



The importance of extrinsic cues in deciding to purchase meat products: A conjoint analysis on Muslim consumers



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Purpose: This study aims to investigate how extrinsic cues such as brand, certification, production method and price affect Muslim soujouk consumers' purchasing decisions in Turkey.

Design/methodology/approach: Conjoint analysis was used to identify consumers' preferences and cluster analysis was used to reveal consumer segments for Turkish soujouk, which is a kind of fermented sausage. A total of 270 Muslim consumers from Turkey were selected by using a convenience sampling method. Four extrinsic cues were selected for analysis: brand (unbranded product, private label and national brand), certification (Turkish Standards Institution, geographical indication and halal certificate), production method (heat process and fermentation) and price (TRY11, TRY15 and TRY19).

Findings/results: Brand, certification, production method and price were found to be significant for consumer preference. Price was the least important attribute in consumer purchase intention. National brand and halal certification were amongst the most important levels. The research also revealed two basic consumer segments according to cluster analysis.

Practical implications: The study has practical significance for manufacturers in Muslim countries to identify the main extrinsic cue that influences consumers' preferences in meat products. This result provides important insights to both local producers and foreign manufacturers that market their meat products to Muslim society.

Originality/value: This is the first study on Turkish Muslim consumers' preferences towards meat products analysing extrinsic product attributes. In addition, conjoint analysis and cluster analysis are used to specify Muslim consumers' preferences.

Keywords: Consumer preference; extrinsic cue; brand; certification; production method; purchase intention; segmentation; cluster analysis; conjoint analysis.

Introduction

Muslim consumers have become more concerned about meat products in terms of safety, method of slaughter and ingredients (Nakyinsige, Man, & Sazilli, 2012). Therefore, consumers search for certain product attributes to avoid risk before purchasing. Product attributes can be classified into two different types, intrinsic (taste, smell, fat content, etc.) and extrinsic (e.g. brand, price, origin and so on) cues (Forsythe, Kım, & Petee, 1999). Consumers rely on extrinsic cues rather than intrinsic cues, whilst intrinsic cues are more crucial in decisionmaking for product quality (Karaatli & Veryzer, 2012) because consumers generally do not ascertain intrinsic attributes prior to purchase (Dekhili, Sirieix, & Cohen, 2011). In this context, the product of Turkish soujouk (also called sucuk [Turkish sausage]) was selected as the stimulus. The term sucuk was first defined in Divan-i Lugat-i Turk, which is the great Turkish dictionary written by Kasgarlı Mahmut in 1072. In this dictionary, sucuk is defined as 'the intestines of a lamb stuffed with mince, meat, and spices'. Its English pronunciation is 'soujouk'. Soujouk is produced from a mixture of fat, meat and spices. Soujouk is a traditional meat product and a kind of sausage. It is widely consumed in Turkey and popular in south-eastern and northern Europe, the Middle East, Middle Asia, the Caucasus and the Balkans (Ercoskun & Ozkal, 2011). Although soujouk is a widely produced and consumed meat product in Turkey (Demirel & Dogan, 2017), it has not been researched from the consumer point of view so far. The aim of the study was to discover Muslim consumers' preferences regarding purchasing decisions for soujouk. Four extrinsic cues were evaluated in the study: brand, certification, production method and price.

Literature review

Product attributes can be categorised into two different types, intrinsic and extrinsic cues. Even though intrinsic cues provide the most reliable information about product quality, they are more difficult to obtain than extrinsic cues. Therefore, consumers generally consider extrinsic cues to judge product quality and decide which product is better (Li, Murray, & Scott, 2000). The following are extrinsic variables that will be reviewed for the research.

Brand

Brand is the most researched extrinsic cue (Lawley, Birch, & Hamblin, 2012) after price. There are different types of brands, such as national brands and private labels. Consumers pay a price premium for national brands rather than private labels if two brands have the same perceived quality (Richardson, Jain, & Dick, 1996). Branding is a way of escaping from being a commodity in having a straight impact on the perceived quality (Vranesevic & Stancec, 2003). Branded oil has priority over unbranded oil in the vegetable oil sector (Kathuria & Gill, 2013).

Private labels (also called 'store' or 'own brand') are brands owned and developed by retailers and sold under their specific name (Olsen, Menichelli, Meyer, & Naes, 2011), whilst national brands are created and developed by manufacturers. There are some differences between them in terms of some attributes, and there is fierce competition between them. The major difference is that private labels generally offer lower prices (15% - 40%) than national brands (Manzur, Olavarrieta, Hidalgo, Farias, & Uribe, 2011). The price of private label products is low because these products are generally not advertised (Chaniotakis, Lymperopoulos, & Soureli, 2009). In contrast, private label products are generally packaged poorly. At this point, private labels can be accepted as alternative products to national brands because consumers still look for ways to save money. Whereas private label products offer economic value, national brands generally emphasise the hedonic benefits of products (Olsen et al., 2011). The sales of private label products increase quickly with improved quality and low price (Chaniotakis et al., 2009).

Some products are not branded. Consumers judge the benefits and attributes of unbranded products (Iazzi, Vrontis, Trio, & Melanthiou, 2016). When purchasing them, consumers generally consider visual characteristics such as size, shape, colour and appearance (Sogn-Grundvag & Ostli, 2009). Meat products, in particular, are distributed using different channels such as small butchers and supermarkets (Morales, Guerrero, Claret, Guàrdia, & Gou, 2008). That is, whereas some consumers may prefer to purchase unbranded meat products from small butchers, others may prefer branded products from supermarkets. Consequently, brand can be taken into account as one of the factors that impacts the purchase intention of soujouk.

Certification

Religion has a significant impact on consumers' attitudes, purchasing behaviour (Delener, 1994) and food choice (Bonne, Vermeier, Bergeaud-Blackler, & Verbeke, 2007). According to Islam and the holy Qur'an, halal food and halal slaughtering are a religious obligation. Halal is an Arabic word meaning 'lawful and permissible' (Lada, Tanakinjal, & Amin, 2009). Halal products do not contain pork and alcohol, and livestock must be slaughtered according to Islamic sharia law. Halal products also have strict standards of sanitation and hygiene. That is, halal products are healthier, tastier and cleaner (Abd Rahman, Asrarhaghighi, & Ab Rahman, 2015). Muslim consumers nowadays have become more conscious about their food choices, and they demand more halal foods, which is a business opportunity. Therefore, halal certification benefits both consumers and producers (Hamdan, Issa, Abu, & Jusoff, 2013). Halal certification gives information to consumers in slaughtering, ingredients and cleaning. That is, it is a kind of quality assurance for consumers (Lada et al., 2009).

A growing customer segment has concerns about the quality and safety of food products. Therefore, consumers want to see some information on the label attached to the product package. Food origin labels are seen as a significant mechanism. That is, customers can get information about the overall quality and origin of the product. There are mainly two kinds of origin labels, the country of origin and geographical indications (GIs) (Aprile, Caputo, & Nayga, 2012). Geographical indications have gained popularity in recent years as regional certification labels and quality labels because of the increasing demand amongst consumers for regional food in the world (Teuber, 2011). Geographical indications are distinctive labels that enable consumers to distinguish between high quality and low quality (Cacic, Tratnik, Gajdoš Kljusuric, Cacic, & Kovacevic, 2011). Products also can be protected from imitation and fraud via these GI labels. Geographical indication can be viewed as a tool that represents superior quality, protects traditional production methods and indigenous knowledge, and helps the development of the local economy (Aprile et al., 2012).

Another different certificate type attached to the product package is given by the Turkish Standards Institution (TSE). The Turkish Standards Institution, as an official standardisation body, sets the standards aiming to enable manufacturers to produce goods and services in compliance with rules, laws and codes. These standards add value to the products. Consumers rely on products sold in the market with the TSE sign, as it is a kind of assurance for quality. Consequently, certification can be taken into account as one of the factors that impact the purchase intention of soujouk.

Production method

There are two methods of Turkish soujouk production: the traditional method of fermentation and heat processing. Fermentation and drying or ripening are carried out under natural or controlled climatic conditions (Coskuner, Ertas, & Soyer, 2010). Therefore, there are some differences between these production methods that may influence consumers' purchasing decision. Turkish fermented soujouk is generally produced without adding the starter cultures. Both drying and ripening are carried out under natural climatic conditions, which means long processing times. Producers started to look for a new way to shorten the processing time, which led to the second production method, namely, heat processing (Soyer, Ertaş, & Üzümcüoğlu, 2005). Developments in manufacturing technology, the availability of modern machines and controlled ripening rooms affected the use of heat application (Coşkuner et al., 2010). The advantages of this heat processing are short processing times and high hygiene quality. Although heat-processed soujouk has a higher market share, there is a strong demand for fermented soujouk amongst customers (Soyer et al., 2005) because it has superior taste and flavour (Coşkuner et al., 2010), probably as a result of being natural. Consequently, the production method can be taken into account as one of the factors that affects the purchase intention of soujouk.

Price

Consumers especially focus on price (Sethuraman & Cole, 1999) and brand name (DelVecchio, 2001) in evaluating product quality if it is hard to know intrinsic cues. Grocery buying procedures also assert that the leading motives are price and brand name (Hill, Knox, Hamilton, Parr, & Stringer, 2002). However, it is not the principal cue that impacts customers' choice (Iop, Teixeira, & Deliza, 2006). Price may be seen as a quality cue by consumers. Whereas a high price may lead to perceptions of high quality, a low price may lead to customer perceptions of low quality (Jo & Sarigollu, 2007). That is, the higher the price, the higher the perceived quality. However, although it is expected that there is a positive relationship between price and perceived quality, the results do not always support this hypothesis (Aqueveque, 2008). According to the study by Bredahl (2004), high prices have a negative effect on quality expectations. For example, Danish consumers do not see price as a reliable quality cue because the high-quality beef in that market is sometimes sold at a lower price. On the contrary, the importance of price can also vary in product categories. For example, customers use price as a cue to judge wine quality (Aqueveque, 2008), whereas taste, freshness, tenderness, leanness, nutritional value and juiciness were found to be associated with beef quality (Bredahl, 2004). Similarly, it was found that there is a weak relationship between price and perceived quality for nondurable goods in Belgium, France, the Netherlands and Germany (Jo & Sarigollu, 2007). Consequently, price can be taken into consideration as one of the factors that affect the purchase intention for soujouk.

Methodology

The conjoint approach was used in this research by employing the statistical program IBM SPSS v.21. Conjoint analysis is commonly utilised to investigate consumer priorities and purchasing behaviours for goods in the literature (e.g. Adanacioglu & Albayram, 2012; Mann, Ferjani, & Reissig, 2012). A literature research and focus group sessions were carried out for the attributes in the survey. The attributes and levels were restrained by conjoint measurement as follows. The first attribute, brand, was delimited with three levels, namely, national brand, private label and unbranded (most butchers sell their soujouk unbranded as handmade). The second attribute, certification, was delimited with three levels, namely, a TSE sign, which means the product is in conformity with the prestigious national standards; a halal certificate, which Turkish consumers may seek; and GI for the origin of soujouk, as companies mostly use origin in their marketing communications. The third attribute, production method, was classified into two levels, namely, fermentation and heat process. The last attribute, price (in Turkish lira [TRY]), was examined at three levels, TRY11 (3.06US\$), TRY15 (4.18US\$) and TRY19 (5.29US\$) per 250 g soujouk. The price levels were determined by market research conducted at local and national markets. A 250-g pack size was preferred for the research because it was commonly sold on the shelves. The first price level was set at TRY11 for 250 g soujouk based on the various promotions in the markets. The second level, TRY15, was set based on the average calculated prices, which equals to 36% of the price premium from the initial price level. This rate reflects the common price levels of brands. The third level was set at TRY19 with a 27% premium. The price premium is consistent with the literature. That is, it is stated that a 30% price premium could be paid on quality goods by 20% of Dutch and German consumers, and 5% – 20% of Scandinavian and UK consumers like organic products (Wier & Calverley, 2002).

To have the smallest manageable combination of potential profiles, an orthogonal design was preferred in the conjoint approach formed by IBM SPSS v.21. All effects may be ignored in an orthogonal design, but effective estimation can be made by means of a smaller card combination (Green, Krieger, & Wind, 2001), so that the card combination decreased to nine by using orthogonal design. Then, the card combination increased to 12 by adding three 'hold out' cards. Table 1 indicates the card list of the product combinations assessed in the research.

TABLE 1: The cards for the product selection.

Card number	Brand	Production method	Labelling info	Price (TRY/250 g)	
1	National	Fermentation	Halal	11	
2	Unbranded	Heat process	Halal	19	
3	National	Heat process	TSE	15	
4	Private label	Heat process	Halal	15	
5	National	Heat process	GI	19	
6	Unbranded	Heat process	TSE	11	
7	Private label	Heat process	GI	11	
8	Unbranded	Fermentation	GI	15	
9	Private label	Fermentation	TSE	19	
10†	Unbranded	Heat process	Halal	11	
11†	Unbranded	Fermentation	Halal	11	
12†	Private label	Heat process	Halal	11	

^{†,} Holdout

TSE, Turkish Standards Institution; GI, geographical indication; TRY, Turkish lira.

Next, stimulus cards were prepared to be rated by participants. The participants were requested to rate their assessment on a seven-point Likert scale, where 'would surely not buy' and 'would surely buy' were coded between 1 and 7. In the conjoint approach, purchase intention is a dependent variable whilst the attribute levels are independent variables. The final questionnaire consisted of three parts, including sample characteristics such as gender, age and education; questions about product details; and stimulus cards, to evaluate the product preferences of the participants. The convenience sampling method was preferred in selecting the consumers. The data were collected by face-to-face interviews and Web-based online surveys in Artvin Province, Turkey.

Results

A total of 270 participants took part in the survey; 60.4% of them were female and 39.6% were male. The majority of participants (48.5%) were in the age group 31–40, whilst 42.2% of them were in the age group 17–30 years old, 7.0% of them were between ages 41 and 50, 1.9% of them were between 51 and 60, and finally 0.4% of them were aged 61 and over. In total, 11.5% of the participants had a high school diploma, 9.3% an undergraduate degree, 41.1% graduate and 38.1% postgraduate. The sample more or less represents the population as the province has developed through investments and its universities in addition to foreign trade by taking advantage of its border location.

Figure 1 summarises the conjoint analysis results indicating consumer preferences of soujouk and the importance of the attributes. Pearson's R and Kendall's tau coefficients were used to assess the model's fit predicted by the conjoint analysis. The analysis results for all consumers indicated that Pearson's R and Kendall's tau values of 0.993 and 0.889,

respectively, were correlated between the applied model and the observed results. The results confirm that the model has good estimation power. Part-worth (utility) values indicate the desire or preference of the consumers for the level.

The attributes' part-worth and relative importance

Figure 1 shows the relative importance (RI) of each attribute and the part-worth utility scores (U) for each level. The brand attribute for soujouk was identified as the most important factor (RI = 46.563%), followed by certification (RI = 21.850%), production method (RI = 15.858%) and price (RI = 15.359%). The utility of each level in the attributes was also researched for the 270 participants. A higher utility was obtained from a national brand (Utility [U] = 0.837) than from unbranded (U = 0.128) or private label (U = -0.965). Within the certification factor, the halal certificate achieved the most utility (U = 0.231). The GI utility was found to be lower (U = -0.026), whilst TSE had the lowest utility (U = -0.206). Of the production methods, fermentation had the highest utility (U = 0.248), compared to the heat process (U = -0.248). The price of TRY19 per 250 g was found to have the highest utility (U = 0.343) of the price levels, as opposed to the prices of TRY15 (U = 0.228) and TRY11 (U = 0.114). This result indicates that consumers were not price-conscious and did not have an objection to high prices for the product. This result is consistent with the results of previous researches (Mann et al., 2012; Murphy, Cowan, Meehan, & O'Reilly, 2004). The conjoint analysis for the overall consumers revealed that the ideal soujouk had the following attributes: national brand, certified with the halal certificate, produced with fermentation and a price of TRY19 per 250 g. The total utility was derived from the part-worth values of each attribute level by considering the attributes of an ideal

Attribute	Level	All consumers $(n = 270)$		Cluster 1 (<i>n</i> = 151)		Cluster 2 (<i>n</i> = 119)	
		Utility	Relative importance (%)	Utility	Relative importance (%)	Utility	Relative importance (%)
	Unbranded	0.128		0.508		-0.356	
Brand	Private label	-0.965	46.563	-1.138	48.096	-0.745	44.619
	National brand	0.837		0.630		1.101	
Production method	Heat process	-0.248	15.858	-0.100	13.439	-0.435	18.927
	Fermentation	0.248		0.100		0.435	
Certification	TSE	-0.206	21.850	-0.191	21.640	-0.224	22.116
	GI	-0.026		0.075		-0.154	
	Halal	0.232		0.116		0.378	
Price (TRY)	11	-0.113	15.359	-0.233	16.826	-0.036	
	15	-0.228		-0.466		-0.073	13.497
	19	0.343		0.699		0.109	
Constant	-	3.393	-	3.799	-	2.879	-

Coefficient	Value	Significance†	Value	Significance†	Value	Significance†
Pearson's R	0.993	0.000	0.985	0.000	0.999	0.000
Kendall's tau	0.889	0.000	0.833	0.001	0.944	0.000

^{†,} The Pearson's R and Kendall's tau coefficients were found significant.

FIGURE 1: Conjoint analysis results.



TSE, Turkish Standards Institution; GI, geographical indication; TRY, Turkish lira.

soujouk. The optimal benefit for consumers is achieved by using the highest total worth of the attributes, as consumers prefer the attribute and the level with the highest utility. The total utility for soujouk is calculated with Equation 1:

Total U = Ubrand_i + Ucertification_j + Uproductionmethod_k + Uprice_l + constant

Total U =
$$0.837 + 0.231 + 0.248 + 0.343 + 3.393 = 5.052$$
 [Eqn 1]

As per the calculation in Eqn 1, the ideal soujouk, which provides optimal benefit to consumers, maximises the total utility with a total value of 5.052.

Consumer segments

Cluster analysis was performed to reveal consumer segments related to the participants' preferences. The cluster analysis brought to light basically two clusters based on the sampling. The first and second clusters included 151 and 119 participants, respectively. Figure 1 presents the consumer segments. The coefficients of Pearson's *R* and Kendall's tau were used in predicting the model's fit for the clusters. The conjoint analysis indicated that Pearson's *R* and Kendall's tau of cluster 1, with values of 0.985 and 0.833, respectively, were correlated between the applied model and the observed results. Moreover, Pearson's *R* and Kendall's tau of cluster 2 with values of 0.999 and 0.944, respectively, were also correlated between the applied model and the observed results. These results confirm good estimation power for both models.

According to cluster 1, the ideal soujouk was a national brand, certified with a halal certificate, priced at TRY19 and produced with fermentation. Brand was found to be the most important attribute for this consumer segment. Other attributes were certification, price and production method, respectively. Brand was found to have the highest RI (48.096%) for soujouk. Certification (21.640%) was found to be the second most important factor impacting consumer purchasing decisions in Cluster 1. Whereas price (18.826%) was found to be the third most important attribute, the production method (13.439%) was the least important attribute for cluster 1. Within price, TRY19 was found as having the highest utility, followed by TRY15 and TRY11. This indicates that the consumers in cluster 1 were not price sensitive. The optimal benefit for the consumers in cluster 1 is combined by using the highest total worth of the attributes. The calculated total utility is given with Equation 2:

Total U for Cluster 1 = Ubrand_i + Ucertification_j + Uprice_k + Uproductionmethod_i + constant

Total U =
$$0.630 + 0.116 + 0.699 + 0.100 + 3.799 = 5.344$$
 [Eqn 2]

Cluster 2 was found to differ from cluster 1. The ideal soujouk for cluster 2 was a national brand, certified with a halal certificate, produced with fermentation and priced at TRY19. Brand was found to be the most important attribute of this consumer segment. Other attributes were certification,

production method and price. Brand was found to have the highest RI (44.619%) for soujouk, which is slightly lower than in cluster 1. Certification (22.116%) was the second most important factor impacting the buying decision of cluster 1 consumers, which is a little bit higher than for cluster 1. Here, production method (18.927%) was found to be the third most important attribute, for which the order changed with the price. Finally, price (13.497%) was considered the least important attribute for cluster 1. All utilities in cluster 2 kept their order in the same position as those in all consumers. The optimal benefit for the consumers in cluster 2 is also calculated with Equation 3:

 $\begin{aligned} \text{Total U for the Cluster 2} &= \text{Ubrand}_{i} + \text{Ucertification}_{j} + \\ &\quad \text{Uproductionmethod}_{k} + \text{Uprice}_{l} + \text{constant} \end{aligned}$

Total U =
$$1.101 + 0.378 + 0.435 - 0.109 + 2.879 = 4.684$$
 [Eqn 3]

The price attribute was more important in cluster 1 than cluster 2. Brand and halal certification were the most important attributes for cluster 1, cluster 2 and all consumers. Production method and price were less important attributes for the clusters and all consumers.

Discussion

Purchasing intention was affected by brand and certification for the majority of respondents. Both attributes accounted for 68.4% of purchasing intention, whilst the other attributes of production method and price accounted for 31.2%. Brand, certification, production method and price were found to be significant amongst Muslim consumers based on the order of RI. Brand, with 46.6% RI, was the most important attribute in the decision-making process amongst consumers when they bought soujouk, and national brand (U = 0.837) obtained a higher purchasing intention than unbranded (U = 0.128) or private label (U = -0.965) options for all consumers. This inclination was found to be consistent with earlier studies (Jegethesan et al., 2012; Kathuria & Gill, 2013). In addition to that, certification with 21.8% RI was the second most important attribute overall amongst consumers in purchasing intention. Halal certification (U = 0.231) scored a higher purchasing intention than TSE (U = -0.206) and GI (U = -0.026) certifications. This finding was consistent with the literature (Abd Rahman et al., 2015; Hamdan et al., 2013). Although the other certificates are important for the quality of the products, consumers pay attention particularly to halal certificates in their purchasing behaviour. Production method, with 15.9% RI, was the third important attribute overall amongst consumers. The fermentation method (U = 0.248) ranked a higher purchasing intention than the heat process (U = -0.248). This finding was consistent with the literature. The reason behind this could be that there is considerable demand for fermented soujouk amongst consumers (Soyer et al., 2005) because of its superior taste and flavour (Coşkuner et al., 2010). A price of 15.4% RI was the least important attribute overall amongst consumers. The highest price was preferred by the consumers. Although price is a leading purchasing motive (Hill et al., 2002) and one of the main factors in

consumer preference in purchasing decisions (Ferrarezi, Minim, Dos Santos, & Monteiro, 2013), it was evident that soujouk was not perceived as a price-sensitive product. Apart from the economic situation of consumers, factors such as dietary habits, climate, traditions, religious beliefs and health problems affect the consumption of red meat (Sevimli & Gulcubuk, 2018). Unfortunately, meat is an expensive product because of some structural problems in the country (Saygin & Demirbas, 2018). This may lead to unfair competition amongst the local meat processors because of unregistered slaughters and retailer butchers. Although the Ministry of Agriculture regularly inspects and reveals the quality of brands sold in the market to combat unfair competition (MOA, 2020), this may not stop the usage of poor quality meat for such products. The halal certificate also confirms that the product quality is assured and is probably perceived as safe in terms of Islamic rules and standards.

Cluster analysis extracted two segments based on a careful inquiry of the dendrogram. The sample sizes of cluster 1 and cluster 2 were near to each other (n = 151 and n = 119, respectively). The purchasing intention of cluster 1, including 55.9% of the participants, was affected by brand, certification, price and production method, respectively. Firstly, brand had an RI of 48.1%, and the 'national brand' had a powerful positive effect on purchasing intention for the group. Secondly, certification had an RI of 21.6%, and the brand with a 'halal certificate' was found to have a strong effect on purchasing intention. Thirdly, price had an RI of 16.8%, and a price of TRY19 had an important impact on purchasing intention. Fourthly, production method had an RI of 13.4%, and fermentation had an effect on purchasing intention.

In contrast, the purchasing intention of cluster 2, including 44.1% of the participants, was affected by the brand, certification, production method and price, respectively. Firstly, brand had an RI of 44.6%, and the 'national brand' had a powerful positive impact on purchasing intention for this group. Secondly, certification had an RI of 22.1%, and the brand with a 'halal certificate' was found strongly effective in purchasing intention. Thirdly, production method had an RI of 18.9%, and fermentation had an effect on purchasing intention. Lastly, price had an RI of 13.5%, and a price of TRY19 had an important impact on purchasing intention. Cluster 2 demonstrated almost the same tendency as consumers overall. However, cluster 1 had a slightly different RI order. Although brand and certification had the first and second places, production method and price changed their order.

Brand is the first important attribute for consumer purchasing intention. National brands have an advantage over private labels and unbranded products. National brands take advantage of using marketing communication effectively. This could be the main reason for their success. Many different prices are available in the markets, and fraudulent products can be everywhere because the meat market is very competitive. Unfortunately, food inspections by the government are not sufficient in this competitive

environment. This situation opens the way for fake products. Consumers who do care about health pay attention to reliable brands. Certification is the second most important attribute for consumers. The halal certificate has an advantage against TSE and GI certificates. The main point could be consumers' obedience to Islamic rules. The participants declared themselves to be religious. So, their first preference could be a halal certificate. Other certificates were also important for the product quality, but halal certificates are under tight control, as there are regular inspections by official organisations. However, the halal certificate is already a new concept, and consumers may want to take advantage of it versus non-halal products. Turkey, as a base of production and consumption, offers quality goods with certificates to local and foreigner consumers visiting for touristic purposes. Under these circumstances, revealing the purchase behaviour of Muslim consumers could add value to the stakeholders. The logo for halal certification should be promoted in marketing programmes, especially in Muslim countries, so that the traditional taste may have a better chance for foreign trade with quality certificates. Production method is the third attribute to consumers' purchasing intention. Fermented soujouk is preferred to heat-processed. The heat process uses technology to speed up the production cycle. This may result in some health problems in the future. Health-conscious consumers mostly prefer traditional products because fermented products add value for the benefit of health (Karacil & Acar Tek, 2013). The result is also coherent with the literature. Price-sensitive consumers may prefer heatprocessed products. However, soujouk consumers are aware of their health, so price was found to be the least important attribute. The market offered different types of soujouk made with chicken, sometimes mixed without specifying its ingredients. However, the new regulations strictly forbid such deceptive products. Price could be attractive only for consumers with a smaller income. Consumers who take part in the survey are aware of the product and its pricing details.

Conclusion

The importance of the study is to research the RI of traditional soujouk attributes from a marketing perspective. Extrinsic attributes such as brand, certification and production method are important, especially when intrinsic attributes are not experienced. Muslim consumers pay attention to these attributes in their purchasing behaviour. Halal certificates are also an advantage for religious consumers and may add value to the other attributes and levels. Brand and certification are two essential attributes for soujouk. National brand products are superior to private label and unbranded products. In addition, Muslim consumers prefer halal-certified products because of a perception that they are safer and better quality. The halal logo with higher awareness may help gain more recognition and assurance for food products.

The present research, like any other, also has some limitations. The survey does not account for the income of the consumers. Consumers who have different income status may give different results. The research covers only consumers who

identify themselves as Muslim. The research topic covers only limited attributes. Research on different attributes and levels might reveal other facts about the product. Future research may use a sample covering a wider geographic area or nationwide for different consumer groups.

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The authors have declared that no competing interests exist.

Authors' contributions

All authors contributed equally to this work.

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This article followed all ethical standards for carrying out research without direct contact with human or animal subjects.

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References

- Abd Rahman, A., Asrarhaghighi, E., & Ab Rahman, S. (2015). Consumers and Halal cosmetic products: Knowledge, religiosity, attitude and intention. *Journal of Islamic Marketing*, 6(1), 148–163. https://doi.org/10.1108/JIMA-09-2013-0068
- Adanacioglu, H., & Albayram, Z. (2012). A conjoint analysis of consumer preferences for traditional cheeses in Turkey: A case study on Tulum cheese. Korean Journal of Food Science of Animal Resources, 32(4), 458–466. https://doi.org/10.5851/ kosfa.2012.32.4.458
- Aprile, M.C., Caputo, V., & Nayga, R.M. Jr. (2012). Consumers' valuation of food quality labels: The case of the European geographic indication and organic farming labels. *International Journal of Consumer Studies*, 36(2), 158–165. https://doi.org/ 10.1111/j.1470-6431.2011.01092.x
- Aqueveque, C. (2008). The effect of extrinsic cues on imported wine evaluations: An experimental approach. *Journal of Food Products Marketing*, 14(3), 33–47. https://doi.org/10.1080/10454440801985910
- Bonne, K., Vermeier, I., Bergeaud-Blackler, F., & Verbeke, W. (2007). Determinants of halal meat consumption in France. *British Food Journal, 109*(5), 367–386. https://doi.org/10.1108/0070700710746786
- Bredahl, L. (2004). Cue utilisation and quality perception with regard to branded beef. Food Quality and Preference, 15(1), 65–75. https://doi.org/10.1016/S0950-3293(03)00024-7
- Cacic, J., Tratnik, M., Gajdoš Kljusuric, J., Cacic, D., & Kovacevic, D. (2011). Wine with geographical indication-awareness of Croatian consumers. *British Food Journal,* 113(1), 66–77. https://doi.org/10.1108/00070701111097349
- Chaniotakis, I.E., Lymperopoulos, C., & Soureli, M. (2009). A research model for consumers' intention of buying private label frozen vegetables. *Journal of Food Products Marketing*, 15(2), 152–163. https://doi.org/10.1080/1045444080 2317006
- Coşkuner, Ö., Ertaş, A.H., & Soyer, A. (2010). The effect of processing method and storage time on constituents of Turkish Sausages (Sucuk). *Journal of Food Processing and Preservation*, 34(S1), 125–135. https://doi.org/10.1111/j.1745-4549.2008.00328.x

- Dekhili, S., Sirieix, L., & Cohen, E. (2011). How consumers choose olive oil: The importance of origin cues. Food Quality and Preference, 22(8), 757–762. https:// doi.org/10.1016/j.foodqual.2011.06.005
- Delener, N. (1994). Religious contrasts in consumer decision behaviour patterns: Their dimensions and marketing implications. *European Journal of Marketing, 28*(5), 36–53. https://doi.org/10.1108/03090569410062023
- Delvecchio, D. (2001). Consumer perception of private label quality: The role of product category characteristics and consumer use of heuristics. *Journal of Retailing and Consumer Services*, 8(5), 239–249. https://doi.org/10.1016/S0969-6989(00)00030-8
- Demirel, Y.N., & Dogan, I. (2017). Afyon Kocatepe Üniversitesi Veteriner Fakültesi Öğrencilerinin Sucuk Tüketim Alışkanlıkları. *Kocatepe Veterinary Journal*, 10(4), 322–330.
- Ercoskun, H., & Ozkal, S.G. (2011). Kinetics of traditional Turkish sausage quality aspects during fermentation. *Food Control, 22*(2), 165–172. https://doi.org/10.1016/j.foodcont.2010.06.015
- Ferrarezi, A., Minim, V.P., Dos Santos, K.M., & Monteiro, M. (2013). Consumer attitude towards purchasing intent for ready to drink orange juice and nectar. *Nutrition & Food Science*, 43(4), 304–312. https://doi.org/10.1108/NFS-03-2012-0021
- Forsythe, S., Kım, J.O., & Petee, T. (1999). Product cue usage in two Asian markets: A cross-cultural comparison. *Asia Pacific Journal of Management*, 16(2), 275–292. https://doi.org/10.1023/A:1015447211534
- Green, P.E., Krieger, A.M., & Wind, Y.J. (2001). Thirty years of conjoint analysis: Reflections and prospects. *Institute for Operations Research and the Management Sciences*, *31*(3), 56–73. https://doi.org/10.1287/inte.31.4.56.9676
- Hamdan, H., Issa, Z.M., Abu, N., & Jusoff, K. (2013). Purchasing decisions among Muslim consumers of processed Halal food products. *Journal of Food Products Marketing*, 19(1), 54–61. https://doi.org/10.1080/10454446.2013.724365
- Hill, D.S., Knox, B., Hamilton, J., Parr, H., & Stringer, M. (2002). Reduced-fat foods: The shopper's viewpoint. *International Journal of Consumer Studies*, 26(1), 44–57. https://doi.org/10.1046/j.1470-6431.2002.00198.x
- Iazzi, A., Vrontis, D., Trio, O., & Melanthiou, Y. (2016). Consumer preference, satisfaction, and intentional behavior: Investigating consumer attitudes for branded or unbranded products. *Journal of Transnational Management*, 21(2), 84–98. https://doi.org/10.1080/15475778.2016.1167000
- Iop, S.C.F., Teixeira, E., & Deliza, R. (2006). Consumer research: Extrinsic variables in food studies. *British Food Journal*, 108(11), 894–903. https://doi.org/10.1108/ 00070700610709940
- Jegethesan, K., Sneddon, J.N., & Soutar, G.N. (2012). Young Australian consumers' preferences for fashion apparel attributes. *Journal of Fashion Marketing and Management*, 16(3), 275–289.
- Jo, M-S., & Sarigollu, E. (2007). Cross-cultural differences of price perceived quality relationships. *Journal of International Consumer Marketing*, 19(4), 59–74. https://doi.org/10.1300/J046v19n04_04
- Karaatli, G., & Veryzer, A.W. (2012). The effects of electronic decision aids on consumers' cue utilization in product evaluations. *Journal of Marketing Development and Competitiveness*, 6(1), 74–80.
- Karacil, M.S., & Acar Tek, N. (2013). Fermented products produced in the world: Historical process and relationships with health. *Journal of Agricultural Faculty of Uludag University*, 27(2), 163–173.
- Kathuria, L.M., & Gill, P. (2013). Purchase of branded commodity food products: Empirical evidence from India. *British Food Journal*, 115(9), 1255–1280. https://doi.org/10.1108/BFJ-08-2011-0209
- Lada, S., Tanakinjal, G.H., & Amin, H. (2009). Predicting intention to choose halal products using theory of reasoned action. *International Journal of Islamic and Middle Eastern Finance and Management*, 2(1), 66–76. https://doi.org/10.1108/ 17538390910946276
- Lawley, M., Birch, D., & Hamblin, D. (2012). An exploratory study into the role and interplay of intrinsic and extrinsic cues in Australian consumers' evaluations of fish. Australasian Marketing Journal, 20(4), 260–267. https://doi.org/10.1016/j. ausmj.2012.05.014
- Li, Z.G., Murray, L.W., & Scott, D. (2000). Global sourcing, multiple country-of-origin facets, and consumer reactions. *Journal of Business Research*, 47(2), 121–133. https://doi.org/10.1016/S0148-2963(98)00061-7
- Mann, S., Ferjani, A., & Reissig, L. (2012). What matters to consumers of organic wine? *British Food Journal, 114*(2), 272–284. https://doi.org/10.1108/00070701 211202430
- Manzur, E., Olavarrieta, S., Hidalgo, P., Farias, P., & Uribe, R. (2011). Store brand and national brand promotion attitudes antecedents. *Journal of Business Research*, 64(3), 286–291. https://doi.org/10.1016/j.jbusres.2009.11.014
- Ministry of Agriculture and Forestery (MOA), (2020). Alkolsüz içecekler [Soft Drinks].

 Retrieved from https://www.tarimorman.gov.tr/Lists/Duyuru/Attachments/1102/Kamuoyu_Duyurusu_2020-1.pdf
- Morales, R., Guerrero, L., Claret, A., Guàrdia, M.D., & Gou, P. (2008). Beliefs and attitudes of butchers and consumers towards dry-cured ham. *Meat Science, 80*(4), 1005–1012. https://doi.org/10.1016/j.meatsci.2008.04.015
- Murphy, M., Cowan, C., Meehan, H., & O'Reilly, S. (2004). A conjoint analysis of Irish consumer preferences for farmhouse cheese. *British Food Journal*, 106(4), 288–300. https://doi.org/10.1108/00070700410529555
- Nakyinsige, K., Man, Y.B.C., & Sazilli, A.Q. (2012). Halal authenticity issues in meat and meat products. *Meat Science*, 91(3), 207–214. https://doi.org/10.1016/j.meatsci. 2012.02.015

- Olsen, N.V., Menichelli, E., Meyer, C., & Naes, T. (2011). Consumers liking of private labels: An evaluation of intrinsic and extrinsic orange juice cues. *Appetite*, *56*(3), 707–777. https://doi.org/10.1016/j.appet.2011.03.004
- Richardson, P., Jain, A.K., & Dick, A. (1996). The influence of store aesthetics on evaluation of private label brands. *The Journal of Product and Brand Management*, 5(1), 19–27. https://doi.org/10.1108/10610429610113384
- Saygin, O., & Demirbas, N. (2018). Red meat consumption in Turkey: Problems and suggestions. Selcuk Jornal of Agriculture Food Science, 32(3), 567–574. https://doi.org/10.15316/SJAFS.2018.138
- Sethuraman, R., & Cole, C. (1999). Factors influencing the price premiums that consumers pay for national brands over store brands. *Journal of Product and BrandManagement*, 8(4), 340–351. https://doi.org/10.1108/10610429910284319
- Sevimli, L., & Gulcubuk, B. (2018). The factors affecting purchasing preferences of consumers in red meat and products. *TEAD*, *4*(2), 25–33.
- Sogn-Grundvag, G., & Ostli, J. (2009). Consumer evaluation of unbranded and unlabelled food products: The case of bacalhau. *European Journal of Marketing,* 43(1/2), 213–228. https://doi.org/10.1108/03090560910923300
- Soyer, A., Ertaş, A.H., & Üzümcüoğlu, Ü. (2005). Effect of processing conditions on the quality of naturally fermented Turkish sausages (sucuks). *Meat Science, 69*(1), 135–141. https://doi.org/10.1016/j.meatsci.2004.06.015
- Teuber, R. (2011). Consumers' and producers' expectations towards geographical indications: Empirical evidence for a German case study. *British Food Journal*, 113(7), 900–918. https://doi.org/10.1108/00070701111148423
- Vranesevic, T., & Stancec, R. (2003). The effect of the brand on perceived quality of food products. *British Food Journal, 105*(11), 811–825. https://doi.org/10.1108/00070700310511609
- Wier, M., & Calverley, C. (2002). Market potential for organic foods in Europe. *British Food Journal*, 104(1), 45–62. https://doi.org/10.1108/00070700210418749