

Advancing Theory on Halal Food Supply Chain in Aviation: Current Issues and Future Research

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Abstract

This study discusses a preliminary analysis on Halal food supply chain issue in aviation context. It focuses on current issues related to the demand for Halal food in the airline industry for both domestic and international sectors. Even airline caterer is clearly believed in the importance of Halal caterings demand, but there is a little evidence or study that suggest further enhancement in this area. Even some airlines do gear their marketing campaigns on Halal food on board as a means that differentiate their service with other airline, however research into this area is still neglected. Halal airline catering or called as Halal in-flight meals become a big issue in Halal tourism and it has been addressed in the past literature. This paper aims to investigate the challenges of halal food supply chain from the airlines perspective and highlight some suggestion for future research. The facts and discussion that gathered in this study are solely based on past literature on the Halal food supply chain in the airlines. From the review, the researcher established four main issue that requires further examination in the future namely certification and logo, alcohol and contamination, lack of enforcement and lack knowledge and awareness. This paper is significantly important to the academic scholars to further developed this area of research. In fact, this study also would contribute to airlines practitioner, the tourism people and also regulatory body. Since this study is exploring the Halal in flight knowledge which then, in turn, will help them to strategize their businesses and also perform more research in the area of Halal in-flight catering.

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1. Aviation Food Supply Chain: Airline Catering Perspective

History of Airline Catering

Essentially, the airline catering is one of the most challenging operation system in food industry as the

airline caterer prepare and serve hundred thousand of meals daily. The history of in-flight meals started from

the Handley Page Transport as early as 1919. The in-flight meal refers to a selection of meals that is provided to the passengers on board when they fly with air transport. Currently, one of the critical hurdle for airline caterer is the number of order received nearly to departure. The unavailability of exact order prior to departure remain undecided as the numbers of order will be increase based on the number of passenger confirm ticket (Hasachoo and Masachun, 2015). In the early days of airline catering about a century ago, the selection of in-

flight meal is very limited which is sandwiches to fruit. Dana (1999) reported the first technology introduced in airline catering was in 1920 which is hot in flight meal. It is an advancement of technology in airline after the introduction of Boeing 747. Boeing 747 is a new aircraft design that come with compartment, or known as “galley” where food is prepared and heated (Jones, 1995). Carriers or any airlines are much dependent on their caterer to manage their food catering (main course, snacks or dessert) and its logistics activities including loading and unloading to the aircraft (O’Hara and Strugnell, 1997).

After 100 years of history in airline catering, in-flight meals are now developing further as the number of travellers also increased year by year. At present, air transport industry has shifted into mass passenger travel era that support businesses, and tourism industry (Rahman et al, 2018; Chang and Jones, 2007). Travellers are travel across the globe using aircraft. Since the number of routes is larger, and the number of passenger increased, more demand on in-flight meals are created by the travellers ranging from starter meals, main course, desert and drinks. Mass production in airline catering refer to production process that consist of two main activities namely job shop, assembly lines and delivery stage (Chang and Jones, 2007).

It should be emphasized that preparing a high-quality meal to serve at the restaurant is not the same process of preparing the food to be served as 30000 feet in the air. This is one of the complexities and challenges to be discussed. Logically, the food that served at 30,000 feet from the ground may taste bad because of the humidity in the aircraft. As such, the supply chain process for in-flight meals is quite challenging to all members involved. The airlines and their meals provider should have a clear agreement on the selection of raw materials and menu to be served to the passengers on board. According to Law (2011), the logistics of food in airline is different with other industries in term of supplier, manufacturer or customer. Since the production of in-flight meals produced daily with certain requirements from different airline, the airline caterer are restricted to minimal flexibility on scheduling matter. Continuous changes in the schedule can undermine the confidence in the system and result in disruptions in the production or delivery systems. However, there is a dearth of research on airline food supply chain. More research in this area should be performed to support and help the industry to meet passenger’s perspective.

Aviation food supply chain today has shifted from ordinary in-flight meal to more customized demand in-flight meals which are ‘Halal’ in-flight meals. The main objective of this paper is to highlight the challenges in Halal food supply chain in the Airline perspective. This objective is established due to the increased number of Halal traveller globally and the increase demand of Halal food within airline that serve Halal and non Halal food.

The next section will discuss further on the evolution of Halal food supply chain in the aviation industry.

2. The Development of Halal Food Supply Chain in the Airlines

As highlighted by Bashir (2019), Halal food represent 17% from the global food industry. The Halal status of any Halal product or Halal food should be maintain from end to end. As emphasised by previous scholar, Halal food refer to cleanliness or hygiene, high quality and purity (Hussain et al. 2016). Halal in-flight catering study starts in 2000s in parallel with the development of Halal tourism study, as well as Halal logistics study in 2010s (Rahman, 2019a). As time evolved, the Halal food requirement becomes the focus, an issue on serving halal in flight become the main focus. In fact, most of the airlines now are competing to impress their passengers with the best and customised in-flight meals especially with a Halal logo or Halal certified menu. This is in line with the increased number of Muslim population across the globe As stressed by Pew Research Centre, it is expected that the total population of Muslim in the year 2050 will reached 2.76 billion. Essentially, the concept of Halal emerged in a food supply chain which refers to no pork and no alcohol. As stated in Surah Al Baqarah, verse 168, Halal in Islamic terms means permissible and cleanliness. This two terms used that explained the Halal food become more popular into a worldwide phenomenon all over the world in many industries not only in food but also other products like cosmetics, leather, pharmaceutical and also textile.

In the airline perspective, preparing food for in-flight meals is equally challenging as other aspects such as safety, cleanliness and food allergies. Food allergies policies are issued especially for those who are allergic to certain type of food, for example, peanut is the most popular kind. Same goes for the issues of implementing Halal in-flight meals, the necessary regulatory bodies should be referred and Halal standard guidelines should be followed to ensure the entire process of preparing Halal in-flight meals is compliance with Syariah. As mentioned by Battour (2010), Shariah compliance involves the process of upholding the Halal integrity which consists of provisions namely religion, life, mind, lineage and property (Rahman, 2019b). Neglecting the Halal compliance in the process of preparing the Halal in-flight meals will affect passenger’s confidence level in Halal-certified in-flight meals. Figure 1 below shows in-flight catering system. To underpin with Halal food supply chain, it means that all process involved in in-flight catering should follow Islamic law or known as Shariah Compliance which require certain process and critical steps to ensure the quality of the Halal in-flight meals, quality, cleanliness and the security of the Halal in-flight meals. It is vital to maintain the status of Halal in-flight meals end to end, from the point of origin to point of consumption by the passengers.

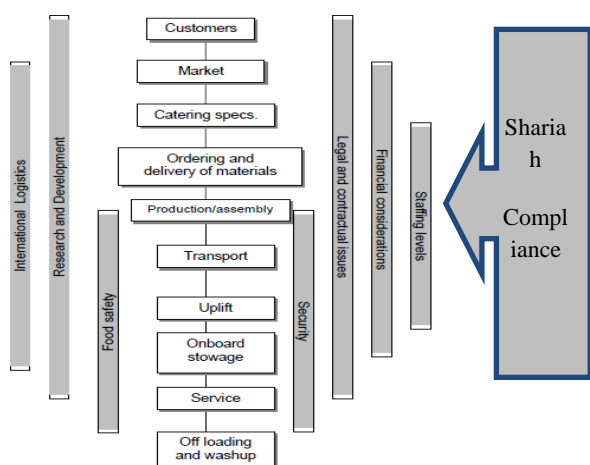


Figure 1: Halal in-flight catering system

Source: Adopted and revised from Flight Catering, Butterworth Heinemann: Oxford

Each airline offers different menus for their Halal in-flight meals. In fact, there is no standardization in terms of the menu of the meals. It is a freedom of each airline to serve and create their own in-flight halal meals. At present, most airlines in the Asian countries provide a Halal menu, but also airlines from the Western country. Below Table 1 and Table 2 shows some of the airlines and countries from both Eastern and Western countries that served Halal and vegetarian menu for their passengers.

Table 1: List of airlines in ASIAN countries that served Halal food on board

AIRLINES	COUNTRY	Halal food served
Air Asia	Malaysia, Thailand, Indonesia, Philippines	/
Lion Air	Indonesia, Malaysia, Thailand	/
Garuda	Indonesia	/
Malaysia Airlines	Malaysia	/
Singapore Airlines	Singapore	/
Cebu Pacific	Philippines	/
Thai Airways International	Thailand	/
Philippines Airlines	Philippines	/
Bangkok Airways	Thailand	/
Vietnam Airlines	Vietnam	/
Tiger Air	Singapore	/

Source: Develop by the authors

Table 2: List of Airlines from Western Countries that served Halal food on board

AIRLINES	COUNTRY	Halal food/vegetarian
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served		
Lufthansa	German	/
American Airlines	United States	/
United Airlines	United States	/
Delta Airlines	United States	/
Qantas Airline	Australia	/
Skywest Airline	Australia	/
Portuguese Airline	Portugal	/
Italian Airline	Italy	/
Air Canada	Canada	/
Sweedish Airline	Sweden	/
Air France	France	/
South African Airline	South Africa	/
KLM	Netherlands	/
Swiss Airline	Switzerland	/

Source: Develop by the authors

As highlighted by Rahman et al (2018a), there are a number of major stakeholders in Halal in Aviation or Halal in-flight catering. They are Halal in-flight caterer, Halal in-flight supplier, distributor, Airlines and Halal in-flight consumer. See Figure 2.

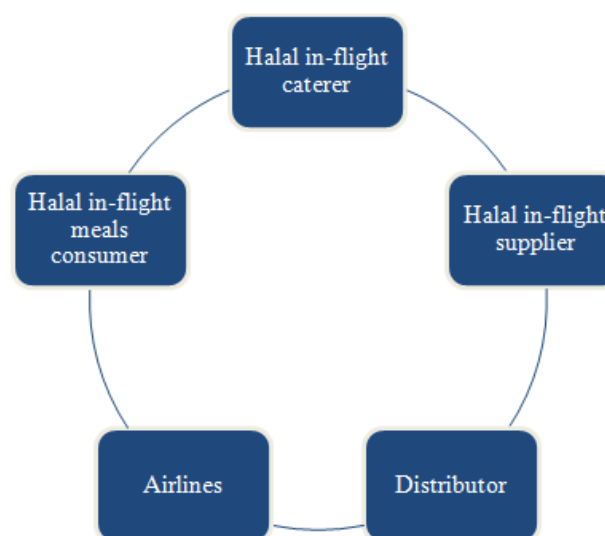


Figure 2: Major stakeholder in Halal in-flight catering
Source: The authors

3. Issues Related to Halal Supply Chain in the Airlines (Halal In-flight Catering)

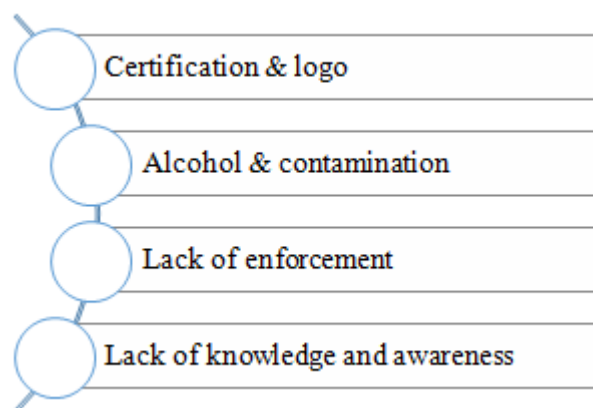
From desk research to literature review conducted with regards to complexities and challenges in Halal food supply chain in the aviation industry, the researcher could conclude that there is four (4) main issue found to be the main challenges namely Halal certification and logo,

alcohol and contamination, lack of enforcement and lack of knowledge. See Figure 3.

Halal Certification and Logo

Halal food is recognized by Halal certificate and Halal logo. As highlighted by Fischer (2019), the halal status of any product including food is recognized by its Halal logo and certification. Both certification and logo are compulsory to verify and provable the status of the Halal food. For Muslim travellers that travel via air transport, they always demand for Halal in-flight meals on board. The awareness of Halal in-flight meals and providing Halal food on board is an integral part for airline sustainability (Aziz and Chok, 2013).

In Malaysia, JAKIM is a regulatory body that will monitor the certification process for Halal food and the usage of the Halal product. However, different countries have different logos and certification body. As for the airline that caters Halal food from their Halal provider in-flight meals, they should be aware of the use of the logo that is certified. Because there is also issue of the fake Halal logo. Malaysia is a Muslim country and it is the top reference country for Halal food supply chain process. (Battou and Ismail, 2016). According to JAKIM, as in 2016, there are 54 certification bodies of Halal logo and certification from thirty-two countries (32). Since the logo represent the key symbol that differentiate Halal logo, therefore future studies could focus on Halal logo in in flight catering perspectives. How logo and certification ensure the status of Halal in-flight meals throughout it supply chain activity (Wibowo and Ahmad, 2016).



Source: The authors

Figure 3: Four main issues in Aviation food supply chain: Airline Catering perspective

Secondly, the issue on Halal food supply chain is connected to alcohol on board. All halal food served on board to the passengers should not get contaminated with non Halal or Haram product such as alcohol. The contamination process could happen in any process throughout the supply chain and it should not be put in the same place when storing and serving (Rahman et al, 2018b). All parties involved which is the cabin crew, the

airline or carrier, the food provider should ensure that the contamination of non halal product such as liquor or alcohol will not happen. The Halal compliance process should be adhered to avoid cross-contamination from happening.

It has conclusively been shown that the enforcement by the regulatory body on halal compliance throughout the aviation food supply chain is vital. This is to ensure the Halal food is still halal when it reaches the flight crew and its ready to be served to the passengers. This is significantly related to the knowledge and awareness of all parties involved in aviation halal food supply chain such as the crew, the food provider, the airline and whoever have contact with that food.

Finally, overall process related to Halal implementation and handling of Halal product requires training. Suitable training provided by the caterer to the workers could reduce the chances of food been contaminated with non Halal substances. In fact, training is important for employee to develop skills and establish Halal knowledge, so that it can meet the Halal standards requirements. Training is an event that could elevate the knowledge and skills. Appropriate Halal training provided by the organization to staff that handle Halal products could reduce the chances of cross contamination from happen during production, storing and delivery. As highlighted earlier by Hashim and Shariff (2016). Halal training study is still a dearth and open up a big opportunity for scholars to explore on this issue. Among the key questions that future scholars need to focus is on the type of Halal training to the staff and how effective is the training to the organization.

4. Conclusion

To conclude, this study is one of the first that looks into Halal food supply chain in aviation perspective. Based on the previous review on the knowledge of Halal food supply chain study, this study specifically contributes to the body of knowledge in Halal food supply chain in the airline perspective specifically discussing on the issue of Halal in-flight meal. Essentially, we enhance the understanding of Halal food supply chain from the perspective of issue and challenges in the airline context. From this study, four main areas for future scholars on halal airline catering has been proposed.

Apart from scholars, this study also beneficial to regulators and certification bodies to monitor and think how halal aviation food supply chain could be further developed and practiced in both Muslim and non-Muslim country. Future research should be empirical research from many perspectives such airline, certification body, the regulators, the passenger and also the Halal food provider to the airlines.

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