



Fuseini, A., Hadley, P., & Knowles, T. (2020). Halal food marketing: An evaluation of UK Halal standards. *Journal of Islamic Marketing*. <https://doi.org/10.1108/JIMA-02-2020-0037>

Peer reviewed version

Link to published version (if available):  
[10.1108/JIMA-02-2020-0037](https://doi.org/10.1108/JIMA-02-2020-0037)

[Link to publication record in Explore Bristol Research](#)  
PDF-document

This is the author accepted manuscript (AAM). The final published version (version of record) is available online via Emerald at <https://www.emerald.com/insight/content/doi/10.1108/JIMA-02-2020-0037/full/html> . Please refer to any applicable terms of use of the publisher.

## University of Bristol - Explore Bristol Research

### General rights

This document is made available in accordance with publisher policies. Please cite only the published version using the reference above. Full terms of use are available: <http://www.bristol.ac.uk/red/research-policy/pure/user-guides/ebr-terms/>



### Halal food marketing: An evaluation of UK Halal standards

Journal:	<i>Journal of Islamic Marketing</i>
Manuscript ID	JIMA-02-2020-0037.R1
Manuscript Type:	Research Article
Keywords:	Halal slaughter, stunning, Halal certification, Marketing, animal welfare

SCHOLARONE™  
Manuscripts

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

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

**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? <ul style="list-style-type: none"> <li>• A limited company</li> <li>• A private company</li> <li>• A registered charity or part of a registered charity</li> <li>• Other (please specify)</li> </ul>
Q4. Please indicate the categories of products or processes certified by your organisation?

1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	
25	
26	
27	
28	
29	
30	
31	
32	
33	
34	
35	
36	
37	
38	
39	
40	
41	
42	
43	
44	
45	
46	
47	
48	
49	
50	
51	
52	
53	
54	
55	
56	
57	
58	
59	
60	

<ul style="list-style-type: none"><li>• The slaughter/ dhabiha process or abattoirs</li><li>• Abattoirs and meat processing plants</li><li>• Meat processing plants</li><li>• Non-meat processing plants</li><li>• All the above</li><li>• Other (please specify)</li></ul>
Q5. Does your organisation have a written halal standard? <ul style="list-style-type: none"><li>• Yes</li><li>• No</li></ul>
Q6. Which of the following is true about your procedures? <ul style="list-style-type: none"><li>• The use of tape recording of the tasmiya is acceptable</li><li>• The recitation of the tasmiya by a Jew, Christian or a Muslim is acceptable</li><li>• The inscription of the tasmiya on the blade or knife is acceptable</li><li>• There is no requirement for the tasmiya to be recited, the intention is the most important</li><li>• The tasmiya must be recited by ONLY a Muslim who should also perform the slaughter</li></ul>
Q7. Which of the following is true about your organisation? <ul style="list-style-type: none"><li>• ONLY machine or mechanical slaughter of poultry is acceptable</li><li>• ONLY hand (manual) slaughter is acceptable for poultry</li><li>• Both mechanical and hand slaughter are acceptable for poultry</li></ul>
Q8. Which of the following is true about your organisation? <ul style="list-style-type: none"><li>• All methods of stunning are prohibited</li><li>• Some methods of stunning are acceptable as long as they do not result in the death of animals</li><li>• All methods of stunning are acceptable unconditionally</li><li>• Other (please specify)</li></ul>

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60

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**

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

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

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

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

# Halal food marketing: An evaluation of UK Halal standards

## Abstract

### Purpose

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

### Design/methodology/approach

Nine out of 15 Halal certification bodies we contacted agreed to participate in the study. 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.

### Findings

All nine certifiers indicated that they owned and operated according to a written Halal standard. 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 acceptable.

### Research limitations/implications

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 guide when selecting suitable Halal certifiers for their businesses.



## 26 **Originality**

27 The study reveals that there are a number of Halal certification bodies in the UK who are all  
28 operating according to different interpretation of the Halal dietary laws. The paper further  
29 highlights the different slaughter procedures that are acceptable and prohibited to the different  
30 certifiers.

31 **Keywords:** Marketing; Halal slaughter; stunning; Halal certification; animal welfare.

### 32 **1. Introduction**

33 The Halal meat market in Europe is one of the fastest growing segments of the EU meat  
34 industry. Some authors have associated the growth with the rapid rise in the population of  
35 Muslims across Europe due to an increase in migration (Bergeaud-Blacker, 2004), others have  
36 attributed it to the fact that Muslims have a higher than average meat consumption (EBLEX,  
37 2010) and additionally, the changing lifestyle of second and third generation Muslims (Bonne  
38 and Verbeke, 2007). Lever and Miele (2012) noted that over the last two decades or so, there  
39 has been a rise in the number of dedicated Halal meat outlets across Europe, but the majority  
40 of Halal consumers prefer to shop at local ethnic or independent Halal outlets run by local  
41 Muslim butchers. The preference for ethnic butchers may be due to trust issues with regard to  
42 safeguarding the integrity of Halal meat throughout the supply chain. Bonne and Verbeke  
43 (2008) reported that Halal consumers in Belgium indicated their preference for shopping at  
44 ethnic butcheries because ethnic butchers are thought to understand the Halal rules more fully  
45 and can safeguard the integrity of Halal meat in comparison with mainstream supermarkets.

46 Wilson (2010) argued that it is possible to use Halal branding as a way of reducing consumer  
47 disagreements or simply to change consumer behaviour. The author implied that the power of  
48 branding is crucial in trying to introduce 'foreign' products in Muslim-majority countries.  
49 Despite the reported Halal consumer preference for shopping in independent Muslim operated  
50 butcher outlets (see Bonne and Verbeke, 2008), branding can be used by the mainstream

1  
2  
3  
4 51 retailers to attract Halal consumers. In the UK for instance, a number of the mainstream retail  
5  
6 52 multipl es have branded their Halal meat as high quality, hygienic, safe and they have employed  
7  
8 53 the services of Halal certification bodies to authenticate the Halal status of their products, this  
9  
10 54 is gradually changing consumer shopping behaviour in the Halal marketplace.  
11

12  
13 55 With regard to the slaughter of animals in accordance with religious rites, the UK's Food  
14  
15 56 Standards Agency (FSA) recently reported that total Halal slaughter, including both stunned  
16  
17 57 and non-stunned, accounted for 71% of total throughputs in English and Welsh sheep abattoirs.  
18  
19 58 based on a survey of a week's slaughter (from 29<sup>th</sup> January 2018 to 4<sup>th</sup> February 2018) across  
20  
21 59 all abattoirs in England and Wales (FSA, 2019). Although not all Halal output is explicitly  
22  
23 60 marketed and sold as such, the above figure highlights the economic significance of the Halal  
24  
25 61 meat market.

26  
27  
28 62 Halal certification bodies (HCBs) play an important role in auditing and certifying Halal  
29  
30 63 slaughter and further processed meat. Certificates or logos issued by HCBs are used by food  
31  
32 64 business operators as marketing tools or assurance marks. In recent years, some Muslim-  
33  
34 65 majority countries (e.g. Saudi Arabia, Malaysia, Qatar, UAE and others) have put in place  
35  
36 66 regulations requiring Halal certification of all meat products entering their respective countries  
37  
38 67 (see Malaysian Halal Standard, MS1500, 2009; Gulf Cooperation Countries Halal Standards),  
39  
40 68 to be certified by local HCBs. This has meant that local HCBs have had to meet the  
41  
42 69 requirements of the authorities in the importing countries in order to be accredited. These  
43  
44 70 additional requirements on meat exported to the major Halal markets, and the readiness of  
45  
46 71 Halal meat exporters to comply, has highlighted the significance of Halal certification to  
47  
48 72 exporters. Fuseini (2017) noted that Halal consumers generally regard HCBs as the enforcers  
49  
50 73 of the Islamic dietary laws, and that they give consumers assurance that Halal certified products  
51  
52 74 meet these laws as enshrined in Islamic scriptures. However, there appear to be differences in  
53  
54 75 opinion among HCBs with regard to the acceptability of certain practices (e.g. pre-slaughter  
55  
56  
57  
58  
59  
60

1  
2  
3 76 stunning and mechanical slaughter) (Fuseini, Wotton, Hadley, & Knowles, 2017a). These  
4  
5 77 differences of opinion are brought about by variations in Islamic scholars' interpretation of the  
6  
7 78 religious scriptures and this was highlighted by Fuseini, Wotton, Hadley, and Knowles (2017b)  
8  
9  
10 79 in a survey of Islamic scholars in the UK on the acceptability of pre-slaughter and post-  
11  
12 80 slaughter stunning during Halal meat production. The disagreement on the acceptability of  
13  
14 81 some methods of meat production and the lack of a global Halal standard continue to create  
15  
16 82 confusion as to the true definition of Halal. To resolve this impasse, a number of Muslim  
17  
18 83 organisations (see IHIA 2010, GCC-[Gulf Cooperation Countries](#) Halal Standard) have claimed  
19  
20 84 to have produced 'unified' Halal standards, but differences still exist as to what is acceptable  
21  
22 85 (Halal) and what is prohibited (Haram) even within these unified standards.  
23  
24

25  
26 86 To gain a better understanding of the differences between Halal Standards across the UK's  
27  
28 87 HCBs, a survey of HCBs was carried to evaluate the following; i) the level of acceptability of  
29  
30 88 'reversible' stunning among UK HCBs ii) the acceptability of mechanical slaughter of animals  
31  
32 89 (mainly used for poultry but there is ongoing development for ruminants iii) the requirement  
33  
34 90 for a prayer to be said during slaughter, and more as detailed below..  
35  
36

## 37 91 **2. Halal certification: The UK as a case study**

38  
39 92 Despite the important role played by HCBs in assuring Halal consumers of the authenticity of  
40  
41 93 Halal products, HCBs are generally unregulated in the UK and elsewhere. The current situation  
42  
43 94 has meant that anyone can establish a Halal certification body with no specific qualifications  
44  
45 95 or expertise, and this has led in the establishment of numerous HCBs around the globe. In the  
46  
47 96 UK alone, there are approximately fifteen HCBs all competing for a share of the market. These  
48  
49 97 unregulated certifiers operate according to varying Halal standards with different views on  
50  
51 98 what constitutes Halal. Notable among the differences seen are; the acceptability of stunning,  
52  
53 99 the acceptability of mechanical slaughter, the acceptability of thoracic (chest sticking) for large  
54  
55 100 ruminants and the permissibility of meat from animals slaughtered by individuals other than a  
56  
57  
58  
59  
60

1  
2  
3 101 Muslim. Fuseini (2017) suggested that the Halal sector urgently needs a system of monitoring  
4  
5 102 or accrediting HCBs to ensure that these organisations implement robust quality management  
6  
7 103 systems to increase integrity and to increase consumer confidence. The Halal Monitoring  
8  
9 104 Committee (HMC) and Halal Food Authority (HFA) are the two oldest HCBs in the UK and  
10  
11 105 certify the majority of food businesses. The HFA was founded in 1994 and was the first certifier  
12  
13 106 to approve pre-slaughter stunning of animals in the UK. Lever and Fischer (2019) reported that  
14  
15 107 the HFA initially certified only non-stunned meat, however, they later started certifying meat  
16  
17 108 from stunned animals for animal welfare reasons whilst also competing with the HMC for a  
18  
19 109 share of the non-stun market. The HMC on the other hand, does not recognise meat from  
20  
21 110 stunned animals as Halal and this has been the case since the inception of the organisation in  
22  
23 111 2003. Lever and Fischer (2019) suggested that when selecting HCBs, food business operators  
24  
25 112 need to take the following into consideration:

- 30 113 • The specialty of the HCBs or their scope of certification
- 31 114 • Cost of certification among certifiers.

32 115 Additionally, it may be worth also considering the following:

- 33 116 • The alignment of the HCB with standards set in target export countries. This is vital if  
34 117 the company seeking certification look to export to other countries.
- 35 118 • The practicality of the Halal standard used by the HCB. Some Halal standards may  
36 119 require substantial physical modification to existing facilities, for instance, some HCBs  
37 120 may require animals to be slaughtered whilst facing the Qibla (the direction of Mecca),  
38 121 which may necessitate changes and reorganisation of the slaughter line.

39 122 Fuseini et al., (2016) highlighted which of the main UK Halal certifiers approve or disapprove  
40 123 pre-slaughter stunning and also which ones were recognised by authorities in Malaysia,  
41 124 Indonesia, the UAE and Singapore (see table 1).

42 125 [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

1  
2  
3 150 not approve of its use. The first author has also witnessed the use of penetrative captive bolt in  
4  
5  
6 151 Ghana for Halal meat production.  
7  
8 152 The use of mechanical slaughter for Halal poultry meat production is another area that divides  
9  
10 153 scholarly opinion. The two major certifiers in the UK do not approve it, however, it is prevalent  
11  
12 154 in other EU member states for Halal meat production, particularly in Holland and Germany. It  
13  
14 155 is also approved by the GCC, and that was previously the case in Malaysia and OIC/SMIIC  
15  
16 156 countries. One of the advantages of mechanical slaughter (for conventional slaughter) is that it  
17  
18 157 is more efficient in processing huge numbers of birds per hour and it is also the preferred  
19  
20 158 method used in the major exporting countries. Mechanical slaughter for Halal meat production  
21  
22 159 is common in South and North America, these are countries that export huge volumes of  
23  
24 160 poultry meat to Muslim-majority countries.  
25  
26 161 In terms of slaughter by Jews and Christians, the majority of UK certifiers do not approve of  
27  
28 162 this, at present, only Halal Consultations Limited is known to approve the practice for Halal  
29  
30 163 meat production. The UK's Halal Food Authority previously approved it until it was abandoned  
31  
32 164 about 7 years ago in 2013. The first author is aware of some EU certifiers who currently  
33  
34 165 approve it. It is also an acceptable procedure in the current GCC Halal standard, however, the  
35  
36 166 standard is currently under review. Fuseini et al. (2017b) reported that in the UK, the majority  
37  
38 167 of Islamic scholars do not approve the consumption of meat from animals slaughtered by Jews  
39  
40 168 and Christians (*Ahle Kitab*).

#### 169 **3.4. Self-certification**

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

1  
2  
3 175 certified. The HFA charge approximately £2,000 per site per annum, in addition to the cost of  
4  
5 176 supervision and unannounced audits. Nonetheless, the benefits of Halal certification to large  
6  
7 177 meat processors generally outweigh the cost of Halal certification because it affords them the  
8  
9 178 benefit of accessing an increasingly important market. Fuseini (2017) quoted the Managing  
10  
11 179 Director of a UK sheep meat processor, as saying that ‘Halal certification is a commercial  
12  
13 180 decision and any investment in Halal certification is easily offset by the spreading of overheads  
14  
15 181 over increased production and the subsequent increase in revenue’. However, many UK Halal  
16  
17 182 consumers do not generally require evidence of Halal certification from their local butchers  
18  
19 183 and restaurants before purchasing Halal meat. They are usually content with the butcher or  
20  
21 184 restaurateur confirming that the products are Halal, and this has resulted in many Halal  
22  
23 185 businesses self-certifying their products. Lever and Miele (2012) cited the case of Halaldom, a  
24  
25 186 French online and home delivery business that self-certifies its Halal lamb. Halaldom is said  
26  
27 187 to have opted for self-certification because of prohibitive certification fees from one of  
28  
29 188 France’s major Halal certifiers, L’Association AVS. Although Halaldom does not claim to be  
30  
31 189 externally Halal certified, Lever and Miele (2012) observed that they have developed strong  
32  
33 190 communication with their clientele by assuring them about the compliance of their products  
34  
35 191 with the Halal rules. Self-certification is also prevalent in the UK, and the Halal Food  
36  
37 192 Foundation, the charitable arm of the UK’s HFA, recently highlighted the risks associated with  
38  
39 193 self-certification (Food Navigator, 2014).

#### 4.5. Materials and methods

##### 4.1.5.1. Data Collection and analysis

194  
195  
196 Data were collected using ‘SurveyMonkey’ online software (<https://www.surveymonkey.com>)  
197 by sending a weblink to the survey to all known HCBs in the UK. The survey was available  
198 from 27<sup>th</sup> of August 2018 and closed on 20<sup>th</sup> of April 2019. To the best of our knowledge, there  
199 were sixteen HCBs in the UK at that time. Fifteen of the 16 certifiers were informed of the



1  
2  
3 200 study and encouraged to participate. One certifier, Halal Certification Europe (HCE) was not  
4  
5 201 contacted because they did not certify any abattoirs or meat processing plants at the time of  
6  
7  
8 202 data collection. HCBs were allowed to complete the survey at a time convenient to themselves  
9  
10 203 and all of them were provided with information on the aims and objectives of the study. A total  
11  
12 204 of nine survey questionnaires were fully completed and submitted by nine of the HCBs, with  
13  
14  
15 205 no missing entries. The four major meat certifying HCBs in the UK participated in the study.

#### 16 17 206 4.2.5.2. **Questionnaire development**

18  
19 207 A draft of the questionnaire was pilot-tested on one member of staff from a Birmingham HCB,  
20  
21 208 the Halal Certification Organisation (HCO), to ensure that the questionnaires were  
22  
23  
24 209 unambiguous, easy to complete and did indeed cover the main aspects of Halal standards. One  
25  
26 210 question was rephrased, and a new question added on advice from this HCB. The mode of data  
27  
28  
29 211 collection was initially planned to be carried out through face-to-face meetings with HCBs, but  
30  
31 212 it was suggested that in order to encourage participation, it was preferable to send questionnaire  
32  
33 213 links to HCBs for completion at a time convenient to them.

#### 34 35 214 4.3.5.3. **Survey questionnaire**

36  
37 215 Table 2 details the questionnaire. There was a total of 14 questions and HCBs were asked to  
38  
39  
40 216 provide a response to all questions.

41  
42 217 [INSERT TABLE 2 ABOUT HERE]

#### 43 44 218 5.6. **Results**

45  
46 219 Out of the 15 HCBs contacted, 60% (9) agreed to participate whilst the remainder did not  
47  
48  
49 220 respond despite a follow-up phone call and email reminders. The largest four certifiers  
50  
51 221 participated in the study, and the combined output production of sites certified by those six  
52  
53  
54 222 who did not participate was estimated to be less than the output of any one of the top four.  
55  
56 223 HCBs were asked to indicate whether they were charities (or part of charities), private  
57  
58 224 companies or limited companies, 7 of respondents identified themselves as limited companies  
59  
60



1  
2  
3 225 whilst the remaining 2 indicated that they identified themselves as either registered charities or  
4  
5 226 part of registered charities. To understand the scope of certification of HCBs, they were  
6  
7  
8 227 presented with the following question: 'Please indicate the categories of products or processes  
9  
10 228 certified by your organisation'. Respondents were allowed to choose more than one option that  
11  
12 229 applied to them. All certifiers indicated that their scope included either the slaughter process  
13  
14 230 or further processing of meat. Table 3 shows the scope of certification undertaken by the  
15  
16  
17 231 certifiers.

18  
19 232 [INSERT TABLE 3 ABOUT HERE]  
20

21 233 In a follow-on question, HCBs were asked the following question: 'Does your organisation  
22  
23 234 have a written Halal standard?' All nine certifiers surveyed indicated that they operated  
24  
25 235 according to some form of written Halal standard. To understand the requirement for a prayer  
26  
27 236 to be said during Halal slaughter, HCBs were asked; 'Which of the following is true about your  
28  
29 237 procedures?'. They were supplied a set of five answer options (Table 2, question 6); all of the  
30  
31 238 9 certifiers indicated that the tasmiya (a short prayer) must be recited by a Muslim who should  
32  
33 239 perform the slaughter. Recitation of the tasmiya by a Jew, Christian or Muslim was also  
34  
35 240 indicated to be acceptable to 2 certifiers. None of the HCBs surveyed accepted i) The use of  
36  
37 241 tape recording of the tasmiya, ii) The inscription of the tasmiya on the blade or knife in place  
38  
39 242 of a spoken prayer and iii) the absence of a tasmiya. HCBs were then asked to indicate which  
40  
41 243 method of slaughter of poultry was acceptable to them. They were provided with three answer  
42  
43 244 options (Table 2, question 7). The majority of HCBs (6) indicated that 'only hand slaughter is  
44  
45 245 acceptable for poultry', 3 selected the option 'both mechanical and hand slaughter are  
46  
47 246 acceptable for poultry' whilst no HCB chose the option 'only machine or mechanical slaughter  
48  
49 247 of poultry is acceptable'. In a follow-on question, respondents were asked to indicate the  
50  
51 248 acceptability of stunning to their respective organisations; 6 indicated that some methods of  
52  
53 249 stunning are acceptable as long as they do not result in the death of animals, 3 indicated that  
54  
55  
56  
57  
58  
59  
60

1  
2  
3 250 all methods of stunning are prohibited by their organisations. The answer option ‘all methods  
4  
5 251 of stunning are acceptable unconditionally’ was not selected by any of the HCBs. The four  
6  
7 252 HCBs who indicated that they did not accept any form of stunning were asked in a follow-on  
8  
9 253 question to give reasons(s) why they do not accept stunning during Halal slaughter  
10  
11 254 (respondents could give more than one reason); 2 indicated that stunning is unacceptable  
12  
13 255 because it could cause the death of animals before slaughter, 1 indicated that stunning can  
14  
15 256 affect the volume of blood loss, 1 indicated that stunning has a negative impact on carcass and  
16  
17 257 meat quality, 1 indicated that stunning causes the animal pain and another 1 indicated that the  
18  
19 258 Prophet of Islam (PBUH) did not practice stunning, that is why they do not approve it. The  
20  
21 259 HCBs who indicated that they accept stunning were asked to indicate which stunning methods  
22  
23 260 are acceptable for poultry and for ruminants. For ruminants, the majority of supporters of  
24  
25 261 stunning (5/6) indicated that they accept electrical head-only stunning (EHOS), 1/6 approved  
26  
27 262 electrical head-to-body stunning (EHBS), a further 1/6 approved non-penetrative captive bolt  
28  
29 263 stunning (NPCB) and none of the certifiers indicated that they approved penetrative captive  
30  
31 264 bolt stunning. For poultry, all six of the proponents of Halal stunning, indicated that they accept  
32  
33 265 water bath stunning whilst one indicated that in addition to water bath stunning, they also  
34  
35 266 accept mechanical stunning of poultry. Table 4 shows a summary of HCBs’ acceptability of  
36  
37 267 stunning, stunning methods accepted and the acceptability of mechanical slaughter. HCBs were  
38  
39 268 then asked whether they required constant supervision of abattoirs that are certified by their  
40  
41 269 organisations; 5/9 indicated that all abattoirs are supervised during the entire production period,  
42  
43 270 one indicated that supervision of abattoirs is done periodically (e.g. once a month) and one  
44  
45 271 indicated that there is no requirement for the supervision of abattoirs. To examine measures  
46  
47 272 taken by HCBs to detect Halal meat contamination with meat prohibited species of animals  
48  
49 273 (e.g. pork), HCBs were asked whether they carry out routine speciation (DNA) testing, 6/9  
50  
51 274 indicated that they do not carry out any speciation testing whilst 3/9 indicated that they carry  
52  
53  
54  
55  
56  
57  
58  
59  
60

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

277 [INSERT TABLE 4 ABOUT HERE]

## 278 6.7. Discussion

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

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

1  
2  
3 300 the differences between nine Halal standards in the UK. All the 9 certifiers surveyed indicated  
4  
5 301 that they require a Muslim to recite the tasmiya before Halal slaughter, this is consistent with  
6  
7  
8 302 the teachings of the Quran (Quran 6:118). Mokhtar (2017) looked at the recitation of the  
9  
10 303 tasmiya from Fiqh perspective, and reported that apart from the Shafi School of Law, the other  
11  
12 304 three Sunni Schools of Law (Hanafi, Hambali and Maliki) require the tasmiya to be recite  
13  
14 305 before or during the neck cut, the author cited Quran 6:121 as one of the verses the ruling is  
15  
16 306 based on. Although the current study did not require certifiers to indicate the Schools of Law  
17  
18 307 their standards are based on, it is reasonable to suggest that none of the certifiers based their  
19  
20 308 standard on the rulings of the Shafi School of Law. However, only two of the nine certification  
21  
22  
23 309 bodies indicated that they permitted slaughter by Christians and Jews (if they recite the  
24  
25 310 tasmiya). The suitability of meat from animals slaughtered by Christians and Jews, for  
26  
27 311 consumption by Muslims has been the centre of scholarly discussion within the Muslim  
28  
29 312 community. The Quran (Quran 5:3) permits Muslims to consume meat from animals  
30  
31 313 slaughtered by Jews and Christians, however, many Islamic scholars appear to interpret this  
32  
33 314 differently. As mentioned above, Fuseini et al., (2017b) reported that some Islamic scholars in  
34  
35 315 the UK do not approve the consumption of meat from animals slaughtered by Christians and  
36  
37 316 Jews because they believe many of them do not devoutly practice their own chosen religion.  
38  
39 317 The results also showed that none of the certifiers surveyed would approve the use of tape  
40  
41 318 recordings as a replacement for the recitation of the tasmiya by a Muslim. This will allay some  
42  
43 319 consumer concerns and increase confidence in the UK's certification systems given recent  
44  
45 320 accusations towards some of the main UK HCBs (surveyed in this study) of permitting the use  
46  
47 321 of tape recordings alone of the tasmiya in some abattoirs. Although the majority of Halal  
48  
49 322 poultry in the UK appear to be slaughtered by the use of mechanical blades, the majority of the  
50  
51 323 certifiers surveyed [6/9] indicated that they do not approve of this procedure, but rather approve  
52  
53 324 manual slaughter. Mechanical slaughter is the preferred method of slaughter by the major  
54  
55  
56  
57  
58  
59  
60

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

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

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

1  
2  
3 350 stunning based on the School of Laws. The authors explained that Pakistan adheres to the  
4  
5 351 Hanafi School of Law and which has led to a blanket ban on stunning whilst Malaysia, which  
6  
7 352 is largely Shafi, permits pre-slaughter stunning. The acceptability of reversible stunning may  
8  
9 353 be due to the Quranic requirement for animals to be alive at the point of slaughter (see Quran  
10  
11 354 5:3).

12  
13  
14  
15 355 Certifiers who do not approve any form of stunning gave the following reasons for the  
16  
17 356 rejection; i) they considered stunning questionable because it may lead to the death of animals  
18  
19 357 before slaughter, which makes it incompatible with the rules of Halal, or ii) they hold a belief  
20  
21 358 that stunning can affect the volume of blood loss at exsanguination, or iii) they believe stunning  
22  
23 359 leads to the production of carcass and meat of inferior quality and iv) stunning causes pain to  
24  
25 360 the animal. Contrary to the above reasons for the rejection of stunning, there is ample scientific  
26  
27 361 evidence to suggest that stunning does not negatively affect carcass and meat quality (Onenc  
28  
29 362 and Kaya, 2004; Danso et al., 2017) nor the efficiency and volume of blood loss (Pleiter, 2004;  
30  
31 363 Khalid et al., 2015). There is also objective evidence to suggest that when applied correctly,  
32  
33 364 stunning is a humane procedure (Hoenderken, 1978; Anil, 1991). It is worth noting that some  
34  
35 365 researchers have also concluded that slaughter without stunning may be equally as humane as  
36  
37 366 slaughter with stunning (Grandin and Regenstein, 1994, Rosen, 2004), but the majority refute  
38  
39 367 this.

40  
41  
42  
43  
44 368 The majority of HCBs indicated that the methods of stunning they approve for red meat and  
45  
46 369 poultry were EHOS and water bath stunning. This may be due to the fact that both methods of  
47  
48 370 stunning, particularly EHOS of small and large ruminants is unlikely to cause instantaneous  
49  
50 371 death of animals. EHOS is also the stunning method approved by some Muslim-majority  
51  
52 372 countries, including Malaysia, Indonesia, UAE, Saudi Arabia and others. In the case of water  
53  
54 373 bath stunning, there have been suggestions that water bath stunning can result in the fibrillation  
55  
56 374 of the heart (depending on the electrical parameters and other factors) and can possibly cause  
57  
58  
59  
60

1  
2  
3 375 the death of birds before neck-cutting (Fuseini et al., 2018). It should be noted that although  
4  
5 376 the FSA (2019) report indicated that 99% of Halal beef is derived from stunned animals, none  
6  
7  
8 377 of the certifiers surveyed in the current study approve penetrative captive bolt stunning (the  
9  
10 378 foremost stunning system used for beef in the UK). In explaining the Fiqh basis for the  
11  
12 379 acceptability of pneumatic percussive stunning, Mokhtar note that the decision is based on the  
13  
14 380 Quranic injunction that ‘difficulties bring convenience’ (see Quran 22:78). One certifier,  
15  
16 381 however, indicated that they approve electrical head-to-body stunning (see table 4) but not  
17  
18 382 penetrative captive bolt, this certifier may be approving the Jarvis beef stunner (with cardiac  
19  
20 383 arrest cycle) which may account for some of the stunned Halal beef reported by FSA (2019).  
21  
22 384 Although the proportion of Halal beef derived from captive bolt stunned animals may not be  
23  
24 385 certified as Halal by any of the HCBs, it has been suggested that such meats are approved by  
25  
26 386 independent local imams. Although meat approved as Halal by independent local imams may  
27  
28 387 be sold in the domestic market, such meats cannot be exported to the majority of the Halal  
29  
30 388 markets outside the EU. Opponents of mechanical slaughter (e.g. penetrative and non-  
31  
32 389 penetrative captive bolt stunning) have insisted that the procedure is akin to ‘violent blow’  
33  
34 390 which is described as a prohibited procedure in Quran 5:3.  
35  
36 391 This study highlights the fact that there remain some differences in the definition of Halal  
37  
38 392 among Halal certification bodies. These differences in the interpretation of the Islamic dietary  
39  
40 393 laws (derived from the Quran and Hadith) has hindered the growth of the Halal market and  
41  
42 394 prevented it from reaching its full potential. Wilson (2010) made a similar observation, the  
43  
44 395 author suggested that despite the creation of Halal ingredient brands and co-branding, the  
45  
46 396 growth of the Halal market is hindered by misunderstanding and lack of harmony between  
47  
48 397 standards. Aside from the challenge of the lack of a unified global definition of Halal, Wilson  
49  
50 398 (2010) further noted an additional challenge in attempts to ‘negotiate the tacit transmission of  
51  
52 399 Halal’ to consumers. The author gave an example of MacDonald’s openly trading in, and  
53  
54  
55  
56  
57  
58  
59  
60



1  
2  
3 400 advertising Halal products in their restaurants in Pakistan, but are less keen in doing so in India,  
4  
5  
6 401 where the Muslim population is much larger. The reason for MacDonald's adoption of this  
7  
8 402 strategy is to avoid instances where followers of the majority Hindu religion consciously avoid  
9  
10 403 Halal restaurants to advance their political ideologies. Interestingly, Hindus living outside  
11  
12 404 India, particularly those living in Muslim-majority countries are less likely to avoid Halal  
13  
14  
15 405 restaurants.

## 17 406 **7.8. Conclusion**

19 407 This study presents findings on the scope of Halal certification and the acceptability of key  
20  
21 408 slaughter procedures for Halal meat production by some UK Halal certification bodies. The  
22  
23 409 results indicate that the majority of HCBs approve pre-slaughter stunning, however, this is done  
24  
25 410 on condition that animals are alive before they are bled-out. This has meant that none of the  
26  
27 411 HCBs surveyed in this study accepts penetrative captive bolt stunning for Halal meat  
28  
29 412 production because it may not be 'recoverable' and is deemed to cause the death of animals  
30  
31 413 before bleeding-out. The implication from this is that there is currently no approved stunning  
32  
33 414 method for externally certified Halal beef production meaning that beef certified as Halal by  
34  
35 415 an accreditation body must have been neck cut and bled out whilst conscious. It is  
36  
37 416 recommended that, in collaboration with the Muslim authorities, researchers should consider  
38  
39 417 investigating new beef stunning technologies or improving existing systems so that a method  
40  
41 418 of stunning compliant with the requirements of Halal slaughter is available (for proponents of  
42  
43 419 Halal stunning). The current study also provides information that can be utilised by  
44  
45 420 governments, policy makers, animal welfare organisations and the meat industry to get a better  
46  
47 421 understanding of the Halal market and help in future policy formulation.

## 54 422 **Conflict of interest**

56 423 The authors declare no conflict of interest

## 58 424 **Reference**



- 1  
2  
3 425 Anil, M.H. (1991). Studies on the return of physical reflexes in pigs following electrical  
4  
5 426 stunning. *Meat Science*, 30, 13-21.  
6  
7  
8  
9 427 Bergeaud-Blackler, F., (2004). In: Harvey, M., McMeekin, A., Warde, A. (Eds.), *Social*  
10  
11 428 *Definitions of Halal Quality: The Case of Maghrebi Muslims in France*, in *Qualities of Food*.  
12  
13 429 Manchester University Press.  
14  
15 430 [Berg, C. and Jakobsson, T. \(2007\). Post-cut stunning at religious slaughter. \*Svensk\*](#)  
16  
17 431 [Veterinartidning, 59 \(16\), 21-28.](#)  
18  
19  
20 432 Bonne, K., Verbeke, W. (2007). Religious values informing halal meat production and the  
21  
22 433 control and delivery of halal credence quality. *Agriculture and Human Values*, 25, 35-47.  
23  
24  
25  
26 434 Bonne, K., and Verbeke, W. (2008). Muslim consumer trust in halal meat status and control  
27  
28 435 in Belgium. *Meat Science*, 79, 113-123.  
29  
30  
31  
32 436 [Chandia, M., Soon, J.M. \(2017\). The variation in religious and legal understandings on Halal](#)  
33  
34 437 [slaughter. \*British Food Journal\*, 120, 714-730.](#)  
35  
36  
37  
38 438 Danso, A.S., Ricardson, R.I., and Khalid, R. (2017). Assessment of the meat quality of  
39  
40 439 lamb *M. longissimus thoracis et lumborum* and *M. triceps brachii* following three different  
41  
42 440 Halal slaughter procedures. *Meat Science*, 127, 6-12.  
43  
44  
45  
46 441 Food Navigator (2014). Self-certification of Halal products ‘rife’ in Britain: Halal  
47  
48 442 Foundation. [https://www.foodnavigator.com/Article/2014/04/29/Self-certification-of-halal-](https://www.foodnavigator.com/Article/2014/04/29/Self-certification-of-halal-products-rife-in-Britain-Halal-Foundation)  
49  
50 443 [products-rife-in-Britain-Halal-Foundation](https://www.foodnavigator.com/Article/2014/04/29/Self-certification-of-halal-products-rife-in-Britain-Halal-Foundation) (Accessed, 26/04/2019).  
51  
52  
53  
54 444 Food Standards Agency (FSA, 2019). Results of the 2018 FSA survey into slaughter methods  
55  
56 445 in England and Wales. *Department for Environment Food and Rural Affairs*, London.  
57  
58  
59  
60

- 1  
2  
3 446 Fuseini, A., Knowles, T.G., Lines, J.A., Hadley, P.J., and Wotton, S.B. (2016). The stunning  
4  
5 447 and slaughter of cattle within the EU: a review of the current situation with regard to the halal  
6  
7 448 market. *Animal Welfare*, 25, 365-376.  
8  
9  
10 449 Fuseini, A. (2017). Halal food certification in the UK and its impact on food businesses: a  
11  
12 450 review in the context of the European Union. *CAB Reviews*, 12, 1-7.  
13  
14 451 Fuseini, A., Wotton, S.B., Hadley, P.J., and Knowles, T.G. (2017a). The compatibility of  
15  
16 452 modern slaughter techniques with halal slaughter: a review of the aspects of 'modern' slaughter  
17  
18 453 methods that divide scholarly opinion within the Muslim community. *Animal Welfare*, 26, 301-  
19  
20 454 310.  
21  
22  
23 455 Fuseini, A., Wotton, S.B., Hadley, P.J., and Knowles, T.G. (2017b). The perception and  
24  
25 456 acceptability of pre-slaughter and post-slaughter stunning for Halal production: The views of  
26  
27 457 UK Islamic scholars and Halal consumers. *Meat Science*, 123, 143-150.  
28  
29  
30 458 Fuseini, A., Teye, M., Wotton, S.B., Lines, J.A., and Knowles, T.G. (2018). Electrical water  
31  
32 459 bath stunning for poultry meat production: animal welfare issues and compatibility with the  
33  
34 460 Halal rules. *CAB Reviews*, 13, 1-7.  
35  
36  
37 461 Grandin, T., and Regenstein, J.M. 1994 Religious slaughter and animal welfare: a discussion  
38  
39 462 for meat scientists. *Meat Focus International*, 3, 115-123  
40  
41  
42 463 Khalid, R., Knowles, T.G., Wotton, S.B. (2015). A comparison of blood loss during the halal  
43  
44 464 slaughter of lambs following traditional religious slaughter without stunning, electric head-  
45  
46 465 only stunning and post-cut electric head-only stunning. *Meat Science*, 110, 15-23.  
47  
48  
49 466 Lever, J., Miele, M. (2012). The growth of halal meat markets in Europe: An exploration of  
50  
51 467 the supply side theory of religion. *Journal of Rural Studies*, 4, 528-537.  
52  
53  
54 468 Mokhtar, S.M.I. (2017). Revisiting the Fiqh of Halal-Haram animals: An analysis on  
55  
56 469 Malaysian Fatwa relating to animal care and use. *International Halal Management*  
57  
58 470 *Conference*, 1, 151-161.  
59  
60

- 1  
2  
3 471 [Mufti UI Haq, I. \(2012\). The Fiqh of mechanical slaughter. A research for AMJA's 9<sup>th</sup>](#)  
4  
5 472 [Annual Imams Conference, Los Angeles, CA, USA. Pp1-37.](#)  
6  
7  
8 473 Önenç, A., & Kaya, A. (2004). The effects of electrical stunning and percussive captive bolt  
9  
10 474 stunning on meat quality of cattle processed by Turkish slaughter procedures. *Meat Science*,  
11  
12 475 66, 809-815.  
13  
14  
15  
16 476 Pleiter, H. (2004). Electrical stunning of cattle — Experiences in New Zealand. *Deutsche*  
17  
18 477 *Tierärztliche Wochenschrift*, 111, 106–108.  
19  
20  
21  
22 478 Rosen, D. (2004). Physiological insights into Shechita. *Veterinary Record*, 154, 759-765.  
23  
24  
25 479 [Wan-Hassan, W.M. \(2007\) 'Globalising Halal Standards: Issues and Challenges'. \*The Halal\*](#)  
26  
27 480 [\*Journal\*, 38-40.](#)  
28  
29  
30  
31 481 [Wilson, J.A.J. \(2010\). Shaping the Halal into a brand? \*Journal of Islamic Marketing\*, 2, 107-](#)  
32  
33 482 [123.](#)  
34  
35  
36  
37 483 [Wilson, J.A.J., Belk, R.W., Bamossy, G.J., Sandikci, O., Kartajaya, H., Sobh, R., Liu, J., and](#)  
38  
39 484 [Scott, L. \(2013\). Crescent marketing, Muslim geographies and brand Islam. Reflections from](#)  
40  
41 485 [the JIMA Senior Advisory Board. \*Journal of Islamic Marketing\*, 4, 22-50.](#)  
42  
43  
44  
45 486 [Wilson, J.A.J. \(2018\). Halal Branding. Claritas Books, Swansea, United Kingdom. Pp 1-49](#)  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46

Journal of Islamic Marketing