplier management in HFSC by using an existing framework of supplier management and to explore differences in the supplier managements of SME X and MNE Y. This study will contribute to the understanding of enterprises in details, pertaining to supplier

management in HFSC. For researchers, the findings are crucial because there are few case study researches in the specific field of HFSC.

Methodology

An Existing Framework of Supplier Management: This study adopts case study research approach focusing on gaining an in-depth understanding of the dynamic presents [17]. This method is frequently used for researches on supplier management [18]. Especially, this study follows Yin [19] whose method sets a certain framework prior to data collection in case study research. The framework of supplier management suggested by Jüttner, Peck and Christopher [20] is utilized in this study in order to describe and explore supplier management in HFSC. The framework is regarded as a comprehensive one because it was constructed by interviewing managers involved in supplier management from various industries, including the food industry [20].

However, the researcher added one modification to the framework since it was developed in the further research. Jüttner [21] shows supply risk sources defined as “the uncertainty associated with supplier activities and in general supplier relationships [21].” Therefore, this study includes supply risk sources as the construct in the framework.

The framework consists of another three constructs: risk consequence, risk driver and risk mitigating strategy. Supply risk source can be affected by risk driver that amplify the level of supply risk, which can lead to adverse risk consequence. In order to prevent the risk consequence, risk mitigating strategy is addressed. Hence, the propensity of supply risk source and risk driver to outweigh risk mitigating strategy causes risk consequence [20]. Figure 1 shows the framework that becomes the basis of this study (Figure 1).

Adapted from Jüttner *et al.* [20] and Jüttner [21]: The risk mitigating strategy can be classified into control, avoidance, co-operation and flexibility. Control is defined as the action taken to control contingencies from supply risk source through vertical integration, increased stockpiling, buffer inventory and contractual requirements. Avoidance is to drop specific products, suppliers or geographical markets if they are seen as unreliable. Co-operation is to establish joint agreements to improve visibility and understanding of the supply chain and to share information of supply risks. Whereas, flexibility is to increase responsiveness by postponement, multiple sourcing and localized sourcing [20].

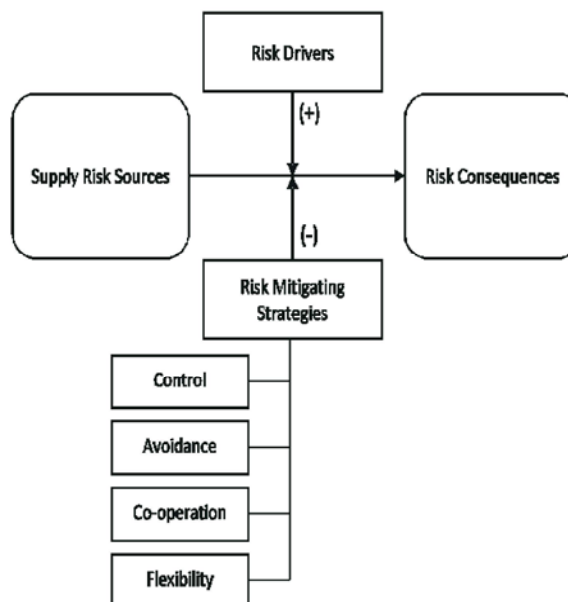


Fig. 1: Basic Framework of Supplier Management

Data collection: SME X and MNE Y have produced food products with Malaysia Halal certification in Malaysia. In terms of the annual turnover, SME X is categorized as a small industry ranging from RM 300,000 to RM 15 million while MNE Y is classified as a multinational industry by the classification of Department of Islamic Development Malaysia (JAKIM) [22].

In order to describe their supplier management in accordance to the framework, the researcher collected data through multiple sources such as interviews, internal documents and emails [19]. In the case of SME X, the researcher interviewed a Chief Executive Officer (CEO A) three times. On the other hand, the researcher interviewed a Chief Executive Officer (CEO B) twice and a Halal Executive (HE C) once from MNE Y. All the interviews were conducted from May to October 2016. Each interview time was about 30 to 90 minutes. Internal documents and additional questions through emails supplemented the understating of the researcher.

After describing the cases, the researcher compared the cases in order to explore differences in the supplier management of SME X and MNE Y. Then, the researcher sent the tentative results to all the interviewees. If necessary, the researcher added modifications to the results based on their feedbacks

Findings: Table 1 shows the overview of supplier management of SME X and MNE Y based on the framework (Table 1).

Table 1: Overview of supplier managements of SME X and MNE Y

Construct	SME X	MNE Y
Risk Consequence	Violations and/or invalidation of Halal certification	Violations and/or invalidation of Halal certification
Supply RiskSource	Processed foods Animal-based ingredients Logistics	Animal-based ingredients Logistics Fermentation process of products Single supplier
Risk Driver	Islamic teaching	Islamic teaching Global sourcing
Risk Mitigating Strategy <i>Control</i>	Malaysia Halal certification	Malaysia Halal certification Halal certifications recognized by JAKIM Declaration letter On-site audits Sharing audit information among group companies Contract including Halal clause
<i>Avoidance</i>	No animal-based ingredients Self-manufacture	
<i>Co-operation</i>	Frequent site visits	
<i>Flexibility</i>		Multiple sourcing

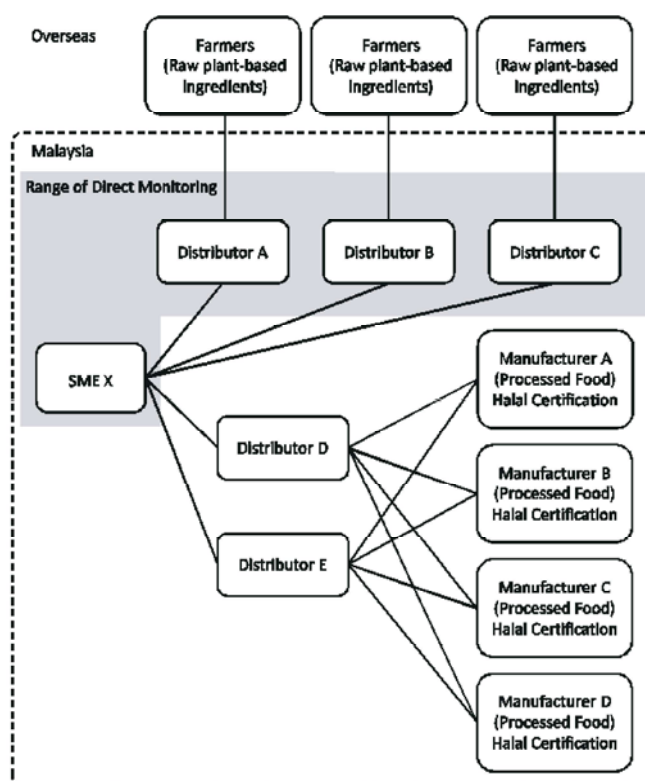


Fig. 2: Supply Chain Chart of SME X

In addition, a supply chain chart can help understand supplier management in HFSC. Figure 2 shows the supply chain chart for a certain product of SME X (Figure 2). “Range of Direct Monitoring” is defined as “the range of site visits or on-site audits.” “Distributor” means a company that just conducts transportation and warehousing without repacking. That is, the term of “distributor” includes a trade company or wholesaler.

Figure 3 shows the supply chain chart for a certain product of MNE Y. But there are three supplementary explanations. First, the geographical location of the

suppliers is not shown because the information is confidential for MNE Y. Second, the term of “manufacture” includes “repacker” that imports and repacks products with Malaysia Halal certification. Third, Figure 3 omits descriptions of all suppliers although MNE Y normally has 2 or 3 manufactures that supply same products (Figure 3).

Risk Consequences: SME X and MNE Y pay strong attention that Muslim consumers have confidence to purchase their products. That is why Halal certification is

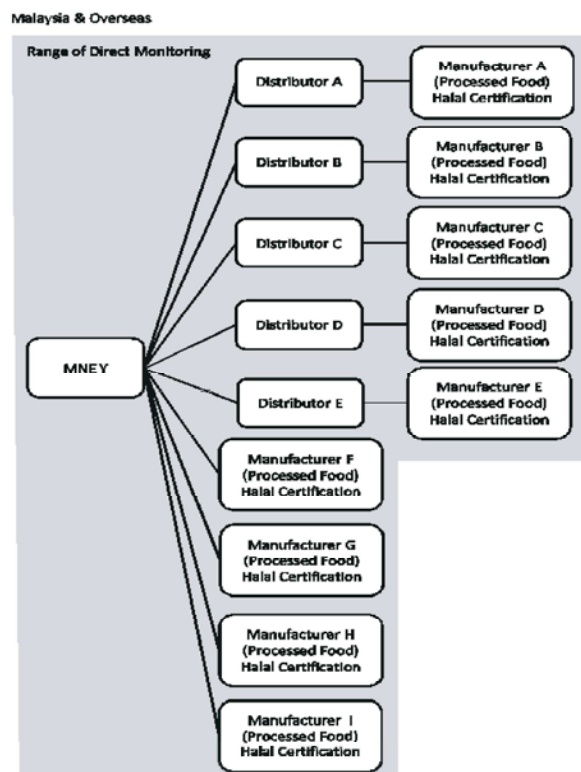


Fig. 3: Supply Chain Chart of MNE Y

one of the most important qualities of their products. If violations and/or invalidation of Halal certification happen, those may cause recall, reputational damage and boycott. Thus, for SME X and MNE Y, violations and/or invalidation of Halal certification can be main risk consequences. Based on the risk consequences, the following constructs primarily focuses on Halal issues.

Supply Risk Sources: From the case of SME X, processed foods, animal-based ingredients and logistics emerged as the main source of supply risk in Halal issues. Processed foods hold the possibility of containing materials prohibited in Islam. Whether this occurs or not depends on the supplier competency in ensuring the Halalness of processed foods produced by suppliers. Therefore, when SME X procures processed foods from suppliers, it needs to consider supplier competency. Animal-based ingredient itself could cause supply risks because issues of Islamic slaughtering arises from animal-based ingredient. For SME X, logistics is also important to maintain Halalness of ingredients. As the distributors do not have Halal certification for transportation and warehousing, SME X considers logistics as a supply risk source.

On the other hand, MNE Y listed several supply risk sources but, in relation to Halal issues, quality of supplier products and single supplier source become the source of supply risk. In regard to quality of supplier products, fermentation process of products was particularly regarded as a supply risk source in addition to animal-based ingredients and logistics. This is because MNE Y thinks that microbe is a critical material. Single supplier is also regarded as a supply risk source since MNE Y needs to procure some tailor-made products. MNE Y sometimes has no choice but to procure tailor-made products from a single supplier. Therefore, if certain issue occurs in the single supplier process, MNE Y may suffer from difficulty to procure specific products from alternative supplier in order to produce its Halal foods.

Risk Drivers: In the context of HFSC, no doubt Islamic teaching becomes a crucial risk driver that set unique requirements to ensure Halal foods. Because of Islamic teaching, the above supply risk sources become supply risks. In other words, the risk driver of Islamic teaching makes SME X and MNE Y form perceptions of supply risk sources in HFSC.

In addition, in the case of MNE Y, global sourcing possibly becomes one risk driver. MNE Y directly deals with several overseas suppliers, which amplifies supply risks derived from global sourcing. Therefore, MNE Y needs to take measures to mitigate this risk driver.

Risk Mitigating Strategies: In the case of SME X, four risk mitigating strategies could be seen: Malaysia Halal certification, no animal-based ingredients, self-manufacture and frequent site visits. These strategies are classified into risk mitigating strategies of the framework. Firstly, Malaysia Halal certification is a control strategy. This is because Malaysia Halal certification is the tool used to impose Halal requirements on suppliers and as proof that they met the requirements although SME X does not directly certify them. Thus, if SME X chooses suppliers in terms of whether or not they are certified by JAKIM that is the Malaysia Halal certification body, Halal certification can be considered as the control strategy. Secondly, no animal-based ingredients and self-manufacture are in the group of avoidance strategy. The strategy of no animal-based ingredients is simply avoiding the ingredients that become supply risk sources. The biggest reason why the strategy of self-manufacture was adopted is due to SME X not having sufficient confidence in processed foods produced by overseas suppliers. SME X adopts self-manufacture instead of procuring processed foods from overseas suppliers so

that SME X can avoid any supply risks derived from overseas suppliers. Thirdly, the strategy of frequent site visits is a co-operation strategy. SME X conducts site visits to its distributors that deal with overseas suppliers at once a month. During the visits, SME X gives the distributors advice to improve their operations. As SME X cannot interfere in the distributors' businesses too much, the site visits can work on the basis of co-operation relationship between SME X and the distributors.

MNE Y mainly adopts control strategies as risk mitigating strategy. Basically, MNE Y does not procure ingredients from suppliers without Malaysia Halal certification or Halal certifications recognized by JAKIM. MNE Y trusts in JAKIM's competency to manage Halal certification. Therefore, MNE Y considers that Halalness of supplier products can be sufficiently ensured by Halal certification. When MNE Y has no option but to procure products from suppliers without Halal certification, MNE Y obtains a declaration letter from the suppliers so that the suppliers ensure no non-Halal materials in their process. MNE Y conducts on-site audits for suppliers once a year. The audit information is shared among group companies because they use some same suppliers. That is why MNE Y can efficiently obtain the audit information of some overseas suppliers. When MNE Y conducts on-site audits for manufacturers, it mainly focuses on food safety and sanitation involved in their processes. In other words, MNE Y does not inspect specific requirements of Halal foods but checks their Halal certificates. On the other hand, MNE Y inspects logistics operations of the distributors in terms of basic Halal requirements once a year in on-site audits because most of them do not have Halal certification for warehousing and transportation. In addition to the on-site audits, MNE Y makes a contract including a clause of no mix of Halal foods and non-Halal foods in operations by the distributors. If a distributor violates the clause, MNE Y stops using the distributor. As mentioned above, MNE Y usually has 2 or 3 manufacturers that supply same products unless only single supplier produces specific tailor-made products. This is one of the flexibility strategies especially for overseas suppliers in that, even if they fail to renew their Halal certification or JAKIM stop recognition of their Halal certification, MNE Y can continue to procure products from alternative suppliers.

DISCUSSION

Based on the above comparison, it is assumed that bargaining power and resources based on the size of

enterprises influence differences of supplier management between SME X and MNE Y, particularly the type of risk mitigating strategies and the range of monitoring.

Bargaining power affected the type of risk mitigating strategies. When monitoring the distributors, SME X adopted co-operation strategy while MNE Y adopted control strategy. SME X does not have sufficient bargaining power to its distributors since the size of SME X is small. Therefore, SME X frequently visited its distributors in order to establish close relationship with the distributors. On the other hand, MNE Y is a much larger enterprise and has more bargaining power than SME X. That is why MNE Y can impose the contract on its distributors as control strategy and the number of on-site audits to them is not frequent.

Resources affected the range of monitoring. MNE Y has more personnel and networks than SME X. Therefore, even though suppliers are located in overseas countries, MNE Y can audit them and collect their information through group companies. Conversely, it is difficult for SME X to audit overseas suppliers due to its resources, which means it cannot obtain enough information of overseas suppliers. The difference could be related to perceptions of MNE Y and SME X for overseas suppliers with Halal certification. Nowadays, there are different Halal certifications and requirements in the world [23-25], which implies the possibility that some Halal certification bodies do not audit supplier processes rigorously [26]. Therefore, it is deemed that the situation caused SME X to have less confidence in and doubt the quality of Halal foods produced by overseas suppliers. As the result, SME X adopted self-manufacture as the risk mitigating strategy in order to avoid any supply risks of processed foods produced by overseas suppliers. Thus, the range of monitoring based on resources determines whether or not enterprises can manage supply risks affected by the risk driver of global sourcing in HFSC. In light of the above discussion, it is assumed that the size of enterprises influences the different types of risk mitigating strategies and the range of monitoring, particularly global sourcing, in HFSC. Although, as Zsidisin and Ellram [14] shows, larger enterprises tend to improve supplier processes, both SME X and MNE Y improved processes of suppliers. Rather, in terms of frequency, SME X tried more often to improve processes of the distributors than MNE Y. In addition, it is conceivable that, when Halalness of supplier products are certified, enterprises tend not to improve supplier processes related to specific Halal issues. As the case of MNE Y shows, its audits to suppliers that have Halal certification focused on the parts of food safety and

hygiene in supplier processes and not on the specific parts of Halal issues such as usage of porcine materials and alcohol.

CONCLUSION AND RECOMMENDATIONS

This study investigated the cases of SME X and MNE Y by focusing on supplier management in HFSC. The specific details on risk consequence, supply risk source, risk driver and risk mitigating strategy in HFSC emerged from the investigation. Furthermore, through the comparison of the cases, the differences between SME X and MNE Y were explored, especially the types of risk mitigating strategies and the range of monitoring. Therefore, it is assumed that the differences were influenced by the size of enterprises in terms of their bargaining power and resources.

For future research, more cases should be investigated. As Yin [19] suggested, the case selection should be designed to compare similar cases and different cases so as to clarify the conditions when a particular phenomenon is to be found and is not to be found. Thus, the researcher needs to investigate more similar cases as well as different cases. For instance, the researcher can include other factors into consideration such as the ability of Halal certification bodies or the geographical location of enterprises. The accumulation and comparison of such cases would contribute to development of the supplier management framework in HFSC.

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