

Supplier Management System in Halal Food Supply Chain: A Case Study Approach

Tatsuya Fujiwara^{#1}, Risyawati Mohamed Ismail^{*2}

^{#1} *Economics and Business Administration, Reitaku University*

¹a12024t@reitaku.jp

^{*2} *Asian Halal Lab (AHAL) Institute, School of Technology Management & Logistics*

Universiti Utara Malaysia, 06010 Sintok, Kedah, Malaysia

²risyawati@uum.edu.my

Abstract— The aims of this paper is to investigate supplier management in Halal food supply chain in according with an existing framework of supplier management and to explore how the size of enterprises influences supplier management in Halal food supply chain. In this study, the researcher adopted case study research method and collected the data from one small and medium-sized enterprise and one multinational enterprise producing Halal foods in Malaysia with Malaysia Halal certification. The findings showed specific risk consequences, supply risk sources, risk drivers and risk mitigating strategies in Halal food supply chain based on the framework of supplier management. By comparing the constructs of the framework, differences in the cases emerged: 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. For future research, the researcher needs to take not only the size of enterprises but also other contextual factors into consideration for a wholesome approach in understanding each firms characteristics and how the supply chain system is affected.

Keywords— *Halal supply chain, halal food, supplier management*

1. 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, 2, 3, 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].

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 [10, 11, 12, 13]. 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 [14] 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 (BUSINESS A) and another multinational enterprise (BUSINESS B) producing Halal foods.

Objectives

The specific aims of this study are as follows:

1. To describe supplier management in HFSC in accordance by using a framework of supplier management.

2. To explore differences in the supplier managements of BUSINESS A and BUSINESS B.

2. Methodology

2.1 A framework of supplier management

This study adopts case study research approach focusing on gaining an in-depth understanding of the dynamic presents [15]. This method is frequently used for researches on supplier management [16]. This study primarily follows [17] whose method sets a certain framework prior to data collection in case study research. The framework of supplier management suggested by [18] 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 [18]. 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 [18]. 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 [18].

2.2. Data Collection

Company A and B have produced food products with Malaysia Halal certification in Malaysia. In terms of the annual turnover, A is categorized as a

small industry while B is classified as a multinational industry by the classification of Department of Islamic Development Malaysia (JAKIM) [19]. In order to describe supplier managements in accordance to the framework, the researcher collected data through multiple sources such as interviews, internal documents and emails [17]. Several interviews were conducted with both companies represented by their Chief Executive Officer (CEO) and Halal Executive..

After describing the cases, the researcher compared the cases in order to explore differences in the supplier managements of company A and B. Then, the researcher sent the tentative results to all the interviewees. If necessary, the researcher added modifications to the results based on their feedbacks

3. Results and Findings

Table 1: Overview of supplier managements of BUSINESS A and BUSINESS B

| Construct | Company A | Company B |
|--------------------------|--|--|
| Risk Consequence | Violations and/or invalidation of Halal certification | Violations and/or invalidation of Halal certification |
| Supply Risk Source | 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- | |

| Construct | Company A | Company B |
|---------------------|----------------------|-------------------|
| | manufacture | |
| <i>Co-operation</i> | Frequent site visits | |
| <i>Flexibility</i> | | Multiple sourcing |

Risk Consequences

Company A and B pay strong attention that Muslim consumers have confidence to purchase their products. That is why Halal certification is 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 A and B, noncompliance to 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 company A, 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 that are 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 company A 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 company A, logistics is also important to maintain Halalness of ingredients. As the distributors do not have Halal certification for transportation and warehousing, company A considers logistics as a supply risk source.

On the other hand, company B perceived several supply risk sources such as quality of supplier products and single supplier source.. In regards 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.

Risk Drivers

In the context of halal supply chain , 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 A and B form perceptions of supply risk sources in halal supply chain.

Risk Mitigating Strategies

Four risk mitigating strategies were identified namely JAKIM Halal certification, no animal-based ingredients, self-manufacture and frequent site visits. These strategies are classified into risk mitigating strategies of the framework.

Company B mainly adopts control strategies as risk mitigating strategy. Basically, B does not procure ingredients from suppliers without Malaysia Halal certification or Halal certifications recognized by JAKIM. Company B trusts in JAKIM's competency to manage Halal certification. Therefore, B considers that Halalness of supplier products can be sufficiently ensured by Halal certification. When B has no option but to procure products from suppliers without Halal certification, B obtains a declaration letter from the suppliers so that the suppliers ensure no non-Halal materials in their process. B also 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 B can efficiently obtain the audit information of some overseas suppliers. When B conducts on-site audits for manufacturers, it mainly focuses on food safety and sanitation involved in their processes. In other words, B does not inspect specific requirements of Halal foods but checks their Halal certificates. . As mentioned above, B 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, B can continue to procure products from alternative suppliers.

4. Discussion

Based on the above comparison, it is assumed that bargaining power and resources based on the size of enterprises influence differences of supplier managements Bargaining power affected the type of risk mitigating strategies. When monitoring the

distributors, A adopted co-operation strategy while B adopted control strategy. Company does not have sufficient bargaining power to its distributors since the size of BUSINESS A is small. Therefore, A frequently visited its distributors in order to establish close relationship with the distributors. On the other hand, B is a much larger enterprise and has more bargaining power than A. That is why B 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. B has more personnel and networks than A. Therefore, even though suppliers are located in overseas countries, B can afford to audit them and collect their information through group companies. Conversely, it is difficult for A 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 B and A for overseas suppliers with Halal certification. Nowadays, there are different Halal certifications and requirements in the world [20, 21, 22], which implies the possibility that some Halal certification bodies do not audit supplier processes rigorously [23]. Therefore, it is deemed that the situation caused A to have less confidence in and doubt the quality of Halal foods produced by overseas suppliers. As the result, A 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 halal supply chain.

5. Conclusion and Future Research

For future research, more cases should be investigated. As [17] 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.

References

- [1] Bonne, Karijn; and Verbeke, Wim. "Religious values informing halal meat production and the control and delivery of halal credence quality". *Agriculture and Human Values* 25(1): 35-47, 2008.
- [2] Lodhi, Azhar-Ul-Haq. "Understanding Halal Food Supply Chain". London: Hfrc UK Limited. 2009.
- [3] Riaz, Mian N.; and Chaudry, Muhammad M. "Halal food production". London: CRC Press, 2004.
- [4] Tieman, Marco. "The application of halal in supply chain management: In-depth interviews". *Journal of Islamic Marketing* 2(2): 186-195, 2011
- [5] Ab Talib, Mohamed Syazwan; Abdul Hamid, Abu Bakar; and Zulfakar, Mohd Hafiz. "Halal supply chain critical success factors: A literature review". *Journal of Islamic Marketing* 6(1): 44-71, 2015.
- [6] Hassan, Muhammad Haziq; Arif, Sazelin; and Sidek, Safiah. "Compliance with the internal halal assurance system among food service operators in Melaka". *Science International* 26(4): 1553-1556.
- [7] Hassan, Muhammad Haziq; Arif, Sazelin; and Sidek, Safiah. "Knowledge and practice for implementing internal assurance system among halal executives". *Asian Social Science* 11(17): 1911-2025, 2015.
- [8] Ab Talib, Mohamed Syazwan; Rubin, Lim; and Zhengyi, Vincent Khor. "Qualitative research on critical issues in halal logistics". *Journal of Emerging and Islamic Research* 1(2): 1-20, 2013.
- [9] Tieman, Marco; van der Vorst, Jack GAJ; and Ghazali, Maznah Che. "Principles in halal supply chain management". *Journal of Islamic Marketing* 3(3): 217-243, 2012.
- [10] Harland, Christine; Brenchley, Richard; and Walker, Helen. "Risk in supply network". *Journal of Purchasing and Supply Management* 9(2): 51-62, 2003.
- [11] Matook, Sabine; Lasch, Rainer; and Tamaschke, Rick. Supplier development with benchmarking as part of a comprehensive supplier risk management framework. *International Journal of Operations & Production Management* 29(3): 241-267, 2009.
- [12] Zsidsin, George A. "Managerial perceptions of supply risk". *The Journal of Supply Chain Management* 39(1): 14-25, 2003.
- [13] Zsidsin, George A.; Ellram, Lisa M.; Carter, Joseph R.; and Cavinato, Joseph L. "An analysis of supply risk assessment techniques". *International Journal of*

- Physical Distribution & Logistics Management 34(5): 397-413, 2004.
- [14] Zsidisin, George A.; and Ellram, Lisa M. "An agency theory investigation of supply risk management". *Journal of Supply Chain Management* 39(3): 15-27, 2003.
- [15] Eisenhardt, Kathleen M. "Building theories from case study research". *Academy of Management Review* 14(4): 532-550, 1989.
- [16] Ghadge, Abhijeet; Dani, Samir; and Kalawsky, Roy. "Supply chain risk management: Present and future scope". *The International Journal of Logistics Management* 23(3): 313-339,
- [17] Yin, Robert K. "Case Study Research: Design and Methods", second edition. California: Sage, 1994.
- [18] Jüttner, Uta; Peck, Helen; and Christopher, Martin. "Supply chain risk management: Outlining an agenda for future research". *International Journal of Logistics: Research & Applications* 6(4): 197-210, 2003.
- [19] Malaysia, Department of Islamic Development Malaysia (JAKIM). "Manual procedure for Malaysia halal certification (third revision) 2014". Department of Islamic Development Malaysia, Malaysia, 2014.
- [20] Bergeaud-Blackler, Florence. "Who owns halal? Five international initiatives of halal food regulations". In *Halal matters Islam, politics and markets in global perspective*, edited by Florence Bergeaud-Blackler; Johan Fischer; and John Lever, pp.192-197. London: Routledge, 2015.
- [21] Latif, Ismail Abd; Mohamed, Zainalabidin; Sharifuddin, Juwaidah; Abdullah, Amin Mahir; and Ismail, Mohd Mansor. "A comparative analysis of global Halal certification requirements". *Journal of Food Products Marketing* 20 (September): 85-101, 2014.
- [22] Lever, John; and Miele, Mara. "The growth of halal meat markets in Europe: An exploration of the supply side theory of religion". *Journal of Rural Studies* 28(4): 528-537, 2012.
- [23] Hatanaka, Maki; and Busch, Lawrence. "Third-party certification in the global agrifood system: An objective or socially mediated governance mechanism?" *Sociologia Ruralis* 48(1): 73-91, 2008.