

DEVELOPING HALAL COMPLIANCE CRITICAL POINTS (HCCP) FOR HALAL SLAUGHTERING SYSTEM

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ABSTRACT

The Quranic concept of Halal-un-Tayyab assures the compliance of food safety measures together with the consumption of lawful food. The concept of Halal food without the inclusion of Tayyab (pure and safe) is lacking with the comprehensiveness of the Quranic concept of Halal- un- Tayyab. This paper is an effort to develop certain parameters called 'Halal Compliance Critical Points (HCCP)' in the light of the guidance of the Holy Quran and Sharia for Halal slaughtering & processing system. The paper also aims to explore whether and to what extent food safety is a part of the Halal and Tayyab concept and how that is currently backed up by the Halal food sector in the Muslim and non-Muslim countries. Since Tayyab sets the general principle for assuring food safety in the Halal sector, it is apparent that Halal food chain should comply with both Halal fundamental and food safety requirements. In order to ensure the compliance of Sharia procedures for Halal-un-Tayyab system, attempt has been made to develop procedure for Halal Compliance Critical Points (HCCP). This research based HCCP system would help formalize the credible Halal certification and audit system in the interest of Halal industry and the satisfaction of Halal consumers.

Key words: Compliance, Food Safety, Halal, HCCP, Sharia, Tayyab.

INTRODUCTION

Islam is a complete code of life that guides humankind and especially the people of Faith to live a life following the will of God. Like other walks of life, Islam has guided for permissible and safe food consumption through the commandments of the Holy Quran & Hadith. These directives provide the basis for making further regulations that govern the processing of food to eat by the Muslims. According to the Holy Quran, it is mandatory to eat only 'Halal- un-Tayyab' food meaning by permissible, lawful, wholesome, pure and safe food, processed under the guidelines of Sharia regulations. Generally, the word Halal is used for permissible and legitimate food or more commonly for the products of animal origin slaughtered following the Sharia regulations of Halal slaughtering method. Also, Tayyab is an essential part of Halal foods as food or food ingredients cannot be considered as 'Halal/permissible/legitimate' without the assurance of, 'Tayyab or wholesome, pure, clean, healthy and nutritious'. The Quranic concept of Halal-un-Tayyab assures the compliance of food safety measures together with the consumption of lawful food as commanded by the Holy Quran, "O people, eat permissible good things out of what lies in the earth, and do not follow the footsteps of ShaiTān (Satan); indeed, he is an open enemy for you"(Mufti Taqi Usmani, English translation of Holy Quran; Al-Baqarah:168). The concept of Halal food without the inclusion of Tayyab (pure and safe) is

lacking with the comprehensiveness of the Quranic concept of Halal- un- Tayyab.

In the Islamic Sharia, it is strictly prohibited to consume non-Halal or adulterated Halal products (non-Halal ingredients mixed with Halal products). Besides, eating haram products, usage of non-Halal adulterants or additives in food products is also forbidden. Porcine products are prohibited for Muslims directed by the Quran, Sunnah and the consensus of the Muslim Jurist (Ijma'). This is demonstrated in many verses of the Quran. Allah Almighty says, "Prohibited to you are dead animals, blood, the flesh of swine, and that which has been dedicated to other than Allah, and [those animals] killed by strangling or by a violent blow or by a head-long fall or by the goring of horns, and those from which a wild animal has eaten, except what you [are able to] slaughter [before its death], and those which are sacrificed on stone altars, and [prohibited is] that you seek decision through divining arrows. That is grave disobedience. This day those who disbelieve have despaired of [defeating] your religion; so fear them not, but fear Me. This day I have perfected for you your religion and completed My favor upon you and have approved for you Islam as religion. But whoever is forced by severe hunger with no inclination to sin - then indeed, Allah is Forgiving and Merciful" (Sahih International; Holy Quran: Al-Ma'idah, 3). Allah Almighty further says, "He has only forbidden to you dead animals, blood, the flesh of swine, and that which has been dedicated to other than Allah. But whoever is forced [by necessity], neither desiring [it] nor transgressing [its limit], there is no sin

upon him. Indeed, Allah is Forgiving and Merciful” (Sahih International; Holy Quran: Al-Baqarah,173).

Assurance of Halal (permissible) and Tayyab (wholesome/pure) food is a complicated matter and needs a governance system backed by consistent research and improvement in the conformance system. The research can enable to analyze problems and complexities emerging with changing lifestyles and eating habits and develop regulations following the Halal- un- Tayyab concept of Islam. For Muslim consumers, Halal food is an essential part of faith and faithful life. This is obvious from the fact that the word ‘Halal’ in Arabic, denotes permissibility and that its antonym Haraam connotes impermissibility. With the Halal certification, Halal industry globally surpassing by far the value of both Kosher and organic certified food and beverage markets, showing ever increasing interest towards Halal products. This has brought with it an on-going establishment of numerous Halal standards, the start of accreditation activities, the acknowledgment of dominant standards and industrial best practices. Due to the rapid growth and development of the Halal food sector, the expectation to Halal credence, quality and its perception seem to be at a shift, namely, extending to include the principle of Tayyab which is a value-adding factor in marketing Halal products in the modernized world where consumers are getting more conscious towards food safety & purity.

In the presence of International food safety standards like Hazard Analysis Critical Control Point (HACCP), British Retail Consortium (BRC) and International Organization for Standardization (ISO), etc. the need of an authentic and credible Halal certification is evident in the best interest of Halal industry, trade and consumers. However, the varying scopes of Halal standards and ways of recognizing Halal certification bodies have led to an overall global diversification of the Halal sector, possibly leading to the reduction of trade, limiting consumer food choices and the emergence of different interpretations. Food safety (Tayyab) in the Halal sector is an emerging area with differences in understanding and practicing the concept. While some say, it is a part of the sector others do not. Additionally, even if some Halal standards demand a certain level of food safety, it is even less clear how these are translated to the Halal certification bodies' control measures during the certification process. This situation is worrisome especially because Muslims and even some non-Muslim consumers perceive the "Halal" mark to encompass food safety activities among others. The paper aims to explore whether and to what extent food safety is a part of the Halal and Tayyab concept and how that is currently backed up by the Halal food sector in the Muslim and non-Muslim countries. Also attempt has been made to develop Halal Compliance Critical Points (HCCP) for Halal slaughtering and processing system at par with the standards of HACCP in order to formalize the Halal

certification and compliance system in the light of Sharia regulations.

MATERIALS AND METHODS

Making sure that meat and its products, in pure form or mixed with other ingredients & additives are processed by following the procedures of Islamic Sharia, a conformance and governance system is required. Halal food industry is basically a value chain business starting from the Halal animals, Halal slaughtering, processing and value addition of products, storage, transportation and up to the consumer level meaning by, ‘farm to folk’ approach. With the onset of processed foods, it has become difficult, even nearly impossible for the consumers by themselves to have information and clarity of the slaughtering methods, origins of substances added to meat products, and steps of supply chain up to the consumers. Thus, it is imperative to develop a transparent and competent surveillance and Halal certification system based on acceptable standards backed by the Islamic Sharia. Interestingly enough, even though the sector has adopted itself the name "Halal", it is inherently encompassed by a wider concept called Tayyab synonym to international food safety standards currently in practice worldwide.

As indicated above, the ‘Halal’ system starts with the lawful animals, proper slaughtering and processing procedures and supply chain up to the consumer level. Each step in the ‘Halal chain’ requires proper compliance of acceptable Halal standards. The permissibility of Halal animals is determined in the light of guidelines of the Holy Quran and Sharia.

Generally, in Halal related literature, the discussion often revolves around the main prohibitions, such as the consumption of pork, blood, carrion, and animals not slaughtered according to Islamic requirements, intoxicants and products thereof. In addition to what is explicitly prohibited, there are also other nuances, like a mammal or bird amongst the land animals and their products, like eggs and milk, to be deemed as suitable for Muslim consumption they should be solely herbivores (e.g. sheep, goat, camel, cattle, rooster, pigeon, chicken, dove, quail and sparrow). Allah (SWT) says, “Among cattle (He has created) those fit for loading and those fit for laying on the floor. Eat of what Allah has provided you, and do not follow the footsteps of Satan. Surely, he is an open enemy to you. (Allah has created) eight pairs: two of sheep and two of goats. And (He has created) two of camels and two of oxen” (Sahih International; Holy Quran: Al Anam; 142,143). Allah (SWT) also says, “O you who have believed, fulfill [all] contracts. Lawful for you are the animals of grazing livestock except for that which is recited to you [in this Qur'an] - hunting not being permitted while you are in the

state of ihram. Indeed, Allah ordains what He intends” (Sahih International; Holy Quran: Al-Maidah; 1).

In Islamic Jurisprudence carnivores and omnivores are not considered Halal and Tayyab for consumption. Ibn ‘Abbas reported that Allah’s Messenger (may peace be upon him) prohibited the eating of all fanged beasts of prey, and all the birds having talons (Al-Hadith; Sahih Muslim, Book 21, Number 4752). This is because carnivores are predators; they eat from the flesh of other animals and omnivores have the aspect of carnivores as they are opportunist and at times also eat from the flesh of animals. In the herbivore category, there are some mammals that are not permissible, like donkey and elephant. Donkey has explicitly been prohibited by the prophet (P.B.U.H.) and it is fundamentally used for loading while elephant cannot be slaughtered according to the Islamic principles due to its physique. Abu Tha’laba reported that Allah’s Messenger (PBUH) prohibited (the eating) of the flesh of domestic asses (Raheem, 2016; Sahih Muslim 1936, Book 34). Besides, obtaining food from a Halal/permissible source, mammals and birds need to be properly slaughtered. In this process the trachea, esophagus, vagus nerve, carotid arteries and jugular veins are severed humanly and painlessly with sharp knife without injuring the spinal cord (Shafi M. Ma’rif ul Qura’n. Karachi: Ma’rif ul Qura’n. 2014).

Next step in the chain after Halal & humane slaughtering of animal is the compliance of Tayyab part of the Halal concept in processing, storage, packing, logistics and marketing of the products. The literal meanings of Tayyab are good (opposite to impure and bad), clean and healthy (opposite to dirty, unhygienic, filthy), of one’s liking (opposite to one’s disliking), nutritious suitable for health (opposite to bad or unfit for body), pleasant (opposite un-pleasant), good act or best or lawful practice (opposite to bad act or wrong or unlawful practice), etc. In Surah Al-Maida, it is used as decent and clean (opposite to dirty, unhygienic, filthy), of one’s liking (opposite to one’s disliking), good and fit for mind and body (opposite to bad or unfit for mind and body), pleasant (opposite un-pleasant) in this verse.

The fact that food safety is an intrinsic part of Halal is further strengthened by the verse of the Holy Quran, “And spend in the way of Allah and do not throw [yourselves] with your [own] hands into destruction [by refraining]. And do good; indeed, Allah loves the doers of good” (Sahih International; Al-Baqarah, 195). In food safety system this verse can be translated as to prevention from and avoiding the hazard, which is defined as an agent that is reasonably likely to cause illness or injury in the absence of its control. It is categorized as biological, chemical and physical hazards. From the biological, physical and chemical type of hazards biological ones especially pathogenic bacteria are most common and have caused the most harm to consumers. Therefore, it is

obvious that during any kind of food handling, hazards should be well understood and best possible measures taken to prevent them. Furthermore, this verse ensures food handlers a safe and sound working atmosphere.

Since Tayyab sets the general principle for assuring food safety in the Halal sector, it is apparent that Halal food chain should comply with both Halal fundamental and food safety requirements.

RESULTS AND DISCUSSION

As mentioned earlier, this paper is an effort to take a step further to elaborate the conceptual framework of Halal -un-Tayyab and put forward the practical parameters to develop a standard naming as ‘**Halal Compliance Critical Points (HCCP)**’ that reflects the fundamental concept and requirements of Halal-un-Tayyab. The previous studies have suggested various systems like using the HACCP system for prerequisite principles for HCCPs. However, this paper suggests the inclusion of ‘**Halal Control Points HCP**’ for personnel hygiene and production environment sanitation, which apply for the whole Halal food sector, prior to employing HCCPs. Taking into consideration the previous discussion on food safety measures in Islamic Jurisprudence, HCPs in a food handling setting would encompass the following:

- i. Proper sanitation schedules, cleaning procedures and instructions.
- ii. Proper lavatory and hand washing facilities.
- iii. Detailed personal hygiene and hand washing instructions.
- iv. Maintenance of proper operational environment hygiene including pest management system.
- v. Food handlers should have safe environment for working.
- vi. Employees should wear proper clean work clothing.
- vii. Packages/ containers/ vessels of ingredients, additives, processing aids and products at any stage of production should be kept covered/closed and proper clean packaging used.
- viii. Products should be labelled properly with traceable system for any recall or withdrawal purpose.

Since avoiding fecal contamination in Halal production is an important concern, these HCPs could be added as an extra precautionary measure to verify the system.

- i. Microbiological analysis sampling plan to monitor fecal contamination.
- ii. Proper lavatory and hand washing facilities should not be close to the production lines/equipment/products.

Thus, HCPs should be included to the Halal Hazard Analysis Critical Control Points (HHACCP) system principles. This would take the following form:

- i. Conduct hazard analysis for non-Halal substances and non-Halal practices;

- ii. Determine HCPs and HCCPs;
 - iii. Establish HCCPs and HCPs critical limits;
 - iv. Establish HCPs and HCCP monitoring procedures;
 - v. Establish corrective actions to be taken when monitoring indicates that a particular HCPs, HCCP is not under control;
 - vi. Establish verification procedures;
 - vii. Establish documentation and record keeping including the disposal of products after HCCP failure.
- The HCPs mentioned so far concern employee hygiene, safety and production environment sanitation; however, different food sectors have additional specific HCPs (Table-1). These, sector specific HCPs should be implemented in addition to the Halal prerequisites discussed earlier.

Table 1. HCCPs and HCPs in Halal meat and poultry slaughtering system.

No	HCP	HCCP
1	The animal/bird to be slaughtered shall be halal and alive at the time of slaughter.	Humane handling of animals, hence, they must be treated as such that they are not stressed or scared prior to slaughter. Holding areas for cattle should be provided with drinking water, animals should be nourished and well rested
2	Animal must be inspected properly in the holding area before slaughtering for any injury and infection that can cause food safety hazard	It is required that the animal should be restrained comfortably without putting stress and harassment on the animal, also animal be faced towards Qibla during the slaughtering. The knife must not be sharpened in front of the animal also one animal must not be slaughtered in front of other animals.
3	The slaughterer shall be a profound Muslim having knowledge and skills of proper Halal slaughtering procedure and shall invoke the name of Allah while severing the trachea, esophagus, vagus nerve and blood vessels.	The slaughterer must recite verbally the words of Tasmiah (Bismillah Allahu Akbar) while severing the throat with a sharp knife in a single stroke to ensure painless & swift cutting of throat.
4		Removal of all blood from the carcass; all the flowing blood must be drained out of the carcass, as blood is forbidden.
5		When the bleeding has ceased, the heart stops, and the animal is dead, one may start further acts of processing the carcass. It is abominable to sever parts such as ears, horn, and legs before the animal is completely lifeless.
6		Proper inspection of carcass and visceral organs must be performed for any food safety issue prior to further processing of carcass
6		Cold room storage and packing is done in clean packages and boxes, and proper labels are affixed to facilitate traceability.
7		Ingredients, additives, processing aids and products at any stage of production should be properly stored. Halal and non-Halal ingredients should have their designated areas. Halal and non-Halal food should not be placed or stored side-by-side and non-Halal products not be placed on top of Halal products.

The fundamental requirements, named as the HCCPs form the foundation of the Halal conformance system. Food safety (Tayyab) fits into that scope as a passive or active approach. The foundation requirements in the conceptual framework are depicted as HCCPs, because these are considered as critical points for Halal assurance in any case. This would ultimately enable to achieve a better Halal and Tayyab conformance system. The implementation and control of HCPs, being an inherent part of the Halal and Tayyab concept, would lead to not only a better food safety compliance, but also to properly following the Halal and Tayyab requirements.

Even if the standards were to be sufficient, it is completely a separate matter how Halal certification takes place. The time of the audit, number of auditors and the emphasis of the audit have a great impact on not only how Halal fundamental requirements are assessed, but also on whether food safety is included in the assessment or not (Annabi and Ibidapo-Obe, 2017). This is coupled by the fact that there are a vast number of certifiers who are of different size and competency and that, new Halal standards might raise adoption and implementation issues. At present, it is unclear to what extent food safety requirements are considered during the Halal certification

process. No set of documented procedures exist on how much time and effort should go into evaluating compliance with Halal requirements during Halal certification, let alone how big a part of it should food safety assessment be.

However, it is important to differentiate that if the Halal certifiers do not assess food safety issues during audits, the Halal certificate itself does not reflect Tayyab control practices. If Halal certifiers were to rely on checking for the existence of food safety certificates, they should take into consideration that this kind of third party certification only gives a snapshot of the food safety situation in a company, not demonstrating its daily practices. Additionally, even within the same food safety certification schemes there are significant inconsistencies in auditing quality (Mortimore and Wallace, 2013). However, it is reassuring that companies with food safety certification have better food safety measures in place compared to non-certified companies (PSQCA Pakistan Standard and Quality Control Authority, 2016).

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