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Consumer behavior dynamics of Chinese minorities

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Abstract

Purpose – Meat consumption decisions within a religious context can differ significantly from purchase decisions where religion does not play a key role. The purpose of this study is to investigate the determinants of Halal meat consumption within a Chinese Muslim population using the “marketing theory of planned behavior”. The role of self-identity as a Muslim and dietary acculturation in the host culture is investigated.

Design/methodology/approach – The study is based on a questionnaire survey. Cross-sectional data were collected through a survey of 368 Muslim participants, mainly from Xinjiang province in China. Data were analyzed by a series of regression analyses to test the model and the moderating effects of self-identity and dietary acculturation on behavioral intention.

Findings – The results indicate that motivation to comply with religious requirements, and personal conviction, have a positive attitude toward behavioral intention to consume Halal meat. However, perceived control has a negative relationship with behavioral intention to eat Halal meat among Muslims. Results also show that in general, Halal meat consumption is determined by the pressure of others, personal conviction, and the perceived control.

Practical implications – For marketing managers, Muslims with a low Muslim identity can be motivated to buy Halal meat by communicating through slogans that focus on the individual's opportunity to make his or her own choice(s).

Originality/value – This paper will prove valuable to food-policy decision makers and food marketers, who might pursue identity and/or acculturation-related strategies in their distribution and communication efforts targeting the growing Halal food market segment in China and globally.

Keywords Self-identity, Religion, Subjective norm, Behavior intention, Dietary acculturation, Halal products

Paper type Research paper

Introduction

China's constitution defines the country as a unitary multinational state. Among its population of just under 1,344 billion (National Bureau Statistics of China, 2002), the state recognizes a majority nationality, the Han, and 55 minority nationalities, the latter being 8.4 percent of the population, or about 113 million people. Hui Muslims in China have undergone 200 years of Chinese rule (Gladney, 2003), and many challenges they tackle are new as a consequence of government transformation and increased



globalized society (Guo *et al.*, 2011; Lin and Ke, 2010). Muslims in China live as minority communities among many other minority groups, who are secularist, polytheist, and heathen. Although Muslims comprise only 2 percent of the population of China, their total numbers are large compared with numbers in other Muslim countries across the world.

Halal process covers the aspects of slaughtering, storage, display, preparation, hygiene and sanitation of animals for meat consumption (Regenstein *et al.*, 2003). Recent trends in the global Halal food market are showing encouraging signs of future rapid and sustained growth (Archibald, 2007). The current Halal food market accounts for as much as 12 percent of total global trade in food products, and major growth is expected to generate future opportunities for Halal foods. In terms of value, the global Halal market is estimated at over US\$500 billion. The total spending power of Muslims in the USA was estimated at \$12 billion in 1999, of which \$3 billion was spent on meat and poultry (Riaz, 1999). In Europe, it is estimated that the Muslim population exceeds 40 million (DW, 2011), yielding a potentially large Halal food market across Europe.

In the present study, the influence of the classical components of the marketing “theory of planned behavior” (TPB) on intention to consume meat is explored among an ethnic minority population of Muslims (Uyghur Turkish Muslims) originating primarily from Xinjiang. For them, eating foods that meet the Islamic religious prescriptions can be considered an expression of religion. Therefore, we argue that meat consumption decisions within a religious context could differ significantly from food purchasing decisions where religion does not play a key role. By extending the model with self-identity and dietary acculturation, the influence of the cultural, and more specifically religious context in which Halal meat is consumed is, investigated.

This research has two major objectives:

- (1) to investigate Uyghur Turkish Muslim consumer behavior towards Halal meat in China using the classical TPB as a conceptual framework; and
- (2) to measure whether or not, within a religion, the validity and predictive power of the TPB is influenced by accounting for religious self-identity and dietary acculturation.

The significance of the study is recognized in that it is one of the first studies investigating the determinants of Halal meat consumption in China within a food-religion context – that is, Halal meat consumption decisions among the Chinese Muslim population.

Literature review

Impact of religion on food consumption

There is substantial evidence that religion can impact customer attitude and intention behavior in general (Delener, 1994; Pettinger *et al.*, 2004), and food-buying decisions and eating habits in particular (Swanson, 1996; Shatenstein and Ghadirian, 1997; Mullen *et al.*, 2000; Blackwell *et al.*, 2001). In many countries, religion plays a major role in determining food selection (Dindyal, 2003; Pitta *et al.*, 1999). The role of religiosity on the intention to choose Halal products was investigated by Mukhtar and Butt (2012) within multi-ethnic societies. They conclude that subjective norms, attitude towards the Halal products and intra personal religiosity positively influence the intention to choose Halal products.

The influence of religion on food consumption is determined by the religion itself and the degree to which people interpret and respect the commands of their religion. Most religions, Christianity being a notable exception, prohibit particular foods; for example, Judaism and Islam forbid the consumption of pork, and Buddhism and Hinduism forbid the consumption of beef (Sack, 2001). The consumption of meat products is most firmly regulated in situations where religious concerns prevail (Shatenstein and Ghadirian, 1997).

In general, Muslims (followers of the religion of Islam) are expected to obey a set of dietary recommendations, or Halal dietetic laws, proposed to increase their comfort. Their religion forbids the consumption of pork, alcohol, dead meat, and meat that has not been slaughtered conferring to Islamic laws. They are allowed to eat only Halal, or lawfully processed meat. Although religions may enforce strict dietary rules, the percentage of the religious population following them may vary considerably. Hussaini (2004) states that 75 percent of Muslims in the USA follow their prescribed dietary rules versus only 16 percent of Jews. Elements explaining variances in obedience to religious dietary recommendations are related to such aspects of society structure as country of origin, migration, and generation differences (Limage, 2000; Ababou, 2005; Bonne and Verbeke, 2006).

Halal food research

Bonne *et al.* (2007) conducted the first study to investigate the determinants of Halal meat consumption in France by using the TPB. They collected surveys from 576 Muslims mainly originating from North Africa. Results reveal that a positive personal attitude, the influence of peers, and the perceived control over consuming Halal meat predict the behavioral intention to buy Halal meat.

To explore consumer buying behavior in relation to buying Halal meat from local shops versus supermarkets in the UK, Ahmed (2008) collected 300 surveys and observed three local Halal shops and a supermarket. His findings demonstrate that the majority of UK Muslims do not trust big supermarkets to buy Halal meat. They will only trust local ethnic shops in their local neighborhoods to buy Halal products (as he/she is one of them ethnically speaking). This suggests that supermarkets need to improve their marketing strategies, by advertising in Islamic newspapers and relevant sources, or by employing Muslim sales people who are familiar with particular Halal products.

Alserhan (2010) discusses various Halal-related issues that a company has to adhere to in order to increase its chances of success in the Halal market. Also, he emphasizes that current information sources at both academic and business levels remains limited in this field. Therefore, more research in this avenue is needed to draw the inaugural road map for future research. Ireland and Rajabzadeh (2011) demonstrate how UAE Muslim consumers desire to buy from shops that are known to have Halal certification, because they are concerned about the Halal status of their purchases. In their study, 86 percent of participants felt great concern that at least one category of food was not Halal. The food categories that most distressed them were processed meat products. Also, 44 percent of participants felt great concern about hamburgers. This study demonstrates that a large portion of Muslim consumers are concerned about the Halal status of their products, especially those marketed by international producers.

Consumer behavior across China has been investigated thoroughly to explore the influence of different factors (Liu *et al.*, 2007, 2010; Gao *et al.*, 2010;

Chan and McNeal, 2003). However, there are scarce studies about consuming Halal meat in China. Therefore, this study is the first pioneering attempt of its kind to define the determinants of Halal meat consumption in China. China was selected to conduct this research because it has a minority of Muslim population living among many other ethnic groups. Research findings have significant value for food policy decision-makers and food marketers who might pursue opportunities in the Halal market segment. For instance, numerous global food retailers such as McDonalds are using Halal food in their restaurants across Muslim majority countries of Asia-Pacific such as Indonesia and Malaysia.

Conceptual framework

Many models have been proposed to explain consumer behavior towards food in general (Sparks and Shepherd, 1992; Thompson *et al.*, 1996; Conner and Sparks, 1996). However, a limited number of studies have focused specifically on investigating the determinants of Halal meat consumption. In this study, the influence of the classical components of the TPB on intention to consume Halal meat is measured within an ethnic minority population of Muslims living in China. The influence of the cultural and more specific religious context in which Halal meat is consumed is investigated using the framework shown in Figure 1.

Theory of planned behavior

The TPB is a theory in psychology that examines the link between attitudes and behavior. Proposed by Ajzen as an extension of the theory of reasoned action (Ajzen, 1985, 1991), it is one of the most predictive persuasion theories. The theory has been applied to studies of the relations among beliefs, attitudes, behavioral intentions, and behaviors in various fields such as advertising, public relations, campaigns, and

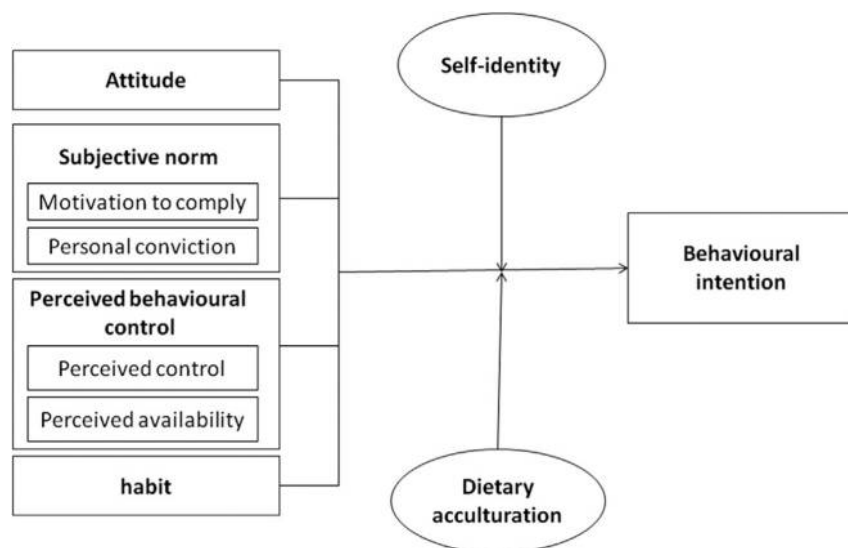


Figure 1.
Research model

Source: Based on Bonne *et al.* (2007)

healthcare (Weng and Run, 2013; Alam *et al.*, 2012; Polonsky *et al.*, 2011). TPB postulates three conceptually independent determinants of behavioral intention: attitude, subjective norm, and perceived behavioral control.

Attitude

Attitude toward a specific behavior refers to the extent to which a person has a favorable or unfavorable appraisal of that behavior under consideration (Ajzen, 1991). According to Ajzen (1991), the more favorable the attitude with respect to behavior, the stronger the person's intention to implement the behavior in question (Li *et al.*, 2009).

Subjective norm

Subjective norms consist of an individual's beliefs about whether significant others believe one should involve in the behavior (Conner and Sparks, 1996) – significant others being individuals or groups whose preferences about a person's behavior in this domain are important to them. Subjective norms are assumed to assess the social pressures individuals feel toward performing or not performing a particular behavior. In Chang's (1998) study, the relationship between subjective norms and attitudes towards behavior was significant. HoJung *et al.* (2004) also found that subjective norms have direct effects on attitudes.

Perceived behavioral control

Perceived behavioral control is an individual's perceived ease or difficulty in acting a specific behavior (Ajzen, 1988; Yang *et al.*, 2012). It is assumed that perceived behavioral control is determined by beliefs concerning whether or not one has access to the necessary resources and opportunities to perform the behavior successfully (Ajzen, 1988, 1991). The link between perceived behavioral control and behavior suggests that consumers are more likely to engage in behaviors they feel they have control over and are reluctant to carry out behaviors over which they feel to have little or no control. For example, low perceived availability of Halal meat may hinder someone from consuming it – as shown, for instance, in the case of sustainable food consumption (Vermeir and Verbeke, 2006).

Habit

Habits are habituated routines of behavior that are repeated regularly, tend to occur subconsciously, and tend to occur without the person directly thinking consciously about those behaviors (Butler and Hope, 1995). Several studies applying the TPB to food-related behavior have successfully included habit as an independent predictor of intentions (Verbeke, 2005; Honkanen *et al.*, 2005); therefore, habit will be included as a separate component of the TPB.

Self-identity

Self-identity may be defined as the salient part of an actor's self that relates to a particular behavior. It reflects the extent to which an actor sees himself or herself fulfilling the criteria for any societal role; for example, someone may be concerned with green issues (Sparks and Shepherd, 1992). Previously, some studies of TPB to food-related behavior have included self-identity as an additional predictor variable (Sparks *et al.*, 1995; Cook *et al.*, 2002). Others who studied the issue, however, have not

found that self-identity influences behavioral intention (Povey *et al.*, 2001; Robinson and Smith, 2002). Here, the influence of self-identity as a Muslim will be investigated through differentiating consumers who identify themselves strongly as being Muslim consuming Halal meat with a rather low identification with being a Muslim only (who does not care about Halal products).

Dietary acculturation

Since acculturation relates to adopting cultural traits, dietary acculturation refers specifically to adopting the eating habits of the new environment. Typically, it is used to represent the practice by which an ethnic group adopts the cultural patterns of the host culture (Jamal, 1996; Laroche *et al.*, 1999). Therefore, it is the process in which cultural identity may change when an individual is exposed to a new majority culture (Cannon and Yaprak, 2011). Since the focus of this study is on dietary behavior of Uyghur Turkish Muslims, we select to measure dietary acculturation as the process that occurs when members of a minority group adopt the eating pattern or food choices of the host culture (Negy and Woods, 1992).

Behavioral intention

Behavioral intention is a sign of an individual's willingness to complete a given behavior, and is thought to be the instant ancestor of behavior (Ajzen, 2002). It depends on attitude toward the behavior, subjective norm, and perceived behavioral control. Based on TPB, a person's performance of a specific behavior is controlled by his or her intention to implement that behavior.

Research hypotheses

Previous research shows that Muslims follow strictly the dietary rules and eat Halal meat without following other religious prescriptions (Bonne and Verbeke, 2006). Probably, some westernized individuals are less committed to Islam than others and are therefore less interested in following religious instructions, surrendering to the influence of the local community. On the contrary, individuals with a high Muslim identification would be more inclined to comply with Islamic instructions and therefore be less open to major community influence. In a collectivistic society promoted by Islam, people tend to perceive themselves as interdependent with their group and tend to strive for in-group compliance (Van Hooft *et al.*, 2006). Therefore, the following hypotheses are set forth:

- H1.* Individuals with a low self-identification will rely more on factors like personal attitude, personal conviction, and perceived behavioral control.

In a study of acculturation, Liou and Contento (2001) found an increased predictive power for individuals who are more acculturated. More precisely, the degree of acculturation increases when attitude and self-efficacy forecast behavioral intention considerably better. Given these results, we posit the second hypothesis as:

- H2.* The predictive power of the TPB components improves with the degree of dietary acculturation.

Research methodology

The research framework, presented in Figure 1, contains seven constructs with six independent variables, two moderating variables, and one dependent variable. Bonne *et al.* (2007) suggest that these constructs enable the researcher to measure the behavioral intention. The measurements of the variables were adopted from previous studies (Bonne *et al.*, 2007; Ajzen, 2002; Chang, 1998); the variables were behavioral intention, attitude, subjective norm, personal conviction, perceived control, perceived availability, habit, self-identity, and dietary acculturation, in addition to relevant socio-demographic variables such as age, gender, race, province, marital status, and level of education.

Questionnaire design

The survey instrument consisted of a four-page questionnaire. It was originally prepared in English and translated to Uyghur and Mandarin languages by using back-to-back translation techniques (Zikmund, 2000), and all its statements were written in short, simple and straightforward sentences. The questionnaire was divided into two major parts: part A measured the determinants of Halal meat consumptions; part B aimed to collect demographic information of the respondents participating in the study. Part A contained a list of 12 statements to measure determinants of Halal meat consumption on a five-point Likert scale, ranging from strongly disagree (1) to strongly agree (5), except for intention and control. Part B was designed using a closed-ended multiple-choice format. The demographic part was intentionally placed at the end of the questionnaire so as to help reduce the response bias and make it more likely that respondents would participate in the survey – given the fact that respondents generally view demographic particulars such as income and age as sensitive and confidential information.

Sampling and data collection

This research study used the non-probability convenience sampling technique. A total of 500 questionnaires were distributed to respondents, all residents of Xinjiang. The study utilized the self-administrated method. The researchers and some friends stationed themselves in different universities across Xinjiang and on the city streets, handed out questionnaires, and collected completed questionnaires from those willing to participate in the study. A total of 410 responses were obtained from the fieldwork, 90 questionnaires were rejected or unreturned. Of the responses received, 42 were found incomplete. The final analysis therefore used 368 completed questionnaires, a 73.6 percent response rate.

Data analysis techniques

The SPSS software was used to analyze the data. The analysis consisted of four major parts: first, descriptive statistics of all variables were assessed; second, Cronbach's α was used to test the reliability of analyses; third, an independent *t*-test was used for TPB components in order to distinguish the differences between Uyghur and Hui Muslims; and finally, several stepwise multiple regression analyses were carried out for components of TBP, self-identity and dietary acculturation, in order to identify the determinants of Halal meat consumption.

Results and discussion

Descriptive statistics of demographic variables

Slightly more men (53 percent) than women (47.0 percent) completed the survey. This rate was similar to that in another study about Halal meat consumption carried out in France by Bonne *et al.* (2007). With respect to race, the sample consisted mainly of Uyghur respondents (69.3 percent) and Hui Muslims, who accounted for 24.2 percent of total sample. Our respondents were mainly younger respondents (54.9 percent under 25 years), and more single (69.3 percent) than married (29.3 percent) respondents completed the survey. Respondents were mainly from Xinjiang (76.4 percent), and most of the respondents benefited from higher education: 60.1 percent had a bachelor's degree, 14.9 percent had a diploma while only 18.7 percent had an education lower than diploma. This differs from what Bonne *et al.* (2007) findings. Most of their study respondents were highly educated people, many holding Master or PhD degrees – suggesting that Muslims in France enjoy a better education than those in China (Table I).

Descriptive statistics of TPB components

Table II presents the mean scores, standard deviations and correlations of the TPB components. All mean scores were presented on a five-point scale and are positively scaled except the dietary acculturation, which was reversed for further analyses.

	Frequency	%
<i>Gender</i>		
Female	195	53.0
Male	173	47.0
<i>Race</i>		
Uyghur	255	69.3
Hui	89	24.2
Others	24	6.5
<i>Age</i>		
Below 25	202	54.9
25-35	82	22.3
36-45	61	16.6
46-55	18	4.9
Above 55	5	1.4
<i>Region</i>		
Xinjiang	281	76.4
Others	87	23.6
<i>Family</i>		
Single	255	69.3
Married	108	29.3
Divorced/widow	5	1.4
<i>Education</i>		
Primary school	17	4.6
Secondary school	18	4.9
High school	34	9.2
Diploma	55	14.9
Degree	221	60.1
Master	20	5.4
PhD	3	0.8

Table I.
Demographic profile
of the respondents

Table II.
Descriptive statistics for
components of TPB

	1	2	3	4	5	6	7	8	9
1. Behavioral intention	1.000								
2. Attitude	0.043	1.000							
3. Motivation to comply	0.221**	0.066	1.000						
4. Personal conviction	0.168	0.139**	0.196**	1.000					
5. Perceived control	0.034	0.133**	0.100	0.169**	1.000				
6. Perceived availability	0.030	0.007	0.239**	-0.001	-0.152**	1.000			
7. Habit	0.017	0.119*	0.054	0.159**	0.153**	0.026	1.000		
8. Self-identity	-0.088*	0.190**	0.097	0.151**	0.121*	0.012	0.411**	1.000	
9. Dietary acculturation	0.226**	0.122**	-0.042	0.277**	0.157**	-0.275**	0.057	0.116*	1.000
Mean (<i>M</i>)	3.67	4.82	4.25	4.63	4.74	3.07	4.68	4.77	1.47
SD	1.17	0.47	0.73	0.60	0.52	1.01	0.65	0.61	1.004

Note: Correlation is significant at: *0.05 and **0.01 levels (one-tailed)

In general, participants considered Halal meat consumption to be highly important. It was similar to a previous study carried out by Bonne *et al.* (2007), which was 4.76. One can expect that involvement in consumption of Halal food is activated because the product – Halal meat – is perceived as being instrumental in meeting important Islamic needs, goals and values (i.e. being a Muslim). In addition, the sample considers the opinion of others (motivation to comply) as relatively important, while Halal meat consumption was strongly considered to be a personal choice. The previous research found that motivation to comply was relatively important, and also that Halal meat consumption was considered to be a personal choice, 3.62 and 4.19, respectively. Respondents believe that they have control over their own eating pattern but are significantly less convinced of the availability of Halal meat. However, Bonne *et al.*'s (2007) research found that French Muslims have less control over their eating patterns, the mean being 3.93. French Muslims also claimed that Halal products were less available. In addition, Uyghur Turkish Muslims do consider Halal meat consumption an automated process – as indicated by their relatively high score on the habit item. Finally, followers of Islam in China predominantly consider themselves to be Muslims, and they still prefer to eat food from their own region than to partake of Chinese cuisine.

It should be noted that in general, Muslims living in China tend to retain their original dietary behavior (dietary acculturation score: $M = 1.47$) even though they are living in a non-Islamic environment. Their dietary preference was lower than what was revealed in research by Bonne *et al.* (2007) ($M = 1.77$); this point shows that Uyghur Turkish Muslims have less dietary acculturation than French Muslims. Furthermore, those respondents with low dietary acculturation are more inclined to decide to buy Halal meat. The more importance one attaches to Halal meat, the more one claims to be influenced by family, friends and religious institutions, and the more personal one considers the eating of Halal meat.

Table II reveals a significant positive correlation between behavioral intention and motivation to comply, and personal conviction and dietary acculturation. Attitudes are positively correlated with personal conviction and dietary acculturation. Furthermore, a significant and positive correlation was found between personal conviction and perceived control on the one hand and habit on the other. In addition, perceived availability is positively correlated with the motivation to comply with religious practice. Despite being significant, the correlations between the hypothesized determinants of intention are relatively low, and hence, do not impose limitations from eventual multicollinearity in further regression analysis.

Reliability analysis

The reliability of the scales was confirmed using Cronbach's α when appropriate, because the degree to which the measure was reliable affects the analysis of relationships with other variables of interest in the study (Gilbert and Warren, 1995). This is especially important in psychographic research, given that in past studies, arbitrary selection and measurement of scales have been criticized. The minimum Cronbach's α of 0.70 is considered acceptable (Sekaran, 2003). In this study, the Cronbach's α value for motivation to comply and perceived availability were 0.70 and 0.85, respectively. Behavioural intention, attitude, personal conviction, habit, control, self-identity and dietary acculturation were measured using single item measures.

Independent t-test for TPB components by race

Independent *t*-test analysis was conducted for two groups: Uyghur and Hui Muslims. Other groups were excluded because of low numbers of respondents. Independent samples *t*-test showed that there is no significant difference between the Uyghur and Hui Muslim respondents regarding the extent to which they consider themselves to be a Muslim ($t(342) = 0.394, p > 0.05$), assuming equal variances. The Uyghur Muslims have a higher behavioral intention than Hui Muslims, with significant differences revealed ($t(98.85) = 12.90, p < 0.05$). The large grazing land in Xinjiang province that provides a variety of meats for Uyghur Muslims may account for this difference.

Significant differences were observed on personal conviction, dietary acculturation between Uyghur Turkish Muslims and Hui Chinese Muslims. The results were $t(127.40) = 6.67, p < 0.05$ and $t(98.06) = 6.90, p < 0.05$, respectively. Hence, Uyghur Turkish Muslims have higher personal conviction than Hui Muslims. The Uyghur Muslims have less dietary acculturation than Hui Muslims. The differences may be due to the fact that the Hui Muslims are scattered all across China whereas Uyghur Muslims are confined to and concentrated in Xinjiang province, which has a strong sense of community among Muslims and a rich historical heritage rooted in Islamic traditions, values and norms.

Multiple regression analyses

The TPB components were tested by running several stepwise multiple regression models. The first model was regressed with the four determinants of behavioral intention. Next, regression model results were compared for individuals with low versus high levels of self-identity (*HI*), and low versus high dietary acculturation (*H2*). Table III presents a summary of the estimates for each model.

For the total sample, motivation to comply, personal conviction and perceived control were significant predictors of behavioral intention, while attitude, perceived availability, and habit were not significant. This finding differs slightly from the research results of Bonne *et al.* (2007) for Muslims in France; they found that attitude was the significant predictor of the behavioral intention, while personal conviction was not. Perceived availability, therefore, is not a barrier to the consumption of Halal meat for both Muslims in China and France. In addition, it appears that habit, or the degree to which one eats Halal meat as an automated process, has no influence on behavioral

	Total sample		Self-identity				Dietary acculturation			
	$R^2 = 0.095$		$R^2 = 0.122$		$R^2 = 0.106$		$R^2 = 0.323$		$R^2 = 0.527$	
	β	<i>p</i>	β	<i>p</i>	β	<i>p</i>	β	<i>p</i>	β	<i>p</i>
Attitude	0.056	0.378	0.042	0.619	0.098	0.298	0.053	0.438	0.058	0.673
<i>Subjective norm</i>										
Motivation to comply	0.311	0.002	0.375	0.009	0.303	0.036	0.116	0.092	1.304	0.000
Personal conviction	0.371	0.002	0.383	0.017	0.500	0.012	0.594	0.000	0.497	0.032
<i>Perceived behavioral control</i>										
Perceived control	0.301	0.030	0.649	0.004	0.016	0.863	0.294	0.035	1.435	0.002
Perceived availability	0.014	0.825	0.057	0.518	0.092	0.327	0.036	0.599	0.210	0.222
Habit	0.093	0.163	0.076	0.401	0.094	0.301	0.036	0.625	1.208	0.005

Table III.
Summary of several
stepwise regression
analyses

intention to eat Halal meat for both Chinese and French Muslims. For Chinese Muslims, however, Halal meat consumption was not determined by attitude.

The classical determinants (subjective norm and perceived control) are thus significant for one's intention to consume Halal meat. Nevertheless, it should be noted that the resulting coefficient estimates (ranging from 0.02 to 0.03) and the explained variance ($R^2 = 0.10$) are higher than those for previous research performed in France by Bonne *et al.* (2007) using the TPB framework ($R^2 = 0.06$).

Role of religious self-identity

To examine the possible differential predictive value of the TPB components depending on the level of individual's self-identity, respondents were classified in two self-identity categories using a median split (low, high). Data with scale values 1-4 are considered low self-identity and data at a scale value of 5 are considered high self-identity. The intentions of Muslims with a low self-identity ($R^2 = 0.122$) are determined by subjective norms toward Halal meat consumption and by their perceived behavioral control. However, for Muslims with a high self-identity, behavioral intention was influenced by only subjective norm. In other words, both consumers who consider themselves to be more or less Muslims were primarily guided by the subjective norm (Mukhtar and Butt, 2012). Furthermore, both consumers with a low Muslim self-identity and consumers with a higher Muslim identity are more prone to be influenced by the opinion of other people and institutions (Regenstein *et al.*, 2003). In other words, both groups rely on the motivation to comply. The hypothesis that the degree to which a consumer considers himself or herself a Muslim influences the decision making process for Halal meat has not been confirmed. In addition, the aspects of the hypothesis suggesting that a person with lower self-identification as a Muslim relies more on factors like personal attitude, perceived availability and habit than on the motivation to comply were also rejected.

Role of dietary acculturation

After classifying respondents in two dietary acculturation groups using median split (low, high), where data with scale values 1 and 2 were considered low dietary acculturation and data with scale values 3-5 were considered high dietary acculturation. The results show that personal conviction and perceived control over Halal meat consumption predict behavioral intentions for low-dietary-acculturated consumers ($R^2 = 0.323$), while intentions of high-acculturated consumers are predicted by motivation to comply, personal conviction, perceived control, and habit ($R^2 = 0.527$). This means high-dietary-acculturation Muslims are more prone to take the opinion of other Muslims and institutions into account, believing that their consumption decision is a matter of habit (Park *et al.*, 2003). With these findings we can confirm our hypothesis that dietary acculturation influences the predictive power of the TPB components – the ability to predict behavioral intention improves with the degree of dietary acculturation. Attitude does not influence behavioral intentions for either high- or low-acculturated consumers. Furthermore, the non-significance of perceived availability can likely be explained by the reasoned or highly important nature of Halal meat consumption – independent of the level of dietary acculturation in the host culture (Liou and Contento, 2001).

Conclusion

Different ethnic groups have different behavioral attitudes and intentions toward Halal meat consumption. Uyghur Turkish Muslim consumers of China specifically have high behavioral dispositions toward consuming Halal meat products. At the same time, there is no significant difference between Uyghur and Hui Muslims in the ways they consider themselves to be “a Muslim.” The motivation to comply and personal conviction create a positive attitude toward behavioral intention to consume Halal meat. However, perceived control has a negative relationship with behavioral intention.

This study shows that the classical TPB determinants of intention explain only little variance (more than previous research in France) in the intention to consume Halal meat and that the regression coefficients are low compared with those of other food choice studies using the TPB. Apparently, the Halal meat consumption for Muslims is quite different from the consumption of regular meat for non-Muslims (Bonne and Verbeke, 2008). The religious affiliation associated to Halal meat perhaps makes the consumption decision critical for the Muslim consumer, leading to a different decision-making process.

Two factors that are related to consumption decisions within a religion and origin context could help us better understand the notion of religious meat consumption decisions. We can conclude that, in general, the influence of personal conviction regarding the consumption of Halal meat, the influence of peers, and the perceived control over consuming Halal meat, predict the intention to eat Halal meat among Muslims in China. Perceived availability of Halal meat does not seem to be a barrier to the consumption of Halal meat; nor is consumption strongly driven by habitual behavior.

Muslims with a low Muslim self-identity eat Halal meat not only because of personal conviction and motivation to comply, but also because of perceived control; Muslims with a strong Muslim self-identity, however, are influenced only by subjective norms, such as personal conviction and motivation to comply. When considering the degree of dietary acculturation, low dietary acculturation Muslims rely on their personal conviction and perceived control, whereas high dietary acculturation Muslims rely on subjective norms and perceived control, and believe that their consumption decision is a matter of habit.

This study demonstrates that Halal meat consumption is governed by the pressure of others, personal conviction, and perceived control. Positive attitude does not impact Halal meat consumption, contrary to results by Bonne *et al.* (2007). Possibly, the personal relevance connected to Halal meat dominates over preference for available food products. Consumers perceive the availability of a product less as a latent obstacle for behavior, leading to allocate more resources to gaining their desired products. This has been revealed in the case of sustainable food consumption decisions (Vermeir and Verbeke, 2006), and can be confirmed by exploratory research that concluded that Muslims are willing to put considerable efforts in finding Halal meat (Bonne and Verbeke, 2006). Another explanation for the non-significance of perceived availability could be an improved availability of Halal products across China. There is a great potential in the north-western region, considering that China is pouring its huge and precious resources into developing the western region of Xinjiang and Inner Mongolia, as suggested by Hoo (2005).

Managerial implications

Practical implications extend to food policy decision-makers and food marketers who might pursue identity- and/or acculturation-related strategies in their distribution and communication efforts targeted at the growing Halal food market segments across China and worldwide (Cui and Liu, 2000). The results show that the decision-making process that precedes Halal consumption is different from regular meat consumption decision-making processes. Consequently, different marketing techniques should be used to stimulate Halal meat consumption versus regular meat consumption (Lupton *et al.*, 2010). In addition, different decision segments exist within the Halal market (i.e., segments that base their decision(s) on different variable(s)).

Research limitations

First, the study focused on only two individual characteristics related to religious food consumption, namely self-identity and dietary acculturation. Additional possible individual characteristics have not been considered, such as trust (Stefani *et al.*, 2005), moral obligation (Sparks *et al.*, 1995), involvement or values (Vermeir and Verbeke, 2006). Second, the survey was confined to consumers residing within the vicinity of Urumqi city, which is a modern city, where consumers from other parts of the Xinjiang – like Kashgar and Hotan where Muslims are living in a more Islamic environment – were excluded from the research due to time and cost constraints. Consequently, the study is subject to limitations by possible biases that exist when only one geographic area is selected and when the sampling method representative of the actual target market as a whole is not used. Finally, because of the sensitive, religious nature of the topic, some questions – like social or subjective norms, personal norms, and personal relevance – had to be asked indirectly as some respondents were hesitant to answer them appropriately.

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