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Summoning food at the push of a button: the interplay of religiosity, involvement, and commitment in post-adoption behaviors

Short title: Summoning food at the push of a button

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Abstract

Purpose

This paper aims to examine desirable post-adoption outcomes related to food delivery apps using the involvement-commitment model (ICM) and the boundary of (Islamic) religiosity, which is an important facet of communities in many parts of the world today. Importantly, the study provides an in-depth understanding of the boundary role of religiosity in the links between involvement, commitment, resistance to negative information and advocacy intention in relation to food delivery app use.

Design/methodology/approach

Data collected from 498 respondents in Saudi Arabia was used to test the research hypothesized model.

Findings

The results from the partial least squares structural equation modeling technique lend credence to past research calling for the contextualization of theories, especially since this paper find religiosity to be an important boundary condition to the ICM in relation to food delivery apps in an Arab nation.

Originality/value

This paper focuses specifically on the ICM and the boundary of (Islamic) religiosity. The cardinal contribution of this study, therefore, lies in the contextualization of ICM within the Arab world concerning post-adoption behavior related to food delivery apps. To the best of the authors' knowledge, this is likely the first study to do so in the marketing, hospitality and technology-based literatures.

Keywords

Involvement-commitment theory, Food delivery apps, Religiosity, Resistance to negative information, Word-of-mouth marketing, PLS-SEM

Introduction

One of the unintended consequences of the coronavirus-induced health pandemic has been the significant shift toward the use of online food delivery services such as Deliveroo, DoorDash, Talabat and Uber Eats (or Careem Now as it is branded in the Middle East) (Arab News, 2022; Brill, 2023). The operators of online food delivery services primarily serve as an intermediary between restaurants and consumers, which is achieved through their branded food delivery apps. For consumers, a major advantage of food delivery apps or online food delivery services more broadly, is the convenience the technology offers them. Restaurants, on the other hand, benefit from the additional revenue stream improving their overall financial performance. However, due to the growing competition among the providers of this technology and subsequently, the need to grow and retain existing users, scholars such as Dogra *et al.* (2023), Lee and Han (2022) and Mehrolia *et al.* (2021) suggest the need for research that examines desirable customers' post-consumption behavior.

In general, a better understanding of the factors that can increase the retention rate through desirable customer outcomes is not only relevant for practitioners, but it is also relevant for theoretical and scientific advancement of the field. It is important that we acknowledge that – prior to this current investigation – there have been some important attempts in the literature to uncover some of the factors that may engender desirable customers' post-adoption behaviors regarding the utilization of food delivery apps. Ahn and Kwon (2021)investigated how customer service relationships such as perceived economic exchange and mutual interests impact loyalty intentions toward branded food delivery apps. AQ6 Studies such as Koay *et al.* (2022) and Su *et al.* (2022) examined the role that service quality plays in customer loyalty formation. Despite the notable contributions of these initial studies, there is currently limited knowledge about the important factors that can shape desirable customers' post-adoption behavioral outcomes like resistance to negative information and advocacy intention. Indeed, until now, no research in this area has specifically explored the reason why a food delivery app user may be unfazed by a service provider's negative publicity, nor has there been any

research, to our knowledge, that simultaneously investigates why a food delivery app user may choose to act as an advocate for his/her service provider and especially in the form of positive recommendations. Besides, it is important to note that, until now, consumer research pertaining to food delivery app usage has been generally lacking in the Middle Eastern market and particularly in Saudi Arabia, which is one of the most prominent markets in the Middle East, coupled with its status as one of the wealthiest nations in the world.

Noteworthily, Saudi Arabia, the geographic context for this study, has in the past few years witnessed a dramatic increase in mobile phone purchases which has resulted in an increase in mobile application downloads (Perez, 2020). In particular, the online food delivery segment, the chosen business context for this study, is projected to reach a revenue of US\$11.74bn by 2024 (Statista, n.d.). This market segment is expected to grow at an annual rate of 6.02% during the 2024–2028 period with a projected market value of US\$14.83bn by 2028 (Statista, n.d.). According to the popular press, the number of food delivery apps in the country has risen by 460% recently (Arab News, 2022), but scientific understanding of desirable post-consumption behavior related to food delivery app usage in the context remains largely unknown.

Against this backdrop, this study examines post-adoption behaviors related to food delivery apps and particularly how existing users/customers of food delivery apps form resistance to negative information and advocacy intentions by using data from the Saudi market. We note the distinctiveness of this work in hitherto under-researched markets like the Middle East and indeed in Saudi Arabia. Importantly, this study uses the involvement-commitment model (ICM) (Beatty *et al.*, 1988; Iwasaki and Havitz, 2004) as its theoretical anchor. The authors have focused on the utilization of the ICM model mainly because it has been recently found to be important for explaining individuals' behaviors toward emerging technologies (cf. Mou *et al.*, 2020), but has yet to be extended to the context of online food delivery service and particularly food delivery apps. This is also among a handful of scientific papers in the literature to model both involvement and commitment in relation to the outcome variables of advocacy intention and resistance to negative information.

In addition, the present study considers the potential moderating role of Islamic religiosity in the relationships between involvement, commitment, advocacy intention and resistance to negative information. In doing so, the study contextualizes the ICM model through the inclusion of (Islamic) religiosity (Hwang, 2018; Tang and Li, 2015), which is an important feature of communities in many parts of the world today and especially in the Middle East (Elgammal and Al-Modaf, 2023). Importantly, it is believed that consumer expectations and post-adoption behavior within Muslim communities can be particularly influenced by "religiosity" (cf. Alhothali et al., 2021; Elsotouhy et al., 2023). In the recent past, scholars have theorized about the role of religiosity or religious commitment, which refers to the extent to which an individual follows his/her religious beliefs, and values, and practices them daily (Worthington et al., 2003). Religiosity has been demonstrated to play a significant role in shaping consumer behavior, especially in terms of product purchase and use (Agarwala et al., 2019). Similarly, it is known that religious beliefs in connection with factors such as convenience and commitment play an important role in guiding individual decision-making (Alhothali et al., 2021, 2022a), particularly regarding food (Sood and Nasu, 1995). However, empirical evidence exploring (Islamic) religiosity as a moderator on consumer behavior (Elsotouhy et al., 2023; Hwang, 2018; Jamal and Sharifuddin, 2014) is

scarce among products and services without a religious affiliation, particularly within the context of electronic and mobile commerce. At the same time, there have been numerous calls for incorporating religiosity into the study of customers' attitudes and behaviors (Alhothali *et al.*, 2022b; Agarwala *et al.*, 2019; Alkhowaiter, 2020; Kiani *et al.*, 2016; Mansori *et al.*, 2015). Abu-Alhaija *et al.* (2018) stress the need to focus on religiosity as opposed to just the demographic trait of religious affiliation, while Patel (2012) called for widening the scope of research on religion and consumer behavior. Some of the cardinal contributions of this study, therefore, lie in the contextualization of ICM within the Arab world and studying post-adoption behavior related to food delivery apps; this is likely the first study to do so in the marketing, hospitality and technology-based literatures.

The rest of this paper is organized as follows: theoretical background and research model, hypotheses development, methodology, results, discussion, conclusion, theoretical contributions, managerial and social implications, and limitations and future research.

Theoretical background and research model

Involvement-commitment model

The ICM was proposed by Beatty *et al.* (1988) and builds on consumer-based studies such as those of Traylor (1981, 1984) who explained that product (or ego) involvement is conceptually distinct from brand commitment. Although ICM has been rarely used in the food delivery app domain, it has been successfully used and validated in various other fields, including leisure, eco-friendly food and tourism. Studies conducted by Iwasaki and Havitz (2004) and Nam (2020) have shed light on its effectiveness in elucidating the relationships between involvement, commitment, and customer loyalty in these domains. Drawing inspiration from these studies, our research seeks to explore how the underlying variables of involvement and commitment in ICM can shed light on consumers' propensity to develop advocacy intention and exhibit resistance to negative information within the context of food delivery apps. Simultaneously, as previously mentioned, these authors have identified, based on the literature (Alhothali *et al.*, 2021; Agarwala *et al.*, 2019; Elsotouhy *et al.*, 2023), the significant contextual influence of (Islamic) religiosity in shaping the interplay between involvement, commitment and the favorable customer outcomes of advocacy intention and resistance to negative information.

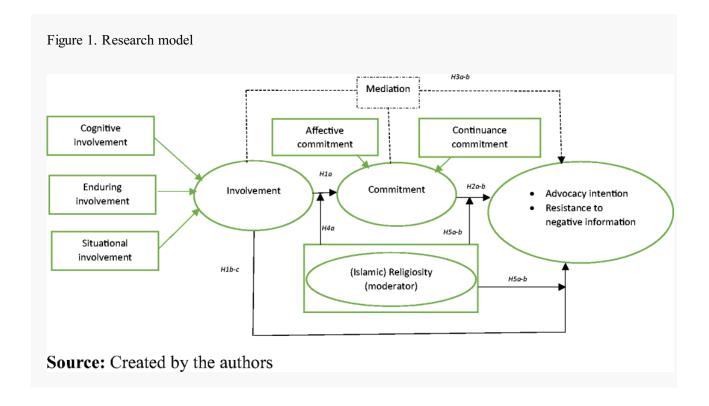
Scholars have described involvement as a motivational construct that relatively relies on individuals' values and needs to predict their attitudes and ultimately their behaviors (Mou *et al.*, 2020). The current research considers three aspects of involvement that may be more applicable in the food delivery app context: cognitive, enduring and situational involvement (Sharma *et al.*, 2020; Zhu *et al.*, 2019). According to Mou *et al.*'s (2020, p. 569) study, cognitive involvement "refers to customers' relevance based on the functional and utilitarian performance of the products," while enduring involvement reflects an individual's long-term interest in an object (Mou *et al.*, 2020). Finally, situational involvement is known to be evoked by a specific situational factor(s) which consequently affects the individual's impression and/or evaluation of the object (as in the case of food delivery apps) (Sharma *et al.*, 2020; Zhu *et al.*, 2019). Purchase situations "characterized by higher

levels of economic, time, and social risks lead to higher situational involvement" (Richins and Bloch, 1986, cited in Sharma *et al.*, 2020, p. 89), and therefore situational involvement is very applicable in the current context due to the time risk associated with customers' orders via food delivery apps.

Commitment refers to emotional, psychological and/or economic attachment toward an object or another party in an exchange relationship (Beatty *et al.*, 1988; Fullerton, 2011; Khan *et al.*, 2020). This study conceptualizes commitment as a two-dimensional concept consisting of affective and continuance components (Evanschitzky *et al.*, 2006; Khan *et al.*, 2020; Li *et al.*, 2006). Affective commitment reflects the degree to which an individual has an emotional attachment to a service provider based on prior positive experiences and identification with the service provider (Fullerton, 2011; Lee *et al.*, 2019). This forms a critical component of commitment which, in turn, leads to a highly desirable customer outcome (Lee *et al.*, 2019; Li *et al.*, 2006).

Conversely, continuance commitment (also referred to as calculative commitment) is defined "as a situation in which an end-user recognizes the rewards and benefits associated with continuing to use" and maintains a relationship with the product or service (Li *et al.*, 2006, p. 431). The consumer is more of a rational economic maximizer and therefore seeks to maintain the existing relationship with the service provider to avoid psychological switching costs and related learning efforts that may be perceived to be too costly if he/she switches the service provider. Importantly, unlike previous research that was mainly interested in treating both affective and continuance commitment as separate dimensions of commitment (Khan *et al.*, 2020) or that treated it as a unidimensional construct (Inoue *et al.*, 2017; Zhu *et al.*, 2019), this study conceptually treats commitment as a higher-order construct.

Together, the ICM explains the role of involvement, as captured by cognitive, enduring and situational involvement, in the formation of commitment toward food delivery apps (as measured by affective and continuance commitment). In addition, the roles of both involvement and commitment in influencing desirable behavioral outcomes such as advocacy intentions, and resistance to negative information are explored. Our study enriches the ICM through the introduction of the (Islamic) religiosity concept that is ingrained in the context of the Arab world (Alhothali *et al.*, 2021) (see Figure 1). Religiosity encompasses an individual's belief in the existence of a supreme being, spiritual connection, and commitment to appropriate behavior (see also Elsotouhy *et al.*, 2023). Previous research has suggested that Islamic religiosity serves as a significant moderator in the relationship between customer engagement, akin to customer involvement and commitment, and the continued use of mobile payments for donations (for details, refer to Elsotouhy *et al.*, 2023). This underscores the importance of investigating this phenomenon within the context of food delivery apps, enabling us to contextualize ICM within the Saudi Arabian market. This market serves as an ideal setting for such research.



Hypotheses development

Involvement, commitment, advocacy intention and resistance to negative information

The relationships between involvement and commitment have been discussed and tested in various contexts such as professional sports (Inoue *et al.*, 2017) and the tourism industry (Iwasaki and Havitz, 2004). Results of past research have shown that the degree of involvement impacts consumers' perceptions of product information (Mou *et al.*, 2020; Zhu *et al.*, 2019) and a high degree of involvement leads to enhanced consumer commitment levels to use a certain technology-based platform (Sanchez-Franco, 2009) or service provider (Inoue *et al.*, 2017). As food delivery apps are a form of a technology-based platform, it can be assumed therefore that the more a customer is involved in using a certain application (as in a food delivery app) the more they would develop commitment toward its continuous usage:

H1a. Involvement is positively related to commitment.

Advocacy refers to a consumer's willingness to provide positive word-of-mouth (PWOM) about a certain product or service (Elgammal *et al.*, 2022, 2023; Homburg and Ukrainets, 2021; Osakwe, 2019). Put differently, advocacy reflects a customer's inclination to actively recommend and endorse a product or service provider to others (Fullerton, 2011; Harrison-Walker, 2001). Similarly, scholars such as Homburg and

Ukrainets (2021) reported that customer loyalty can be ascertained by measuring the extent to which they positively recommend a certain product/service to family and friends. According to earlier research, product involvement is a strong motivator to spread PWOM about either a brand or service provider (Richins and Root-Shaffer, 1988). In the smartphone market focused on millennial consumers, VA Schalkwyk and Van Schalkwyk (2020) recommended that consumer involvement should be increased to enhance advocacy. Rhee and Lee (2021) found in the context of the fashion industry that brand advocacy formed after virtual fitting, a medium of involvement, had a positive effect on mobile purchase intentions. Similarly, augmented reality experiences while online shopping positively impacted consumer inspiration which had a direct positive association with advocacy intention (Kasamani et al., 2022). Spurred by previous work, it is therefore argued that the individual's involvement in food delivery apps will significantly influence their willingness to recommend the app to others. This argument is also supported in recent research in e-commerce (Mou et al., 2020; Zhu et al., 2019) where it was speculated that involvement positively influences consumer attitudes and behavioral intentions leading to the following research hypothesis:

H1b. Involvement is positively related to advocacy intention.

A high level of involvement could change consumers' attitudes toward products and services, thus enhancing consumers' purchase intentions and behaviors (Drossos et al., 2014). Prior studies reported that consumers tend to talk about their negative experiences with a business more than their positive ones (Wangenheim, 2005), particularly through social media platforms (Ward and Ostrom, 2006), which could negatively affect the business' image. Consumers can, however, develop resistance to negative information toward organizations which helps in keeping a positive image in their minds (Eisingerich et al., 2011). According to these scholars, resistance to negative information refers to "the extent to which consumers do not allow negative information to diminish their general view of a firm—thus may indicate the strength of a consumer-firm relationship" (Eisingerich et al., 2011, p. 62). Significantly, brand love, characterized by active engagement was found to have a positive relationship with resistance to negative information in the context of Portuguese clothing brand consumers (Bairrada et al., 2019). Brand love was also found to influence resistance to negative information among consumers of the fast-food brand, McDonald's, in Indonesia (Azzahra et al., 2023). Brand knowledge and involvement were also found to explain why consumers are resilient to negative information about specific brands; Facebook page followers of fashion clothing brands in social media platforms in Egypt were surveyed in the study (Elsharnouby et al., 2021). These studies suggest that involved customers support their product or service provider despite negative media information and negative content on social media platforms about their food delivery app. Accordingly, the following hypothesis is proposed:

H1c. Involvement is positively related to resistance to negative information.

Commitment, advocacy intention and resistance to negative information

Commitment is considered a key construct in explaining consumers' behavior consistency and "long-term" relationship with an organization (Hsu *et al.*, 2010). Prior studies reported that affective commitment is

positively related to word-of-mouth (WOM) communication (Fullerton, 2011; Harrison-Walker, 2001). Relatedly, several past studies have confirmed the relationship between commitment and advocacy intention. In a study involving mainland Chinese tourists to Taiwan Wu and Change (2019) found that experiential commitment significantly and positively influenced advocacy intention. Based on data from 674 participants, Hsiao *et al.* (2015) concluded that e-service quality and satisfaction were crucial to determine a customer's brand commitment, which in turn positively impacted advocacy intention. In the context of streaming video platforms of Generation Z consumers, advocacy intention was found to have been significantly influenced by affective commitment (Poonpobsakul *et al.*, 2023). A similar relationship was found when ride-hailing customers in South Africa were surveyed (van Tonder and Petzer, 2023). The more the consumer is committed to using a certain activity, the more they would continuously use such activity without termination (Helgeson *et al.*, 2002). Thus, it is expected that customers help the organization by providing PWOM to friends and family if they develop an affective and continuance commitment with such service providers (Mousavi *et al.*, 2017). This leads to the following research hypothesis:

H2a. Commitment is positively related to advocacy intention.

Earlier marketing research has noted that commitment plays an important role in "determining resistance to counter-attitudinal information" (Ahluwalia *et al.*, 2001, p. 204). Respondents with high emotional commitment find positive information more relevant than negative information, thus resisting negative information (Ashley, 2006). Germann *et al.* (2014) concluded that brand commitment had a complex effect on consumer responses when product recalls occur. The authors found brand commitment to attenuate negative consumer responses in low-severity recalls and augments them in high-severity recalls. These studies imply that when consumers develop a strong commitment to a focal firm, they may be less bothered about the negative publicity that the firm may attract thus leading to greater resistance to negative information about the focal firm. This suggests that customers who have developed strong continuance and affective commitment will be more motivated to support the service provider despite the potential negative information about the food delivery app. Following these arguments, the following hypothesis is proposed:

H2b. Commitment is positively related to resistance to negative information.

The mediating role of commitment

Although the relationship between service involvement and advocacy intention is widely recognized, commitment has been found to have more consequential effects on customer WOM (Harrison-Walker, 2001), which is the main antecedent of advocacy intention. For example, Mayer and Schoorman (1992) reported that within the service context, an affectively committed customer is motivated to actively engage and get involved in behaviors that would help his/her service provider. Depending on the study's context, and the way commitment is operationalized and measured, the antecedents of commitment vary. For example, within the French banking industry, commitment was found to partially mediate the relationship between customer-based corporate reputation and customer citizenship behaviors that relates to the customer's willingness to help the

company by providing positive feedback (Bartikowski and Walsh, 2011).

In the case of food delivery apps, customer involvement with a certain app is likely to increase their commitment leading to the customer's willingness to act as an advocate by promoting PWOM and resist any negative information about the food delivery app. Consequently, the following hypotheses are proposed:

H3a. Commitment mediates the relationship between involvement and advocacy intention.

H3b. Commitment mediates the relationship between involvement and resistance to negative information.

The moderating role of religiosity

Prior studies examined religiosity in relation to Muslims' intention to purchase halal food (Jamal and Sharifuddin, 2014) and loyalty to a certain food brand (Alserhan, 2010). Wilson and Liu (2010) argue that consumer shopping behavior varies among those who have high religiosity, as they are more conscious in seeking details before purchasing, especially to avoid the risk of spiritual punishment due to the purchase of non-halal products. Other scholars examined the influence of religiosity on consumer buying behavior (Sood and Nasu, 1995).

The moderating effect of religiosity between a product's perceived value and perceived usefulness was confirmed within the context of buying halal food among British Muslims. Those with high levels of religiosity were found to behave differently by approaching only halal stores to buy halal-labeled products (Jamal and Sharifuddin, 2014). While it has been recently highlighted in a review paper that religiosity plays an important moderating role in consumer acceptance of digital payment solutions, especially in the Arab world (Alkhowaiter, 2020), research on the moderating role of religiosity in this field remains limited. The only exception to our knowledge is the research of Soomro (2019) who found that Islamic religious values moderate the relationship between customers' behavioral intention and usage behavior within the context of e-payment.

While religiosity has been known to predict customer cognitive behavior (Sood and Nasu, 1995) and influence purchasing behavior of Muslim consumers (e.g. Shah Alam *et al.*, 2011), it has not been applied to explain customer involvement and commitment to using food delivery apps. Hence, within this study's context, it is proposed that the effect of involvement on commitment is greater for those with high religiosity than it is for those with low religiosity. Similarly, we posit that the effect of involvement on advocacy intention and resistance to negative information is greater for those with high religiosity than it is for those with low religiosity. Thus, the next set of hypotheses are as follows:

H4a. Religiosity moderates the relationship between involvement and commitment, such that the relationship will be stronger for individuals scoring high on religiosity.

H4b. Religiosity moderates the relationship between involvement and advocacy intention, such that the relationship will be stronger for individuals scoring high on religiosity.

H4c. Religiosity moderates the relationship between involvement and resistance to negative information such that the relationship will be stronger for individuals scoring high on religiosity.

Generally, the religion of Islam promotes values such as equality, honesty, forgiveness and helping others (Jamal and Sharifuddin, 2014). Muslim consumers with high religiosity tend to be more forgiving because of these values. This forgiving nature of religious customers would offset skeptical and negative feelings that may result from any negative experience with their food delivery app provider. Previous research has shown that the degree of religiosity "fosters a sense of formalized commitment in the relationship, encourages greater investment in improving relationship strength, and discourages behavior which would be deemed, harmful to the relationship, and indeed promotes a favourable view of the relationship" (Deb *et al.*, 2021, p. 7). Thus, we propose the following set of hypotheses:

H5a. Religiosity moderates the relationship between commitment and advocacy intention, such that the relationship will be stronger for individuals scoring high on religiosity.

H5b. Religiosity moderates the relationship between commitment and resistance to negative information, such that the relationship will be stronger for individuals scoring high scores on religiosity.

Methodology

To test the hypothesized model, the current study has adopted a positivism philosophical and deductive reasoning approach, which is also consistent with past work (e.g. Ahn and Kwon, 2021; Dogra *et al.*, 2023; Lee and Han, 2022). Our study relied upon data collected from a cross-sectional survey to test the hypotheses.

Instrument development

The multi-item scales used in this study were taken from previous research and adapted to suit the research context. The scale to measure involvement consists of a total of 11 items; four items to measure cognitive involvement, three items to measure enduring involvement, and four to measure situational involvement (Mou *et al.*, 2019). The commitment scale consists of six items, three items to measure continuance commitment and three items to measure affective commitment (Fullerton, 2011). While the three items measuring religiosity were obtained from Jamal and Sharifuddin (2014), the three items measuring resistance to negative information were obtained from Eisingerich *et al.* (2011). Items measuring advocacy intention were obtained from Fullerton (2011). A listing of the multi-item scales and their sources appear in the Appendix.

For the current study, survey development went through various stages with the first being evaluation by experts in the field with the sole intention of improving its fluency and conciseness. Second, two bilingual academics assisted in the back-translation of the questionnaire first from English to Arabic and then from Arabic to English (Brislin, 1970). Any minor discrepancies were resolved after consultation with the coauthors. Third, a pilot test was conducted to determine the relevance, comprehension and clarity of the survey questions. The pilot test allowed for edits to some measurement items based on the respondents' suggestions to

enhance clarity. The online survey was then uploaded via Google form in both Arabic and English languages to reach individuals who had used food delivery apps within the study context (i.e. Saudi Arabia).

Data collection and sample

The target population for this investigation was existing users of food delivery apps. To ensure that only food delivery app users were targeted, the first question in the online survey was a screening question that asked respondents if they had utilized a food delivery app to place orders in the previous six months. Only respondents who answered "yes" to the screening question were allowed to proceed to the main survey. Data were collected from a sample of research participants online wherein an online link containing the structured questionnaire for this study was posted on social media pages for food delivery apps with at least 5,000 members. Therefore, for this study we relied on a self-selected sampling strategy (Fricker, 2008) and further adopted a snowball sampling approach by encouraging potential participants to share the online link of the survey within their networks (see also Osakwe *et al.*, 2022; Hussain *et al.*, 2024). At the end, 530 participants responded to the online questionnaire.

Out of the 530 received responses, 32 were incomplete and thus removed from analysis. The final sample comprised 498 responses; 8.2% of the respondents were under 24 years, 57% were between 25 and 35 years, 33.1% were between 36 and 57 years, and 1.6% were above 57 years. Most of the respondents were females (approximately 70%); 82.4% of the respondents had a university degree and about 70% of them reported a monthly income of less than and/or equal to 8000 Saudi riyals. Finally, the food delivery app frequency of use was divided as: daily users – 3.4%, weekly users – 31.9%, monthly users – 22.5% and occasional users – 42.2%.

Results

Data analysis

Partial least squares structural equation modeling (PLS-SEM) was used to test the proposed model. This method is efficient and effective when dealing with a complex research model, such as one that has Type 2 higher-order constructs with a reflective-formative design (Sarstedt *et al.*, 2019) and mediating and moderating variables (Becker *et al.*, 2018; Nitzl *et al.*, 2016). SmartPLS 3.3.3 software program was used to estimate the suggested model.

Common method bias

Since a cross-sectional survey approach was adopted in this study, two types of statistical assessment of common method bias (CMB) were assessed, namely, the Harman's single factor test (Podsakoff *et al.*, 2003) and the full collinearity test (FC) (Kock and Lynn, 2012; Osakwe *et al.*, 2022). The result from Harman's single factor test shows that the variance explained by the first factor was 30.175% (<40%), indicating that

CMB was not an issue in this study (Babin *et al.*, 2016). Finally, the FC result from Table 1 showed the variance inflation factor (VIF) as being between 1.010 and 2.344, which is below 3.33, suggesting that CMB did not cause any severe issues in this study (Kock and Lynn, 2012).

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Table 1. Measurement properties and full collinearity (FC) test

Construct	Item	Loading	CR	AVE	FC
Affective commitment	ACM1	0.908	0.937	0.833	1.164
	ACM2	0.941			
	ACM3	0.887			
Advocacy intention	AVO1	0.872	0.919	0.791	1.710
	AVO2	0.910			
	AVO3	0.885			
Continuance commitment	CCM1	0.892	0.889	0.729	1.815
	CCM2	0.873			
	CCM3	0.793			
Cognitive involvement	CIT1	0.864	0.774	0.541	1.079
	CIT2	0.546			
	CIT3	D			
	CIT4	0.761			
Enduring involvement	ENI1	0.875	0.903	0.756	1.926
	ENI2	0.846			
	ENI3	0.888			
Religiosity	RELIGION1	0.800	0.828	0.616	1.033
	RELIGION2	0.747			
	RELIGION3	0.807			
Resistance to negative information	RNI1	0.865	0.918	0.788	1.468
	RNI2	0.902			
	RNI3	0.896			
Situational involvement	SIV1	0.918	0.907	0.829	2.344
	SIV2	0.903			
	SIV3	D			
	SIV4	D			

Notes:

D means the item was deleted due to low loading;

ACM denotes affective commitment; AVO denotes advocacy intention; CCM denotes continuous commitment; CIT denotes cognitive involvement; ENI denotes enduring involvement; RNI denotes resistance to negative information and SIV denotes situation involvement items

Source: Created by the authors

Assessment of the measurement model

In the measurement model, factor loading was first assessed. The result (see Table 1) showed that the majority of the items achieved loadings above the 0.5 threshold value (Hair *et al.*, 2019), except for items CIT3 in cognitive involvement, and SIV3 and SIV4 in situational involvement. These items (CIT3, SIV3 and SIV4) were removed from the study due to low loading. Subsequently, we examined both the composite reliability (CR) and average variance extracted (AVE) criteria. Table 1 shows that all the constructs for both CR and AVE exceeded the recommended values of 0.70 and 0.50, thus both convergent validity and reliability were established.

The heterotrait-monotrait ratio of correlation (HTMT) criterion was performed to examine the discriminant validity (Henseler *et al.*, 2015). The result in Table 2 shows that all constructs exhibit satisfactory discriminant validity with values below the threshold of 0.85 (Hair *et al.*, 2019; Henseler *et al.*, 2015).

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Table 2. Discriminant validity test (HTMT criterion)

Construct	ACM	AVO	CCM	CIT	ENI	RELIGION	RNI	SIV
ACM								
AVO	0.579							
ССМ	0.745	0.561						
CIT	0.718	0.591	0.801					
ENI	0.596	0.624	0.647	0.694				
RELIGION	0.284	0.370	0.380	0.652	0.363			
RNI	0.587	0.517	0.622	0.548	0.456	0.275		
SIV	0.617	0.733	0.755	0.786	0.800	0.432	0.491	

Notes:

ACM denotes affective commitment; AVO denotes advocacy intention; CCM denotes continuous commitment; CIT denotes cognitive involvement; ENI denotes enduring involvement; RNI denotes resistance to negative information and SIV denotes situation involvement items

Source: Created by the authors

Assessment of higher-order construct.

To assess the higher-order construct (Type 2: reflective-formative), this study applied the two-stage approach used by Sarstedt *et al.* (2019) (see Table 3). In the initial step, a global item for involvement (INV) (i.e. "Overall, I'm likely to be involved in using the delivery app to order food") and Commitment (COMM) (i.e. "Overall, I'm likely to be committed in using the delivery app to order food) were developed and assessed. First, the redundancy analysis showed a path coefficient value of 0.709 for INV and 0.717 for COMM; thus convergent validity is established according to the recommended threshold value by Cheah *et al.* (2018). Second, the results exhibited that the VIF values ranged between 1.686 and 2.059; i.e. below 3.3, thus showing that the dimensions are distinct. Finally, all dimensions of involvement and commitment were found to be statistically significant (p < 0.05).

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Table 3. Higher-order construct assessment

Higher-order construct	VIF	Convergent validity			
Involvement (INV)	(i) Cognitive involvement (CIT)	0.362	t-value = 6.840**	1.729	0.717
	(ii) Enduring involvement (ENI)	0.304	t-value = 5.153**	1.912	
	(iii) Situational involvement (SIV)	0.489	t-value = 8.676**	2.059	
Commitment (COMM)	(i) Affective commitment (ACM)	0.523	t-value = 10.141**	1.686	0.709
	(ii) Continuance commitment (CCM)	0.582	t-value = 11.583**	1.686	

Notes:

CIT denotes cognitive involvement; ENI denotes enduring involvement; SIV denotes situation involvement; ACM denotes affective commitment and CCM denotes continuous commitment

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Assessment of the structural model

After ensuring there was no collinearity issue in the structural model stage (VIF < 3.3), this study used the bootstrapping procedure with 5,000 subsamples to test the proposed hypotheses. The findings demonstrated that all direct relationships were significant; thus, H1a to H2b were supported, especially after controlling for the effect of PEU. Specifically, involvement on commitment (β = 0.714, p < 0.01), involvement on advocacy intention (β = 0.492, p < 0.01), commitment on advocacy intention (β = 0.196, p < 0.01), involvement on resistance to negative information (β = 0.495, p < 0.01) were found to have positive significant effects. Overall, the proposed hypotheses were able to explain 50.4% of the variance in commitment, 39.1% of the variance in advocacy intention and 20.7% of the variance in resistance to negative information (Table 4).

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					BCa C					
Relationship	Std beta	Std error	<i>t</i> - value	<i>p</i> - value	LB	UB	VIF	f ²	R ²	Q2_predict
Direct effect										
H1a: Involvement → commitment	0.714	0.025	28.9 03	0.00	0.67 0	0.7 52	NA	NA	0.5 10	0.504
H1b: Involvement → Advocacy intention	0.492	0.052	9.40 7	0.00	0.39 8	0.5 72	2.0 46	0.2 04	0.4 20	0.391
H1c: Involvement → Resistance to negative information	0.113	0.061	1.84 1	0.03	0.00 4	0.2 07	2.0 46	0.0 09	0.3 37	0.207
H2a: Commitment → Advocacy intention	0.196	0.048	4.11 0	0.00	0.12 2	0.2 79	2.0 51	0.0 32		
H2b: Commitment → Resistance to negative information	0.495	0.058	8.47 2	0.00	0.39 9	0.5 88	2.0 51	0.1 80		
Indirect effect										
$H3a$: Involvement \rightarrow Commitment \rightarrow Advocacy intention	0.140	0.034	4.12 4	0.00	0.07 4	0.2 08				
$H3b$: Involvement \rightarrow Commitment \rightarrow Resistance to negative information	0.353	0.044	8.04 5	0.00	0.26 9	0.4 38				
Interaction effect										
H4a: Involvement*Religion → Commitment	0.068	0.071	0.95 3	0.17 1	-0.1 50	0.0 93		0.0 10		
H4b: Involvement*Religion → Advocacy intention	0.131	0.055	2.38 2	0.02 6	0.06 3	0.2 02		0.0 21		

H4c: Involvement*Religion → Resistance to negative information	0.029	0.059	0.48 9	0.31 3	-0.1 03	0.0 91	0.0 01		
H5a: Commitment*Religion → Advocacy intention	0.150	0.060	2.50 0	0.01 8	0.11 1	0.2 62	0.0 25		
H5b: Commitment* Religion → Resistance to negative information	0.107	0.057	1.85 5	0.03 6	0.01 9	0.2 12	0.0 20		

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To assess the substantiality of each path, effect size (f^2) by Cohen (1988) was used for reporting. The hypothesized paths of H1a ($f^2 = 0.204$) exhibited medium effect in the study but H1b ($f^2 = 0.032$) exhibited a small effect. On the other hand, the hypothesized path of H1c ($f^2 = 0.009$) showed a trivial effect and H2b ($f^2 = 0.180$) showed a medium effect (see Table 4).

Next, we assessed the mediating effect using guidelines from Preacher and Hayes (2008). Results (see Table 4) showed that commitment mediated the relationship between involvement and AVO ($\beta = 0.353$, p < 0.01), and Involvement and RNI ($\beta = 0.140$, p < 0.01). Thus, H3a and H3b were supported.

A two-stage approach was used to assess the moderating effect of religiosity (i.e. H4a to H5b) (Becker *et al.*, 2018). Three of the proposed five interaction effects were significant. Specifically, H4b ($\beta = 0.131$, p < 0.05), H5a ($\beta = 0.150$, p < 0.05) and H5b ($\beta = 0.107$, p < 0.05) were significant. Finally, the results of the hypotheses testing are shown in Table 5.

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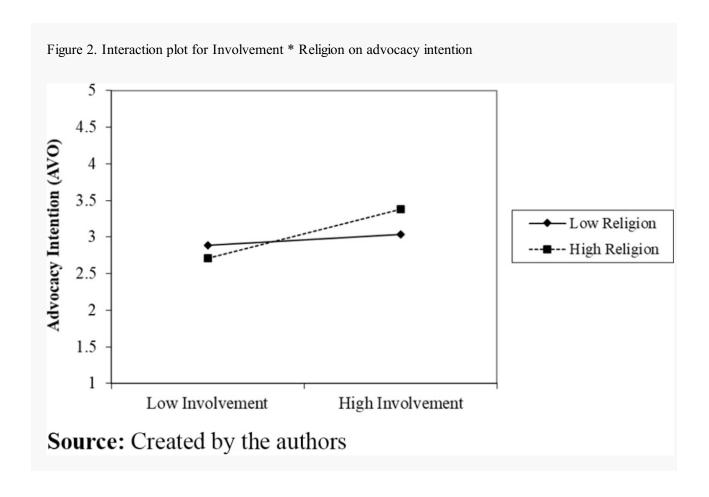
Table 5. Predictive power of the research model based on $PLS_{predict}$

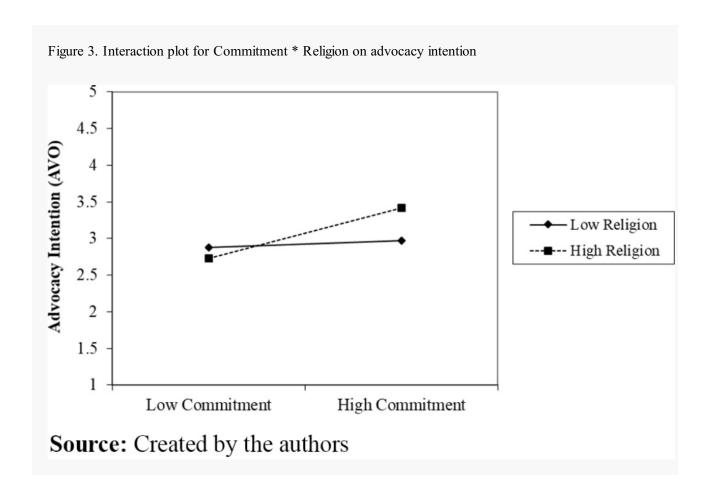
		PLS		LM	PLS-LM		
Item	RMSE	Q ² _predict	RMSE	Q ² _predict	RMSE	Q ² _predict	Decision on predictive relevance
AVO1	0.886	0.331	0.888	0.327	-0.002	0.004	Moderate
AVO2	0.920	0.270	0.922	0.267	-0.002	0.003	
AVO3	0.951	0.317	0.942	0.329	0.009	-0.012	
RNI1	1.091	0.178	1.099	0.165	-0.008	0.013	Strong
RNI2	1.230	0.172	1.236	0.164	-0.006	0.008	
RNI3	1.199	0.139	1.206	0.129	-0.007	0.010	

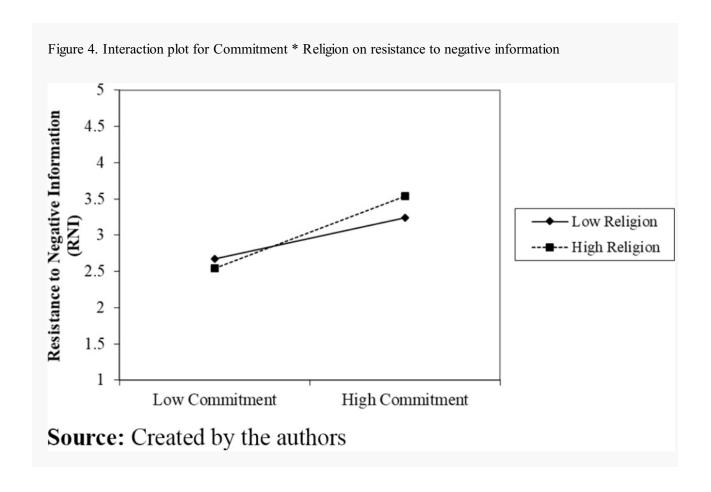
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Simple plot analysis

To elaborate on the moderating analysis results, interaction plots have been made available in Figures 2–4. The lines labeled High Religion has a steeper gradient than those labeled Low Religion. The results demonstrate that the relationships between involvement and advocacy intention, commitment and advocacy intention, and commitment and resistance to negative information were stronger when religion was considered by the consumers and further reinforcing support for *H4b*, *H5a* and *H5b*.







Evaluation of the research model's out-of-sample predictive power

In line with the literature, the predictive relevance was evaluated using Q²_predict (Shmueli *et al.*, 2019). The Q²_predict values for all endogenous constructs in Table 5 are greater than 0 indicating the presence of the model's predictive relevance. Corroborating this result, we extended our prediction technique using PLS_{predict} based on endogenous item levels (Shmueli *et al.*, 2019). Results showed that the endogenous items for resistance to negative information exhibited a strong predictive relevance because the RMSE value from the PLS (actual model) has a smaller error compared to the linear model (a benchmark model). In addition, the Q²_predict results for the endogenous items for resistance to negative information showed that the value from PLS is higher than the LM. In contrast, advocacy intention showed moderate predictive relevance because one of the items (see AVO3) had a larger error compared to the linear model. Also, the Q2_predict result indicated a negative value. Therefore, it is surmised that the proposed model demonstrates moderate to strong out-of-sample predictive power.

Discussion

The first set of three hypotheses proposed that involvement is positively related to commitment and behavioral outcomes including advocacy intention and resistance to negative information. Results confirmed the direct positive relationships between involvement and commitment, advocacy intention and resistance to negative information. Zhu *et al.* (2019) found similar results where involvement had a positive effect on a different behavioral outcome in the context of an online platform that enables business-to-business cross-border transactions in China. Involvement levels were also found to impact travel-related e-commerce adoption when considered in conjunction with risk (Herrero and Martín, 2012).

While studying online brand engagement, Loureiro *et al.* (2017) point to the crucial role of involvement as an antecedent with the ultimate goal of achieving electronic WOM, an antecedent to advocacy intention. Involvement was found to be an important driver of brand engagement which is an antecedent of e-WOM. Bilro *et al.*'s (2019) review of travel-related Yelp comments led to the conclusion that brand advocacy can result from customer involvement and engagement. Similar to the findings of this study where a positive relationship was found between involvement and resistance to negative information, Wallace *et al.* (2014) found that consumers who engage with socially self-expressive brands were more likely to forgive wrongdoing by the brand. The emerging literature on brand love, characterized by high involvement among others, also suggests resistance to brand switching and negative information as outcomes (Nguyen and Feng, 2020).

The second and third sets of hypotheses deal with the role of commitment on advocacy intention and resistance to negative information. As proposed, commitment was found to have a direct positive relationship with both advocacy intention and resistance to negative information in this study. The relationship between commitment and PWOM is well established in literature in various contexts. For example, Marinković and Kalinić (2020) found continuance intention to be an important predictor of WOM in mobile commerce. Affective commitment was also found to be the strongest predictor of WOM by Kalinic *et al.* (2019). Ryu and Park (2020) studied commitment to social media platforms when used for shopping. Similar to the findings of this study, the authors found that committed consumers were more likely to share their shopping experiences and recommend the platform to others.

Similar to the results of this study, committed customers who have a love for the brand or service provider have been found to be more forgiving and resistant to negative information (e.g. Bairrada *et al.*, 2018). The current study also found that commitment mediates the relationship between involvement, advocacy intention and resistance to negative information, making the current study the first to report on this important finding in the food delivery app context.

The last set of hypotheses proposed that religiosity will moderate the relationships between involvement and commitment; involvement, and advocacy intention and resistance to negative information; and commitment, and advocacy intention and resistance to negative information. The results of this study confirmed that religiosity moderates the relationship between involvement and advocacy intention. The findings revealed that the relationships between commitment, and advocacy intention and resistance to negative information were also strengthened under conditions of high religiosity. Based on cross-sectional data of shoppers from three

different regions of the USA, Swimberghe *et al.* (2009) also confirmed the association between religious commitment, store loyalty and complaint intentions. Broadly, the results of this study are consistent with the religious values of Islam which include forgiveness and helping others (Jamal and Sharifuddin, 2014). By extension, those committed to food delivery apps may share the benefits of the specific app with their friends and family. In addition, because religious customers tend to be more forgiving when committed to a food delivery app, customers with high religiosity may be more forgiving of mistakes.

The findings of this study related to religiosity add to the sparse literature on the role of religion in influencing consumer behavior in a digital context. Although not directly related to the constructs of this study, Soomro (2019) is the only empirical study in consumer behavior to confirm the moderating role of religion between behavioral intention and use behavior in the context of e-payment among Saudi banking customers. The findings of our study further lend some support to the research of Elsotouhy *et al.* (2023), which demonstrated that Islamic religiosity moderates the impact of customer engagement on mobile payment usage for donations.

Notably, the findings of this study suggest that simply using existing models like ICM may not be sufficient, especially in non-Western markets. Contextual factors, such as religiosity, are important for understanding consumer decision-making in this market. Therefore, a significant aspect of this study's findings is the revelation of religiosity's moderating influence on three key relationships:

- 1. the link between customer involvement and advocacy intention;
- 2. the link between customer commitment and advocacy intention; and
- 3. the link between customer commitment and resistance.

To the authors' knowledge, these findings represent the first documentation of such relationships in the literature on online food delivery services and, by extension, in hospitality and market research.

Conclusion

The online food delivery market in Saudi Arabia is projected to grow significantly in the coming years as the country is experiencing a significant increase in mobile phone purchases and app downloads (Arab News, 2022; Perez, 2020; Statista, n.d.). Due to this continued, predicted growth of food delivery apps and scholars' calls for researching issues related to understanding consumer behavior with respect to app usage, this study's main goal was to examine food delivery app consumers' post-adoption behavior using the ICM. To test the study's hypotheses, data were collected from consumers in Saudi Arabia who had answered "yes" to using a food delivery app at least once in the previous six months. The first set of hypotheses confirmed that involvement was positively related to commitment and to post-adoption behaviors including advocacy intention and resistance to negative information. Results of the second and third sets of hypotheses proposed both a direct and mediating role of commitment on advocacy intention and resistance to negative information; these relationships were confirmed. The last set of hypotheses tested the moderating role of religiosity among the

proposed relationships in the research model; results only confirmed the moderating role of religiosity between involvement and advocacy intention, and commitment and advocacy intention and commitment and resistance to negative information. In other words, these relationships were strengthened for individuals who scored high on religiosity.

Theoretical contributions

This study significantly contributes to the field of hospitality research and the emerging literature on food delivery services, with a particular focus on food delivery apps, while using ICM. Notably, it stands out as one of the pioneering studies to use ICM in investigating online food delivery services, with a specific focus on the Saudi Arabian context.

Criticisms have been raised regarding the application of this model due to its lack of contextualization, particularly within the realms of hospitality, tourism and leisure (Chang and Gibson, 2015). By incorporating religiosity – a pivotal decision-making criterion in Arab nations – this research enriches existing studies on ICM (Beatty et al., 1988; Iwasaki and Havitz, 2004). Moreover, empirical inquiries into the influence of religiosity on consumer behavior and service research are scarce, especially within the realm of technology-enabled hospitality services like food delivery apps. This study fills this void by examining the role of religiosity in the food delivery app context, positioning it as the first in marketing and hospitality literature to explore how religiosity, particularly Islamic religiosity, impacts the relationships between customer involvement, commitment, advocacy intention and resistance to negative information. Consequently, it advances our empirical understanding of how post-adoption outcomes related to food delivery app usage are shaped by contextual factors such as religiosity.

Furthermore, this study, alongside research conducted by Ahn and Kwon (2021), Dogra *et al.* (2023), Koay *et al.* (2022) and Lee and Han (2022), contributes to a deeper comprehension of the crucial factors influencing post-adoption usage of food delivery apps. These insights have direct implications for managerial practices, which are discussed below.

Managerial/practical implications

The current study has a number of managerial/practical implications. First, given the roles that situational, cognitive and enduring involvement play – as this study makes clear – it is critical that food delivery app developers to collaborate closely with their restaurant partners to provide current, accurate information about menu items, prices and delivery costs in order to increase consumer involvement. The design process must also take into account the functional aspects of food delivery apps, such as the capacity to search, browse and view by price, popularity, food category and geographic distance, among other factors. The study highlights the significance of customer interaction with food delivery apps and the need for collaboration between these app developers and their restaurant partners to ensure accurate information and user-friendly navigation. This could involve setting up regular meetings, triggering a message whenever the restaurant's menu or the functional

features of the app are altered and establishing protocols to handle any complaint patterns from patrons.

Second, the study's favorable correlations between advocacy intention, dedication and resistance to unfavorable information suggest that meal delivery app developers should provide avenues for users to share their experiences. Developers of these must provide opportunities to make it simple for users to post reviews. Additional tactics for boosting customer advocacy opportunities included following up with customers to encourage reviews, offering incentives for reviews and interacting with reviewers to express gratitude and occasionally surprise them with freebies or discount codes.

Social implications

The findings of this study have societal ramifications as well because they indicate that high religiosity customers – Muslim customers in particular – have stronger correlations between involvement, advocacy intention, commitment and advocacy intention and resistance to negative information. Muslims typically share similar social ideals and choices when it comes to Halal consumption. Thus, creating opportunities for customers with high religiosity to be more involved with the food delivery app could lead to additional advocacy. Opportunities can specifically be added during the holy month of Ramadan by having food delivery apps reflect non-fasting hours; this can be accomplished by partnering with local restaurants. Marketers would also benefit from learning more about the value priorities of Muslim customers. Stemming from this, offering deals, discounts and seasonal promotions may lead to advocacy. In addition, managers need to determine ways to best engage customers with high religiosity within the electronic and mobile commerce contexts. This may include identifying and engaging with online Muslim influencers and community leaders which would influence the Muslim community's decisions.

Limitations and future research

While this study does make important contributions to the empirical literature and specifically to research on the evolving and expanding food delivery apps business, it is not without limitations. Importantly, because the context for this study was Saudi Arabia, a predominantly Muslim country, religiosity was examined through the lens of one religion. Thus, results cannot be generalized to other contexts. The inclusion of respondents practicing other religions may yield different conclusions, and therefore there is a need for further research that takes into consideration different religious beliefs. The hypothesized model in this work could also be extended by including other context-specific factors such as the availability of food diversity, packaging and hygiene factors.

Acknowledgments

Summary statement of contribution: This research contextualizes the ICM via the inclusion of religiosity, a key decision-making criterion in Arab nations and thereby enriching current ICM research. Empirical research

on the role of religiosity on consumer behavior and service research is sparse, specifically in the context of hospitality technologies such as food delivery apps; this study addresses this particular gap utilizing data from Saudi Arabia, an emerging market.

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References



Azzahra, P.S., 'Afif, P.L. and Pangaribuan, C.H. (2023), "Analysis of the effect of brand experience and brand love toward resistance to negative information of the McDonald's brand", FIRM Journal of Management Studies, Vol. 8 No. 1, pp. 15-23. Babin, B.J., Griffin, M. and Hair, J.F. (2016), "Heresies and sacred cows in scholarly marketing publications", Journal of Business Research, Vol. 69 No. 8, pp. 3133-3138. **(1)** Bairrada, C.M., Coelho, A. and Lizanets, V. (2019), "The impact of brand personality on consumer behavior: the role of brand love", Journal of Fashion Marketing and Management: An International Journal, Vol. 23 No. 1, pp. 30-47. Bartikowski, B. and Walsh, G. (2011), "Investigating mediators between corporate reputation and customer citizenship behaviors", Journal of Business Research, Vol. 64 No. 1, pp. 39-44. **(1)** Beatty, S.E., Homer, P. and Kahle, L.R. (1988), "The involvement-commitment mode: theory and implications", Journal of Business Research, Vol. 16 No. 2, pp. 149-167. Becker, J.M., Ringle, C.M. and Sarstedt, M. (2018), "Estimating moderating effects in PLS-SEM and PLSc-SEM: interaction term generation*data treatment", Journal of Applied Structural Equation Modeling, Vol. 2 No. 2, pp. 1-21. • Bilro, R.G., Loureiro, S.M.C. and Guerreiro, J. (2019), "Exploring online customer engagement with hospitality products and its relationship with involvement, emotional states, experience and brand advocacy", Journal of Hospitality Marketing and Management, Vol. 28 No. 2, pp. 147-171. • Brill, J. (2023), "More than 2.85 billion people to use online food delivery in 2023, according to TradingPlatforms.com", available at: www.qualityassurancemag.com/news/more-than-2-85-billion-people-to-us e-online-food-delivery-in-2023-according-to-tradingplatforms/#:~:text=By%20the%20end%20of%202021,more %20than%203.8%20billion%20users Brislin, R.W. (1970), "Back-translation for cross-cultural research", Journal of Cross-Cultural Psychology, Vol. 1 No. 3, pp. 185-216. **(1)** Chang, S. and Gibson, H.J. (2015), "The relationships between four concepts (involvement, commitment, loyalty, and habit) and consistency in behavior across leisure and tourism", Tourism Management Perspectives, Vol. 13, pp. 41-50. Cheah, J.H., Sarstedt, M., Ringle, C.M., Ramayah, T. and Ting, H. (2018), "Convergent validity assessment of formatively measured constructs in PLS-SEM: on using single-item versus multi-item measures in redundancy analyses", International Journal of Contemporary Hospitality Management, Vol. 30 No. 11, pp. 3192-3210.

Cohen, J. (1988), Statistical Power Analysis for the Behavioral Sciences, Lawrence Erlbaum, Hillside, NJ.

Deb, M., Sharma, V.K. and Amawate, V. (2021), "CRM, skepticism and patronage intention - the mediating and moderating role of satisfaction and religiosity", Journal of Strategic Marketing, Vol. 29 No. 4, pp. 316-336. • Dogra, N., Adil, M., Sadiq, M., Dash, G. and Paul, J. (2023), "Unraveling customer repurchase intention in OFDL context: an investigation using a hybrid technique of SEM and fsQCA", Journal of Retailing and Consumer Services, Vol. 72, p. 103281. 0 Drossos, D.A., Kokkinaki, F., Giaglis, G.M. and Fouskas, K.G. (2014), "The effects of product involvement and impulse buying on purchase intentions in mobile text advertising", Electronic Commerce Research and Applications, Vol. 13 No. 6, pp. 423-430. Elgammal, I. and Al-Modaf, O. (2023), "The antecedent of the sustainable purchasing attitudes among generation Z: a terror management theory perspective", Sustainability, Vol. 15 No. 12, p. 9323. • Elgammal, I., Baeshen, M.H. and Alhothali, G.T. (2022), "Entrepreneurs' responses to covid-19 crisis: a holistic dynamic capabilities perspective in the Saudi food and beverage sector", Sustainability, Vol. 14 No. 20, p. 13111. • Elgammal, I., Alhothali, G.T. and Sorrentino, A. (2023), "Segmenting Umrah performers based on outcomes behaviors: a cluster analysis perspective", Journal of Islamic Marketing, Vol. 14 No. 3, pp. 871-891. Elsharnouby, M.H., Mohsen, J., Saeed, O.T. and Mahrous, A.A. (2021), "Enhancing resilience to negative information in consumer-brand interaction: the mediating role of brand knowledge and involvement", Journal of Research in Interactive Marketing, Vol. 15 No. 4, pp. 571-591. Evanschitzky, H., Iyer, G.R., Plassmannc, H., Niessinga, J. and Mefferta, H. (2006), "The relative strength of affective commitment in securing loyalty in service relationships", Journal of Business Research, Vol. 59 No. 12, pp. 1207-1213. **(1)** Fricker, R.D. (2008), "Sampling methods for web and e-mail surveys", in Fielding, N., Lee, R.M. and Blank, G. (Eds), The SAGE Handbook of Online Research Methods, SAGE Publication, pp. 195-216. AQ7 • Fullerton, G. (2011), "Creating advocates: the roles of satisfaction, trust and commitment", Journal of Retailing and Consumer Services, Vol. 18 No. 1, pp. 92-100. **(1)** Germann, F., Grewal, R., Ross, W.T., Jr and Srivastava, R.K. (2014), "Product recalls and the moderating role of brand commitment", Marketing Letters, Vol. 25 No. 2, pp. 179-191. **(1)** Hair, J.F., Sarstedt, M. and Ringle, C.M. (2019), "Rethinking some of the rethinking of partial least squares",

European Journal of Marketing, Vol. 53 No. 4, pp. 566-584.

Harrison-Walker, L.J. (2001), "The measurement of word-of-mouth communication and an investigation of service quality and customer commitment as potential antecedents", Journal of Service Research, Vol. 4 No. 1, pp. 60-75. **(1)** Helgeson, J.G., Voss, K.E. and Terpening, W.D. (2002), "Determinants of mail-survey response: survey design factors and respondent factors", Psychology and Marketing, Vol. 19 No. 3, pp. 303-328. • Henseler, J., Ringle, C.M. and Sarstedt, M. (2015), "A new criterion for assessing discriminant validity in variance-based structural equation modeling", Journal of the Academy of Marketing Science, Vol. 43 No. 1, pp. 115-135. Herrero, A. and Martín, H.S. (2012), "Effects of the risk sources and user involvement on e-commerce adoption: application to tourist services", Journal of Risk Research, Vol. 15 No. 7, pp. 841-855. • Homburg, C. and Ukrainets, K. (2021), "Saving money or losing face? An international study on social stigmatization in discount stores", Psychology and Marketing, Vol. 38 No. 5, pp. 908-932. Hsiao, C.H., Shen, G.C. and Chao, P.J. (2015), "How does brand misconduct affect the brand-customer relationship", Journal of Business Research, Vol. 68 No. 4, pp. 862-866. • Hsu, C.L., Liu, C.C. and Lee, Y.D. (2010), "Effect of commitment and trust towards micro-blogs on consumer behavioral intention: a relationship marketing perspective", International Journal of Electronic Business Management, Vol. 8 No. 4, pp. 292-303. Hussain, S., Shoukat, M.H., Elgammal, I., Khan, M.A. and Selem, K.M. (2024), "Potential effects of customer-brand identification and self-representation on aliexpress advocacy: a comparative study", Global Knowledge, Memory and Communication. **(1)** Hwang, H. (2018), "Do religion and religiosity affect consumers' intentions to adopt pro-environmental behaviors?", International Journal of Consumer Studies, Vol. 42 No. 6, pp. 664-674. Inoue, Y., Funk, D.C. and McDonald, H. (2017), "Predicting behavioral loyalty through corporate social responsibility: the mediating role of involvement and commitment", Journal of Business Research, Vol. 75, pp. 46-56. • Iwasaki, Y. and Havitz, M.E. (2004), "Examining relationships between leisure involvement, psychological commitment and loyalty to a recreation agency", Journal of Leisure Research, Vol. 36 No. 1, pp. 45-72. Jamal, A. and Sharifuddin, J. (2015), "Perceived value and perceived usefulness of halal labeling: the role of religion and culture", Journal of Business Research, Vol. 68 No. 5, pp. 933-941. • Kasamani, T., Abass, A. and Mostapha, N. (2022), "The antecedents and consequences of customer inspiration: the mediating role of perceptual fluency in the online shopping context", International Review of

Management and Marketing, Vol. 12 No. 5, pp. 5-11.

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Khan, I., Hollebeek, L.D., Fatma, M., Islam, J.U. and Riivits-Arkonsuo, I. (2020), "Customer experience and commitment in retailing: does customer age matter?", Journal of Retailing and Consumer Services, Vol. 57, p. 102219.

Kiani, I., Laroche, M. and Paulin, M. (2016), "Development of market mavenism traits: antecedents and moderating effects of culture, gender, and personal beliefs", Journal of Business Research, Vol. 69 No. 3, pp. 1120-1129.

Koay, K.Y., Cheah, C.W. and Chang, Y.X. (2022), "A model of online food delivery service quality, customer satisfaction and customer loyalty: a combination of PLS-SEM and NCA approaches", British Food Journal, Vol. 124 No. 12, pp. 4516-4532.

Kock, N. and Lynn, G.S. (2012), "Lateral collinearity and misleading results in variance-based SEM: an illustration and recommendations", Journal of the Association for Information Systems, Vol. 13 No. 7, pp. 546-580.

Lee, S.O. and Han, H. (2022), "Food delivery application quality in customer brand loyalty formation: identifying its antecedent and outcomes", International Journal of Hospitality Management, Vol. 107, p. 103292.

Loureiro, S.M.C., Gorgus, T. and Kaufmann, H.R. (2017), "Antecedents and outcomes of online brand engagement: the role of brand love on enhancing electronic-word-of-mouth", Online Information Review, Vol. 41 No. 7, pp. 985-1005.

Mansori, S., Sambasivan, M. and Md-Sidin, S. (2015), "Acceptance of novel products: the role of religiosity, ethnicity and values", Marketing Intelligence and Planning, Vol. 33 No. 1, pp. 39-66.

Marinković, V. and Kalinić, Z. (2020), "Understanding consumers' continuance intention and word of mouth in mobile commerce based on extended UTAUT model", in Liébana, F., Kalinić, Z., de Luna, I.R. and Rodríguez-Ardura, I. (Eds), Impact of Mobile Services on Business Development and e-Commerce, IGI Global, pp. 108-125.

Mayer, R.C. and Schoorman, F.D. (1992), "Predicting participation and production outcomes through a two-dimensional model of organizational commitment", Academy of Management Journal, Vol. 35 No. 3, pp. 671-684.

Mehrolia, S., Alagarsamy, S. and Solaikutty, V.M. (2021), "Customers response to online food delivery services during COVID-19 outbreak using binary logistic regression", International Journal of Consumer Studies, Vol. 45 No. 3, pp. 396-408.

Mou, J., Zhu, W. and Benyoucef, M. (2020), "Impact of product description and involvement on purchase

•

intention in cross-border e-commerce", Industrial Management and Data Systems, Vol. 120 No. 3, pp. 567-586. Mousavi, S., Rper, S. and Keeling, K.A. (2017), "Interpreting social identity in online brand communities: considering posters and lurkers", Psychology and Marketing, Vol. 34 No. 4, pp. 376-393. • Nam, S. (2020), "Moderating effects of consumer empowerment on the relationship between involvement in eco-friendly food and eco-friendly food behavior", International Journal of Consumer Studies, Vol. 44 No. 4, pp. 297-305. Nguyen, H.T. and Feng, H. (2020), "Antecedents and financial impacts of building brand love", International Journal of Research in Marketing, doi: 10.1016/j.ijresmar.2020.10.001. AQ8 Nitzl, C., Roldan, J.L. and Carrion, G.C. (2016), "Mediation analysis in partial least squares path modelling: helping researchers discuss more sophisticated models", Industrial Management and Data Systems, Vol. 116 No. 9, pp. 1849-1864. Osakwe, C.N. (2019), "Understanding customer-perceived quality in informal stores", Journal of Services Marketing, Vol. 33 No. 2, pp. 133-147. • Osakwe, C.N., Hudik, M., Říha, D., Stros, M. and Ramayah, T. (2022), "Critical factors characterizing consumers' intentions to use drones for last-mile delivery: does delivery risk matter?", Journal of Retailing and Consumer Services, Vol. 65, p. 102865. Patel, M. (2012), "Influence of religion on shopping behavior of consumers-an exploratory study", Abhinav National Monthly Refereed Journal of Research in Commerce and Management, Vol. 1 No. 5, pp. 68-78. • Perez, S. (2020), "Coronavirus impact sends app downloads, usage and consumer spending to record highs in Q2", available at: https://techcrunch.com/2020/07/09/coronavirus-impact-sends-app-downloads-usageand-consumer-spending-to-record-highs-in-q2/ (accessed 10 October 2020). **(1)** Podsakoff, P.M., MacKenzie, S.B., Lee, J.Y. and Podsakoff, N.P. (2003), "Common method biases in behavioral research: a critical review of the literature and recommended remedies", Journal of Applied Psychology, Vol. 88 No. 5, pp. 879-903. • Poonpobsakul, Y., Phiarat, J., Punpanich, C., Sailord, N. and Dansiri, W. (2023), "Influence of service quality on affective commitment and advocacy intention to support streaming video platforms", NIDA Business Journal, Vol. 32, pp. 36-55. •

Preacher, K.J. and Hayes, A.F. (2008), "Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models", Behavior Research Methods, Vol. 40 No. 3, pp. 879-891.

Rhee, H.L. and Lee, K.H. (2021), "Enhancing the sneakers shopping experience through virtual fitting

•

using augmented reality", Sustainability, Vol. 13 No. 11, pp. 1-14. Richins, M.L. and Root-Shaffer, T. (1988), "The role of evolvement and opinion leadership in consumer word-of-mouth; an implicit model made explicit", in Houston, M.J. (Ed.), Advances in Consumer Research, Vol. 15, Association for Consumer Research, Provo, UT, pp. 32-36. **(1)** Ryu, S. and Park, J. (2020), "The effects of benefit-driven commitment on usage of social media for shopping and positive word-of-mouth", Journal of Retailing and Consumer Services, Vol. 55, p. 102094. Sanchez-Franco, M.J. (2009), "The moderating effects of involvement on the relationships between satisfaction, trust and commitment in e-Banking", Journal of Interactive Marketing, Vol. 23 No. 3, pp. 247-258. • Sarstedt, M., Hair, J.F., Cheah, J., Becker, J.M. and Ringlee, C.M. (2019), "How to specify, estimate, and validate higher-order constructs in PLS-SEM", Australasian Marketing Journal, Vol. 27 No. 3, pp. 197-211. Shah Alam, S., Mohd, R. and Hisham, B. (2011), "Is religiosity an important determinant on Muslim consumer behavior in Malaysia?", Journal of Islamic Marketing, Vol. 2 No. 1, pp. 83-96. **(1)** Sharma, P., Roy, R. and Rabbanee, F.K. (2020), "Interactive effects of situational and enduring involvement with perceived crowding and time pressure in pay-what-you-want (PWYW) pricing", Journal of Business Research, Vol. 109, pp. 88-100. • Shmueli, G., Sarstedt, M., Hair, J.F., Cheah, J.H., Ting, H., Vaithilingam, S. and Ringle, C.M. (2019), "Predictive model assessment in PLS-SEM: guidelines for using PLSpredict", European Journal of Marketing, Vol. 53 No. 11, pp. 2322-2347. Sood, J. and Nasu, Y. (1995), "Religiosity and nationality: an exploratory study of their effect on consumer behavior in Japan and the United States", Journal of Business Research, Vol. 34 No. 1, pp. 1-9. • Soomro, Y.A. (2019), "Understanding the adoption of SADAD e-payments: UTAUT combined with religiosity as moderator", International Journal of E-Business Research, Vol. 15 No. 1, pp. 55-74. Su, D.N., Nguyen-Phuoc, D.O., Duong, T.H., Dinh, M.T.T., Luu, T.T. and Johnson, L. (2022), "How does quality of mobile food delivery services influence customer loyalty? Gronroos's service quality perspective", International Journal of Contemporary Hospitality Management, Vol. 34 No. 11, pp. 4178-4205. • Swimberghe, K., Sharma, D. and Flurry, L. (2009), "An exploratory investigation of the consumer religious

Tang, G. and Li, D. (2015), "Is there a relation between religiosity and customer loyalty in the Chinese

commitment and its influence on store loyalty and consumer complaint intentions", Journal of Consumer

Marketing, Vol. 26 No. 5, pp. 340-347.

•

context?", International Journal of Consumer Studies, Vol. 39 No. 6, pp. 639-647. • Traylor, M.B. (1981), "Product involvement and brand commitment", Journal of Advertising Research, Vol. 21 No. 6, pp. 51-56. Traylor, M.B. (1984), "Ego involvement and brand commitment: not necessarily the same", Journal of Consumer Marketing, Vol. 1 No. 2, pp. 75-79. • Van Schalkwyk, J. and Van Schalkwyk, J. (2020), "The advocacy intention of millennials on social Meia regarding smartphone brands", International Journal of Business and Management Studies, Vol. 12 No. 1, pp. 116-132. • van Tonder, E. and Petzer, D. (2023), "Promoting customer advocacy in the ride-hailing sector: a generational cohort perspective", South African Journal of Economic and Management Sciences, Vol. 26 No. 1, pp. 1-14. Wallace, E., Buil, I. and de Chernatony, L. (2014), "Consumer engagement with self-expressive brands: brand love and WOM outcomes", Journal of Product and Brand Management, Vol. 23 No. 1, pp. 33-42. **(1)** Wangenheim, F.V. (2005), "Postswitching negative word of mouth", Journal of Service Research, Vol. 8 No. 1, pp. 67-78. • Ward, J.C. and Ostrom, A.L. (2006), "Complaining to the masses: the role of protest framing in customercreated complaint web sites", Journal of Consumer Research, Vol. 33 No. 2, pp. 220-230. • Wilson, J.A.J. and Liu, J. (2010), "Shaping the halal into a brand?", Journal of Islamic Marketing, Vol. 1 No. 2, pp. 107-123. **(1)** Worthington, E.L. Jr., Wade, N.G., Hight, T.L., Ripley, J.S., McCullough, M.E., Berry, J.W. and O'Connor, L. (2003), "The religious commitment inventory-10: development, refinement, and validation of a brief scale for research and counseling", Journal of Counseling Psychology, Vol. 50 No. 1, pp. 84-96. Wu, H.C. and Chang, Y.Y. (2019), "What drives advocacy intentions? A case study of mainland chinese tourists to Taiwan", Journal of China Tourism Research, Vol. 15 No. 2, pp. 213-239. 6

Further reading

Martin, H.S. and Herrero, A. (2012), "Influence of the user's psychological factors on the online purchase intention in rural tourism: integrating innovativeness to the UTAUT framework", Tourism Management, Vol. 33 No. 2, pp. 341-350.

Zhu, W., Mou, J. and Benyoucef, M. (2019), "Exploring purchase intention in cross-border E-commerce: a

three stage model", Journal of Retailing and Consumer Services, Vol. 51, pp. 320-330.

Parment, A. (2013), "Generation Y vs baby boomers: shopping behavior, buyer involvement and implications for retailing", Journal of Retailing and Consumer Services, Vol. 20 No. 2, pp. 189-199.

Statista (2023), "Online food delivery: Saudi Arabia", available at: www.statista.com/outlook/dmo/online-food-delivery/saudi-arabia

Wang, X., Yu, C. and Wei, Y. (2012), "Social media peer communication and impacts on purchase intentions: a consumer socialization framework", Journal of Interactive Marketing, Vol. 26 No. 4, pp. 198-208.

Appendix

Note: The table layout displayed in 'Edit' view is not how it will appear in the printed/pdf version. This html display is to enable content corrections to the table. To preview the printed/pdf presentation of the table, please view the 'PDF' tab.

Table A1. Survey measurement items and originating sources

Construct	Items	Source
Religiosity	Jamal and Sharifuddin (2015)	
Cognitive involvement	Ordering food using the app is a very important decision (CIT1) Ordering food with the delivery app requires a lot of thought (CIT2) There is a lot to lose if you choose the wrong menus and/or food items with the delivery app (CIT3) Food ordering using my delivery app is based mainly on functional facts (search, browse, view, etc.) (CIT4)	Mou et al. (2019)
Enduring involvement	The pleasure of food ordering using the delivery app is important (ENI1) The pleasure of ordering food with the delivery app matters a lot (ENI2) The pleasure of being able to order for food using the delivery app means a lot (ENI3)	Mou et al. (2019)
Situational involvement	I am really enjoying buying food/meals online with the delivery app (SIV1) I am confident that ordering food/meals using the delivery app is the right activity right now (SIV2) Ordering food/meals with the delivery app gives a glimpse of the type of person I really am (SIV3) I will be annoyed if food ordering with the delivery app proves to be a poor activity (SIV4)	Mou et al. (2019)
Continuance commitment	It would be very hard for me to switch away from my currently installed food delivery app right now even if I wanted to (CCM1) Switching away from my current delivery app could be disruptive to me (CCM2) It would be too costly for me to switch from the current delivery app right now (CCM3)	Fullerton (2011)

Affective commitment	I feel emotionally attached to the delivery app (ACM1) The delivery app has a great deal of personal meaning for me (ACM2) I feel a strong sense of identification with the delivery app (ACM3)	Fullerton (2011)
Resistance to negative information	Negative information about the delivery app I currently use does not change my general view of the app (RNI1) Negative information about the app has no effect on me (RNI2) Even when I hear negative information about this app it will not change the way I think of the app (RNI3)	Eisingerich et al. (2011)
Advocacy intention	I (will) say positive things about my current food delivery app to other people (AVO1) I (will) recommend the delivery app to anyone who seeks my opinion/advice (AVO2) I (will) certainly encourage friends and relatives to use my current food delivery app (AVO3)	Fullerton (2011)

Author Query

1. Query [AQ1] Please confirm the given-names and surnames are identified properly by the



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Christian Nedu Osakwe 3. Marketing & Strategy, Rabat Business School, International University of Rabat, Rabat, Morocco; and University of Pretoria's Gordon Institute of Business Science, Johannesburg, South Africa. Jun-Hwa Cheah 4. Norwich Business School, University of East Anglia, Norwich, United Kingdom."

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Query [AQ7] Please provide the publication location for following references: Fricker (2008), Marinković and Kalinić (2020).



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