Food Quality and Safety in Japan: Exploring *Halālan Tayyiban* Aspect

Raihana Mohd Raffi

Center for Global Initiatives, Osaka University, Osaka University Suita Campus, 2-7 Yamadaoka, Suita city, Osaka 565-0871, Japan Email : raihana.raffi@unissa.edu.bn

Quamrul Hasan

¹Halalan Thayyiban Research Centre, Universiti Islam Sultan Sharif Ali, Simpang 347, Jalan Pasar Gadong, BE 1310, Negara Brunei Darussalam

Abstract

In food production, the quality and safety aspect of a product must be at optimal level. To maintain good and nutritional quality, all aspects of food chain must be monitored. In Japan, all measures are being taken seriously from handling, preparation and storage of food. Ministry of Health, Labour and Welfare, Ministry of Agriculture, Forestry and Fisheries along with Food Safety Commission of Japan are committed to protect the integrity of the food chain. The regulatory requirement of Japan for food is critical, ensuring every food product in the shelves are at their utmost quality following the international and local food regulations. Accordingly, the spirit of food quality and safety lays on the basis of halalan thayyiban concept in Islam. Thus, this paper attempts to contribute to this growing area of research by exploring on the *thayyiban* aspect of food underpinned in the prevalent concept of halal food in Islam, focusing on the food quality and safety in Japan.

Keyword: Food Quality, Food Safety, Halal, *Halalan Thayyiban*, Japan

Introduction

The word *halal* came from various *quranic* verses and generally refers to food and drinks. However, from an Islamic perspective lays the popular *quranic* verse on the foundation of eating what is permissible and wholesome for human consumption in Islam.

"O mankind, eat from whatever is on earth [that is] lawful and good"

(Surah Al- Baqarah, Verse 168)

Based on this *quranic* verse on *halalan tayyiban*, it carries broad interpretation of what constitutes of good in food. It extends the concept of 'permissibility and wholesome' in Islam. For many centuries, *halal* is only limited to Muslim food solely. However, with the evolution of food and drinks, the term *halal* extended to nonconsumable products, for instance, cosmetics and medicines.

The word '*halal*' and '*halalan tayyiban*' are sometimes used interchangeably (Abdullah, 2018). *Halal* is an arabic term which means permissible, allow and lawful. Muslim emphasizes on the importance of eating *halal* (lawful) food. *Tayyiban* is then added due to non-Shariah compliance for a product, while *halal* focuses on the Shariah requirements and compliances. Due to the previous limitation of the *halal* concept on food and drinks, now the term has been extended from *halal* to *halalan tayyiban*.

It is important to note that a product is only considered *halal* when it is adhered to the *Shariah* and technical requirement. According to *Shariah* requirement, *halal* products must be free

from prohibited elements as mentioned in the Quran. The wisdom behind these prohibitions is due to its harmful elements that can lead to illness and cause detrimental for both health and physical.

It is obligatory for Muslims to consume *halal* food and use *halal* products solely because it is as an act of religious obligations.

In food industry, products are only considered as *halal* when the entire operation of formulating raw materials and ingredients into products comply with the concept of *'halalan tayyiban'*. Thus, in the present global *halal* market demand situation, *halalan thayyiban* carries the foundation and framework of what is permissible for Muslim to eat. It means the product is safe and healthy to be consumed by human. Therefore, it is compulsory for Muslims to eat good and healthy food, and to avoid all that is forbidden for them as mentioned in the Holy Quran.

Additionally, in the production of food, it is a general requirement that both quality and safety aspect of a product must be at the highest level (Food and Agriculture Organization of the United Nation (FAO), n.d). This is the critical element in food especially for Muslim due to their strict religious beliefs. However, at present not only Muslims are concerned of the halal status of a food product, there was also a study conducted on the acceptance of non Muslim towards halal food (Vloreen, Ardiana & Siti Nurazizah, 2014). The findings of the study showed the acceptance and positive attitude of non Muslim towards halal product. This a significant factor as they value halal products provide health benefits.

Japan has been known to be a developed country. Their technology and electronic industry is among the top in the world (Oshiba, 2014). Among others, their food sector is also advancing, which means business operators in Japan tend to serve and create the highest quality of food while protecting the safety of the consumers. Thus, in relation to the current trend of *halal* industry, this paper attempts on connecting the quality and safety of food in Japan by exploring the *tayyiban* concept.

Methodology

This research was conducted in Osaka Prefecture and Tokushima Prefecture in Japan. A direct observation method was adopted during the field research visit to two local Japanese companies. The first one was Nishiawa Beef LTD., one of the *halal* abbatoirs in Japan. This company exports meat to Muslim countries. The second one was an international company produces health-based products.

The visit and observation allowed the author to understand how the entire food production activities were carried out in both factories. After observation was made, a follow up interview with respective factory managers was also conducted to further understand the business practice. Questions were mostly relating to the preparation of the raw ingredients until the end products, especially in the context of its *halal* matter and *tayyiban* areas.

This approach was to source richer information via an open-ended question technique. The reactions of the respondents were collaborative and positive during the field work. The main focus of the research is to connect the *tayyiban* concept that was reflected in the Japanese commitment to produce high quality and safety food.

Food Quality and Safety in Japan

Food production is an integral part of producing the highest quality products which must be safe for human consumption (Anne-Celia & Stephen, 2012). It includes the techniques and method of growing, harvesting, processing, packaging, transporting, marketing and up to the point of consumption (from farm to fork). The entire operation in the producing must be done and supervised properly. This is to ensure that the result conforms to the required quality and safety.

Food quality has been defined as the degree of excellence and includes taste, appearance, nutritional and hygienic factors like microbial interventions in food handling equipments, persons and subsequently transferred to the food (Saghir Ahmad, 2014). Present consumer concerned about nutritional quality, where they see a products with quality ingredients such as carbohydrate, protein, fat, acid, fibre, vitamins, minerals, antioxidants and food pigments. Other elements that could convince the consumers are the sensory quality like taste, appearance and texture. In the context of poultry production, there are concerns on the diseases derived from animal production (Kiilhoma, 2007). According to The Europe-Africa-Caribbean-Pacific Liaison Committee (COLEACP) training manuals, one of the basic principles of hygiene is to ensure and control all aspects of food production are to be free from all types of hazardous element.

The hygienic quality is one of a great concern, as it takes care of the health hazard caused in raw materials, in plant, in industry premises during unloading, performing different unit operations; packaging, storing and during transportation in which potential risk may be in physical, chemical, biological or quality hazard. Sanitation and hygiene are concerned with safe food production and processing. It includes the machine, equipment, plant and also persons working in the industry.

Different food statutory organisations provide different guide lines to protect the health of the consumer, to ensure fare practices in food trades, to promote coordination of the work on food standards undertaken by various agencies and also to prepare the draft standards.

Some of the Food Statutory organizations are Food Product order (FPO), Bureau Indian Standard (BIS), Agriculture Produce (Grading and Marketing) (AGMARK), World Health Organization (WHO), Food and Agriculture Organization (FAO), Codex Alimentarius Commission (CAC).

While in the food sector, the implementation of Hazard Analysis Critical Control Point (HACCP) is widely adopted. This HACCP serves as a benchmark in determining hazard and risk in food production. It carried the importance of food quality and safety in food, which is among the issue concerned by consumers at present. Both qualities are essentials to be monitored by manufacturers to protect the consumer's health. Contamination could happen in one of the processes. Food borne illnesses is a common issue if there is no proper hygienic handling in food production (Kumar, 2019). As far as the food safety is concerned, the consumption of food contaminated by microbial pathogens, toxic chemicals or radioactive materials needs to be avoided. Hence, business operators should adhere to the food act, food safety act and regulations.

Thus, in light with the global demand of producing safe and quality food, this notion is with the 'tayyiban' concept of Islam. Food production system is the critical part of a high end product product, therefore it must be done and supervised properly. The entire productions including machine and workers must be done and well-monitored. If a product is of a good and high quality, it must be complied with the international safety and health principles.

For instance, a Japanese company from Tokushima Prefecture produces *halal* meat for and international market. The company employs a few Muslims to fulfil the *halal* slaughtering part (halal certified by a local certifying body) (Figure 1). Islam has introduced the concept of slaughter, whereby an animal would have to be properly slaughtered for consumption. For a meat to be *halal*, animals must be slaughtered by a Muslim according to Islamic slaughtering practice (pig and dogs are prohibited to eat for Muslims). According to FAO, there are conditions required as stated in clause 3.2 about slaughtering guidelines. As mentioned in the said clause, all lawful land animals should be slaughtered in compliance with the rules laid down in the Codex Recommended Code of Hygienic Practice for Fresh Meat 2005 and the following requirements:

3.2.1 The person should be a Muslim who is mentally sound and knowledgeable of the Islamic slaughtering procedures.

3.2.2 The animal to be slaughtered should be lawful according to Islamic law.

3.2.3 The animal to be slaughtered should be alive or deemed to be alive at the time of slaughtering.

3.2.4 The phrase "bismillah" (in the name of Allah) should be invoked immediately before the slaughter of each animal.

3.2.5 The slaughtering device should be sharp and should not be lifted off the animal during the slaughter act.

3.2.6 The slaughter act should sever the trachea, esophagus and main arteries and veins of the neck region.

These international guidelines and slaughtering standard are following the Shariah slaughtering method (Fischer, 2016).

A compulsory part of the requirements of slaughtering in Japan is the two government officers to inspect and decide the suitability of the slaughtered animal. Usually, these government officers have veterinarian background or have undergone animal safety courses. Normally, after the slaughtering process, a routine check on the condition of the slaughtered meat. This check-up is crucial to avoid the risk of food borne illness that can easily affect the public if it is not monitored properly. The quality of the needs to be checked the suitability for public consumption (Figure 2). The food safety should be promoted beginning the first step of food production until the consumer's table. Thus, the health of consumer is one of the important aspects within the poultry production regardless religious understandings (I. A Shahdan et. Al, 2016).

While trying to respect Islamic religious slaughtering criteria as well as complying with standard slaughtering method, Japan is committed to deliver quality and safety endproduct. In this sense, by employing *halal* slaughterer and the presence of government officers in the *halal* slaughterhouse reflect the highest standard of poultry production in Japan. The act of slaughtering is to ensure the quality of meat and to avoid any microbial contamination while handling and processing, which as whole fulfils the *tayyiban* part of *halalan tayyiban*.



Figure 1



Figure 2

Food for Specified Health Uses (FoSHU)

According to the standard set by the Ministry of Health, there are two categories of healthy food, Food with Nutrient Function Claim and Foods for Specified Health Uses (Toshio, 2003). In Japan, FoSHU is a unique concept of food that has a potential positive effect on health beyond the basic nutrition (Heizo Tanaka, Fumi Kaneda, Reiko Suguro, Hiroko Baba, 2004). This food product provides an additional function which is often related to promote health and/or preventing diseases. According to the US Dietary Supplement Health and Education Act, the term "dietary supplements" means a product is intended to provide dietary ingredients such as vitamin, mineral, botanical herb, amino acid, a dietary substance for use by man to supplement the diet by increasing the total dietary intake, or a concentrate, metabolite, constituent, extract, or combination of any ingredient described in clause. Howeve, there is no clear term of what constitute health food as it varies based on different health understandings.

Definition

Term and definition related to healthy food:

Functional Food

Food that has physiological functions, including regulation of biorhythms, the nervous system, the immune system, and bodily defence nutrient functions, as define by the Japanese ad hoc national project in 1984

Health Claims

Presentation that states, suggest, or implied that a relationship exists between a food or the constituents of a food and health. Health claims include nutrient-function claims, and reduction of disease risk claims. This definition is the same as that included in the Proposed Draft Guidelines for Use of Health and Nutrition Claims of the Codex Alimentarius in 1999 (Codex Alimentarius Committee on Food

Labelling 28 Session)

Generic Health Claims

Claims based on well-established, generally accepted knowledge derived from evidence in the scientific literature and/or on recommendations from national and international public health bodies.

Product-specified claims

Claims that concern certain physiological effects other than a generic health claim, which requires demonstrations based on scientific evidence for individual products.

Enhanced function claim

Claims that concern specific beneficial effects regarding the consumptions of foods and their constituents in the context of the total diet regarding physical or psychological functions or biological activities but that do not include nutrient function claims

Structured/function claims

Any statements regarding the effect of dietary supplementation on the structure or function of the body, that is defined by the Dietary Supplement, Health and Education Act in the USA in 1994. These claims are generally similar to the enhanced function (or other) claims.

Dietary supplement

A product intended to supplement the diet, which contains one or more of dietary ingredients such as vitamins, minerals, herbs, amino acids, etc, which is ini a dosage form such as capsules, tablet, etc.

FoSHU is a part of functional food introduced by the Consumer Affairs Agency in Japan. Based on practice and available literature, the idea of FOSHU in Japan conforms the *tayyiban* concept in Islam. This is due to the strict requirement by the Ministry of Health, Labour and Welfare whereby the product will be determined on the quality and safety first before given approval to sell. *Tayibban* means anything that brings good to human. The *tayyiban* concept can be interpreted to be something that is not harmful, beneficial and worthy. Foods that provide good ingredients help to maintain and promote health for human is considered *tayyiban* food that Muslim has been ordered to consume and stated in the holy Quran. Therefore, it is believed that FoSHU and *tayyiban* serve identical purpose which is to provide health benefits for human.



Figure 3

Figure 3 is an example of Foods for Specified Health Uses (FOSHU) that can be bought in a Japanese store. This product is an artificial sweetener which acts as a replacement of the conventional sugar. It contains sweetener that was extracted from natural plant. Unlike sugar and the other natural sweeteners, this is proven safer for diabetics. The ingredients are not harmful since, it is claimed to provide zero in calorie, no glycemix index, no added additives, does not influence blood sugar level and insulin release. Thus, it helps people not to put extra weight and maintain healthy blood level.

The proper intake of food is important for a healthier life. Promoting overall health reduce the risk of chronic illness. The *tayyiban* concept

represents the food quality and safety in the Islam. It guarantees the quality of assurance of the product we consume. It is universal which also applies to the international food safety regulations (e.g., HACCP, CAC, GMP, etc.). Functional food helps to improve our health. Japan's FOSHU (Food for Specified Health Uses) matches with the *tayyiban* concept.

The Tayyiban Aspect

Halalan tayyiban as previously mentioned in the quranic verse used as the basis of halal industry. With the emergence and growing of demand in halal food sector, halalan tayyiban then served as a framework to determine the legality of a product. Halal is the Shariah aspect while tayyiban is the technical aspect. The framework is used to determine and asses halal food products. In this part, focus is on the tayyiban concept as the author believed Japan has a strong commitment on the tayyiban part.

Tayyiban originates from the Arabic word 'tayyib' which carries the meaning of good, healthy and wholesome. The general principle concerning food according to Islamic teachings is that everything is *halal* except with the presence of impurities, harmful substances and intoxicant. As a result to this principle, the *halal* industry developed the concept of halalan tayyiban based on the quranic verse mentioning this two word *halal* and tayyiban as one term. Thus, Muslim scholars believed that this concept should be the foundation of the *halal* industry. The word *tayyiban* includes the non Shariah aspect which is crucial to be included as one of the requirement of halal product.

Formerly, there are not many arising issues and concerns on *halal* food unlike today. In current situation, the scope of *halal* is associated with *tayyiban* as per written in the Holy Quran. Consumers begin to aware on the content, ingredients and preparation of the food. For instance, some diseases are originated from or carried in the animal's blood. Therefore, in *halal* slaughtering it is mandatory to ensure the complete drainage of blood from the animal's body, thus minimizing the chance of passing the disease-causing agent including harmful microbes in to our body. This is compatible with the overall concept of cleanliness, hygiene and safety. *Halal* meat can be claimed to be disease, contamination and microbial free.

Another instance, FoSHU products consisted of ingredients that improve gut micrioflora and food to regulate nutrient absorption. It is based on scientific evidence that can be seen on the food label describing an effect of food to human body.

For cosmetics items that made from plants and chemicals are generally permissible to use except those that are poisonous and harmful to health.

The general idea of *tayyiban* is comply with what is good and safe for human. Thus, producing food or non food product that is safe and quality requires utmost commitment by manufacturers. *Halalan tayyiban* then is a commitment for all.

Conclusion

The finding of the exploratory research showed that food in general must be safe for human consumption and free from harmful elements and hazardous substances. At present, *halal* goes beyond what we can and cannot eat. It embraces a lifestyle. *Tayyiban* aspect is a good reflection of the close link of Islam and Science. Technology helps in identifying non *halal* elements, for instance to inspect b eyond the visible and detect foreign ingredients

From *tayyiban* perspective, the current Japanese business and food production has strict procedure in producing food products; it has the highest standard in term of quality and safety. Japanese products can be claimed as *halalan tayyiban* products because they are

compliance to *Shariah* aspect as well as GMP and HACCP.

Thus, Japan has the potential to develop its halal industry due to its innovative capabilities. For instance, if more halal products available it can boost the tourism industry specially to attract more Muslim tourist. Japan is committed to deliver and make their foods safe and in a good quality. For instance, FOSHU can be taken due to its health function. After exploring the practice in Japan, it seems that Japan is struggling to find way to develop its own halal industry. However, this can be achieved by strengthening their halalan tayyiban understanding. Japan has the potential to grow their untapped *halal* industry due to their strong commitment in food safety and quality. Japanese *halal* food has a high potential to be the best in the world considering the quality and healthy aspects.

It is also hoped that other Muslim markets to learn from Japan's incomparable effort to provide the best end-products for consumers.

Acknowledgement

Firstly, the first author wishes to thank Professor Quamrul Hasan and Associate Professor Yoshinori Sumimura for their continuous support of this project and related research, for their patience, motivation, and immense knowledge. The authors also wish to thank Osaka University as well as Universiti Islam Sultan Sharif Ali for the opportunity given to complete this exploratory research for without their support this project would not be executed and succeeded accordingly. Albeit in short period of time, this project thus could be achieved with an aim to explore the situation in Japan with regard to its quality, safety in producing food and delivering a good product for the consumers, while at the same time comparing similar concept of tayyiban in Islam.

REFERENCES

Al Quran

Alok Kumar. (2019). *Fundamentals of Food Hygiene, Safety and Quality*. New Delhi : IK International Publishing House

Anne-Célia Disdier, Stéphan Marette. (2012). Globalisation Issues and Consumers' Purchase Decisions for Food Products: Evidence from a Laboratory Experiment. *European Review of Agricultural Economics*, Volume 40, Issue 1, February 2013, Pages 23–44,

Apnizan Abdullah. (2018). Difference between Halal and Halalan-Toyyiban. *News Strait Times*. Retrieved from https://www.nst.com.my/ opinion/columnists/2018/04/357046/differencebetween-halal-and-halalan-toyyiban on 20th March 2019

Dietary Supplement Health and Education Act. (1994). Available at https://ods.od.nih. gov/About/DSHEA_Wording.aspx

The Europe-Africa-Caribbean-Pacific Liaison Committee (COLEACP). Principles of Hygiene and Food Safety Management. COLEACP PIP Training Manual. Pest Intervention Programme (PIP). Available at https:// www.sustainabilityxchange.info/filesagri/ COLEACP_PIP_Training%20Manual_1. compressed.pdf

FAO. Poultry Welfare in Developing Countries, by Christine Janet Nicol and Anna Davies. Retrieved from http://www.fao.org/3/al720e/ al720e00.pdf on 13th March 2019

FAO. General Guidelines for Use of the Term "Halal". Retrieved from http://www.fao.org/3/ Y2770E/y2770e08.htm#fn28 on 20th July 2017.

Heizo Tanaka, Fumi Kaneda, Reiko Suguro, Hiroko Baba. (2004). Current System for Regulation of Health Foods in Japan. *Journal of the Japan Medical Association* (Vol. 126, No. 6, 2001, pages 792–805)

I. A. Shahdan, J.M. Regenstein, A. S. M. Shahabuddin. M. T. Rahman. (2016). Developing Control Points for Halal Slaughtering of Poultry. *Poultry Science*. Volume 95 Issue 7 Pages 1680–1692

Jenni Kiilholma. (2007). Food-Safety Concerns in the Poultry Sector of Developing Countries. A paper presented in the conference Poultry in the 21st Century: Avian Influenza and Beyond, International Poultry Conference Bangkok.

Johan Fischer. (2016). Islam, Standards, and Technoscience: In Global Halal Zones. Retrieved from https://repository. salaamgateway.com/images/iep/galleries/ documents/201604120811273509.pdf on 20th July 2019

K. Warfel, Y. Aso, D. L. Gee. (2007). Regulation of Functional Foods in Japan: Foods for Specialized Health Uses (FOSHU). *Journal of the American Dietetic Association* 107(8)

Mahmood Chandia, Jan Mei Soon. (2017). The Variations in Religious and Legal Understandings on Halal Slaughter. *British Food Journal*. Volume 120 Issue 3.

Ministry of Health, Labour and Welfare. Food for Specified Health Uses. Retrieved from https://www.mhlw.go.jp/english/topics/ foodsafety/fhc/02.html on 22nd July 2019

Mohamed Farid, Kota Kodama, Teruyo Arato, Takashi Okazaki, Tetsuaki Oda, Hideko Ikeda & Shintaro Sengoku. (2019). Comparative Study of Functional Food Regulations in Japan and Globally. *Global Journal of Health Science*; Vol. 11, No. 6; 2019

Norazilawati Md Dahlal, Fadzila Azni Ahmad. (2019). The Basic Philosophy of the Halalan Tayyiban Food Quality Management Method. *International Journal of Business and Management* 4(12):249-254 Riaz, M. N., and M. M. Chaudry. (2004). *Halal Food Production*. CRC Press, Boca Raton, FL, USA.

Ryo Oshiba. (2014). A Global Power Shift in World Economy and Japan: Technology, Social Design, and Diplomacy. Retrieved from https://www.researchgate.net/ publication/269653547_A_Global_Power_ Shift_in_World_Economy_and_Japan_ Technology_Social_Design_and_Diplomacy on 13th March 2019

Saghir Ahmad. (2014). Food Quality and Safety: A Broad Perspective. *Food Processing: Strategies for Quality Assessment*. Page 1 -8. New York: Springer-Verlag. Toshio Shimizu. (2002). Newly Established Regulation in Japan: Foods with Health Claims. *Asia Pacific Journal of Clinical Nutrition* 11(2):S94-6

Toshio Shimizu. (2003). Health Claim on Functional Foods: the Japanese Regulations and an International Comparison. *Nutrition Research Reviews*. Volume 12 (241 - 252)

Vloreen Nity Mathewa, Ardiana Mazwa Raudah binti Amir Abdullah, Siti Nurazizah binti Mohamad Ismail. (2014). Acceptance on Halal Food among Non-Muslim Consumers. *Procedia - Social and Behavioral Science*, 121 (2014) 262 – 271