International Journal of PharmTech Research
CODEN (USA): IJPRIF, ISSN: 0974-4304, ISSN(Online): 2455-9563
Vol.9, No.7, pp 340-345, 2016

Halal food: A systemic review

Mehdi Rejaii[1], Akram Arianfar[2]*

[1]Department of Food Science and Technology, Quchan Branch, Islamic Azad University, Quchan, Iran
[2]Young Researchers and Elite club, Quchan Branch, Islamic Azad university, Quchan, Iran

Abstract : Halal products are the only permissible products that can be consumed by Muslim population all over the world. Halal certification process is becoming critical due to processing advancements and conflict of opinions among various Islamic schools of thought. Multiple Halal certification standards are framed by regulatory bodies in different countries, but there is inconsistency about few issues among these standards. One such conflict is Istihalah, which deals with the alteration in physicochemical nature of food and render a non-permissible food (Haram) to an acceptable form (Halal) for Muslims. There is dire need to understand the grey areas, such as the concept of Istihalah, to develop unanimous International Halal Standards complying with the rulings of all Islamic schools of thought. This paper discusses issues mainly related to food safety in Halal assurance. The aim was to discover and describe the approach to food safety requirements in Halal food provision and how this is incorporated in the Halal assurance systems.
Key words: Halal standard, Certification, Religion, Muslim, Food products.

1. Introduction

Halal is an Arabic word linked to Islamic faith and is more than just about food products; it includes various types of products and services offered to the Muslim population. Halal can be defined as lawful or permissible under Shari'ah; it is a credence quality attribute[1]. Muslims, therefore, take a position of avoidance in the face of doubt where a few items could be categorized as 'Makrooh' or 'Shubhah' (questionable or detestable). Therefore, it could be further stress that Halal certification provides assurance to all Muslim consumers as it entirely fulfills the requirement as provided by the Shariah Law, which is obliged for Muslims to be adhered to. Meanwhile, for the non-Muslims, Halal products are merely associated with quality product. It shall be further notes the element of Halal and quality product which known as Halalan thoyyiban have also been embedded and included in the Halal certification requirements[1]. This signifies that the wholesome of Halal products covers cleanliness, safety and quality in the whole supply chain, fromfarmto fork[2] and thus, Halal cannot be captured as a brand. In addition, it has been emphasized that "It is a philosophy, which while apparent and effective in branding, marketing and product development; stretches much further into disciplines such as management, organizational behavior, cultural anthropology and sociology."[3].

There is a third category, sometimes known as syubhah, referring to things which are doubtful or suspect and therefore to be avoided[4]. At the same time, infringements of rules may be condoned when there is no alternative and intention to transgress. The Quran says that 'whoever is driven to necessity, not desiring nor exceeding the limit, then surely Allah is Forgiving, Merciful'[5]. The whole food chain is covered by the halal concept which is applied to the form, origin and processing of edible goods. Utensils, equipment and machinery

must be cleansed according to Islamic law and untainted by contact with haram materials. The Organisation of Islamic Cooperation (OIC), with 57 member countries, devotes over 50 pages of a report to relevant guidelines[6] and meat is the subject of particular attention. Prerequisites for halal slaughtering are the 'severing of the jugular veins, carotid arteries and windpipes by a razor-sharp blade in a single swipe, but without decapitation; the pronouncing of tasmiyah (speaking the name of God with the phrase 'bismillahi allahu akbar' upon each animal at the time of slaughter); and the draining of all flowing blood from the carcass'. Interest in animal welfare is said to be expressed by the Prophet's calls on the killer to 'slaughter well. Let each of you sharpen his blade so to spare suffering to the animal'[7].

While an outcome of religious dictates, halal food is a substantial and thriving business in which several multinational companies are active[8]. However, the absence of standardisation causes problems for the global halal food industry and its customers, whether tourists or residents[12]. There has been discussion about modifying the HACCP (Hazard Analysis and Critical Control Point) principles incorporated into the ISO22000 FSMS international food safety and quality standard[10] and the OIC established a Standards and Metrology Institute for Islamic Countries in 2010 in a bid to formulate universally recognised criteria, but any authorisation is carried out at national level. The result is variations and sometimes competition amongst certifying agencies which is illustrated by the situation in the UK. The Halal Food Authority (HFA) and Halal Monitory Committee (HMC) operate voluntary schemes related to meat which diverge on critical points of animal stunning and machine slaughter[7]. Disagreement was apparent in the dispute over Kentucky Fried Chicken's experiment with HFA-accredited poultry which was criticised as non-halal by the HMC and left many observers, both Muslims and non-Muslims, confused[11]. Countries with a more unified approach would appear to be advantaged in inspiring confidence amongst Muslims and the examples of Malaysia and Singapore are examined in the next section.

Nestlé Malaysia exports its products to more than 50 countries worldwide and the company was the first multinational to voluntarily request halal certification of all its food products when it was first introduced in 1994. Nestlé established its halal policy in 1992 in close cooperation with the Malaysian state represented by JAKIM. Islamic revivalism in Malaysia, since the 1970s, has been a major factor behind pushing halal to become a global market force, which Nestlé has a deep knowledge of and expertise in. The company also set up its Halal Committee comprising senior Muslim executives from various disciplines to be responsible for all matters pertaining to halal certification and training workers on complying with halal standards and auditing Nestlé factories worldwide. The Company's production is certified by JAKIM in Malaysia while other credible halal certification bodies certify products manufactured outside Malaysia[12].

2. Halal product acceptance model

The model is an integrated framework of consumer behaviour theories with the addition of Islamic law as the facilitating conditions which influence the attitude, intention and habit in performing the behaviour. (Figure 1) The current model does reflect the religious society, in this case, the Muslim consumers who are highly religious. The Islamic law (religion) clearly dictates all facets of the Muslim lives, which in turn, become the important factor in performing a behaviour. Since consuming Halal food product is also dictated by the Islamic law (religion), the Halal food consumption has become a habit for the Muslim consumers who are highly religious[13]. Past studies findings on highly religious Muslim consumers have argued that these consumers will rely on their referent group in performing a behaviour, rather rely solely on their attitude[14].

3. The proposed model

By adapting the three previous models, the proposed model of Halal food product acceptance by non-Muslim consumers is established. Figure 2 depicts the conceptual framework. TPB is the basic theory in developing the proposed model with the extension of variables from the TRIANM. Inner perspective, Halal logo credibility and habit are identified as the antecedents of Halal food product acceptance by the non-Muslim consumers. These relationships will be enhanced by acculturation. The proposed model will explain the level of the non-Muslim consumers' adaptation to the host country culture and subsequently accept the Halal food products.

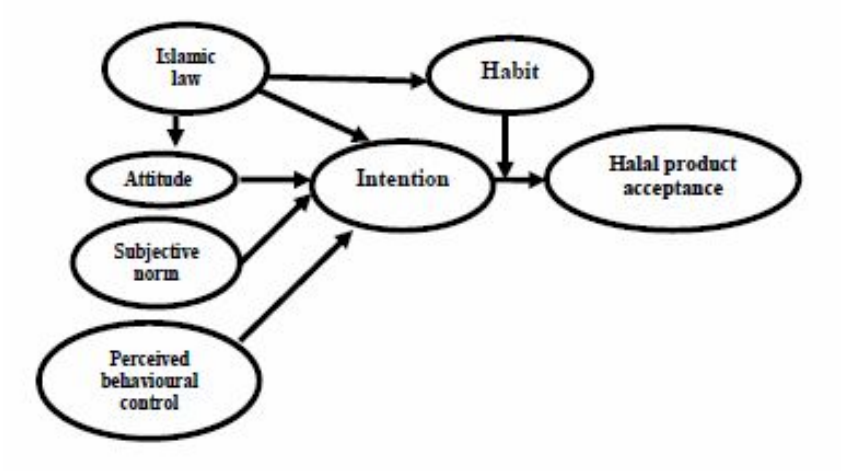

Fig.1. Halal product acceptance model[13].

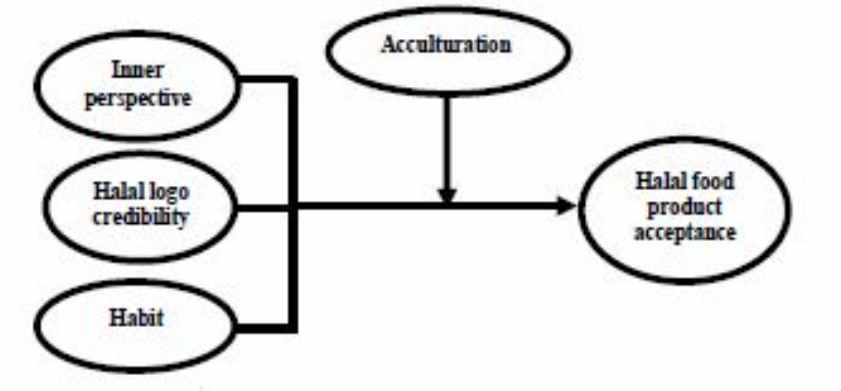

Fig.2. Non-Muslim consumers' Halal food product acceptance model.

It is also interesting to note, that according to the Malaysian Government Trade Description Act 1972 Halal should be non-toxic or injurious to health[16]. The MS 1500:2009 states that Halal food should be safe for consumption, non-poisonous, non-intoxicating or non-hazardous to health[17]. On the other hand, the CAC/GL 24-1997's definition of Halal does not include a clause on safety. It just refers to following Codex General Principles on Food Hygiene and other relevant Codex Standards during Halal food production[18]. This suggests that the Malaysian government and the Malaysian standard MS 1500:2009 have a unified "Halal Toyyiban" approach whereas the Codex guidelines refers to Halal and Toyyiban independently. Different interpretations of a unified "Halalan Toyyiban" approach are also illustrated by a study conducted by Latif et al. (2014), which gives further insight to Halal assurance by comparing nine certification bodies and their standards all of which had 7 aspects in common:

1. The premises must be clean and not contaminated;
2. Qualified Muslims must slaughter all birds and animals;
3. Facilities and equipment must not be contaminated by non-Halal items;
4. Only Halal ingredients could be used for Halal products;
5. Animal-based ingredients must be derived from Halal animals that have been slaughtered in accordance with the Islamic law;
6. Packaging materials must not contain unlawful and harmful ingredients;
7. There must be no contamination between Halal and non-Halal products during storage handling, transporting and manufacturing[19].

At cold stores, all incoming halal load should be received by a Muslim inspector and halal products must be segregated during freeze storage. All halal products transported out of the cold store should be accompanied

by a transfer certificate[20]. Different countries and halal certifying bodies have different symbols. Fig. 3 shows halal certification symbols for different countries. The certification attests that the product adheres to halal manufacturing procedures. Halal certification gives evidence and provides assurance that your product is halal and free from non halal products thus it is safe for Muslim consumption.

Fig. 3. Halal certification symbols for different countries.

4. Using the HACCP system for Halal assurance

The HACCP system is a recommended approach to enhance food safety from farm to fork. It is a preventative system to deter food safety violations, through identifying, controlling and monitoring hazards[24]. In addition, there are suggestions that it could be used to assure Halal compliance[25]. At present when HACCP is incorporated in Halal standards it is referred to more as a system of assuring food safety[19]. Essentially the HACCP and Halal certification processes are similar and we can break them into parts of documentation review, physical/on-site audit and review/closing meeting (Fig. 4.). Therefore, Halal assurance scheme could be easily integrated into the HACCP system. Research has resulted in confusion regarding definitions, e.g. Haram Control Point (HCP) was used in a research conducted in Thailand[10], Halal Critical Control Point (HCCP) in Malaysian research[27], in addition, Halal Control Point (HCP)[20], Halal Critical Point[28], Haram Critical Point[25], Halalan Toyyiban Critical Control Points (HTCCP)[25], Halal Compliance Critical Control Points (HCCCP)[30], Halal Assurance Point (HAP)[31] and Halal CCP or Sharia CCP[32].

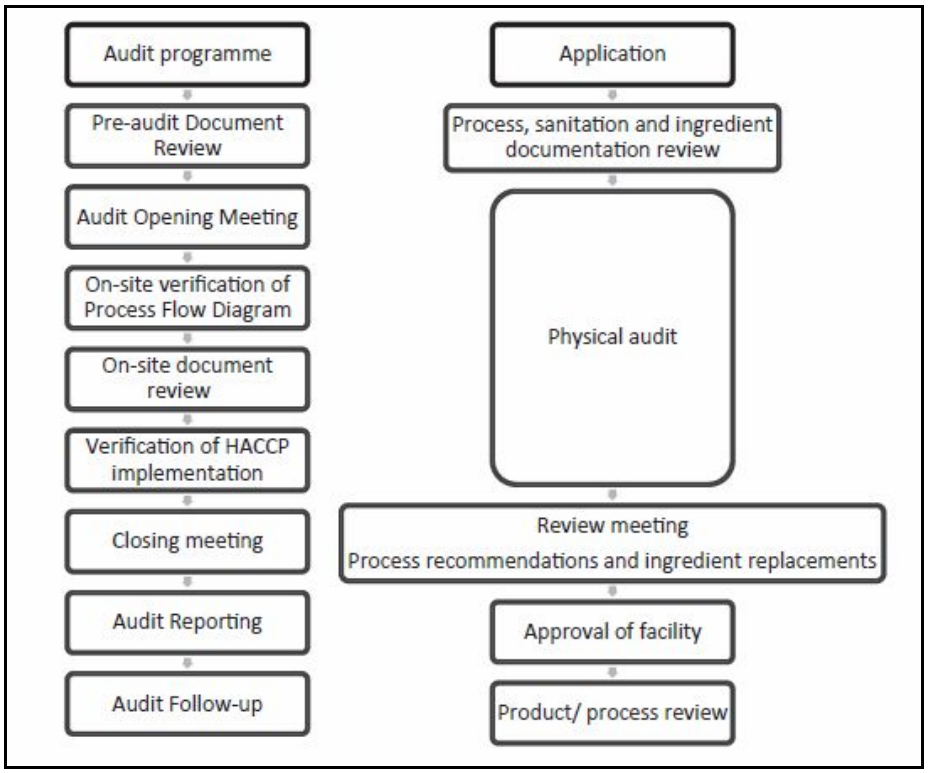

Fig. 4. HACCP (on the left)[35] and Halal certification (on the right) process[20].

5. Conclusion

Every country has specific concerns and wishes to determine its own particular priorities for targeting authenticity issues, labeling and compositional regulations. However, the Islamic dietary law is universal and derived from the holy Quran, which makes it similar in all nations of the world. Halal status of meat is a credence attribute that cannot be ascertained by the consumer, even upon consumption of the meat. The halal meat chain begins from the farm to the table. Halal encompasses origin, species, production system, slaughter procedure and the processing method of meat. All these characteristics are not visible and cannot be verified by the consumer during the pre-purchase stage. Henceforth, halal certifying authorities require quick, reliable and cost friendly analytical techniques to authenticate halal meat. This will not only protect Muslim consumers, particularly Muslim minorities in secular states but it will also promote fair trade.

References

1. Jafari J, Scott N. Muslim world and its tourisms. Annals of Tourism Research, 2014, 44, 1–19.
2. Huat T L. Straight talk: Tapping the huge Halal business. Retrieved 12 April 2015 from http://203.115.229.228/edgemyjoomla/commentary/155833-straight-talktapping-the-huge Halal-business.html. 2009.
3. Wilson J A J, Liu J. Shaping the Halal into a brand? Journal of Islamic Marketing, 2010, 1(2), 107–123.
4. Marzuki S, Hall C M, Ballantine P W. Restaurant managers' perspectives on halal certification. Journal of Islamic Marketing, 2012, 3(1), 47–58
5. Bonne K, Verbeke W. Religious values informing halal meat production and the control and delivery of halal credence quality. Agriculture and Human Values, 2008, 25: 35–47.
6. OIC. OIC standards-general guidelines on halal food. Jeddah: Organisation of Islamic Cooperation. 2009.
7. Harvey R. Certification of halal meat in the UK. Cambridge: University of Cambridge. 2010.
8. Business Monitor International. Industry trends analysis: Global halal food industry: Where are the opportunities? London: Business Monitor International. 2015a.
9. Euromonitor International. Halal market crippled by lack of consensus. London: Euromonitor International. 2012.

10. Dahlan W. Multi-approach management for halal security in HACCP-compliant food enterprises in Thailand. Middle-East Journal of Scientific Research, 2013, 13(4), 464–471.
11. BBC. When is halal meat not halal meat? http://newsvote.bbc.co.uk/mpapps/ pagetools/print/news.bbc.co.uk/2/hi/uk_news/magazine (Last retrieved 16.01.2015). 2009.
12. Fischer J. Islam, Standards, and Technoscience: In Global Halal Zones. Routledge, London and New York. 2015b.
13. Abd Rahim N, Junos S. The Halal Product Acceptance Model for the Religious Society. Business & Management Quarterly Review, 2012, 3(1), 17-25.
14. Bonne K, Vermeir I, Bergaud-Blackler F, Verbeke W. Determinants of halal meat consumption in France. British Food Journal. 2007, 109 (5), 367-386.
15. 15.Vishal Gupta N, Charan H Y., Hazard Operability Analysis (HAZOP): A Quality Risk Management tool, International Journal of ChemTech Research, 2016, 9 (3), 366-373.
16. Mansour H A, Performance Automatic Sprinkler Irrigation Management for Production and Quality of Different Egyptian Wheat Varities, International Journal of ChemTech Research, 2015, 8 (12), 226-238.
17. Malaysia government. Halal Malaysia official portal [Online] Available at: http://www.halal.gov.my/v4/index.php/en/garis-panduan-mobile/aktaperintah- perdagangan Accessed 09.05.15. 2011.
18. Department of Standards of Malaysia. MS1500 (2009)(English): Halal food - Production, preparation, Handling and storage- General guidlines (second revision). Selangor Darul Ehsan: Department of Standards of Malaysia. 2009.
19. CAC. CAC/GL 24-1997 General Guidlines for use of the term “Halal”, s.l. Codex Alimentarius Comission. 1997.
20. Latif IA, Zainalabidin M, Juwaidah S, Amin MA, Ismail MM. A comparative analysis of global halal certification requirements. Journal of Food Products Marketing, 2014, 20: 85–101.
21. Riaz M N, Chaundry MM. Halal food production. Boca raton. London, New York, Washington, D. C.: CRC Press LLC. 2004.
22. Vishal Gupta N, Shukshith K.S., Qualification of Autoclave, International Journal of ChemTech Research, 2016, 9 (4), 220-22.
23. Sundarapandian V, A Novel Chemical Chaotic Reactor System and its Adaptive Control, International Journal of ChemTech Research, 2015, 8 (7), 146-158
24. Bhattacharya R, Ganesh Kumar V, Consequence analysis for simulation of hazardous chemicals release using ALOHA software, International Journal of ChemTech Research, 2015, 8 (4), 2038-2046.
25. CAC. CAC/RCP 1-1969 general principles of food Hygiene, s.l. Codex Alimentarius Comission. 2003.
26. Omar E N, Jaafar H S, Osman M R, Nasruddin F. Halalan Toyyiban supply chain the new insights in sustainable supply chain management. The 5th International Conference on Logistics and Transport, 2013b,137-146.
27. Ram Mohan S R, Vishal Gupta N, Qualification of Tunnel Sterilizing Machine, International Journal of ChemTech Research, 2016, 9 (3), 400-405.
28. Kohilavani, et al. Embedding Islamic dietary requirements into HACCP approach. Food Control, 2013, 34, 607-612.
29. JAKIM. Guidelines for Halal assurance management system. Selangor: Halal Hub Devision. 2012.
30. LPPOM MUI. General guidelines of Halal assurance system. Jakarta: LPPOM MUI. 2008.
31. Kamaruddin R, Iberahim H, Shabudin A. Halal compliance critical control point (HCCCP) analysis of processed food. IEEE Business, Engineering & Industrial Applications Colloquium (BEIAC), 2012a, 384-387.
32. Hakim L. The industrial future vision of Halal model (Farwaniyah, azkahalal). 2013.
33. Zikrullah A L.. The theory of Shariah rulings in Halal meat and poultry production. International Journal of Management Science, 2013, 3(5), 351-369.
34. Sundarapandian V, Adaptive Control of Rikitake Two-Disk Dynamo System, International Journal of ChemTech Research, 2015, 8 (8), 121-133.
35. Vishal Gupta N, Charan H Y., Hazard Operability Analysis (HAZOP): A Quality Risk Management tool, International Journal of ChemTech Research, 2016, 9 (3), 366-373.
36. Mortimore, S. E., & Wallace, C. A. HACCP: A practical approach (3rd ed.). New York: Springer. 2013.

*****