



What drives consumers' continuance intention to e-shopping?

Conceptual framework and managerial implications in the case of Saudi Arabia

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Abstract

Purpose – The purpose of this study is to propose a model of e-shopping continuance intentions that incorporates the revised technology acceptance model and expectation confirmation theory and evaluates the expanded model in a new context: Saudi Arabia.

Design/methodology/approach – The 465-respondent sample consists of internet users in Saudi Arabia. A structural equation model confirms model fit.

Findings – Perceived usefulness, enjoyment, and social pressure are determinants of online shopping continuance in Saudi Arabia. Both male and female groups are equivalent. The structural weights are also largely equivalent, but the regression paths from perceived usefulness to continuous intention are not invariant between men and women. Notwithstanding that the study finds few differences between men's and women's e-shopping behaviour, the findings for women are important because of the special role that e-shopping can play in Muslim countries, including Saudi Arabia where there are cultural and legal restrictions on women's activities such as driving.

Research limitations/implications – This research suggests that online strategies cannot ignore either the direct or indirect behaviour differences of continuance intentions.

Originality/value – This research moves beyond online shopping intentions and includes factors affecting online shopping continuance. The research model explains 65 per cent of the intention to continue shopping online. It is of value to the literature, managers and policy maker on internet shopping and continuance intentions to e-shop.

Keywords Internet shopping, E-shopping, Technology acceptance, Continuance online shopping, Consumer behaviour, Saudi Arabia

Paper type Research paper

Introduction

Business-to-customer electronic commerce (e-commerce) has developed rapidly over recent years (Alden *et al.*, 2006; Holt *et al.*, 2004), and advances with the internet and e-commerce have further diminished trade boundaries. e-Commerce and e-shopping create opportunities for businesses to reach consumers globally and directly – indeed,

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they are transforming retailing. In turn, business and social science research increasingly focuses on cross-national and cross-cultural internet marketing (Griffith *et al.*, 2006). This paper examines an aspect of online retailing of increasing potential importance, the Saudi Arabian context.

The low cost of e-commerce gives both businesses and consumers a new and powerful channel for information and communication. In 1991, the internet had less than three million users worldwide and no e-commerce applications; by 1999, about 250 million users were online, and 63 million of them engaged in online transactions, which produced a total value of US\$110 bn (Coppel, 2000), reaching US\$128.1 bn in 2007 and projected to reach US\$165.9 bn by 2009 (US Census Bureau, 2009). Online purchase in business-to-consumer (B2C), in particular, continues to rise as adoption and penetration levels of internet technology continuously increase. According to a UK payment association, the number of consumers who shop online has increased by more than 157 per cent, from 11 million in 2001 to more than 28 million in 2006 (cited in Al-maghrabi *et al.*, 2011). e-Commerce transactions are growing in the Middle East (19.5 million internet users) and in the Gulf States. In Saudi Arabia, online transactions have increased by 100 per cent, from \$278 million in 2002 to \$556 million in 2005 (Al Riyadh, 2006). It is found that, according to the World Internet Users and Population Stats (2007, 2009), 22.7 per cent of the Saudi population are using the internet. In addition, a national survey that was conducted by the Arab Advisors Group in 2007 claimed that 14.3 per cent of the Saudi population have used e-commerce and they spent \$3.28 billion in e-commerce transactions only in 2007 (Arab Advisors Group, 2007).

Generally, it is stated that only a small minority of web site visitors (about 1 per cent) proceeds to make purchases (Gupta and Kim, 2007). Retaining customers is a financial imperative for e-shopping business (e-vendors), especially as attracting new customers is considerably more expensive than in the case of comparable traditional bricks-and-mortar stores (Reicheld and Schefter, 2000). Given the inconsistent nature of customer behaviour, the growth in global web-stores, the increasing product and service availability, fairly low switching costs, and in the absence of a compelling reason to choose one retailer over another, consumers will experiment or rotate among multiple firms (Bhattacharjee, 2001a; Crego and Schiffrin, 1995). Raising the number of loyal customers by as little as 5 per cent can raise profitability by 30-85 per cent, depending upon the business and product type (Reicheld and Schefter, 2000). Therefore, online continuance shopping has recently emerged as an important issue in research (Bhattacharjee, 2001b; Kim and Malhotra, 2005; Kim *et al.*, 2005; Liao *et al.*, 2007; Limayem *et al.*, 2007).

Theoretical explanations of online shopping intentions consider several factors. Rogers' (1995) theory of innovation suggests that consumers re-evaluate acceptance decisions during a final confirmation stage and decide to continue or discontinue. This is, therefore, a clear stage in the purchasing process online. As a result, we are looking to understand continuance behaviour of online customers within Saudi Arabia. Ajzen and Fishbein (1975) indicated that there is a strong correlation between behavioural intentions and actual behaviour, supporting the use of behavioural intention as a substitute for actual behaviour. The decision to continue may be an extension of acceptance behaviour, which is common substitute in information systems research (Agarwal and Prasad, 1999; Bhattacharjee, 2001a; Davis *et al.*, 1989; Karahanna *et al.*, 1999). Additionally, as indicated by Bhattacharjee (2001a), a continuance decision is similar to a consumer's repurchase decision because both decisions follow an initial

(acceptance or purchase) choice, and are influenced by the initial use (of IS or product) experience. We, therefore, use continuance intention as a proxy for repurchase behaviour. We use the term “continuance intention” to mean a specific desire to continue an e-shopping relationship with a service or product provider.

In recent years, no sector of Saudi society has been subject to more debates and discussions than the development of women’s shopping behaviour (Hamdan, 2005). Issues regarding women’s rights and responsibilities have been equally controversial among both conservatives and progressives in Saudi society. The rapid increase in the number of female internet users in Saudi Arabia is mainly driven by women’s use of the internet for business and personal reasons. Importantly, in Muslim countries such as Saudi Arabia, women are not allowed to drive cars or work as sales persons in retail shops. The internet provides an alternatives channel to access products and services, notwithstanding the social norms precluding women from driving cars and the restricted public intermingling of the two sexes.

In many cultures, women represent the primary decision makers in families and households’ main shoppers, which may imply that women can attain greater satisfaction from online shopping (Alreck and Settle, 2002). According to comScore, women accounted for 58 per cent of online shopping, whereas men were responsible for 42 per cent between April 2004 and March 2005 (Maguire, 2006).

Recent evidence on online shopping styles suggest women dominate the “click and mortar” types who shop online but buy offline, while male shoppers dominate the “hooked” and “hunter-gatherer” types who use online shopping the most (*Harris Interactive*, 2000). Although a number of studies (Chen and Wellman, 2004; Laukkanen and Pasanen, 2008; MacGregor and Vrazalic, 2006; Slyke *et al.*, 2002; Venkatesh and Morris, 2000; Venkatesh and Brown, 2001) conducted in “Western cultures” show that males are more likely than females to adopt e-service, the same may not hold in Saudi Arabia (Siddiqui, 2008) where, perhaps for the reasons mentioned above and that Saudi society can be described as conservative, females are more likely to adopt than males (Berkman, 2005). In such a society a females often prefer to achieve their shopping needs from home by using the internet (Siddiqui, 2008).

In summary, researchers are confronted with a multitude of models and find that they can “pick and choose” constructs across the models, or choose a “favoured model” and largely ignore the contributions from alternative models (Venkatesh *et al.*, 2003). The TAM, as expanded by Davis *et al.* (1992) and Gefen *et al.* (2003), and the expectation confirmation theory (ECT; Bhattacharjee, 2001b; Oliver, 1980) has been used widely in research in the industrialized world, but less commonly applied to developing countries. Given the complementary nature of TAM and ECT, the aim of this research is to enhance knowledge and understanding in the area of online shopping continuance intention while proposing and validating a model of e-shopping continuance intentions that incorporates different constructs from the modified TAM and ECT. The study considers variance of continuance intentions in the context of e-shopping in Saudi Arabia. No previous research considers internet shopping in Saudi Arabia or, specifically, continuance intentions for online shopping. Additionally, another goal of this paper is to raise awareness and enhance understanding of factors that influence continuance of online shopping in Saudi Arabia in the light of between-group analysis of gender differences.

This research will help online businesses to understand which factors stimulate online shopping continuance intention in Saudi Arabia. Such continuance is critical

because acquiring new customers may cost as much as five times more than retaining existing ones (Bhattacharjee, 2001a; Crego and Schiffrin, 1995; Petrisans, 1999). As a result, the objective is to introduce an expanded model that predicts and assesses online continuance intention shopping by determining its antecedents in the context of Saudi Arabia. Furthermore, the research will contribute to knowledge of continuance intention and provide a base for future research to build on with regard to the proposed model and its application to other contexts. An evaluation of the expanded TAM model will lead to conclusions that should help practitioners to utilize the research results and improve customers' continuance usage of the virtual channel, specifically in online shopping and more generally in e-commerce.

The remainder of this article proceeds as follows: we offer a review of existing literature, and then detail our proposed model, hypotheses, and methodology. After reporting the structural equation model and analysis, we provide our results, and contribution to literature, managers and policy makers. We conclude with limitations and recommendations for further research.

Literature review

The TAM (Davis, 1989) represents an adaptation of the TRA, tailored to users' acceptance of information systems. It helps explain determinants of computer acceptance and can illuminate user behaviours across a broad range of computing technologies and populations; it also is parsimonious and theoretically justified (Davis *et al.*, 1989). Research predicting intentions to use online shopping behaviour has also used TAM (Vijayasathy, 2004). The major determinants are perceived usefulness and ease of use. Perceived usefulness significantly influences attitude formation (Agarwal and Prasad, 1999; Davis, 1989; Dishaw and Strong, 1999; Gefen and Keil, 1998; Igarria *et al.*, 1996; Moon and Kim, 2001; Taylor and Todd, 1995; Venkatesh, 2000; Venkatesh and Davis, 2000). On the other hand, despite the robustness of TAM, research has shown inconsistent findings regarding the effect of ease of use (Chen and Tan, 2004; O'Cass and Fenech, 2003). Indeed, some research indicates that ease of use has an inconsistent or insignificant effect on acceptance (e.g. Bhattacharjee, 2001a; Chau and Hu, 2001; Ma and Liu, 2004; van der Heijden *et al.* 2003; Townsend *et al.*, 2001). Furthermore, recent studies of IT usage suggest interesting temporal patterns in the causal associations predicted from TAM. Venkatesh and Morris (2000) found that perceived usefulness has a strong persistent effect on user intention; ease of use has a smaller effect. In another study, Szajna (1996) found perceived usefulness to be a strong and consistent predictor of usage intentions across time, but found ease of use to have a declining effect, eventually becoming non-significant at a later point in time with repeated usage. This finding has prompted IS researchers to drop the ease of use construct, especially when studying later-stage usage or continuance (Szajna, 1996). That is, while ease of use may tend to wear off, its impact declines with time as users become more familiar with the technology (Venkatesh and Davis, 2000; Flavián *et al.*, 2006), which is the case with online shopping. Researchers suggest that factors such as usefulness, enjoyment, and trust may influence one's attitude or intention toward using a technology more strongly than ease of use (Van der Heijden and Verhagen, 2004). Therefore, as this study focuses on continuance intentions, we assume all participants are already familiar with e-shopping, which implies other factors may be more important than ease of use. Moreover, many studies simplify TAM by dropping attitude

and studying just the effect of perceived usefulness and ease of use on intention to use (Venkatesh and Davis, 2000; Venkatesh *et al.*, 2003; Gefen and Straub, 2000; Leader *et al.*, 2000; Teo *et al.*, 1999; Premkumar and Bhattacharjee, 2008).

Updates to the TAM add antecedents of perceived usefulness and ease of use (Venkatesh and Davis, 2000), such as subjective norms, experience, trust and output quality. Ample evidence confirms that both usefulness (i.e. external motivation) and intrinsic enjoyment (i.e. internal motivation) are direct determinants of user acceptance online (Davis *et al.*, 1992; Leader *et al.*, 2000; Moon and Kim, 2001; Teo *et al.*, 1999; Venkatesh, 1999).

ECT, in turn, helps predict consumer behaviour before, during and after a purchase in various contexts, in terms of both product and service repurchases (Anderson and Sullivan, 1993; Dabholkar *et al.*, 2000; Oliver, 1980, 1993; Patterson *et al.*, 1997; Spreng *et al.*, 1996; Swan and Trawick, 1981; Tse and Wilton, 1988). According to ECT, consumers define their repurchase intentions by determining whether the product or service meets their initial expectations. Their comparison of perceived usefulness versus their original expectation of usefulness influences their continuance intentions (Bhattacharjee, 2001b; Oliver, 1980). For example, expectations might derive from knowledge and information collected from mass media or other sources that predict that products or services will perform in a certain way. As the consumer uses the product, he or she confirms expectations about the value and benefits of the product/service. If it meets his or her initial expectation and leaves the consumer happy and satisfied, this consumer experiences positive intentions to repurchase (Anderson and Sullivan, 1993; Oliver, 1980).

Proposed model and hypotheses

One criticism is that ECT ignores potential changes in initial expectations following the consumption experience and the effect of these expectation changes on subsequent cognitive processes (Bhattacharjee, 2001b). Pre-purchase expectations typically are based on others' opinions or information from mass media, whereas post-purchase expectations derive from first-hand experience, which appears more realistic (Fazio and Zanna, 1981; Lin *et al.*, 2005). After such experiences, expectations may increase if consumers believe the product or service is useful or contains new benefits and features that were not part of their initial expectation. Therefore, the research model here focuses only on post-acceptance variables and the model assumes e-shopping retailers target users and heighten their loyalty to the site. Hence, the ex-post expectation in the original ECT is represented by perceived usefulness.

Venkatesh *et al.* (2003) suggest that usage and intentions to continue usage may depend on cognitive beliefs about perceived usefulness. Gefen *et al.* (2003) also indicates that perceived usefulness reinforces an online shopper's intention to continue using a web site, such that when a person accepts a new information system, he or she is more willing to alter practices and expend time and effort to use it (Succi and Walter, 1999). However, consumers may continue using an e-commerce service if they consider it useful, even if they are dissatisfied with its prior use (Bhattacharjee, 2001b).

The dominant influence of perceived usefulness has led Bhattacharjee (2001b) to include usefulness in his revised ECT. A recent study by Premkumar and Bhattacharjee (2008) reported an interesting finding. Just as perceived usefulness is the strongest predictor of intention in TAM, it continues to be a stronger predictor of continuance

intention than satisfaction when TAM combined with ECT (whereas satisfaction was dominant in the original ECT; Premkumar and Bhattacharjee, 2008). The relative dominance of usefulness explains its role as a critical driver in continuance decisions, particularly in comparisons of utilitarian value over hedonic value (Premkumar and Bhattacharjee, 2008). Other researchers have found that both perceived usefulness and perceived enjoyment are two evaluation criteria for functional attributes of the target online service in terms of utilitarian and hedonic benefits (Bhattacharjee, 2001a; Lin *et al.*, 2005; Thong *et al.*, 2006).

Site quality and good interface design enhance the formation of consumer trust (McKnight *et al.*, 2002b), and if a consumer perceives a vendor's web site to be high quality, he or she should trust that vendor's competence, integrity, and benevolence (McKnight *et al.*, 2002b). Gefen *et al.* (2003) integrate trust into the TAM in a B2C e-shopping context and find trust positively affects consumers' intention to use a web site. Building trust with consumers is an essential mission for e-retailers because purchasing decisions represent trust-related behaviours (Jarvenpaa *et al.*, 2000; McKnight *et al.*, 2002a; Urban *et al.*, 2000).

Subjective norm (SN) is "the perceived pressure to perform a behaviour that comes from observing what important others say or do" (Ajzen and Fishbein, 1975). Also, SNs (which will be called social pressure in this research) is "the social pressure to engage or not to engage in behaviour" (Ajzen, 2006). SN is an immediate variable of intentions toward performing behaviour and represents the person's significant referents approval of behaviour (Shim *et al.*, 2001). In the IS behavioural context, several empirical studies did not support SN (Shim *et al.*, 2001; Shih and Fang, 2004). Research in user acceptance has produced mixed results regarding SN. Some researchers found no significance of SN on Intentions (Mathieson, 1991); others found significant relationship between them (Taylor and Todd, 1995). Hartwick and Barki (1994) found that SN had a noticeable effect on intentions on mandatory system usage, but the relation loses its significance when usage is voluntary. Davis *et al.* (1989) did not find a significant relationship between SN and Intentions but did emphasise the need for additional research.

Childers *et al.* (2001) also find that enjoyment can predict attitude towards e-shopping, just as much as usefulness can. Perceived enjoyment/playfulness has been incorporated into ECT to predict continuance intention (Thong *et al.*, 2006; Liao *et al.*, 2007; Lin *et al.*, 2005; Thong *et al.*, 2006). However, usefulness was the better predictor for grocery items, whereas enjoyment offered better results for hedonic purchases. With regard to e-shopping, the hedonic enjoyment constructs in the TAM and ECT may reflect the pleasure users obtain from shopping online, which reinforces continuance intentions.

Site quality

Initial trust forms quickly on the basis of available information (Meyerson *et al.*, 1996). If consumers perceive a web site as high quality and user-friendly, they are more likely to trust it, will perceive it as more useful and will be more willing to depend on that vendor (Hampton-Sosa and Koufaris, 2005; McKnight *et al.*, 2002b). Site information quality and a good interface design enhance consumer trust (Fung and Lee, 1999), and web site quality may help predict behaviour indirectly (*Business Wire*, 1999; Carl, 1995; Meltzer, 1999). Similarly, consumers are likely to experience greater enjoyment

and have more fun completing a given task at an e-store that establishes high quality in terms of information-related, as well as marketing-related, attributes (Ha and Stoel, 2009). On the basis of this previous research, we therefore predict:

- H1a.* Perceived site quality is positively related to perceived usefulness.
- H1b.* Perceived site quality is positively related to customer trust in online shopping.
- H1c.* Perceived site quality is positively related to enjoyment in online shopping.

Trust

Trust refers to an expectation that others will not behave opportunistically (Gefen, 2004). Trust, therefore, implies a belief that the vendor will provide what has been promised (Ganesan, 1994). If the web retailer cannot be trusted to behave in accordance with the consumers' confident beliefs, then there is no reason why consumers should expect to gain any utility or benefit from using the interface (Pavlou, 2003; Gefen, 2004; Chiu *et al.*, 2009). A lack of trust prevents buyers from engaging in online shopping (Hoffman *et al.*, 1999). When consumers initially trust their online retailers and have a perception that online shopping is beneficial, they will eventually come to believe that online shopping is useful (Gefen *et al.*, 2003). In turn, perceived usefulness should occur only for an e-vendor that can be trusted (Festinger, 1975). Thus:

- H2.* Perceived trust is positively related to customer perceived usefulness.

Perceived usefulness

According to Burke (1996), perceived usefulness is the primary prerequisite for mass market technology acceptance, which depends on consumers' expectations about how technology can improve and simplify their lives (Peterson *et al.*, 1997). A web site is useful if it delivers services to a customer but not if the customers' delivery expectations are not met (Barnes and Vidgen, 2000). The usefulness and accuracy of the site also influence customer attitudes. Users may continue using an e-commerce service if they consider it useful, even if they may be dissatisfied with their prior use (Bhattacharjee, 2001b). Consumers are likely to evaluate and consider product-related information prior to purchase, and perceived usefulness, therefore, may be more important than the hedonic aspect of the shopping experience (Babin *et al.*, 1994). In a robust TAM, perceived usefulness predicts IT use and intention to use (e.g. Adams *et al.*, 1992; Agarwal and Prasad, 1999; Gefen and Keil, 1998; Gefen and Straub, 1997; Hendrickson *et al.*, 1993; Igarria *et al.*, 1995; Subramanian, 1994), including e-commerce adoption (Gefen and Straub, 2000). Additionally, with regard to the wider literature in support of Perceived Usefulness as an antecedent of Perceived Playfulness, Davis *et al.* (1992) found that there was a positive relationship between Perceived Usefulness and Enjoyment (Chung and Tan, 2004). Furthermore, we posit that a useful product or service online could make people more likely to use and recommend it to their peers. Thus, usefulness will act as a persuasive tool that will increase social influences on his/her intention towards continuance usage. Although it does not affect the importance of friends, perceived usefulness is likely to encourage peers to spread word-of-mouth, which increases enjoyment and continuance intentions. Therefore:

H3a. Perceived usefulness is positively related to increasing customer enjoyment.

H3b. Perceived usefulness is positively related to increasing customer continuance.

Social pressure

Ajzen (1985) uses the term “subjective norms” to refer to the person’s perception of the social pressures that are put on him or her to perform the behaviour in question. Social pressure can affect the behaviour of individuals in varying ways in different societies, depending on the culture. A person’s beliefs about what important others think about the behaviour should directly influence social pressure. In a collectivist culture, potential consumers of e-shopping are likely to look among their opinion leaders, with initial experience for evaluative information and cues, within their social environment to increase their familiarity with the e-shopping site (Venkatesh and Davis, 2000). According to Venkatesh *et al.* (2003), social influences result from subjective norms, which relate to individual consumers’ perceptions of the beliefs of other consumers. Therefore, if e-shopping is a socially desirable behaviour, a person is more likely to e-shop (George, 2002). Shim *et al.* (2001) consider social pressure only marginally significant for e-shopping intentions, whereas Foucault *et al.* (2005) confirm a significant link between talking about e-shopping with friends and intention to e-shop. A social influence also is relevant to enjoyment because involving web sites facilitate e-friendship among social communities and promotes the enjoyment of e-shopping. Thus:

H4a. Perceived social norm is positively related to increasing customer enjoyment.

H4b. Perceived social norm is positively related to increasing customer continuance intention.

Enjoyment

Enjoyment in using a web site significantly affects intentions to use (Davis *et al.*, 1992; Igbaria *et al.*, 1995; Teo *et al.*, 1999; Venkatesh *et al.*, 2002). Shopping enjoyment (Koufaris, 2002), perceived entertainment value of the web site (O’Keefe *et al.*, 1998), and perceived visual attractiveness have positive impacts on perceived enjoyment and continuance intentions (Van der Heijden, 2003). Furthermore, enjoyment has commonly been found to have a significant impact on customer attitudes and behaviour on the web, such as increasing customer intention to return (Hampton-Sosa and Koufaris, 2005; Jarvenpaa and Todd, 1997; Koufaris *et al.*, 2001; Koufaris, 2002; Chiu *et al.*, 2009). Thus:

H5. Perceived enjoyment is positively related to increasing customer continuance intention.

Methodology

Whilst the TAM model, as expanded by Davis *et al.* (1992) and Gefen *et al.* (2003), and ECT (Oliver, 1980; Bhattacharjee, 2001a) has been widely used in research in the industrialized world but it is not so common in the Arabic nations and Saudi Arabia as part of the developing countries. This represents a serious research gap as consumer responses have been demonstrated to vary between cultures. Veiga *et al.* (2001) identify the important influence of culture on technology use and acceptance, and Moon and Kim (2001) suggest the need for more research pertaining to the application of TAMs in non-western and less developed countries. To the best of the author’s knowledge,

this study is one of the first attempts to investigate the online shopping continuance intention in Saudi Arabia. Therefore, this study adds to the under-researched area of online shopping continuance intention in the western and in non-western countries in general; and the Arab World in particular, specifically Saudi Arabia, by examining the effects of usefulness, enjoyment and social pressure on continuance intention.

To validate the conceptual model and the proposed research hypotheses, we developed an online survey; a method that is suitable for collecting data from large geographical areas. In addition, compared with traditional surveys, online surveys offer lower costs, faster responses, and less data entry effort. We contacted potential respondents through e-mail invitations sent to members of seven universities and colleges, who put the survey link on their official web sites to encourage students and staff to participate.

Measures

The measures of the various constructs come from previous literature, adapted to the context of online shopping where necessary. All online survey items use 1-7 Likert scales, on which 1 indicates strongly disagree and 7 is strongly agree. The site quality and trust items come from McKnight *et al.* (2002a, b). The perceived usefulness items derive from Gefen *et al.* (2003). Perceived enjoyment is a measure from Childers *et al.* (2001). Shih and Fang (2004) provide the social pressure items. The continuance intention items were adapted from Yang and Peterson (2004).

The pilot study indicated only minor clarifications to the questionnaire. Both Arabic and English language versions were available. The Arabic questionnaire employed Brislin's (1986) back-translation method to ensure that the questions had the same meaning in both languages.

Data analysis

Survey respondents were people who were actively engaged in internet and online shopping in Saudi Arabia, including undergraduate and postgraduate students and professionals. As we show in Table I, the sample profile consists of 465 participants in Saudi Arabia, 68.6 per cent (319) of whom are women and 31.4 per cent (146) of whom are men. This somewhat surprising gender breakdown illustrates the high rate of internet use among women in Saudi Arabia, in contrast to popular perceptions. Most respondents are in their late 30 s. The vast majority (92.3 per cent) of participants come from the three main regions in Saudi Arabia: 25.2 per cent from the east, 26.5 per cent from the central region, and 40.6 per cent from the western region. Most respondents are well-educated.

As indicated in Table II, the lack of trust in Saudi online retailers is a major concern. Only 11.6 per cent of Saudi consumers trust local retailers with online shopping, compared to 42.3 per cent for international e-retailers. This lack of trust can be considered as a critical obstacle that could prevent the success of online transactions as many consumers still do not trust the vendor when shopping online. The most popular online purchases in Saudi Arabia are books (56.3 per cent), fashion (clothing/accessories/shoes; 25.8 per cent), videos/DVDs/games (41.5 per cent), airline tickets (63.2 per cent), hotel bookings (46.9 per cent), and sports equipment (18.2 per cent). Credit cards are by far the most common method of payment for online purchases (69.9 per cent), next comes cash on delivery (27.5 per cent), and finally cheque payments (2.6 per cent; Table II).

Question	Male (%)	Female (%)
Gender	31.4	68.6
<i>Age</i>		
< 18	1.3	2.2
Between 18 and 25	10.8	17.2
Between 26 and 35	12.5	31
Between 36 and 45	4.5	14.4
Above 46	2.4	3.9
<i>Education level</i>		
Less than high school	0.2	1.7
High school	4.5	7.7
Diploma	4.3	7.5
Bachelor	14.2	37.6
Post-graduate	8.2	14
<i>Occupation</i>		
Government employee	6.7	25.2
Private sector	12	22.6
Business people	2.6	4.9
Student	10.1	15.9
<i>Income level</i>		
< SR4,000 (£1,000)	6.7	13.1
SR4,000-SR6,000 (£1,000-2,000)	6.9	8
SR6,001-SR8,000 (£2,001-4,000)	4.5	8
SR8,001-SR10,000 (£4,001-7,000)	1.5	7.5
SR10,001-SR15,000 (£7,001-10,000)	1.7	13.1
> SR15,001 (> £10,000)	2.4	12.7
Dependent on others	7.7	6.2
<i>Region</i>		
East region	10.1	15.1
West region	11.6	29
Central region	7.3	19.1
North region	1.1	3.4
South region	1.3	1.9
<i>Experience (minutes)</i>		
<i>In general, how much time do you spend doing online shopping activities per week (choose only one)?</i>		
0-5	5.2	11
6-15	8.2	17.2
16-60	9.2	20.9
> 60	8.8	19.6

Table I.
Sample demographics

Analysis

The Cronbach's α s (Table III) are all >0.7 (Bagozzi and Yi, 1988). The squared multiple correlation cut-off point is 0.7, and the average variance extracted cut off-point is 0.5 or higher (Bagozzi, 1994; Byrne, 1995; Hair *et al.*, 2006; Table IV). We thus confirm the convergent reliability and discriminant validity.

Structural equation model

The structural model presented in Figure 1 was tested with AMOS 5.0 software. Bentler and Bonett (1980) suggest the Chi-square/degrees-of-freedom (CMIN/DF) ratio as an appropriate measure of model fit, and this should not exceed 5 (Bentler and Bonett, 1980).

Question	Male (%)	Female (%)
<i>Which companies do you trust more?</i>		
Local companies	3	8.6
International companies	13.3	29
I trust them both the same	15.1	31
<i>If you have bought some things over the internet in the last six months, what did you buy? Please circle the number of all that apply</i>		
Books	19.1	37.2
Music CD or DVD or videotapes	12	29.5
Fashion and Accessories	11.8	14
Sports equipment	7.7	10.5
Travel reservation and ticketing	17	46.2
Hotel booking	12.7	34.2

Table II.
Online trust and items bought

Model constructs	Mean	SD	Cronbach's α	SQ	PU	Factor correlations			
						Trust	SP	Enj	CIU
SQ	21.52	5.31	0.926	0.870					
PU	21.89	5.59	0.949	0.740	0.903				
Trust	21.68	5.31	0.949	0.676	0.719	0.902			
SP	18.73	6.19	0.947	0.298	0.316	0.440	0.904		
Enj	20.80	5.07	0.935	0.464	0.494	0.686	0.547	0.869	
CIU	21.30	5.49	0.961	0.440	0.468	0.650	0.565	0.778	0.933

Table III.
Scale properties and correlations

Note: Diagonal elements represent square root of the AVE value

As illustrated in Table V, all the hypotheses are statistically significant and supported, with critical ratios ranging from 17.475 to 4.379, which are > 1.96 and thus indicate acceptable results (Hair *et al.*, 2006; Holmes-Smith, 2000). As illustrated in Table VI, the goodness-of-fit (GFI) indices of the proposed model of continuance intentions fit the data reasonably well (Hair *et al.*, 2006; Bentler and Bonett, 1980), as confirmed by the χ^2 CMIN = 746.951, $df = 236$, CMIN/DF = 3.165, RMR = 0.483, GFI = 0.887, CFI = 0.961, RMSEA = 0.068.

The hypothesized associations are strongly significant at $p = 0.000$. Perceived enjoyment is the strongest predictor of continuance intention ($\beta = 0.576$), followed by social pressure ($\beta = 0.195$), and then perceived usefulness ($\beta = 0.194$). The model explains 59 per cent of the variance in continuance intentions (Figure 1).

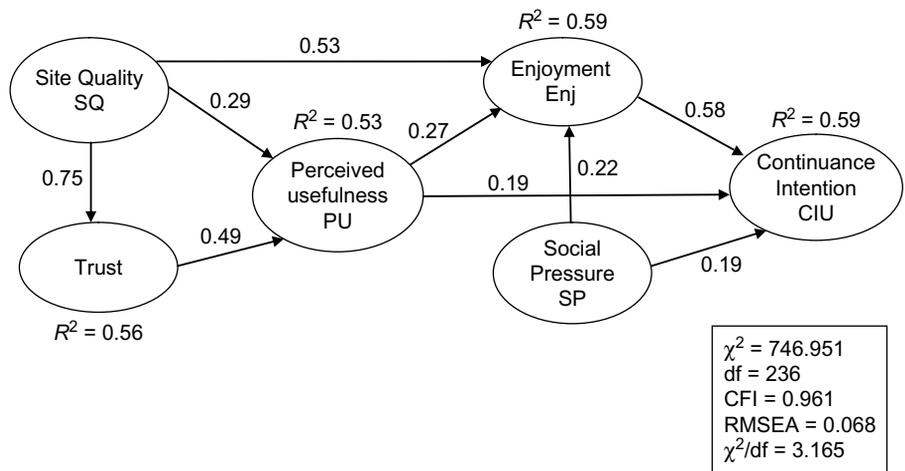
The direct and indirect effects in Table VII reveal that the greatest total influences on continuance intentions come from enjoyment (0.576) and site quality (0.536). The next greatest influences derive from perceived usefulness (0.352), social pressure (0.320), and trust (0.171). Therefore, site quality, trust, perceived usefulness, enjoyment and social pressure all play significant roles for continuance intentions, direct or indirect, regarding online shopping in Saudi Arabia.

Between groups comparison

Despite the fact that participants in the online research survey are assumed to be familiar with online shopping, scholars have emphasized the importance of minimizing

Constructs/indicators	S. Factor loading	SE	CR	AVE	Squared multiple correlation
Site quality (SQ)				0.758	
SQ 1	0.918	0.043	24.143		0.84
SQ 2	0.850	0.042	23.400		0.72
SQ 3	0.841	0.041	22.731		0.71
SQ 4	0.872	-	-		0.76
Perceived usefulness				0.817	
PU 3	0.906	0.031	31.931		0.82
PU 4	0.892	0.030	32.097		0.80
PU 5	0.937	-	-		0.88
PU 6	0.880	0.031	30.848		0.77
Trust				0.814	
Trusting beliefs integrity 1	0.903	0.032	31.167		0.82
Trusting beliefs integrity 2	0.897	0.025	38.232		0.80
Trusting beliefs integrity 3	0.889	0.030	30.023		0.79
Trusting beliefs integrity 4	0.919	-	-		0.85
Social pressure				0.819	
SP 3	0.757	-	-		0.57
SP 4	0.976	0.057	23.251		0.95
SP 5	0.966	0.057	22.815		0.93
SP 6	0.904	0.059	21.415		0.82
Enjoyment				0.756	
Enj 4	0.704	-	-		0.79
Enj 5	0.931	0.066	19.223		0.87
Enj 6	0.935	0.067	19.479		0.88
Enj 8	0.887	0.066	18.058		0.50
Continuance intention				0.872	
CIU 1	0.872	0.026	34.199		0.76
CIU 2	0.938	0.020	47.621		0.88
CIU 3	0.975	-	-		0.95
CIU 4	0.946	0.020	50.386		0.90

Table IV.
Measurement model



Paths	Standardized regression weights (B)	SE	CR	Hypotheses findings
Trust ← SQ	0.745	0.044	17.475 *	Supported
PU ← SQ	0.293	0.061	5.214 *	Supported
PU ← Trust	0.486	0.060	8.503 *	Supported
Enj ← PU	0.275	0.032	5.752 *	Supported
Enj ← SP	0.218	0.031	5.428 *	Supported
Enj ← SQ	0.530	0.041	9.512 *	Supported
CIU ← SP	0.195	0.041	4.967 *	Supported
CIU ← Enj	0.576	0.071	10.904 *	Supported
CIU ← PU	0.194	0.040	4.379 *	Supported

Note: *Significant at: $p < 0.001$

Table V.
Regression weights

Confirmatory factor analysis, CFA (GFI measure)	Acceptable value	Value
χ^2 CMIN	NA	746.951
DF	NA	236
CMIN/DF	$\chi^2/df \leq 5$ (Bentler and Bonett, 1980)	3.165
p -Value	$p \leq 0.05$ (Hair <i>et al.</i> , 2006)	0.000
Root mean square residual (RMR)	No established thresholds (the smaller the better; Hair <i>et al.</i> , 2006)	0.483
GFI	≥ 0.90 (the higher the better; Hair <i>et al.</i> , 2006)	0.887
Comparative fit index (CFI)	≥ 0.90 (Hair <i>et al.</i> , 2006)	0.961
Root mean square error of approximate (RMSEA)	< 0.08 (Hair <i>et al.</i> , 2006)	0.068

Table VI.
Goodness-of-fit indices

Construct	Direct	CIU Indirect	Total
SQ	–	0.536	0.536
Trust	–	0.171	0.171
PU	0.194	0.158	0.352
SP	0.195	0.125	0.320
Enj	0.576	–	0.576
$R^2 = 0.59$			

Table VII.
Direct and indirect influences on continuance intentions

research biases in cross-national and cross-cultural research derived from the data collection because research participants may not recognize the same meaning and understanding of survey items (Yi *et al.*, 2008). To enhance the generalizability of our research model, we compare the results of the hypothesized relationships across experience and gender using between-group analysis (Qureshi and Compeau, 2009).

The participants were asked, on average, how much time do you spend doing online shopping activities per week: (a) < 5 minutes; (b) 6-15 minutes; (c) 16-60 minutes; and (d) > 60 minutes. The researchers split the sample into people who used up to 15 minutes (as “low experience”) and 16 minutes and above (as “high experience”), see Table I.

The findings indicate that measurement and structural weight are invariance among the low and high experience groups.

The coefficient invariance analysis determines if male and female respondents have the same relationships with the same variables in the research model. The results indicate that the strengths of these relationships do not vary significantly across male and female groups, with one exception. The findings in Table VIII indicate that males and females are invariant except in one relational path. Table IX indicates that the GFI indices between groups (male and female) fit the data reasonably well (Hair *et al.*, 2006; Bentler and Bonett, 1980; Bentler, 1989). The single difference in their behaviour in the context of online shopping continuance in Saudi Arabia is evident from different coefficients of perceived usefulness → continuance intentions (change in $\chi^2 = 5.102$, $p = 0.024$), which indicates that the influence of perceived usefulness on continuance intentions is stronger for the male sample than for the female sample.

Discussion

This research attempts to provide a validated conceptual model that integrates different factors and clarifies the theoretical problems of continuance e-shopping intentions and behavioural gender differences in Saudi Arabia. The online field survey validates the hypothesized model, and the model findings confirm that perceived enjoyment, perceived usefulness and social pressure are the main determinants of continuance intentions in Saudi Arabia, explaining 59 per cent of continuance e-shopping intentions.

Table VIII.
Goodness-of-fit indices
(male-female)

Confirmatory factor analysis CFA (GFI measure)	Acceptable values	Value
χ^2 CMIN	NA	1,176.449
DF	NA	474
CMIN/DF	$\chi^2/df \leq 5$ (Bentler and Bonett, 1980)	2.482
GFI	> 0.90 (the higher the better; Hair <i>et al.</i> , 2006)	0.836
Comparative fit index (CFI)	> 0.90 (Hair <i>et al.</i> , 2006)	0.948
RMSEA	< 0.08 (Hair <i>et al.</i> , 2006)	0.057

Table IX.
Between the gender
comparison (male-female)

Paths	Male sample			Female sample			Δ DF	Invariance	
	SRW	CR	<i>p</i> -value	SRW	CR	<i>p</i> -value		Δ CMIN	<i>p</i> -value
Trust ← SQ	0.637	9.541	*	0.672	0.044	*	1	0.302	0.583
PU ← SQ	0.370	4.057	*	0.297	0.078	*	1	0.070	0.792
PU ← Trust	0.494	5.901	*	0.429	0.084	*	1	0.063	0.802
Enj ← PU	0.093	1.211	0.226	0.163	0.039	*	1	0.004	0.952
Enj ← SP	0.127	1.905	0.057	0.187	0.044	*	1	1.557	0.212
Enj ← SQ	0.714	9.541	*	0.671	0.044	*	1	0.043	0.835
CIU ← SP	0.241	3.825	*	0.164	0.053	*	1	0.092	0.762
CIU ← Enj	0.531	6.498	*	0.632	0.073	*	1	1.946	0.163
CIU ← PU	0.337	4.693	*	0.139	0.047	0.006	1	5.102	0.024

Note: *Significant at: $p < 0.001$

However, unlike findings from developed countries that show perceived usefulness and satisfaction to be the dominant predictor of intention or continuance intention (Agarwal and Prasad, 1999; Davis, 1989; Dishaw and Strong, 1999; Gefen and Keil, 1998; Igbaria *et al.*, 1996; Moon and Kim, 2001; Taylor and Todd, 1995; Venkatesh, 2000; Venkatesh and Davis, 2000; Premkumar and Bhattacharjee, 2008), the results of this study indicate that perceived enjoyment is more influential (see Table VI; $\beta = 0.576$, $cr = 10.904$) in motivating individuals to continuance intention to use e-shopping. Perceived usefulness ($\beta = 0.194$, $cr = 4.379$) and social pressure ($\beta = 0.195$, $cr = 4.967$) are the next most influential factors. This could be because thousands of web sites provide similar services in terms of usefulness and benefits. Interestingly, it appears that consumers turn to online vendors primarily for hedonic reasons. Therefore, attracting and retaining users by providing an enjoyable and playful e-shopping site has become very important. Additionally, enjoyment, perceived usefulness and social pressure have positive influences on consumers' continuance e-shopping intentions.

The findings in the factorial paths indicate both a direct and indirect relationship to continuance intention. Site quality and trust are strong antecedents of perceived usefulness on the regression weights (site quality $\beta = 0.293$, $cr = 5.214$; trust $\beta = 0.486$, $cr = 8.503$). Both site quality (0.536) and trust (0.171) have significant indirect effects on continuance intentions, working through perceived usefulness and enjoyment (Table VII). In a continuance intention situation, a person is usually able to get a feeling very quickly whether or not everything seems to be in order. Should suspicion arise during the continuance intention to a retailer's web site, regarding its overall quality of functionality and/or enjoyment, trust and site quality are likely to play a larger part in determining whether or not continuation would take place. Even if suspicion does not arise, site quality, based on the research results, might still affect continuance intention through other mechanisms such as shopping enjoyment or inducing customers' positive usefulness effect (Koufaris, 2002). Moreover, the findings are consistent with the collectivist culture of Saudi Arabia, where people tend to trust only those within their own group (Yamagishi and Yamagishi, 1994).

In our results, the measurement weights of the male and female groups, based on partial metric invariance, are invariant. Testing for factorial regression paths invariance, we find that the relationship paths between site quality \rightarrow perceive usefulness; trust \rightarrow perceived usefulness; perceived usefulness \rightarrow enjoyment; social pressure \rightarrow enjoyment; social pressure \rightarrow continuance intentions; and enjoyment \rightarrow continuance intentions; site quality \rightarrow trust; and site quality \rightarrow enjoyment are similar for both genders in Saudi Arabia. However, perceived usefulness \rightarrow continuance intentions relationship path is non-invariant.

Notwithstanding that the results indicating that more males were influenced by utilitarian considerations (Table IX), the female and male respondents were both influenced by hedonic aspects. In line with previous research findings, gender differences significantly affect new technology decision-making processes (Van Slyke *et al.*, 2002; Venkatesh *et al.*, 2000). Venkatesh *et al.* (2000) report that women tend to accept information technology when others have high opinions of it. Additionally, women tend to be more "shopping for fun" oriented compared to men (Hansen and Jensen, 2009). On the other hand, men rely more on their evaluations of the usefulness and perceived benefits of the technology (Venkatesh *et al.*, 2000) and shopping (Hansen and Jensen, 2009). In our findings, however, women are more

affected by hedonic enjoyment than are men (enjoyment \rightarrow continuance intentions male $\beta = 0.531$, female $\beta = 0.623$), but not on the evaluations of the usefulness, perceived benefits and opinions of others when revisiting a retailer web site; social pressure \rightarrow continuance intentions (male $\beta = 0.241$, female $\beta = 0.164$); usefulness \rightarrow continuance intentions (male $\beta = 0.337$, female $\beta = 0.139$).

Contributions to research

In order to study the important, little-researched area of continuance e-shopping, we adapted the TAM and ECT. By integrating these and expanding the model, we have contributed to an understanding of the factors that encourage consumers to continue their e-shopping intention. Additionally, a key conclusion from this study is the importance of both the direct and indirect effects of behaviour differences in Saudi Arabia, which should be considered when developing any web site and marketing strategy for e-retailing.

From a theoretical standpoint, these research results contribute to existing literature in several ways. First, we enhance e-shopping literature by providing insights into the factors that seem to affect e-shopping continuance intentions. We also posit that enjoyment, social pressure and perceived usefulness have direct effects on continuance intention. Thus, we find that usefulness, enjoyment and social pressure remain crucial factors in online continuance or revisit situations. We, therefore, extend the work of, for instance, Davis *et al.* (1989); Venkatesh and Davis (2000); Bhattacharjee (2001a); Premkumar and Bhattacharjee (2008); and Chiu *et al.* (2009) in a different e-commerce context. Moreover, site quality and trust influence online continuance intention behaviour indirectly through other salient beliefs. This finding reinforces the idea that although usefulness, enjoyment and social pressure remain important in the online continuance intention situation, the site quality and trust are critical indirect factors.

Second, perceived usefulness reflects the utilitarian aspects of e-shopping, whereas perceived enjoyment reflects its hedonic aspects. In our study, enjoyment has the strongest effect on e-shopping continuance intentions, confirming that enjoyment in an e-shopping environment is important and the effect is direct. For instance, if an individual “feels good” about an online activity, the individual is more likely to engage in it and shape intention to revisit e-shopping. Nevertheless, combining the direct and indirect effects indicates that perceived usefulness has a stronger total effect on e-shopping continuance intentions, supporting previous findings. Usefulness is an important criterion for consumers when they select online stores and can increase their satisfaction. Consumers may continue using a useful e-commerce service, even if they are dissatisfied with it (Bhattacharjee, 2001b).

Third, notwithstanding that TAM omits subjective norms, primarily because Davis claimed that they are not significant in explaining behavioural intentions in a workplace (Davis *et al.*, 1989), our research findings concerning the influence of social pressure on continuance intention is consistent with Gelb and Johnson (1995), who conclude that positive or negative social pressures, such as word-of-mouth, and online social groups or media are more effective than advertising in persuading customers to increase or reduce their intention or action. As indicated by the results of this research, the importance of social pressure can be assumed to be related to cultural factors leading to the question of to what extent the TAM and ECT may be valid in more collective societies than in developed countries?

Fourth, few studies have investigated online shopping in the Arab world in general and the Gulf area in particular. In this research, we make a contribution by using structural equation modelling for multiple group analysis. Few prior studies use SEM as their methodological approach in Saudi Arabia, and even fewer apply invariance analysis to verify behavioural differences in an e-commerce context. To the best of our knowledge, this study is the first attempt in the information system literature to examine online shopping and between-group behaviour differences in the Saudi context using this method. The difference in the strength of the hypothesized relationships between usefulness and continuance intention in male and female groups is particularly enlightening and should be the subject of future research. Also, this research is needed to help understand men's and women's needs, and technology designers are encouraged to incorporate features that meet such needs. Therefore, the shortage of research in the Arabic countries and the gender invariance analysis conducted in this research will generate a debate and stimulate research in the Arab world context in general and in Saudi Arabia in particular, especially since Saudi Arabia has been ranked 5th in 2009 and 4th in 2010 in the Kearney Global Retail Development Index (2010) for retail attractiveness. Clearly, young people's behaviour, male and female, is of special importance to international and Saudi Arabian businesses targeting Saudi consumers. This study addresses this knowledge gap for a unique culture.

Finally, Saudi Arabia is a big country with multiple traditions and subcultures. By applying invariance analysis to verify behavioural gender differences and covering the three main populated regions (East, West, and Centre) in terms of survey respondents, reasonable generalization of the findings across the Saudi Arabian context seems to be supported.

Managerial implications

This study provides managers with useful and important information about planning their web sites and marketing strategies. Limayem *et al.* (2000) argued that providing and managing accurate information with clear and brief text with appropriate images is essential and comprises the primary role of web designers and marketers. Thus, managers and site developers should focus on quality and informative content, which reflect usefulness and enjoyment. Moreover, nowadays, computer applications, such as online shopping, are ubiquitous in all aspects of our life, and are no longer fads or image enhancers, but utilitarian tools without which businesses may come to a halt. Therefore, e-shoppers are going to increasingly demand usefulness, particularly in the long run, for customers to be successfully retained because customers who never return reduce the firm's customer base and revenues and require substantial expenditures to lure them back from competitors.

To build sustainable, continued e-shopping relationships, managers cannot ignore either direct (perceived usefulness, enjoyment, social pressure) or indirect (site quality, trust,) influences on continuance intentions. Thus, confirming Tractinsky's (2004) ideas that people will associate visual attractiveness of a web site with the positive beliefs that are common in TAM research, i.e. usefulness and enjoyment. The greater positive indirect effects of site quality and trust suggest that e-retailers should increase the positive perceptions of trust and site quality. For example, Gehrke and Turban, 1999 suggested if a new customer is more likely to judge a web site by its appeal, reflecting its quality and trustworthiness rather than its usability, then e-retailers need

to increase the appeal of their sites (e.g. adding a Frequently Asked Questions section and including statements such as “secure servers”).

Continuance intention to use a technology such as e-shopping is not only determined by social pressure, but also by users’ needs to build relationships with others inside the online social communities (Schau and Gilly, 2003). Customers’ involvements in the product design process are likely to be perceived as more enjoyable and would impact consumers’ lifestyles (Wilska, 2003). For example, Nike online shoppers (www.nike.com) can customize shoes, colours, styles, and even select a name or message. Similarly, communication on useful offers, as is done with social networking sites such as Osoyou (www.osoyou.com), is likely to be perceived as a useful way of sharing with friends and relatives (Dennis *et al.*, 2010).

Moreover, significant effects of social pressure on enjoyment and continuance intention suggest that recommendations from other people still play a major role in an individual’s e-commerce intention behaviour. Therefore, managers should endorse and facilitate positive word of mouth, through social networks such as Blogger, Delicious, Facebook, Twitter, and many more.

The role of e-commerce and online shopping for women

In the Saudi context, Saudi Arabia’s education system is producing more employment-seeking graduates than the economy can absorb. At the same time, cultural and legal constraints still hinder the growth of new employment options for women (Doumato, 2002). Can Saudi women’s desires for more job options still be credible in the context of Saudi Arabia’s role as guardian of society’s “Islamic margins?” This may be difficult to resolve and, for reasons both economic and political, the development of western-style gender equality may continue to proceed slowly in Saudi Arabia. Notwithstanding, the revolution in information and communication technology and e-commerce applications (online shopping) has broadened the scope of work carried out by women, at administrative, social and economic levels. Therefore, information and communication technology and online shopping offer many opportunities for jobs, investment, and a new way of shopping for women in Islamic societies such as Saudi Arabia. As may be apparent from the above, information technology may be more critical for Muslim women than for women living in non-Muslim societies. Women in Islamic countries are facing several social and cultural obstacles preventing them from engaging in work. In addition, the possibility exists for women to be employed in the IT sector without having to work in offices, as well as exploring online shopping from home. Working over the internet and online shopping allow women to avoid contravening Islamic culture by mixing with men in the workplace, which still remains an issue in a few conservative cities in Saudi Arabia.

Research limitations and further research

We note that our research findings must be interpreted in the light of the study’s limitations. The purpose of the online survey is to attract participants with online experience, and who had access to the internet. Therefore, the results should be interpreted as only explaining the e-shopping continuance intention of current online customers. Whether the results can be generalised to non-customers or to disaffected customers will require additional research.

Additionally, the novelty associated with using an online survey in the Saudi Arabian market indicates that the empirical data may lead to a novelty effect bias. Moreover, the survey may suffer a non-response bias, yet there is no systematic way to determine the response rate in an online survey. Although the survey attracted a substantial sample of participants and covers all three main commercial, geographical regions in Saudi Arabia, it still may suffer from the biases that are inherent to survey studies. On the other hand, this survey can claim to be more realistic than typical laboratory experiments, as it addresses real consumers and real shopping issues, tending to outweigh the disadvantages of the survey method.

This study confirms that e-shopping continuance intention involves hedonic as well as utilitarian values. Prior research classifies convenience, savings and product quality as utilitarian values, and enjoyment, entertainment, exploration and self-expression as hedonic values. Therefore, an interesting area for future research would be to identify the various dimensions of hedonic and utilitarian values, especially in the Arab countries in general and Saudi Arabia in particular, and to examine their relative importance in driving customers' online continuance shopping intention.

Research has shown that product type, product price and purchase involvement can influence online shopping. The suitability of the internet as a shopping medium depends on the characteristics of the products sought. Some products are more convenient to be bought in traditional shopping, whereas others, such as music, software, flight tickets and hotel reservations are easier to buy online. Thus, the model should be tested for specific product categories in order to determine whether product type acts as moderating variable.

In the online context in Saudi Arabia, further research could usefully include finding ways to appeal to both hedonic and utilitarian shoppers, especially within the large younger segment of the population. Moreover, future research related to continuance intentions could incorporate different comparisons, such as new e-shoppers versus continuing users who have more internet knowledge and experience.

Finally, in line with the current interest in cross-cultural research, we recommend that our model should be tested in other cultures, particularly those that may have parallels with Saudi Arabia, such as the Gulf Regions.

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