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Halal food marketing: An evaluation of UK Halal standards

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Table 1: The acceptability of stunning among some of the Halal certification bodies in the UK (adapted from Fuseini et al., 2016).

Halal	Acceptance of	Certificate recognition in major importing countries			
Certification	stunning	UAE	Indonesia	Malaysia	Singapore
Bodies					
Halal	No	Yes	No	No	No
Monitoring					
Committee					
Halal Food	Yes	Yes	Yes	Yes	Yes
Authority	2 .				
Halal Authority	Yes	No	No	No	No
Board					
Halal	Yes	No	No	No	No
Consultations					
Limited		5			
Assure-IP	No	No	No	No	No
European Halal	No	No	No	No	No
Development			•		
Agency					
Institute of	Yes	No	No	No	No
Islamic					
Jurisprudence			(9)		

Table 2. The full questionnaire used in the survey

- Q1. Name of Certification Body?
- Q2. Name of city and country where main office is located?
- Q3. What is the status of your organisation?
 - A limited company
 - A private company
 - A registered charity or part of a registered charity
 - Other (please specify)
- Q4. Please indicate the categories of products or processes certified by your organisation?

- The slaughter/ dhabiha process or abattoirs
- Abattoirs and meat processing plants
- Meat processing plants
- Non-meat processing plants
- All the above
- Other (please specify)
- Q5. Does your organisation have a written halal standard?
 - Yes
 - No
- Q6. Which of the following is true about your procedures?
 - The use of tape recording of the tasmiya is acceptable
 - The recitation of the tasmiya by a Jew, Christian or a Muslim is acceptable
 - The inscription of the tasmiya on the blade or knife is acceptable
 - There is no requirement for the tasmiya to be recited, the intention is the most important
 - The tasmiya must be recited by ONLY a Muslim who should also perform the slaughter
- Q7. Which of the following is true about your organisation?
 - ONLY machine or mechanical slaughter of poultry is acceptable
 - ONLY hand (manual) slaughter is acceptable for poultry
 - Both mechanical and hand slaughter are acceptable for poultry
- Q8. Which of the following is true about your organisation?
 - All methods of stunning are prohibited
 - Some methods of stunning are acceptable as long as they do not result in the death of animals
 - All methods of stunning are acceptable unconditionally
 - Other (please specify)

Q9. If your organisation does not accept any form of stunning, please give your reason(s) for this (You may choose more than one option).

- Stunning is doubtful it can cause the death of animals before slaughter
- Stunning can affect the volume of blood loss
- Stunning has a negative impact on carcass and meat quality
- Stunning cause the animal pain
- The Prophet of Islam (PBUH) did not use stunning, that is why we do not accept it
- Other (please specify)
- NOT APPLICABLE- We accept stunning

Q10. If your organisation accepts stunning, which of the following is acceptable for sheep, goats and cattle?

- Electrical head-only stunning
- Electrical head-to-body stunning
- Both electrical head-only and electrical head-to-body stunning
- Penetrative captive bolt stunning
- Non-penetrative captive bolt stunning
- Both penetrative and non-penetrative captive bolt stunning
- All the above
- Other (please specify)
- NOT APPLICABLE- We do not accept any form of stunning of ruminants

Q11. If your organisation accepts stunning, which of the following is accepted for poultry?

- Water bath stunning
- Gas stunning
- Mechanical stunning
- All the above
- NOT APPLICABLE- We do not accept any form of stunning of poultry

Q12. Which of the following applies to your organisation?

- All abattoirs are supervised during the entire production period
- Supervision of abattoirs is done periodically e.g. once a month
- Supervision is done rarely e.g. once every 6 months or yearly
- There is no requirement for supervision of abattoirs
- Other (please specify)

Q13. Does your organisation carry out routine speciation (DNA) test of further processed meat?

- Yes
- No

Q14. If you answered Yes to question 13, which laboratory performs the DNA tests?

- An in-house laboratory
- Testing is done by a laboratory which is not accredited
- Testing is done by a third-party accredited laboratory
- NOT APPLICABLE-We do not carry out DNA testing

Table 3. Processes certified by Halal Certification Bodies in the UK

НСВ				
	The	Meat	Non-meat	Abattoir and
	slaughter/Dhabiha	processing	processing	processing plants
	process or	plants	plants	
	abattoirs			
European	N/A	N/A	Yes	N/A
Halal				
Development				
Agency				
Halal	Yes	Yes	Yes	Yes
Assure-IP				
Halal	Yes	Yes	Yes	Yes
Certification				
Organisation				
Halal	Yes	Yes	Yes	Yes
Consultations				
Halal Food	Yes	Yes	Yes	Yes
Authority				
Halal Food	Yes	Yes	Yes	Yes
Safety UK		U'/		
Halal	Yes	Yes	Yes	Yes
Monitoring		9/		
Board				
Halal				
Monitoring				
Committee				
Halal	Yes	Yes	Yes	Yes
Regulatory		•		
Commission				

Table 4. Summary of responses to the acceptability of stunning, approved methods of stunning and bleeding.

Name of Halal	Written	Stunning acceptability and		Approved method of	
Certification Body	Halal	approved methods		bleeding	
	Standard	Acceptability	Approved	Hand	Machine
		of stunning	stunning	slaughter	slaughter
			method(s)		

European Halal	Yes	No	NA	Yes	No
Development					
Agency					
Halal Assure-IP	Yes	No	NA	Yes	No
Halal Certification	Yes	Yes	EHOS,	Yes	No
Organisation			water bath		
Halal	Yes		EHOS,	Yes	Yes
Consultations	3		water bath		
Halal Food	Yes	Yes	EHOS,	Yes	No
Authority		X	water bath		
Halal Food Safety	Yes	Yes	EHOS,	Yes	Yes
UK			water bath		
Halal Monitoring	Yes	Yes	EHOS,	Yes	Yes
Board			Water bath		
Halal Monitoring	Yes	No	NA	Yes	No
Committee					
Halal Regulatory	Yes	Yes	EHOS,	Yes	No
Commission			water bath,		
			EHBS,	.	
			NPCB	1	

Halal food marketing: An evaluation of UK Halal standards

2 Abstract

3 Purpose

- 4 Due to the economic significance of the Halal meat market, many food business operators have
- 5 started trading in Halal meat products. Some businesses rely solely on the services of Halal
- 6 certification bodies to assure Halal consumers as to the authenticity of Halal meat products.
- 7 However, the lack of unified national or global Halal standards has resulted in confusion as to
- 8 what is authentic Halal. This paper surveys Halal certification bodies in the UK to highlight
- 9 the major differences between the various Halal standards with regard to Halal meat
- 10 production.

Design/methodology/approach

- 12 Nine out of 15 Halal certification bodies we contacted agreed to participate in the study.
- 13 Respondents were asked to indicate what slaughter practices are acceptable according to their
- standard, and further indicate if their respective organisations carried out speciation testing to
- detect the presence of foreign DNA in certified Halal products.

16 Findings

- All nine certifiers indicated that they owned and operated according to a written Halal standard.
- 18 The majority of certifiers indicated that: i) they accepted pre-slaughter stunning if the stunning
- did not result in the death of animals prior to exsanguination, ii) a Muslim should perform the
- slaughter and a short prayer must be recited, and iii) only manual (by hand) slaughter is
- 21 acceptable.

Research limitations/implications

- 23 The findings give an insight into acceptable and prohibited procedures during Halal meat
- production in the UK. Abattoir operators, meat processors and retailers can utilise this as a
- 25 guide when selecting suitable Halal certifiers for their businesses.

Originality

- The study reveals that there are a number of Halal certification bodies in the UK who are all operating according to different interpretation of the Halal dietary laws. The paper further highlights the different slaughter procedures that are acceptable and prohibited to the different certifiers.
- **Keywords**: Marketing; Halal slaughter; stunning; Halal certification; animal welfare.

1. Introduction

The Halal meat market in Europe is one of the fastest growing segments of the EU meat industry. Some authors have associated the growth with the rapid rise in the population of Muslims across Europe due to an increase in migration (Bergeaud-Blacker, 2004), others have attributed it to the fact that Muslims have a higher than average meat consumption (EBLEX, 2010) and additionally, the changing lifestyle of second and third generation Muslims (Bonne and Verbeke, 2007). Lever and Miele (2012) noted that over the last two decades or so, there has been a rise in the number of dedicated Halal meat outlets across Europe, but the majority of Halal consumers prefer to shop at local ethnic or independent Halal outlets run by local Muslim butchers. The preference for ethnic butchers may be due to trust issues with regard to safeguarding the integrity of Halal meat throughout the supply chain. Bonne and Verbeke (2008) reported that Halal consumers in Belgium indicated their preference for shopping at ethnic butcheries because ethnic butchers are thought to understand the Halal rules more fully and can safeguard the integrity of Halal meat in comparison with mainstream supermarkets. Wilson (2010) argued that it is possible to use Halal branding as a way of reducing consumer disagreements or simply to change consumer behaviour. The author implied that the power of branding is crucial in trying to introduce 'foreign' products in Muslim-majority countries. Despite the reported Halal consumer preference for shopping in independent Muslim operated butcher outlets (see Bonne and Verbeke, 2008), branding can be used by the mainstream

retailers to attract Halal consumers. In the UK for instance, a number of the mainstream retail multiples have branded their Halal meat as high quality, hygienic, safe and they have employed the services of Halal certification bodies to authenticate the Halal status of their products, this is gradually changing consumer shopping behaviour in the Halal marketplace. With regard to the slaughter of animals in accordance with religious rites, the UK's Food Standards Agency (FSA) recently reported that total Halal slaughter, including both stunned and non-stunned, accounted for 71% of total throughputs in English and Welsh sheep abattoirs. based on a survey of a week's slaughter (from 29th January 2018 to 4th February 2018) across all abattoirs in England and Wales (FSA, 2019). Although not all Halal output is explicitly marketed and sold as such, the above figure highlights the economic significance of the Halal meat market. Halal certification bodies (HCBs) play an important role in auditing and certifying Halal slaughter and further processed meat. Certificates or logos issued by HCBs are used by food business operators as marketing tools or assurance marks. In recent years, some Muslimmajority countries (e.g. Saudi Arabia, Malaysia, Oatar, UAE and others) have put in place regulations requiring Halal certification of all meat products entering their respective countries (see Malaysian Halal Standard, MS1500, 2009; Gulf Cooperation Countries Halal Standards), to be certified by local HCBs. This has meant that local HCBs have had to meet the requirements of the authorities in the importing countries in order to be accredited. These additional requirements on meat exported to the major Halal markets, and the readiness of Halal meat exporters to comply, has highlighted the significance of Halal certification to exporters. Fuseini (2017) noted that Halal consumers generally regard HCBs as the enforcers of the Islamic dietary laws, and that they give consumers assurance that Halal certified products meet these laws as enshrined in Islamic scriptures. However, there appear to be differences in opinion among HCBs with regard to the acceptability of certain practices (e.g. pre-slaughter

stunning and mechanical slaughter) (Fuseini, Wotton, Hadley, & Knowles, 2017a). These differences of opinion are brought about by variations in Islamic scholars' interpretation of the religious scriptures and this was highlighted by Fuseini, Wotton, Hadley, and Knowles (2017b) in a survey of Islamic scholars in the UK on the acceptability of pre-slaughter and post-slaughter stunning during Halal meat production. The disagreement on the acceptability of some methods of meat production and the lack of a global Halal standard continue to create confusion as to the true definition of Halal. To resolve this impasse, a number of Muslim organisations (see IHIA 2010, GCC-Gulf Cooperation Countries Halal Standard) have claimed to have produced 'unified' Halal standards, but differences still exist as to what is acceptable (Halal) and what is prohibited (Haram) even within these unified standards.

To gain a better understanding of the differences between Halal Standards across the UK's HCBs, a survey of HCBs was carried to evaluate the following; i) the level of acceptability of 'reversible' stunning among UK HCBs ii) the acceptability of mechanical slaughter of animals (mainly used for poultry but there is ongoing development for ruminants iii) the requirement for a prayer to be said during slaughter, and more as detailed below..

2. Halal certification: The UK as a case study

Despite the important role played by HCBs in assuring Halal consumers of the authenticity of Halal products, HCBs are generally unregulated in the UK and elsewhere. The current situation has meant that anyone can establish a Halal certification body with no specific qualifications or expertise, and this has led in the establishment of numerous HCBs around the globe. In the UK alone, there are approximately fifteen HCBs all competing for a share of the market. These unregulated certifiers operate according to varying Halal standards with different views on what constitutes Halal. Notable among the differences seen are; the acceptability of stunning, the acceptability of mechanical slaughter, the acceptability of thoracic (chest sticking) for large ruminants and the permissibility of meat from animals slaughtered by individuals other than a

Muslim. Fuseini (2017) suggested that the Halal sector urgently needs a system of monitoring or accrediting HCBs to ensure that these organisations implement robust quality management systems to increase integrity and to increase consumer confidence. The Halal Monitoring Committee (HMC) and Halal Food Authority (HFA) are the two oldest HCBs in the UK and certify the majority of food businesses. The HFA was founded in 1994 and was the first certifier to approve pre-slaughter stunning of animals in the UK. Lever and Fischer (2019) reported that the HFA initially certified only non-stunned meat, however, they later started certifying meat from stunned animals for animal welfare reasons whilst also competing with the HMC for a share of the non-stun market. The HMC on the other hand, does not recognise meat from stunned animals as Halal and this has been the case since the inception of the organisation in 2003. Lever and Fischer (2019) suggested that when selecting HCBs, food business operators need to take the following into consideration:

- The specialty of the HCBs or their scope of certification
- Cost of certification among certifiers.
- Additionally, it may be worth also considering the following:
 - The alignment of the HCB with standards set in target export countries. This is vital if the company seeking certification look to export to other countries.
 - The practicality of the Halal standard used by the HCB. Some Halal standards may require substantial physical modification to existing facilities, for instance, some HCBs may require animals to be slaughtered whilst facing the Qibla (the direction of Mecca), which may necessitate changes and reorganisation of the slaughter line.
 - Fuseini et al., (2016) highlighted which of the main UK Halal certifiers approve or disapprove pre-slaughter stunning and also which ones were recognised by authorities in Malaysia, Indonesia, the UAE and Singapore (see table 1).

[INSERT TABLE 1 ABOUT HERE]

3. Comparison of practices in Muslim-majority and Muslim-minority countries

Some of the key issues investigated in the current study included the acceptability of stunning, acceptability of meat from animals slaughter by Jews and Christians, the approval for the use of mechanical slaughter, the importance of the recitation of the tasmiya and whether UK Halal certification bodies operate according to written Halal standards. These are key aspects of Halal slaughter, however, when compared globally, there are differences in the interpretation of the dietary laws which has meant that there are variations on the approval or disapproval of these techniques from one country to the other. These gaps in Halal certification standards have been reviewed (Wan-Hassan, 2007). The author reported that the difference in Halal standards can cause food businesses millions of dollars in revenue, the delisting of a New Zealand (NZ) Halal certification body was cited as an example which resulted in export losses of up to \$53 million. The NZ certifier was delisted from JAKIM's approved list of certifiers because they had apparently approved the use of thoracic (chest) sticking. The issue of stunning has long divided Islamic scholarly opinion, however, the practice is becoming common in both Muslim majority and minority countries. For instance, some methods of stunning are accepted according to the Malaysian (MS1500/2009), GCC (GSO 993-2015) and OIC/SMIIC 1:2011 standards. What is apparent in these standards is the reluctance of the relevant authorities to approve stunning methods that are perceived to be irreversible, that is, stunning methods that are likely to kill animals before exsanguination (e.g. gas stunning and penetrative captive bolt stunning). This is however not always the case in Muslim-minority countries, it has been reported that penetrative captive bolt stunning is used for Halal meat production in Sweden (Berg and Jakobsson, 2007) and the UK (FSA, 2019) Holland, Belgium and other countries within the EU. Interestingly, despite the prevalent use of penetrative captive bolt stunning (see FSA, 2019), the majority of Halal certifiers in the UK do

not approve of its use. The first author has also witnessed the use of penetrative captive bolt in Ghana for Halal meat production. The use of mechanical slaughter for Halal poultry meat production is another area that divides scholarly opinion. The two major certifiers in the UK do not approve it, however, it is prevalent in other EU member states for Halal meat production, particularly in Holland and Germany. It is also approved by the GCC, and that was previously the case in Malaysia and OIC/SMIIC countries. One of the advantages of mechanical slaughter (for conventional slaughter) is that it is more efficient in processing huge numbers of birds per hour and it is also the preferred method used in the major exporting countries. Mechanical slaughter for Halal meat production is common in South and North America, these are countries that export huge volumes of poultry meat to Muslim-majority countries. In terms of slaughter by Jews and Christians, the majority of UK certifiers do not approve of this, at present, only Halal Consultations Limited is known to approve the practice for Halal meat production. The UK's Halal Food Authority previously approved it until it was abandoned about 7 years ago in 2013. The first author is aware of some EU certifiers who currently approve it. It is also an acceptable procedure in the current GCC Halal standard, however, the standard is currently under review. Fuseini et al. (2017b) reported that in the UK, the majority of Islamic scholars do not approve the consumption of meat from animals slaughtered by Jews and Christians (Ahle Kitab).

3.4. Self-certification

The cost of Halal certification can sometimes be expensive and may become uneconomical for small to medium sized businesses. Price can vary between HCBs, whilst some certifiers may charge a few hundred pounds per production site per annum, others can charge tens of thousands of pounds. The HMC for instance charges £0.02 per kg of meat certified whilst Ireland's Department of Halal Certification charges €500 per site plus €300 per product

certified. The HFA charge approximately £2,000 per site per annum, in addition to the cost of supervision and unannounced audits. Nonetheless, the benefits of Halal certification to large meat processors generally outweigh the cost of Halal certification because it affords them the benefit of accessing an increasingly important market. Fuseini (2017) quoted the Managing Director of a UK sheep meat processor, as saying that 'Halal certification is a commercial decision and any investment in Halal certification is easily offset by the spreading of overheads over increased production and the subsequent increase in revenue'. However, many UK Halal consumers do not generally require evidence of Halal certification from their local butchers and restaurants before purchasing Halal meat. They are usually content with the butcher or restauranteur confirming that the products are Halal, and this has resulted in many Halal businesses self-certifying their products. Lever and Miele (2012) cited the case of Halaldom, a French online and home delivery business that self-certifies its Halal lamb. Halaldom is said to have opted for self-certification because of prohibitive certification fees from one of France's major Halal certifiers, L'Association AVS. Although Halaldom does not claim to be externally Halal certified. Lever and Miele (2012) observed that they have developed strong communication with their clientele by assuring them about the compliance of their products with the Halal rules. Self-certification is also prevalent in the UK, and the Halal Food Foundation, the charitable arm of the UK's HFA, recently highlighted the risks associated with self-certification (Food Navigator, 2014).

4.5. Materials and methods

4.1.5.1. ____Data Collection and analysis

Data were collected using 'SurveyMonkey' online software (https://www.surveymonkey.com) by sending a weblink to the survey to all known HCBs in the UK. The survey was available from 27th of August 2018 and closed on 20th of April 2019. To the best of our knowledge, there were sixteen HCBs in the UK at that time. Fifteen of the 16 certifiers were informed of the

study and encouraged to participate. One certifier, Halal Certification Europe (HCE) was not contacted because they did not certify any abattoirs or meat processing plants at the time of data collection. HCBs were allowed to complete the survey at a time convenient to themselves and all of them were provided with information on the aims and objectives of the study. A total of nine survey questionnaires were fully completed and submitted by nine of the HCBs, with no missing entries. The four major meat certifying HCBs in the UK participated in the study.

4.2.5.2. Questionnaire development

A draft of the questionnaire was pilot-tested on one member of staff from a Birmingham HCB, the Halal Certification Organisation (HCO), to ensure that the questionnaires were unambiguous, easy to complete and did indeed cover the main aspects of Halal standards. One question was rephrased, and a new question added on advice from this HCB. The mode of data collection was initially planned to be carried out through face-to-face meetings with HCBs, but it was suggested that in order to encourage participation, it was preferable to send questionnaire links to HCBs for completion at a time convenient to them.

4.3.5.3. Survey questionnaire

Table 2 details the questionnaire. There was a total of 14 questions and HCBs were asked to provide a response to all questions.

[INSERT TABLE 2 ABOUT HERE]

5.6. Results

Out of the 15 HCBs contacted, 60% (9) agreed to participate whilst the remainder did not respond despite a follow-up phone call and email reminders. The largest four certifiers participated in the study, and the combined output production of sites certified by those six who did not participate was estimated to be less than the output of any one of the top four. HCBs were asked to indicate whether they were charities (or part of charities), private companies or limited companies, 7 of respondents identified themselves as limited companies

whilst the remaining 2 indicated that they identified themselves as either registered charities or part of registered charities. To understand the scope of certification of HCBs, they were presented with the following question: 'Please indicate the categories of products or processes certified by your organisation'. Respondents were allowed to choose more than one option that applied to them. All certifiers indicated that their scope included either the slaughter process or further processing of meat. Table 3 shows the scope of certification undertaken by the certifiers.

[INSERT TABLE 3 ABOUT HERE]

In a follow-on question, HCBs were asked the following question: 'Does your organisation have a written Halal standard?' All nine certifiers surveyed indicated that they operated according to some form of written Halal standard. To understand the requirement for a prayer to be said during Halal slaughter, HCBs were asked; 'Which of the following is true about your procedures?'. They were supplied a set of five answer options (Table 2, question 6); all of the 9 certifiers indicated that the tasmiya (a short prayer) must be recited by a Muslim who should perform the slaughter. Recitation of the tasmiva by a Jew, Christian or Muslim was also indicated to be acceptable to 2 certifiers. None of the HCBs surveyed accepted i) The use of tape recording of the tasmiya, ii) The inscription of the tasmiya on the blade or knife in place of a spoken prayer and iii) the absence of a tasmiya. HCBs were then asked to indicate which method of slaughter of poultry was acceptable to them. They were provided with three answer options (Table 2, question 7). The majority of HCBs (6) indicated that 'only hand slaughter is acceptable for poultry', 3 selected the option 'both mechanical and hand slaughter are acceptable for poultry' whilst no HCB chose the option 'only machine or mechanical slaughter of poultry is acceptable'. In a follow-on question, respondents were asked to indicate the acceptability of stunning to their respective organisations; 6 indicated that some methods of stunning are acceptable as long as they do not result in the death of animals, 3 indicated that

all methods of stunning are prohibited by their organisations. The answer option 'all methods of stunning are acceptable unconditionally' was not selected by any of the HCBs. The four HCBs who indicated that they did not accept any form of stunning were asked in a follow-on question to give reasons(s) why they do not accept stunning during Halal slaughter (respondents could give more than one reason); 2 indicated that stunning is unacceptable because it could cause the death of animals before slaughter, 1 indicated that stunning can affect the volume of blood loss, 1 indicated that stunning has a negative impact on carcass and meat quality, 1 indicated that stunning causes the animal pain and another 1 indicated that the Prophet of Islam (PBUH) did not practice stunning, that is why they do not approve it. The HCBs who indicated that they accept stunning were asked to indicate which stunning methods are acceptable for poultry and for ruminants. For ruminants, the majority of supporters of stunning (5/6) indicated that they accept electrical head-only stunning (EHOS), 1/6 approved electrical head-to-body stunning (EHBS), a further 1/6 approved non-penetrative captive bolt stunning (NPCB) and none of the certifiers indicated that they approved penetrative captive bolt stunning. For poultry, all six of the proponents of Halal stunning, indicated that they accept water bath stunning whilst one indicated that in addition to water bath stunning, they also accept mechanical stunning of poultry. Table 4 shows a summary of HCBs' acceptability of stunning, stunning methods accepted and the acceptability of mechanical slaughter. HCBs were then asked whether they required constant supervision of abattoirs that are certified by their organisations; 5/9 indicated that all abattoirs are supervised during the entire production period, one indicated that supervision of abattoirs is done periodically (e.g. once a month) and one indicated that there is no requirement for the supervision of abattoirs. To examine measures taken by HCBs to detect Halal meat contamination with meat prohibited species of animals (e.g. pork), HCBs were asked whether they carry out routine speciation (DNA) testing, 6/9 indicated that they do not carry out any speciation testing whilst 3/9 indicated that they carry

out routine testing. Those who indicated that they carry out speciation testing further indicated that testing is done by third party accredited laboratories.

[INSERT TABLE 4 ABOUT HERE]

6.7. Discussion

The importance of Halal meat certification to food business operators cannot be underestimated. Many businesses use Halal certification to assure Halal consumers that their products have met the strict requirements of Halal food production, and that such products are suitable for consumption by Muslims. Whilst many businesses openly declare the Halal certification status of their products, other businesses are usually concerned by any backlash their brands may attract from non-Muslim consumers. Wilson and colleagues (2013) addressed the issue of perception of non-Muslims with regard to Halal products, they reported that social scientists have a greater role to play in advancing the debate beyond the politics of religion, and focusing on the brand image and the economic advantage offered by trading in Halal products. For instance, in his book on 'Halal Branding', Wilson (2018) described Halal as an X-factor which offers businesses the opportunity to penetrate into new markets globally, and attract new set of consumers. The author cited examples of products that can be described (i.e. certified) as Halal to include: pharmaceuticals (e.g. drugs), tissues, milk, water and music. Most of these products would have previously been considered Halal by default, however, Halal consumers are becoming consciously aware of what they purchase. Wilson (2018) illustrated the influence of Muslims and the economic significance of the Halal market with the population of Muslims; he reported that one-fourth of the world's population is Muslim, over 50% of the population of Muslims are under the age of 25 and that, the population of Muslims is projected to grow by 35% over the next 20 years.

All the respondents in the present study indicated that they have a written Halal standard and were involved in the certification of meat, and this presented an opportunity for us to look at

the differences between nine Halal standards in the UK. All the 9 certifiers surveyed indicated that they require a Muslim to recite the tasmiya before Halal slaughter, this is consistent with the teachings of the Quran (Quran 6:118). Mokhtar (2017) looked at the recitation of the tasmiya from Figh perspective, and reported that apart from the Shafi School of Law, the other three Sunni Schools of Law (Hanafi, Hambali and Maliki) require the tasmiya to be recite before or during the neck cut, the author cited Ouran 6:121 as one of the verses the ruling is based on. Although the current study did not require certifiers to indicate the Schools of Law their standards are based on, it is reasonable to suggest that none of the certifiers based their standard on the rulings of the Shafi School of Law. However, only two of the nine certification bodies indicated that they permitted slaughter by Christians and Jews (if they recite the tasmiya). The suitability of meat from animals slaughtered by Christians and Jews, for consumption by Muslims has been the centre of scholarly discussion within the Muslim community. The Quran (Quran 5:3) permits Muslims to consume meat from animals slaughtered by Jews and Christians, however, many Islamic scholars appear to interpret this differently. As mentioned above, Fuseini et al., (2017b) reported that some Islamic scholars in the UK do not approve the consumption of meat from animals slaughtered by Christians and Jews because they believe many of them do not devoutly practice their own chosen religion. The results also showed that none of the certifiers surveyed would approve the use of tape recordings as a replacement for the recitation of the tasmiya by a Muslim. This will allay some consumer concerns and increase confidence in the UK's certification systems given recent accusations towards some of the main UK HCBs (surveyed in this study) of permitting the use of tape recordings alone of the tasmiya in some abattoirs. Although the majority of Halal poultry in the UK appear to be slaughtered by the use of mechanical blades, the majority of the certifiers surveyed [6/9] indicated that they do not approve of this procedure, but rather approve manual slaughter. Mechanical slaughter is the preferred method of slaughter by the major

poultry abattoirs in the UK because it better suits large throughputs and requires minimal human involvement in the slaughter process. Mufti Ikram ul Haq (2012) examined the Fiqh grounds on the use of mechanical slaughter, the author considered the opinion of Hanafi jurists and concluded that mechanical slaughter may be acceptable for Halal slaughter on condition that the tasmiya is recited on each bird. Under commercial conditions, this is not practically possible, considering the fact that thousands of birds are slaughtered every hour in poultry abattoirs. According to Mufti Ikram ul Haq, where the recitation of the tasmiya is not possible on every bird, the conditions under which mechanical slaughter (with a single tasmiya) is acceptable (according to Hanafi jurisprudence) are:

- If all birds can be slaughtered simultaneously with the touch of a button after the recitation of the tasmiya. Again, this is practically impossible with current mechanical slaughter systems.
- The machine operator must be a Muslim or a practicing Person of the Book (i.e. Christian or Jew).
- All birds must be present at the point of slaughter before the commencement of slaughter. With current design of poultry abattoirs and the way birds are handled, this is practically impossible.

On the acceptability of stunning for Halal meat production, the majority of HCBs were found to approve stunning, in fact 6/9 of certifiers indicated that they approve stunning on condition that the animal is still alive before it is bled-out. This is consistent with the findings of a recent study on stun acceptability which found that the majority of Islamic scholars would approve stunning on condition that animals had not died before neck-cutting (Fuseini et al., 2017b). It also correlates with the fact that the majority of Halal slaughter is stunned in the UK, with 99% of cattle, 93% of goats, 90% of broilers and 75% of sheep reported to have been stunned prior to Halal slaughter (FSA, 2019). Chandia and Soon (2017) commented on the acceptability of

Stunning based on the School of Laws. The authors explained that Pakistan adheres to the Hanafi School of Law and which has led to a blanket ban on stunning whilst Malaysia, which is largely Shafi, permits pre-slaughter stunning. The acceptability of reversible stunning may be due to the Quranic requirement for animals to be alive at the point of slaughter (see Quran 5:3).

Certifiers who do not approve any form of stunning gave the following reasons for the rejection; i) they considered stunning questionable because it may lead to the death of animals before slaughter, which makes it incompatible with the rules of Halal, or ii) they hold a belief that stunning can affect the volume of blood loss at exsanguination, or iii) they believe stunning leads to the production of carcass and meat of inferior quality and iv) stunning causes pain to the animal. Contrary to the above reasons for the rejection of stunning, there is ample scientific evidence to suggest that stunning does not negatively affect carcass and meat quality (Onenc and Kaya, 2004; Danso et al., 2017) nor the efficiency and volume of blood loss (Pleiter, 2004; Khalid et al., 2015). There is also objective evidence to suggest that when applied correctly, stunning is a humane procedure (Hoenderken, 1978; Anil, 1991). It is worth noting that some researchers have also concluded that slaughter without stunning may be equally as humane as slaughter with stunning (Grandin and Regenstein, 1994, Rosen, 2004), but the majority refute this.

The majority of HCBs indicated that the methods of stunning they approve for red meat and poultry were EHOS and water bath stunning. This may be due to the fact that both methods of stunning, particularly EHOS of small and large ruminants is unlikely to cause instantaneous death of animals. EHOS is also the stunning method approved by some Muslim-majority countries, including Malaysia, Indonesia, UAE, Saudi Arabia and others. In the case of water bath stunning, there have been suggestions that water bath stunning can result in the fibrillation of the heart (depending on the electrical parameters and other factors) and can possibly cause

the death of birds before neck-cutting (Fuseini et al., 2018). It should be noted that although the FSA (2019) report indicated that 99% of Halal beef is derived from stunned animals, none of the certifiers surveyed in the current study approve penetrative captive bolt stunning (the foremost stunning system used for beef in the UK). In explaining the Figh basis for the acceptability of pneumatic percussive stunning, Mokhtar note that the decision is based on the Quranic injunction that 'difficulties bring convenience' (see Quran 22:78). One certifier, however, indicated that they approve electrical head-to-body stunning (see table 4) but not penetrative captive bolt, this certifier may be approving the Jarvis beef stunner (with cardiac arrest cycle) which may account for some of the stunned Halal beef reported by FSA (2019). Although the proportion of Halal beef derived from captive bolt stunned animals may not be certified as Halal by any of the HCBs, it has been suggested that such meats are approved by independent local imams. Although meat approved as Halal by independent local imams may be sold in the domestic market, such meats cannot be exported to the majority of the Halal markets outside the EU. Opponents of mechanical slaughter (e.g. penetrative and nonpenetrative captive bolt stunning) have insisted that the procedure is akin to 'violent blow' which is described as a prohibited procedure in Quran 5:3. This study highlights the fact that there remain some differences in the definition of Halal among Halal certification bodies. These differences in the interpretation of the Islamic dietary laws (derived from the Ouran and Hadith) has hindered the growth of the Halal market and prevented it from reaching its full potential. Wilson (2010) made a similar observation, the author suggested that despite the creation of Halal ingredient brands and co-branding, the growth of the Halal market is hindered by misunderstanding and lack of harmony between standards. Aside from the challenge of the lack of a unified global definition of Halal, Wilson (2010) further noted an additional challenge in attempts to 'negotiate the tacit transmission of Halal' to consumers. The author gave an example of MacDonald's openly trading in, and

 advertising Halal products in their restaurants in Pakistan, but are less keen in doing so in India, where the Muslim population is much larger. The reason for MacDonald's adoption of this strategy is to avoid instances where followers of the majority Hindu religion consciously avoid Halal restaurants to advance their political ideologies. Interestingly, Hindus living outside India, particularly those living in Muslim-majority countries are less likely to avoid Halal restaurants.

7.8. Conclusion

This study presents findings on the scope of Halal certification and the acceptability of key slaughter procedures for Halal meat production by some UK Halal certification bodies. The results indicate that the majority of HCBs approve pre-slaughter stunning, however, this is done on condition that animals are alive before they are bled-out. This has meant that none of the HCBs surveyed in this study accepts penetrative captive bolt stunning for Halal meat production because it may not be 'recoverable' and is deemed to cause the death of animals before bleeding-out. The implication from this is that there is currently no approved stunning method for externally certified Halal beef production meaning that beef certified as Halal by an accreditation body must have been neck cut and bled out whilst conscious. It is recommended that, in collaboration with the Muslim authorities, researchers should consider investigating new beef stunning technologies or improving existing systems so that a method of stunning compliant with the requirements of Halal slaughter is available (for proponents of Halal stunning). The current study also provides information that can be utilised by governments, policy makers, animal welfare organisations and the meat industry to get a better understanding of the Halal market and help in future policy formulation.

Conflict of interest

The authors declare no conflict of interest

Reference

- 425 Anil, M.H. (1991). Studies on the return of physical reflexes in pigs following electrical
- 426 stunning. *Meat Science*, 30, 13-21.
- 427 Bergeaud-Blackler, F., (2004). In: Harvey, M., McMeekin, A., Warde, A. (Eds.), Social
- 428 Definitions of Halal Quality: The Case of Maghrebi Muslims in France, in Qualities of Food.
- 429 Manchester University Press.
- 430 Berg, C. and Jakobsson, T. (2007). Post-cut stunning at religious slaughter. Svensk
- *Veterinartidning*, 59 (16), 21-28.
- Bonne, K., Verbeke, W. (2007). Religious values informing halal meat production and the
- control and delivery of halal credence quality. *Agriculture and Human Values*, 25, 35-47.
- Bonne, K., and Verbeke, W. (2008). Muslim consumer trust in halal meat status and control
- 435 in Belgium. *Meat Science*, 79, 113-123.
- Chandia, M., Soon, J.M. (2017). The variation in religious and legal understandings on Halal
- slaughter. British Food Journal, 120, 714-730.
- Danso, A.S., Ricardson, R.I., and Khalid, R. (2017). Assessment of the meat quality of
- lamb *M. longissimus thoracis et lumborum* and *M. triceps brachii* following three different
- Halal slaughter procedures. *Meat Science*, 127, 6-12.
- 441 Food Navigator (2014). Self-certification of Halal products 'rife' in Britain: Halal
- Foundation. https://www.foodnavigator.com/Article/2014/04/29/Self-certification-of-halal-
- 443 products-rife-in-Britain-Halal-Foundation (Accessed, 26/04/2019).
- Food Standards Agency (FSA, 2019). Results of the 2018 FSA survey into slaughter methods
- in England and Wales. *Department for Environment Food and Rural Affairs*, London.

- Fuseini, A., Knowles, T.G., Lines, J.A., Hadley, P.J., and Wotton, S.B. (2016). The stunning
- and slaughter of cattle within the EU: a review of the current situation with regard to the halal
- 448 market. *Animal Welfare*, 25, 365-376.
- 449 Fuseini, A. (2017). Halal food certification in the UK and its impact on food businesses: a
- review in the context of the European Union. *CAB Reviews*, 12, 1-7.
- 451 Fuseini, A., Wotton, S.B., Hadley, P.J., and Knowles, T.G. (2017a). The compatibility of
- 452 modern slaughter techniques with halal slaughter: a review of the aspects of 'modern' slaughter
- 453 methods that divide scholarly opinion within the Muslim community. *Animal Welfare*, 26, 301-
- 454 310.
- 455 Fuseini, A., Wotton, S.B., Hadley, P.J., and Knowles, T.G. (2017b). The perception and
- acceptability of pre-slaughter and post-slaughter stunning for Halal production: The views of
- 457 UK Islamic scholars and Halal consumers. *Meat Science*, 123, 143-150.
- 458 Fuseini, A., Teye, M., Wotton, S.B., Lines, J.A., and Knowles, T.G. (2018). Electrical water
- bath stunning for poultry meat production: animal welfare issues and compatibility with the
- 460 Halal rules. CAB Reviews, 13, 1-7.
- 461 Grandin, T., and Regenstein, J.M. 1994 Religious slaughter and animal welfare: a discussion
- 462 for meat scientists. Meat Focus International, 3, 115-123
- Khalid, R., Knowles, T.G., Wotton, S.B. (2015). A comparison of blood loss during the halal
- slaughter of lambs following traditional religious slaughter without stunning, electric head-
- only stunning and post-cut electric head-only stunning. *Meat Science*, 110, 15-23.
- Lever, J., Miele, M. (2012). The growth of halal meat markets in Europe: An exploration of
- the supply side theory of religion. *Journal of Rural Studies*, 4, 528-537.
- Mokhtar, S.M.I. (2017). Revisiting the Figh of Halal-Haram animals: An analysis on
- Malaysian Fatwa relating to animal care and use. *International Halal Management*
- *Conference*, 1, 151-161.

- Mufti Ul Haq, I. (2012). The Figh of mechanical slaughter. A research for AMJA's 9th
- 472 <u>Annual Imams Conference, Los Angele, CA, USA. Pp1-37.</u>
- Önenç, A., & Kaya, A. (2004). The effects of electrical stunning and percussive captive bolt
- 474 stunning on meat quality of cattle processed by Turkish slaughter procedures. *Meat Science*,
- 475 66, 809-815.
- 476 Pleiter, H. (2004). Electrical stunning of cattle Experiences in New Zealand. Deutsche
- 477 Tierartzliche Wochenschrift, 111, 106–108.
- Rosen, D. (2004). Physiological insights into Shechita. *Veterinary Record*, 154, 759-765.
- Wan-Hassan, W.M. (2007) 'Globalising Halal Standards: Issues and Challenges'. *The Halal*
- *Journal*, 38-40.
- Wilson, J.A.J. (2010). Shaping the Halal into a brand? *Journal of Islamic Marketing*, 2, 107-
- 482 <u>123.</u>
- Wilson, J.A.J., Belk, R.W., Bamossy, G.J., Sandikci, O., Kartajaya, H., Sobh, R., Liu, J., and
- 484 Scott, L. (2013). Crescent marketing, Muslim geographies and brand Islam. Reflections from
- 485 the JIMA Senior Advisory Board. Journal of Islamic Marketing, 4, 22-50.
- Wilson, J.A.J. (2018). Halal Branding. Claritas Books, Swansea, United Kingdom. Pp 1-49

