

## The Anatomy of *Halal* Slaughtering: Issues and Challenges

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### ABSTRACT

*A relevant issue pertaining to the values of Muslims dietary restriction is the concept of farm to fork that is guided by the Islamic Dietary Law. Therefore, it is important for the Muslims to know the source of food that they eat. In essence, Islamic religion inspired requirements that focused on spirituality is developed through many compositions and one of them is food. Most of the dietary restrictions placed on Muslims fall in the domain of animal kingdom, especially land animals. Thus, halal slaughtering method must be applied to halal animals. This paper aims to discuss the structure of halal slaughtering as public debate on slaughtering and stunning of animals are indefinitely discussed with the issues of animal cruelty and animal welfare.*

**Keywords:** halal slaughtering, Islamic dietary law, issues, challenges

### Introduction

*Halal* has always been relevant in the mainstream market with the significant growth of Muslim population. It is gathered from a survey on restaurant managers' perspectives toward *halal* certification that *halal* food and *halal* certification cover not only religious needs but also commercially and community based (Syed Marzuki, Hall & Ballantine, 2012). *Halal* is an Arabic word meaning lawful or permitted and the opposite of *halal* is *haram*, which means unlawful or prohibited (Riaz & Chaudry, 2004; Kamali, 2003). *Halal* and *haram* are universal terms that apply to all facets of life for Muslims and are commonly used in food products, meat products, food ingredients and food contact material (Lefebvre, 2006). God commands Muslims and all of mankind to eat *halal* foods:

*O mankind! Eat of that which is lawful and wholesome, and follow not the footsteps of the devil. Lo! He is an avowed enemy of you.*

(*Surah Al-Baqara* [The Cow], verse 168)

For Muslims, products that are described as *halal* are products that have been handled with a high level of hygiene, as well as meeting a certain standard of cleanliness, safety, and nutrition. In another aspect, non-Muslim consumers still perceive *halal* food products from a religious perspective but see it mainly as the way an animal has been slaughtered (Mohamed, Rezai & Shamsudin, 2012). Within this context of *halal* food, not all animals require slaughtering before they can be consumed by Muslims (Al-Qaradawi, n.d.). Marine animals, bloodless animals and locusts need not be slaughtered.

*Lawful to you is the pursuit of water-gane and their use for food for the benefit of yourselves and those who travel.*

(*Surah Al-Maidah* [The Table Spread], verse 96)

According to Riaz and Chaudry (2004), the demand for *halal* food is increasing worldwide. Many Muslim countries used to get their *halal* sources domestically or imported from other Muslim countries. *Halal* food is fast becoming a new market force and identifier and gaining entrance into the mainstream market (Al-Harran & Low, 2008), thus affecting and changing perception of industry players on how businesses are being conducted and lending impact on consumers as well. Mohd Yusoff (2004) mentioned that the increasing demand for *halal* food not only comes from the Islamic countries but also from Europe and America. Shafie and Othman (2006) reported that *halal* covers the aspects of slaughtering, storage, display, preparation, hygiene and sanitation. With this, it covers food as well as non-food category of products. Given the speed of trade globalization, the advancement in science and technology, and the on-going initiatives to simplify manufacturing processes, it is essential that the *halal* concept be fully understood. Within this context, industry players are putting greater efforts to gain and expand their market share in this growing niche.

In order to provide confidence to consumers, everyone in the food industry, including farmers, processors, food premise owners, food handlers, food servers and governments, must ensure that the *halal* supply chain adheres

to the religious needs of the Muslims particularly on their dietary restriction. *Halal* rules occur mostly in the *Surahs* entitled *Al-Baqara*- The Cow (2), *Al-Maidah*- The Table Spread (5) and *Al-An'am*- The Cattle (6).

*O ye who believe! Eat of the good things that We have provided for you, and be grateful to Allah, if it is Him ye worship.*

(*Surah Al-Baqara* [The Cow], verse 172)

*This day are (all) things good and pure made lawful unto you. The food of the People of the Book is lawful unto you and yours is lawful unto them.*

(*Surah Al-Maidah* [The Table Spread], verse 5)

*It is He Who sendeth down rain from the skies: with it We produce vegetation of all kinds: from some We produce green (crops), out of which We produce grain, heaped up (at harvest); out of the date-palm and its sheaths (or spathes) (come) clusters of dates hanging low and near: and (then there are) gardens of grapes, and olives, and pomegranates, each similar (in kind) yet different (in variety): when they begin to bear fruit, feast your eyes with the fruit and the ripeness thereof. Behold! In these things there are signs for people who believe.*

(*Surah Al-An'am* [The Cattle], verse 99)

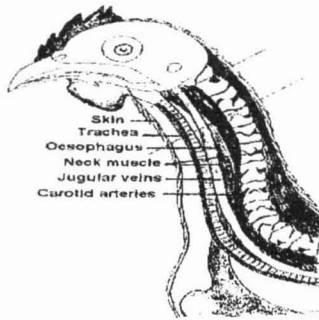
## The *Halal* Slaughter

Islam considers all animals as important as humans and this is clearly stated in the Holy *Quran* (Aidaros, 2005). It is further elaborated that the Islamic method of slaughter (*halal* method) is the least painful method if the correct measures are undertaken. This is to ensure the highest benefit to both the animals and the consumers. Here, the slaughtering of animals must be performed by a Muslim of sound mind and maturity, who fully understands the fundamentals and conditions related to this activity (Bonne & Verbeke, 2008; Riaz & Chaudry, 2004). The Department of Standards Malaysia (2004) detailed that the act of slaughter shall be done with *niyyah* (intention) and the slaughterer is well aware of his action. The purpose of slaughtering is only for Allah and not for other purposes. Furthermore, the animal must be an animal that is *halal* and shall be alive or deemed to be alive at the time of the slaughter. The animals to be slaughtered shall be healthy and have been approved by the competent authority.

The phrase **بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ** Bismillahir Rahmanir Rahim (In the name of Allah, Most Gracious, Most Merciful) has to be invoked immediately before slaughtering (Department of Standards Malaysia, 2004). The *halal* standard also requires that slaughtering lines, tools and utensils shall be dedicated for *halal* slaughter only. The slaughter must be done with a sharp device but not something made out of bones, nails or teeth. Slaughtering shall be done once and the “sawing action” of the slaughtering is permitted as long as the slaughtering knife or blade is not lifted off the animal during the slaughtering.

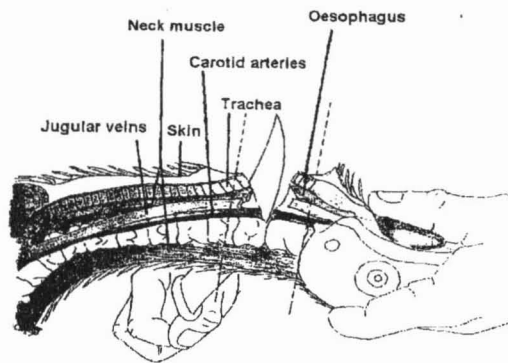
Department of Standards Malaysia further explains that the act of *halal* slaughter shall begin with an incision on the neck at some point just below the glottis (Adam’s apple) and after the glottis for long necked animals. In addition, the slaughter shall sever the trachea (*halqum*), oesophagus (*mari'*) and both the carotid arteries and jugular veins (*wadajain*) to hasten the bleeding and death of the animal. According to Riaz and Chaudry (2004), the traditional method of slaughtering in Islam is to slit the throat, cutting the carotid arteries, jugular veins, trachea and the oesophagus, without severing the head (Figure 1 to 4). As a result, the bleeding shall be spontaneous and complete. In order for the meat to become *halal*, a trained Muslim inspector who is responsible to ensure that the animals are properly slaughtered according to *Shariah* must check all of these procedures.

**Figure 1: Slaughtering Part for Chicken**



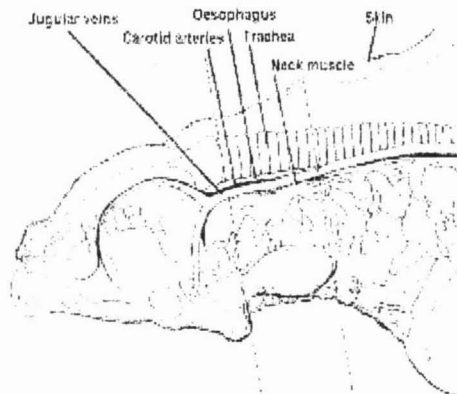
Source: Department of Standards Malaysia (2004, p. 6)

**Figure 2: Method of Slaughtering Chicken**

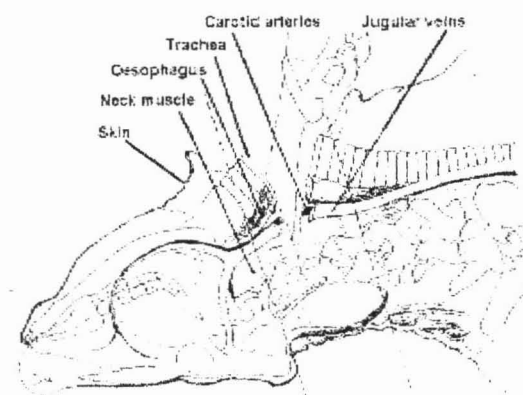


Source: Department of Standards Malaysia (2004, p. 6)

**Figure 3: Slaughtering Part for Cattle**



Source: Department of Standards Malaysia (2004, p.7)

**Figure 4: Method of Slaughtering Cattle**

Source: Department of Standards Malaysia (2004, p.7)

Apart from *halal*, Islamic Law has clearly defined that *haram* has universal applicability where there is no privileged classes or individuals who, in the name of religion can do whatever they desire according to their whims (Al-Qaradawi, n.d.). Hence, Muslims do not have any privilege of making something *haram* for others and lawful for themselves. The *Quran*, the Prophet's *Sunah* and the consensus of the Muslim scholars are the three legitimate sources of prohibitions (Stork, 2004). In this respect, the *Quran* has revealed:

*Why should ye not eat of (meats) on which Allah's name hath been pronounced, when He hath explained to you in detail what is forbidden to you - except under compulsion of necessity? But many do mislead (men) by their appetites unchecked by knowledge. Thy Lord knoweth best those who transgress.*

(Al-An'am [The Cattle], verse 119)

According to Muhammad (2007), non-Muslims would most likely think that slaughtering is to be cruel to animals as they believe that the animals will suffer and bleed to death. However, the Islamic principles of slaughtering have clearly stated that the knife used must be very sharp to ensure a quick, deep and clean cut through the vital anatomy of the neck of a *halal* species animal. It is mainly directed at the trachea, oesophagus and major blood vessels. For animal welfare reasons, the knife should not be sharpened in front of the animal (Bonne & Verbeke, 2008; Riaz & Chaudry, 2004).

According to Aidaros (2005), the immediate cutting of the vessels of the neck during *halal* slaughter causes ischemia of the brain and induces the animal insensitive to pain. This method results in the rapid gush of blood which drains out from the animal's body. Bleeding also ensures the meat is of good quality. With a single stroke of a sharp knife, the jugular vein and the oesophagus are cut to interrupt the flow of blood to the brain and thereby render the animal unconscious almost immediately. It is further emphasize that the rules for *halal* slaughter are based on the dual principles of effectively draining the animal's blood, without inflicting unnecessary suffering. Here, humane treatment is required where the act of strangling, striking, piercing or goring the animals is prohibited as it can cause injury to the animals (Kocturk, 2002).

Muhammad (2007) reported that the Islamic way of slaughtering has been supported by members of the scientific community and the Association of Muslim lawyers as being humane because it initiates massive haemorrhaging and anoxia (lack of oxygen in the brain cells). Thus, it acts as a powerful painkiller that disables the sensory centre and causes the animal to become entirely insensitive to pain. The efficacy of *halal* slaughtering has been supported by an experiment by Professor Schultz and Dr Hazim of Hanover University in Germany (Aidaros, 2005, p. 592; Dabayeh, 1998), using an electro-encephalograph (EEG) and an electrocardiogram (ECG) to demonstrate that Islamic slaughter was a very humane method. In the experiment, one group of animals was slaughtered using *halal* method and the second by using a captive bolt. The EEG and ECG measurements were performed on all animals to record the condition of the brain and heart during the process. The experiment that has surprised many people concluded that:

- During the first three seconds of Islamic slaughter, the EEG did not show any change in brain activity, thus indicating that the animal did not feel any pain during or immediately after the incision;
- Three seconds later the EEG recorded a condition of deep sleep: unconsciousness. This is due to a large quantity of blood gushing out from the body;
- After the above mentioned six seconds, the EEG recorded no brain activity, indicating that the animal was feeling no pain at all; and
- As the brain messages dropped to zero level, the heart was still beating and the body convulsing vigorously (a reflex action of the spinal cord) driving maximum blood from the body, resulting in hygienic meat for the consumer.

The Department of Standards Malaysia (2004) has stated that stunning is not recommended but if it is to be carried out, the conditions specified below must be met.

- Slaughtering shall be carried out according to the requirements related to the slaughter of animals in Islam;
- The animals shall be alive or deemed to be alive (*hayat al-mustaqirrah*) at the time of slaughter;
- The use of stunning equipment shall be under the supervision of a trained Muslim and periodically monitored by competent Islamic Authority or *Halal* Certification Authority;
- The stunning shall not kill or cause permanent physical injury to the animals;
- Gadgets which are used to stun the animals under *mughallazah najis*<sup>1</sup> category shall not be used to stun animals for *halal* slaughter;
- Type of stunning that is recommended is electrical stunning or any other stunning that is permitted by Majlis Fatwa (Fatwa Council);
- The electrical stunner shall be of the type allowed by the competent authority in charge of slaughter;
- The type of stunner used for slaughter of *halal* animals shall be 'head only stunner' type, where both electrodes are placed on the head region;
- Electrical stunning of poultry is allowed using "water bath stunner" only;
- The strength of current used shall be supervised by a trained Muslim and monitored by a competent Islamic Authority or *Halal* Certification Authority. The guidelines on stunning parameters are as specified in Table 1.

**Table 1: Guideline parameters for electrical stunning**

<i>Type of stock</i>	<i>Current (A)</i>	<i>Duration (s)</i>
Chicken	0.25 – 0.50	3.00 – 5.00
Lamb	0.50 – 0.90	2.00 – 3.00
Goat	0.70 – 1.00	2.00 – 3.00
Sheep	0.70 – 1.20	2.00 – 3.00
Calf	0.50 – 1.50	3.00
Steer	1.50 - 2.50	2.00 – 3.00
Cow	2.00 - 3.00	2.50 – 3.50
Bull	2.50 – 3.50	3.00 – 4.00
Buffalo	2.50 – 3.50	3.00 – 4.00
Ostrich	0.75	10.00

Source: Department of Standards Malaysia (2004, p. 12)

<sup>1</sup> There are three types of najis (filth)

1. Mughallazah which is considered as severe najis which are dogs and pigs including any liquid and objects discharged from their orifices, descendants and derivatives;  
 2. Mukhaffafah, which is considered as light najis. The only najis in this category is urine from a baby boy at the age of 2 years and below who has not consumed any other food except his mother's milk; and  
 3. Mutawassitah which is considered as medium najis, which does not falls under severe or light najis such as vomit, pus, blood, alcoholic drinks, carrion, liquid and objects discharged from the orifices, etc.

## Halal and Kosher

Both Islam and Judaism have guidelines about 'proper' food preparation and diet set in their holy books (Eliasi, 2002; Gutman, 1999; Regenstein, Chaudry & Regenstein, 2003b; Riaz & Chaudry, 2004). The two prominent religious dietary restrictions, *halal* and *kosher* are important parts of the food industry (Regenstein, Chaudry & Regenstein, 2003a) and represent a growing niche market (Reynolds-Zayak, 2004). However, when *halal* and *kosher* topics are discussed, they raise several concerns. Hussaini (1993) stressed that *halal* food and *kosher* are two different entities carrying different meanings and spirit although often times non-Muslim consumers tend to assume *kosher* is similar to *halal*. According to Riaz and Chaudry (2004), there are certain similarities and some differences between *kosher* and *halal*.

Although there are similarities in dietary restrictions of both religions, Islam and Judaism, there are also distinctive differences. Islam requires that the name of Allah be pronounced at the time of slaughter but Judaism does not recite a prayer over each animal at the time of slaughter (Regenstein et al., 2003b). The permitted animals have to be killed by a Jew to make them *kosher* and by a Muslim to make them *halal*. For *kosher*, the front quarter cuts of red meat are generally used. In contrast, Islamic dietary laws do not restrict any particular cuts. They also added that, *kosher* meat needs to be soaked and salted but this is not required for *halal* meat.

Riaz and Chaudry (2004) emphasized that the meat of animals slaughtered according to Islam is called *zabiha* or *dhabiha* meat. Apart from the slaughtering, there is no restriction about cooking in Islam as long as the kitchen is free from *haram* foods and ingredients. When preparing *halal* food, there is no need to keep two set of utensils, one for meat and one for dairy, as in *kosher* food preparation. Contaminated equipment needs to be cleansed ritually according to Islamic Law - for instance, using acids, bases, detergents and rinses with hot water for seven times and in some Islamic traditions the cleansing also requires the use of sand and water.

## Issues and Challenges

Islam is a way of life. For Muslims, the privilege of supplementing their diet with animal protein implies a duty to animal welfare, both during the rearing of the animal and during the slaughter (Bleher, 2000). In contrast, modern Western farming and slaughter, on the other hand, aims at the mass consumer market and treats the animal as a commodity (Fallon, 2000). Inevitably, Islamic *halal* slaughter has increasingly come under attack specifically from animal rights activists (Bleher, 2000). Bonne, Vermier, Bergeaud-Blackler and Verbeke (2007) raised the issue of pre-stunning which is a matter of lively public debate in animal welfare and veterinary circles in Germany, the UK, the Netherlands and Denmark. The reason is that slaughter is probably the most delicate operation in the transformation of an animal into a piece of meat fit for human consumption.

Apart from that, there were also claims made that the act of non *halal* slaughtering avoids contamination and preserving meat quality standard. A study on the introduction of slaughter line automation at a beef abattoir showed no reduction in carcass contamination and merely a shift in the distribution of organisms on the carcasses as a result of the line modifications (Whelehan, Hudson & Roberts, 1986). The changes made had little direct bearing on carcass hygiene. Further work carried out by the same research group has tended to cast doubt on other preconceptions relating to hygiene (Roberts, Hudson & Dainty, 1989).

Within this context, uncertainty and disagreement about the degree of animal suffering and the use of stunning method are increasing (Maussen, 2006). Lack of regulation is pointed out by Aidaros (2005) as there are no clear enforced official regulations and activities in many jurisdictions in this respect. The method, which is generally adopted by Muslims for slaughtering an animal, involves making an incision across its neck, which severs its main arteries. In fact, there are acclaimed sources, that considered this method of slaughtering an animal to be less painful than any other method. As discussed earlier, a team at the University of Hanover in Germany examined these claims through the use of EEG and ECG records during slaughter. They found that animal slaughtering according to *halal* method is the least painful method for the animal. However, a plurality of opinions on the matter is inevitable.

## Conclusion

Islam has guided its followers on permitted and prohibited foods under Islamic dietary laws. All details concerning the rules have reasons behind them that could be found in the *Quran* and the *Hadith*. In Islam, the sphere of prohibited things is very small, while that of permissible things is extremely vast (Al-Qaradawi, n.d., p. 14). In

addition, Al-Qaradawi (n.d.) emphasized that there is only a small number of sound and explicit texts concerning prohibitions, while whatever else that is not mentioned in a *nas* (either a verse of the *Qur'an* or a clear, authentic and explicit *Sunah*) as being lawful or prohibited falls under the general principle of the permissibility of things and within the domain of Allah's favour.

Food producing countries are already stepping up efforts to meet the growing demand for safe and quality foods. With a global Muslim population of 1.8 billion which is projected to increase to three billion next year, the potential for trade in *halal* products and services is immense (Ridu, 2009). The concept of *halal* slaughtering is incomplete without coupling it with aspects of hygiene and nutrition (Shafi, 2008). In addition, from a holistic perspective, the animals must be *halal*, safe for human consumption and carries high nutritional values.

The issues on *halal* slaughtering remains a public debate although animal welfare before and during the act of *halal* slaughtering has been well presented in the *Qur'an* and Hadith. Additionally, evidence from researches showed that *halal* slaughtering produces quality meat (Aidaros, 2005). Whatever it takes, Bonne et al. (2007) study of *halal* meat found that the attribute "religious slaughter" is strongly associated with the value of "faith" followed by "health" and "tradition". An interesting result from their study was that the consumption of *halal* meat for Muslims was quite different from the consumption of "regular" meat or other foods for non-Muslims. Here, eating *halal* meat is not an automatic process, which is eating without reasoning as it is significantly related to the high level of personal importance attached to *halal* meat consumption due to religious associations.

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