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## Article

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## **Determinants of Customer Continuance Intention of Online Shopping**

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### ***Abstract***

The purpose of this study is to clarify theory and identify factors that could explain the level of continuance intention of e-shopping. A revised technology acceptance model integrates expectation confirmation theory and investigates effects of age differences. An online survey of internet shoppers in Saudi Arabia. Structural equation modelling and invariance analysis confirm model fit. The findings confirm that perceived usefulness, enjoyment and social pressure are determinants of e-shopping continuance. The structural weights are mostly equivalent between young and old but the regression path from perceived usefulness to social pressure is stronger for younger respondents. This research moves beyond e-shopping intentions to factors affecting e-shopping continuance, explaining 55% of intention to continue shopping online. Online strategies cannot ignore direct and indirect effects on continuance intentions. The findings contribute to literature on internet shopping and continuance intentions in the context of Saudi Arabia.

**Keywords:** Internet shopping, e-shopping, technology acceptance, young and old examination, continuance e-shopping, Saudi Arabia.

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## **1 INTRODUCTION**

E-Commerce and e-shopping create opportunities for businesses to reach consumers globally and directly – indeed, they are transforming retailing (Alden et al. 2006; Holt et al. 2004). Unsurprisingly, e-commerce transactions are growing, not least because low cost gives both businesses and consumers a new and powerful channel for information and communication. 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.

Consumers now have various online and offline options from which to choose, and, without a compelling reason to choose one retailer over another, they rotate purchases among multiple firms (Bhattacharjee 2001b; Crego and Schiffrin 1995). Despite impressive online purchasing growth rates, evidence strongly indicates that many consumers who search different e-retail sites abandon their purchase intentions. Helping online businesses understand which factors encourage consumers to remain loyal a shopping website is critical because acquiring new customers may cost five times more than retaining existing ones (Crego and Schiffrin 1995; Petrisans 1999).

Increasingly, commercial websites seek to provide useful product information in order to attract potential e-shoppers (Totty 2001). Keeney (1999) pointed out that measuring only actual purchases may be too narrow scope when assessing e-shopping activity, contending that gathering product information is an essential aspect of e-shopping activity. This two-fold definition has since been applied in e-shopping studies (e.g. Chen et al. 2002). We employ a similar definition in order to develop a more holistic view of e-shopping continuance intention.

E-shopping in this study is a combination of both product information search and purchasing activities. For the purpose of this research, we address e-shopping, online shopping, and internet shopping, terms which are frequently used interchangeably. We propose a comprehensive definition which includes all the activities of searching, buying, and selling products and services online. This study focuses mainly on the business-to-consumer (B2C) arena, which has been the source of most online progress and development. The author generalizes the two-fold definition, and rather than evaluating shopping at a particular site (as in Chen et al. 2002), respondents were asked to generalize all e-shopping activities.

Previous research found that gender and age differences significantly affect new technology decision-making processes (Van Slyke et al. 2002; Venkatesh et al. 2000; Spero and Stone 2004). Furthermore, younger people are more likely than older adults to use the internet (Williamson, 2006). However, type of usage varies by age, with younger internet users are more likely to engage in communication and creative activities, but less likely to purchase online than older users (Rainie and Horrigan, 2005). Additionally, youth populations are motivated by status and peer pressure (Spero and Stone 2004). On the other hand, men rely more on their evaluations of the usefulness of the technology. As the Internet is one of the main environments for young people to play, work, learn and communicate (Alreck and Settle 2002; Spero and Stone 2004), greater e-commerce exposure and decision-making power may imply that males and females can attain greater satisfaction from e-shopping. Saudi Arabia has a population of 25 million, highly skewed in terms of age distribution, with 60% under the age of 30 (Middle East Statistics 2007). This age profile is relevant to our topic, as in countries that are further advanced in Internet shopping; much of the growth has been driven by young people.

In summary, researchers are confronted with a multitude of models, and find that they can “pick and choose” constructs, or choose a “favoured” model, largely ignoring the contributions from alternative models (Venkatesh et al. 2003). Theoretical explanations of e-shopping intentions consider several factors. Rogers’ theory of innovation (1995) suggests that consumers re-evaluate acceptance decisions during a final confirmation stage and then decide to continue or discontinue. The decision to continue may be an extension of acceptance behaviour that co-varies with acceptance (e.g. Bhattacharjee 2001a; Davis et al. 1989; Karahanna et al. 1999). The technology acceptance model (TAM), as expanded by Davis et al. (1992) and Gefen (2003), and the expectation confirmation theory (ECT) (Oliver 1980; Bhattacharjee 2001a) have been widely used in research in the industrialized world, but they are less commonly applied to developing countries. Given the complementary nature of TAM and ECT, our research aims to propose a model of e-shopping continuance intentions (Figure 1). This adapts different constructs from the modified TAM and ECT, and considers variance of continuance intentions in the context of e-shopping.

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 describing the structural equation model and analysis, we provide our results. We conclude with some limitations, conclusions contribution, and recommendations for further research. Finally, we present managerial implications.

## **2 THEORETICAL BACKGROUND**

The TAM (Davis 1989) represents an adaptation of the theory of reasoned action (TRA), tailored to users' acceptance of information systems. It helps explain determinants of computer acceptance and can explicate user behaviours across a broad range of computing technologies and populations; it also is parsimonious and theoretically justified (Davis et al. 1989). The major determinants are perceived usefulness and ease of use. Perceived usefulness significantly influences attitude formation (Agarwal and Prasad 1999; Dishaw and Strong 1999; Gefen and Keil 1998; Igbaria et al. 1996; Moon and Kim 2001; Taylor and Todd 1995; Venkatesh and Davis 2000), but evidence regarding perceived ease of use remains inconsistent. Furthermore, other researchers (e.g., Bhattacharjee 2001a; Ma and Liu 2004; van der Heijden et al. 2003) indicate that the effect of ease of use on acceptance is subject to a certain threshold. That is, with more experience, the impact of ease of use on intention declines. Since our research focuses on continuance intentions, we assume all participants already have e-shopping experience, which implies that other factors may be more important than ease of use.

Expectation confirmation theory (ECT) in turn helps predict consumer behaviour before, during, and after a purchase, 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). According to ECT, consumers define their repurchase intentions by determining whether the product or service meets their initial expectations. Shoppers' comparisons of perceived usefulness versus their original expectation of usefulness influence their continuance intentions (Oliver 1980; Bhattacharjee 2001a). If use meets the initial expectation and leaves the consumer satisfied, the consumer experiences positive intentions to repurchase (Oliver 1980; Anderson and Sullivan 1993).

However, ECT ignores potential changes in initial expectations following the consumption experience and the effect of these expectation changes on subsequent cognitive processes (Bhattacharjee 2001a). Pre-purchase expectations typically are based on media or others' opinions, whereas post-purchase expectations derive from usage experience, which appears more realistic (Fazio and Zanna 1981). Following such experience, expectations may increase if consumers believe the product or service is useful or contains new benefits that were not part their initial expectation. Therefore, the research model focuses only on post-acceptance variables and the model assumes e-shopping retailers target users and improves their loyalty to the site. Hence, the post-expectation in the original ECT is represented by perceived usefulness.

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

The dominant influence of perceived usefulness has led Bhattacharjee (2001) to include usefulness in his revised ECT. Furthermore, in a recent study by Premkumar and Bhattacharjee (2008), perceived usefulness is found to be the strongest predictor of intention in TAM, and continues to be the strongest predictor of continuance intention (over satisfaction) when TAM is combined with ECT, whereas satisfaction was dominant in ECT (Premkumar and Bhattacharjee 2008). The relative dominance of usefulness explains its role as critical driver in continuance decisions (Premkumar and Bhattacharjee 2008).

Site quality and good interface design enhance the formation of consumer trust, and if a consumer perceives a vendor's website to be of high quality, he or she should trust the vendor's competence, integrity, and benevolence (McKnight et al. 2002a). Gefen and others (2003) integrate trust into the TAM in a B2C e-shopping context and find that trust positively affects consumers' intention to use a website. 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. 2002b; Urban et al. 2000).

Subjective norm can be thought of as composed of two components: societal norm and social influence (Pavlou and Chai 2002). Societal norm refers to the process of adherence to the larger societal fashion, i.e., a large circle of influence. Collectivism, however, refers to the extent to which individuals are integrated into groups, forming their judgments based on group norms (Hofstede and Bond 1988). Other studies replicate Hofstede's cultural dimension of collectivism, finding that it places greater relative importance on the group's needs and norms than individualism (Triandis 1989). Social influence refers to the extent to which people accept a hierarchical system with an unequal power distribution (Pavlou and Chai 2002), and here is seen to reflect adherence to opinions from family, friends, and peers, i.e., a smaller circle of influence.

Additionally, other studies suggest that individuals place more trust in people similar to themselves and assess trustworthiness on second-hand information (Zucker 1986; Morgan and Hunt 1994; McKnight, Cummings, and Chervany 1998). In highly collectivistic cultures, such as the Arab World, individuals' actions are typically influenced by the expectations of people around them. Therefore, if e-shopping is a socially desirable behaviour, a person is more likely to e-shop (George 2002).

Since thousands of e-retailers provide similar services, retention of existing users is difficult and important. Attracting and retaining users by providing an enjoyable website has gained researchers' attention. Enjoyment is significantly associated with total web use, especially for entertainment purposes (Atkinson and Kydd 1997). Moon and Kim (2001) extend TAM, in a parallel with Lin et al. (2005), who extend ECT for a WWW context, indicating that enjoyment and playfulness were an intrinsic motivation factor in acceptance and continuance intention. Furthermore, Childers et al (2001) also find that enjoyment can predict attitude towards e-shopping, just as much as can usefulness. Therefore, we integrated the perceived enjoyment construct into our research model in an attempt to enhance understanding of individuals' e-shopping continuance or revisit intention.

### **3 PROPOSED MODEL AND HYPOTHESES**

#### **Site Quality**

E-shopping web site quality refers to "overall consumer perceptions of the excellence and effectiveness of an e-tailer's product and/or service offering through its virtual store" (Ha and Stoel, 2009). In the online context, website quality is unique and unanimously seen as vital factor during the initial online purchase stage (Yoon, 2002; Koufaris and Hampton-Sosa, 2004). For the first-time buyer with no previous experience with the seller, the initial trust, from the consumers' perspective, is formed quickly by indirect experience on the basis of available information such as reputation, recommendation, effective communication, and information quality of the seller website (Meyerson et al., 1996; Kim et al., 2003). Website quality has been found as a trust-building lever in the e-purchase context for the first-time consumers (McKnight et al., 2002). Wirtz and Lihotzky (2003) argue that online experiences differ from those found in traditional (physical) shopping, suggesting that consumer evaluation of the quality of online shopping may differ in achieving initial trust, which make it more complicated.

Additionally, shopping online include a number of experiences such as information search, web site browsing/navigation, ordering, payment, customer service interactions, delivery, post-purchase problem resolution, and satisfaction with one's purchases (Ha and Stoel, 2009). Website quality helps predict behaviour (Business Wire, 1999; Carl 1995; Meltzer, 1999); if the vendor's website is perceived to be of high quality, the consumer is more likely to depend on the vendor (McKnight et al., 2002). Furthermore, an e-vendors' site with user-friendly search and navigation functions provide users with a better sense of control over their online shopping experience which in turn may translate into positive feelings about the competence of the vendor. Thus, a well-designed and organized web interface can stimulate initial consumer interest to further explore a site (Menon and Kahn, 2002) and reduce customers' cost and the time required when searching for product information. Similarly, if a customer perceives a vendor's website to be of high quality, he/she will be more likely to generate a favorable attitude towards it, demonstrate behavioral control over it (Pavlou and Fygenson, 2006; Jahng, Jain and Ramamurthy, 2007), which in turn, translates into an easier experience for consumers to release the product or service value and feature. On the basis of this research, we therefore predict:

H1.a Perceived Site Quality is positively related to Perceived Usefulness.

H1.b. Perceived Site Quality is positively related to Customer Trust in using e-shopping.

#### **Trust**

In general, trust is viewed as a set of specific beliefs dealing primarily with the benevolence, competence and integrity of another party. Benevolence is the belief that the trustee will not act against the trustor, even given the opportunity. Competence is the belief in the trustee's ability to fulfil the obligations expected by the trustor. Integrity is the belief that the trustee will be honest and will honour its commitments (McKnight et al. 2002a). Also, trust refers to an expectation that others will not behave opportunistically and/or take advantage of a situation (Gefen 2003). If the e-vendor cannot be trusted to behave in accordance with the consumers' expectations, then there is no reason why consumers should expect to gain any utility or benefit from using the interface (Pavlou 2003; Gefen 2004; Chiu 2009). A lack of trust will, therefore, prevent buyers from engaging in e-shopping (Hoffman et al. 1999). When consumers initially trust their online retailers, and have a perception that e-shopping is beneficial, they will eventually accept that e-shopping is useful (Gefen et al. 2003). In turn, perceived usefulness should occur only for an e-vendor that can be trusted (Festinger 1975). Indeed, prior research shows that trust plays a pivotal role in driving perceived usefulness (Gefen et al. 2003; Pavlou 2003) Thus:

H2. Perceived Trust is positively related to customer perceived Usefulness.

### **Perceived Usefulness**

Perceived usefulness is defined as the extent to which a consumer believes that e-shopping will enhance his or her transaction performance (Chiu 2009). According to Burke (1997), perceived usefulness is the primary prerequisite for mass market technology acceptance. This depends on consumers' expectations of how technology can improve their lives (Peterson et al. 1997). A website is useful if it delivers services to a customer, but not if the customers' delivery expectations are not met (Barnes and Vidgen 2000). The importance of perceived usefulness as a key motivating factor derives from the TRA and TAM models, which propose that perceived usefulness affects user acceptance due to reinforcement values of outcomes (Adams, Nelson and Todd 1992; Davis et al. 1989). In a robust TAM, perceived usefulness predicts IT use and intention to use (e.g., Agarwal and Prasad 1999; Gefen and Keil 1998; Gefen and Straub 1997; Igabria et al. 1995), as well as e-commerce adoption (Gefen and Straub 2000) and exhibits a stronger and more consistent relationship with usage than did other variables reported in the literature (Davis et al. 1989). Furthermore, Davis et al. (1989) indicates that individuals shape behavioural intentions towards e-shopping, based largely on a cognitive evaluation of how it will improve their shopping performance. According to Bhattacharjee (2001), and Babin and Babin (2001), an individual is more likely to undertake continued or repurchase intentions when such usage is perceived to be beneficial.

Consumers are likely to evaluate and consider product-related information prior to purchase, and perceived usefulness may, therefore, be more important than the enjoyment (hedonic aspect) of the shopping experience (Babin et al. 1994). Additionally, Davis et al. (1992) identified a positive relationship between perceived usefulness and enjoyment (Chung and Tan 2004). We also posit that a useful online product could make people more likely to experience greater enjoyment at e-store that establishes high quality in terms of marketing and information related attributes (Ha and Stoel, 2009) use and recommend it to their peers. Although it does not affect the importance of friends, perceived usefulness is likely to encourage peers to spread recommendations by word-of-mouth, thereby increasing continuance intentions. Therefore:

H3a. Perceived Usefulness is positively related to increasing customer Enjoyment.

H3b. Perceived Usefulness is positively related to increasing customer Continuance Intention.

### **Social Pressure**

According to Ajzen, (1985) and George (2004), 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 attitudes and behaviour of individuals in varying degrees in different societies depending on the culture.

Furthermore, social influences result from subjective norms (social pressure), which relate to individual consumers' perceptions about the beliefs of other consumers (Venkatesh et al. 2003). Shim and colleagues (2001) find subjective norms to be only marginally significant for e-shopping intentions, whereas Foucault et al. (2005) find a significant link between talking about e-shopping with friends and intention to e-shop.

Researchers such as Hofstede (1994) and Adler (1995), maintain that the individualism-collectivism dimension is an important means of understanding the motives of human action and behaviour (Ali, 1988). This perspective refers to the need to either satisfy personal aspirations or attend to group needs. In highly collectivistic cultures, such as the Arab World, an individual's actions are typically influenced by the expectations of people around him or her.

Therefore, in terms of the underlying motivation to accept technology or e-shopping, individuals from a collectivistic culture may use e-shopping less because of the potential usefulness or enjoyment, more because of the perceived social pressure from their family and friends. These individuals will conform to the accepted social norm by using the technology to perform e-shopping because of their belief that they will be perceived to be technologically sophisticated by those whom they consider important for their future well-being. Taking that into consideration, social norms also is relevant to enjoyment, because involving consumers in the web sites facilitate e-friendship and enforce e-shopping, which produce similar result of greater enjoyable experience. Thus:

H4a. Perceived Social Norm is positively related to increasing customer Enjoyment and

H4b. Perceived Social Norm is positively related to increasing customer Continuance Intention.

### **Enjoyment**

Perceived enjoyment refers to the extent to which the activity of using an e-commerce website is enjoyable in its own right, beyond the instrumental value (Davis et al. 1992). It is also the extent to which e-shopping is perceived to be personally enjoyable and fun (Chiu 2009). According to self-determination theory, customers are self-determining and intrinsically motivated in e-shopping when they are interested in it or enjoy doing it (Chiu 2009). Because Internet shopping is usually voluntary, and searching and buying are impulsive

behaviours, it seems likely that shoppers' intentions become stronger if they perceive higher enjoyment from the website (Atkinson and Kydd 1997; Li and Zhang 2005).

Empirical research indicates that the general characteristics of enjoyment and fun relate positively to creativity and an exploratory type of behaviour during interaction with computers (Webster 1992). Research indicates that individuals who experience pleasure and joy from using a computer, and perceive any activity involving use of e-shopping as inherently enjoyable apart from any anticipated improvement in performance, are likely to use it more extensively than others (Davis 1992; Malone 1981; Webster 1989). Davis et al. (1989) found that while perceived usefulness emerged as the major determinant of computer acceptance in the workplace, enjoyment and fun had a significant effect beyond perceived usefulness.

Enjoyment in using a website significantly affects intentions to use (Davis et al. 1992; Igbaria et al. 1995; Teo et al. 1999; Venkatesh et al. 2002). Furthermore, Hirschman and Holbrook (1982) suggested that positive consumption, related to emotions in a hedonic context, is likely to lead to very high levels of commitment and repurchase intention. Davis et al.'s (1989) findings support the idea that enjoyment has a significant impact on customer behaviour on the web, such as increasing customer intention to return (Koufaris et al. 2001; Koufaris 2002; Bart et al. 2005; Cyr et al. 2006; Chiu 2009). Thus:

H5. Perceived Enjoyment is positively related to increasing customer Continuance Intention.

#### **4 METHODOLOGY**

The methodology used in this research is useful in indicating the potential generalisability of the study findings' across different cultures and contexts. This research is theory oriented and is concerned with assessing the correspondence between relationships discernible across cases and a broad theoretically based interpretation of social phenomenon. According to Ragin (1987) and Creswell (2003), investigators who use such approach focus their interest on testing hypothesis and propositions derived from theory to determine whether the predictive generalization of the theory hold. This is achieved by conducting a comprehensive analysis that includes Exploratory Factor Analysis (EFA), Structural Equation Modelling (SEM) and invariance analysis for the data collected for the purpose of examining research model generalisability.

The population of interest in this study is Internet users in Saudi Arabia over 18 years old who have previous experience of online shopping. An online survey is used to validate the conceptual model and the proposed research hypotheses. Since Saudi Arabia is a big country with multiple traditions and subcultures, the developed online survey is suitable for targeting online shoppers and collecting data from large geographical areas. Compared with traditional surveys, online surveys offer lower costs, faster responses, and less data entry effort.

Student samples were added to the research because online customers commonly are younger and more highly educated than conventional customers, making a student sample more representative of the online customer population (Al-Diri, Hobbs, and Qahwaji, 2006; Williamson, 2006). Furthermore, adding a student sample may represent the future e-shopping patterns of the population at large. Student samples were extracted from seven universities and colleges, including the five regions of Saudi Arabia.

However, since this research cannot cover such a massive population, a sample was used for the data collection process. One conventional sampling approach is to randomly distribute surveys to members of the general population, since such a sample is frequently a good representation of the population at large. Additionally, the researcher makes attempt to insure that this sample is an accurate representation of some larger group or population by covering the main five regions in Saudi Arabia.

#### **Measures**

The measures of the various constructs come from previous literature, adapted to the context of e-shopping. Marketing models often include relationships among sets of constructs. The constructs used in this study are latent, each represented by a number of indicators. A structural equation model (SEM) is developed in order to investigate the relationships between the constructs, which are either formative or reflective in nature. However, since this research uses SEM with (using SPSS AMOS 5.0 software) AMOS software can handle only reflective scales (Bagozzi 1982; Bagozzi and Fornell 1982; Fornell and Bookstein 1982). In a reflective scale, all observed indicators are viewed as being caused by some underlying common dimension or construct (Bagozzi 1982). All online survey items used 1–7 Likert scales, on which 1 indicates strongly disagree and 7 strongly agree. The site quality and trust items come from McKnight and others (2002a, 2002b). The perceived usefulness items derive from Gefen (2003). Perceived enjoyment is a measure from Childers (2001). Shih and Fang (2004) provide the subjective norm (social pressure) items. The continuance intention items were adapted from Yang and Peterson (2004). Appendix A lists the measurement scales.

A pilot study was carried out in Saudi Arabia to evaluate the effectiveness of the research instrument. The pilot study suggested some clarifications to the survey instruments. Questionnaires were developed initially in English and then translated into Arabic. To avoid any bias, the back-translation method, Brislin's (1986),

ensures they have the same meaning. The Arabic and English versions were validated and proofread for final approval of the content, wording, and clarity of the questions by native speakers.

### **Data analysis**

Survey respondents were people who were actively engaged in Internet use and e-shopping in Saudi Arabia. The sample consists of 465 participants, 68.6% (319) of whom are women and 31.4% (146) of whom are men (Table 1). The domination of women participants in this research is surprising especially both genders have the same accessibility and freedom to participate in the survey. Despite the fact that women comprise 68.6% of the participants in this research, women in Islamic countries are facing several social and cultural obstacles preventing them from engaging in work (Al-maghrabi, 2010). Thus, the revolution in information and communication technology and the nature of the research, online shopping have broadened the work of members of the community particularly that carried out by women, at administrative, social and economic levels. These should be as an indicator for the domination of women participation in the research and reflect the importance of using the internet and online shopping to Muslim women, which may outweigh the importance level for women living in non-Muslim societies. Furthermore, linking the domination of women participants to recent surveys, such as the Pew Internet conducted in 2002 and Sky News conducted in 2002, which indicated that women are now dominant in e-shopping (cited in Cha 2009). In the same context and according to comScore, focusing on expenditures online, women accounted for 58% of e-shopping, whereas men were responsible for 42% between April 2004 and March 2005 (Maguire 2006). Furthermore, most respondents are in the younger age groups, with 74.8% younger than 35 and 25.1% 35 years or older. This age range broadly reflects the profile of the young Saudi population. The vast majority (92.3%) of respondents came from the three main regions in Saudi Arabia: 25.2% from the eastern region, 26.5% from the central region, and 40.6% from the western region.

Younger people have the intention to spend more than older people in Saudi Arabia, as indicated in Table 1. As we demonstrate in Table 2, 208 (59.8%) and 149 (42.8%) of the respondents younger than 35 years old used the Internet in the previous six months to book flights, purchase airline tickets and make hotel reservations, compared to 86 (73.5%) and 69 (59.0%) respondents in the other group of 35 years and older; 102 (29.3%) have purchased fashion products, compared to 18 (15.4%) for 35 and older. Security, quality, payment, and language barrier are considered as an issue when conducting e-shopping in Saudi Arabia, as reported in Table 3.



**Table 1: Sample Demographics**

Question	younger than 35	35 and older
<b>Gender</b>		
Male	114 (32.8%)	32 (27.4%)
Female	234 (67.2%)	85 (72.6%)
<b>Age</b>		
Less than 18	16 (4.6%)	0
Between 18-25	130 (37.4%)	0
Between 26-35	202 (58%)	0
Between 36-45	0	88 (75.2%)
Above 46	0	29 (24.8%)
<b>Education Level</b>		
Less than high school	8 (2.3%)	1 (0.9%)
High school	49 (14.1%)	8 (6.8%)
Diploma	43 (12.4%)	12 (10.3%)
Bachelor	191 (54.9%)	50 (42.7%)
Post-graduate	57 (16.4%)	46 (39.3%)
<b>Internet Spending</b>		
None	49 (14.1%)	9 (7.7%)
SR100-1,000 (£100-500)	115 (33.0%)	48 (41.0%)
SR1,001-5,000 (£501-1,000)	111 (31.9%)	32 (27.4%)
>SR5,001 (£>1,001)	73 (21.0%)	28 (23.9%)
<b>Income Level</b>		
<SR4,000 (£1,000)	87 (25.0%)	5 (4.3%)
SR4,000-SR6,000 (£1,000-2,000)	56 (16.1%)	13 (11.1%)
SR6,001-SR8,000 (£2,001-4,000)	46 (13.2%)	12 (10.3%)
SR8,001-SR10,000 (£4,001-7,000)	33 (9.5%)	9 (7.7%)
SR10,001-SR15,000 (£7,001-10,000)	42 (12.1%)	27 (23.1%)
>SR15,001 (>£10,000)	21 (6.0%)	49 (41.9%)
Dependent on others	63 (18.1%)	2 (1.7%)
<b>Region</b>		
East region	100 (28.7%)	17 (14.5%)
West region	122 (35.1%)	67 (57.3%)
Central region	93 (26.7%)	30 (25.6%)
North region	20 (5.7%)	1 (0.9%)
South region	13 (3.7%)	2 (1.7%)

**Table 2: Items purchased online and reason for using the Internet**

Items purchased in the last six months	younger than 35	Percentage (%)	35 and older	Percentage (%)
Books	197	56.6%	65	55.6%
Music CD, DVD, Videotape	157	45.1%	36	30.8%
Fashion	102	29.3%	18	15.4%
Sports equip	67	19.3%	18	15.4%
Travel reservation and ticketing	208	59.8%	86	73.5%
Hotel booking	149	42.8%	69	59.0%
<b>Reason for using the Internet</b>				
Information search	320	92%	112	95.7%
Entertainment	256	73.6	74	63.2%
Social communication	245	70.4%	77	65.8%
Work	194	55.7%	92	78.6%
Study	44	60.9%	59	50.4%
Purchasing	284	81.6%	97	82.9%
Banking	231	66.4%	90	76.9%
<b>Types of companies trusted</b>				
Local companies	42	12.1%	12	10.3%
International companies	143	41.1%	54	46.2%
Trust them both the same	163	46.8%	51	43.6%

*\*\* Respondent can select more than one option.*

**Table 3: Important issues when shopping online**

<b>Important issues to e-shoppers</b>	<b>younger than 35</b>	<b>Percentage (%)</b>	<b>35 and older</b>	<b>Percentage (%)</b>
Security	275	79%	100	85.5%
Price	204	58.6%	73	62.4%
Service, delivery	222	63.8%	78	66.7%
Quality	252	72.4%	81	69.2%
Payment	220	63.2%	78	66.7%
Language barrier	157	45.1%	56	47.9%

*\*\* Respondents can select more than one option.*

The scale reliability and validity were assessed, as well as an examination of the convergent and discriminant validity of the research instruments. The criterion for the minimum loading of 0.70 required for the inclusion of an item within a scale was applied (Fornell and Bookstein 1982). Fornell and Larcker's (1981) criterion for average variance extracted (AVE) of 0.50 or more was applied. The researcher also consider the guidelines recommended by Hair et al. (2006) in determining the relative importance and significance of the factor loading of each item, (i.e., loadings greater than 0.30 are considered significant; loadings greater than 0.40 are considered important; and loadings 0.50 or greater are considered to be very significant). Finally, the criteria suggested by Nunnally (1978) were applied to determine the adequacy of the reliability coefficients obtained for each measure.

Discriminant validity, which assesses whether individual indicators can adequately distinguish between different constructs, is assured if the square root of AVE for each construct is greater than the correlation between the measures of potentially overlapping constructs (Fornell and Larcker 1981).

The internal consistency reliabilities, Cronbach's alphas, (Table 4) are all greater than 0.7, exceeding the recommended values in Bagozzi and Yi's (1988) guidelines. The correlation matrix in Table 4 indicates that the square root of the AVE of each construct is higher than the corresponding correlation values for that variable, thereby assuring discriminant validity (Fornell and Larcker 1981). Consistent with the recommendation of Bagozzi (1994), Byrne (2001), and Hair et al. (2006), the squared multiple correlation exceeded the cut-off point of 0.7, and the average variance extracted exceeded the cut off-point of 0.5 (Table 5). We thus confirm the convergent reliability and discriminant validity.

**Table 4: Convergent and Discriminant Validity and Scale Correlations**

Factor Correlations							
Model Constructs	Cronbach's alpha	SQ	PU	Trust	SP	Enj	CIU
SQ	0.926	<b>0.871</b>					
PU	0.949	0.698	<b>0.904</b>				
Trust	0.949	0.000	0.000	<b>0.902</b>			
SP	0.947	0.684	0.672	0.000	<b>0.905</b>		
Enj	0.935	0.379	0.372	0.360	0.555	<b>0.869</b>	
CIU	0.961	0.365	0.359	0.379	0.534	0.688	<b>0.934</b>

Diagonal elements represent square root of the AVE value

**Table 5: Measurement Model**

Constructs/Indicators	S. Factor Loading	S.E	C.R.	AVE	Squared Multiple Correlation
<b>Site Quality (SQ)</b>				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
<b>Perceived Usefulness</b>				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
<b>Trust</b>				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
<b>Social Pressure</b>				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
<b>Enjoyment</b>				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
<b>Continuance Intention</b>				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

## 5 STRUCTURAL EQUATION MODEL

As the first step in testing the proposed model, we estimate the goodness-of-fit indices (Figure 1). Bentler and Bonnett (1980) suggest the Chi-square/Degrees-of-freedom (CMIN/DF) ratio as an appropriate measure of model fit, which should not exceed 5 (Bentler 1989).

SEM with AMOS 5.0 software determines additional goodness-of-fit indices, including Critical Ratio (CR), Chi-square (CMIN), Degrees-of-Freedom (df), Chi-square/Degrees-of-freedom (CMIN/DF), Root mean square residual (RMR), Root mean square error of approximate (RMSEA), Goodness-of-fit (GFI), and Comparative fit index (CFI). In general, GFI and CFI greater than 0.90 indicate good model fit (Bentler 1989). As illustrated in Table 6, all hypotheses are statistically significant and supported, with critical ratios ranging from 17.261 to 4.594, which are greater than 1.96 and thus indicate acceptable results (Hair et al. 2006; Holmes-Smith 2000). The goodness-of-fit indices of the proposed model of continuance intentions fit the data reasonably well, as confirmed by the chi-square CMIN=656.880, df=236, CMIN/DF=2.783, RMR=0.176, GFI=0.897, CFI=0.966, and RMSEA=0.062 (Table 7).

**Table 6: Regression Weights**

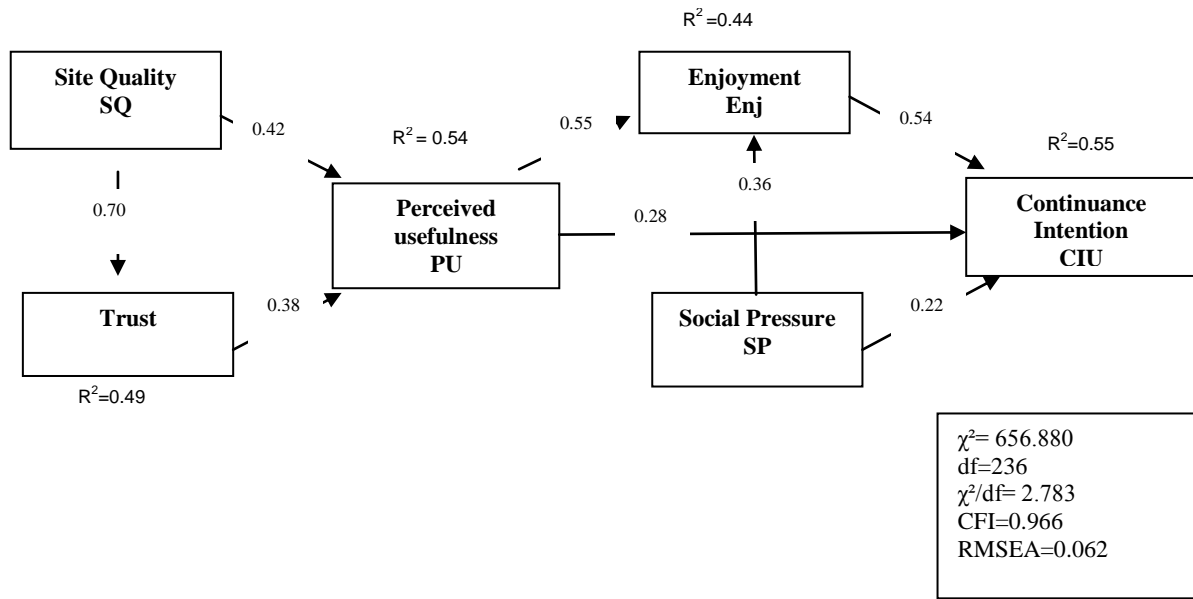
Hypotheses	Paths			Standardized Regression Weights (B)	Standard Error S.E.	Critical Ratio C.R.	P Value	Hypotheses Findings
H1 a	Trust	<---	SQ	0.698	0.042	15.778	***	Supported
H1 b	PU	<---	SQ	0.420	0.052	7.859	***	Supported
H2	PU	<---	Trust	0.379	0.055	7.077	***	Supported
H4 a	Enj	<---	SP	0.360	0.039	7.781	***	Supported
H3 a	Enj	<---	PU	0.555	0.041	10.979	***	Supported
H4 b	CIU	<---	SP	0.216	0.046	5.250	***	Supported
H5	CIU	<---	Enj	0.455	0.067	8.963	***	Supported
H3 b	CIU	<---	PU	0.282	0.051	6.037	***	Supported

**Table 7: Goodness-of-fit indices**

Confirmatory Factor Analysis CFA (Goodness-of-fit measure)	Acceptable Values	Value
Chi-Square CMIN	NA	656.880
Degree of freedom	NA	236
CMIN/DF	Chi square/ df $\leq 5$ (Bentler and Bonnett, 1989)	2.783
P value	$p \leq 0.05$ (Hair et al., 2006)	0.000
Root mean square residual (RMR)	No established thresholds (the smaller the better) (Hair et al., 2006)	0.176
Goodness-of-fit (GFI)	$\geq 0.90$ (the higher the better) (Hair et al., 2006)	0.897
Comparative fit index (CFI)	$\geq 0.90$ (Hair et al., 2006)	0.966
Root mean square error of approximate (RMSEA)	$< 0.08$ (Hair et al., 2006)	0.062
Normal fit index (NFI)	$\geq 0.90$ (Hair et al., 2006)	0.943
Incremental fit index (IFI)	$\geq 0.90$ (Hair et al., 2006)	0.960
Relative fit index (RFI)	$\geq 0.90$ (Hair et al., 2006)	0.933

Next, we examine the regression weights (path significance) of each relationship in our research model and the variance explained (R<sup>2</sup> value) by each path. The AMOS software reports the standardized regression weights and critical ratio for each path (Table 5). The hypothesized associations are strongly significant at  $p = ***$ . Perceived enjoyment is the strongest predictor of continuance intention ( $B = 0.455$ ), followed by perceived usefulness ( $B = 0.282$ ), and then social pressure ( $B = 0.216$ ). The model explains 55% of the variance in continuance intentions (Figure 1).

**Figure 1: Internet Continuance Intention shopping model in Saudi Arabia**



## 6 INVARIANCE ANALYSIS

As has been demonstrated in Table 1, due to a higher-than-average percentage of young consumers (35 years old and younger in this research), it is considered important to conduct age invariance analysis. Online customers commonly are younger and more highly educated than conventional customers, making a young consumer more representative of the online customer population (OECD 1998). Additionally, users who range in age from their teens through their 30s are particularly attractive targets for sellers of goods and services and are also more likely to purchase products or services online than are older consumers (Akhter 2003; He and Mykytyn 2007).

When comparing cultures or groups, research participants may not recognize the same meaning and understanding of survey items. Scholars have emphasized the importance of minimizing possible research biases when comparing cultures or groups (Yi et al. 2008). To minimize bias, we assessed the measurement invariance (equivalence) across the groups to consider the constructs' factorial invariance (Cheung et al. 1999).

Invariance analysis indicates whether any differences occur between the two age groups; young and old. The factorial analysis reveals whether young and old conceptualize the model constructs the same way. If we find an age effect on the measurement invariance of the construct and the score of the group analysis is significant, the construct measurement differs for the two groups, and they cannot be compared directly. Therefore, the factorial invariance (metric equivalence) for both age groups were assessed (Hair et al., 2006). The  $CMIN=1206.661$ ,  $df=468$ ,  $CMIN/DF=2.578$ ,  $RMR=0.123$ ,  $GFI=0.906$ ,  $CFI=0.971$ , and  $RMSEA=0.041$ , indicate satisfactory goodness-of-fit indices across the groups (Table 8).

**Table 8: Goodness-of-fit indices (Younger than 35 – 35 and Older)**

Confirmatory Factor Analysis CFA (Goodness-of-fit measure)	Acceptable Values	Value
Chi-Square CMIN	NA	1206.661
Degree of freedom	NA	468
CMIN/DF	Chi square/ df $\leq 5$ (Bentler and Bonnett, 1989)	2.578
P value	$p \leq 0.05$ (Hair et al., 2006)	0.000
Root mean square residual (RMR)	No established thresholds (the smaller the better) (Hair et al., 2006)	0.123
Goodness-of-fit (GFI)	$> 0.90$ (the higher the better) (Hair et al., 2006)	0.906
Comparative fit index (CFI)	$> 0.90$ (Hair et al., 2006)	0.971
Root mean square error of approximate (RMSEA)	$< 0.08$ (Hair et al., 2006)	0.041
Normal fit index (NFI)	$\geq 0.90$ (Hair et al., 2006)	0.916

Confirmatory Factor Analysis CFA (Goodness-of-fit measure)	Acceptable Values	Value
Incremental fit index (IFI)	$\geq 0.90$ (Hair <i>et al.</i> , 2006)	0.949
Relative fit index (RFI)	$\geq 0.90$ (Hair <i>et al.</i> , 2006)	0.907

Assuming the unconstrained model is correct, compared with constraining all factorial paths, the results across groups indicate changes in df ( $\Delta df$ ) = 18, chi-square ( $\Delta\chi^2$ ) = 31.677, and  $p = 0.115$ , which is greater than Byrne's (2001) 0.05 cut-off. Tests of measurement invariance in which we freely estimate the other loadings appear in Table 9. According to the results, changes in the chi-square and df are insignificant ( $p = 0.115$ ). Therefore, the goodness-of-fit indices are comparable across age groups, supporting the invariance of the unconstrained and constrained models. We thereby establish metric equivalence and can proceed in our analysis to regression paths.

**Table 9: Invariance analysis (Younger than 35 – 35 and Older)**

Model	$\Delta df$	$\Delta\chi^2$	p
Measurement weights	16	31.677	.115
Structural weights	8	13.244	.369

The coefficient (regression paths) invariance analysis determines if young and old respondents have the same relationships with the same variables in the research model. The findings in Table 9 suggest coefficient invariance among age groups across the research model with all regression paths constrained ( $\Delta\chi^2 = 13.244$ ,  $\Delta df = 9$ ,  $p = 0.369$ ). Even though the structural weight in Table 9 shows invariance among the groups, the author realised the need to minimize the possibility of research biases in the two age groups (younger than 35 years old and 35 and older) analysis among constructs relationship (path) that may arise from the data strength and weakness when applied to every constructs' path. Therefore, the author decided to test each factorial path separately, while the rest of the paths are freely estimated across the two age groups to look for any non-invariance path.

The findings in Table 10 indicate that young and old age group are non-invariant in certain relational paths. Therefore, in this case testing the individual path has demonstrated to be a more rigorous test for non-invariance. Differences in their intention in the context of e-shopping continuance can be observed in the different coefficients in the social pressure  $\rightarrow$  enjoyment link. Specifically, in the comparisons of the young with old ( $\Delta\chi^2 = 5.609$ ,  $p = 0.018$ ), the influence of social pressure is greater for the younger sample than for the older sample.

**Table 10: Structural Factorial of theoretical construct (structure Invariant – Regression) for the age sample (Younger than 35 – 35 and Older)**

Hypotheses	Paths			Younger than 35 Sample			35 and older Sample			Invariance		
				RW	C.R.	P value	RW	C.R.	P Value	$\Delta DF$	$\Delta\chi^2$	P Value
H4 a	Enj	<---	SP	0.186	7.039	***	0.322	5.694	***	1	5.609	0.018

Age was found to have latent mean non-invariance for the research constructs (Table 11). This difference between younger than 35 and 35 and older, in the context on continuance Internet shopping, resulted from the differences of the latent mean of trust, enjoyment, and continuance intention. The standardized latent mean of trust, enjoyment, and continuance intention in the younger than 35 sample is estimated to be: trust = 0.278; enjoyment = 0.401; continuance intention = 0.217, with a standard error (SE) of: trust = 0.097; enjoyment = 0.095; continuance intention = 0.097, and CR (t-value) of: trust = 2.875; enjoyment = 4.209; continuance intention = 2.237. The result is significant ( $p > 0.05$ , trust,  $p = 0.004$ ; enjoyment  $p = ***$ ; continuance intention  $p = 0.025$ ). Thus, trust is 0.278 more (higher) among the younger sample than it is among older sample. The same applies for enjoyment with 0.401 and continuance intention with 0.217, higher among the younger sample than it is among the older sample.

**Table 11: Means: (Younger than 35 - Default model) - for the age sample (Younger than 35 – 35 and Older)**

	Latent mean	S.E.	C.R.	P Value
PU	0.096	0.092	1.037	0.300
Trust	<b>0.278</b>	<b>0.097</b>	<b>2.875</b>	<b>0.004</b>
Enj	<b>0.401</b>	<b>0.095</b>	<b>4.209</b>	<b>***</b>
CIU	<b>0.217</b>	<b>0.097</b>	<b>2.237</b>	<b>0.025</b>
SQ	0.070	0.091	.769	0.442
SP	0.149	0.091	1.644	0.100

## 7 DIRECT AND INDIRECT EFFECT ANALYSIS

SEM distinguishes between direct, indirect, and total effects (Jöreskog and Sörbom, 2001). The direct effect is the relationship linking two constructs with a single arrow between them (Hair et al., 2006). On the other hand, the indirect effect is a sequence of relationships with at least one mediating constructs involved (Hair et al., 2006). The sum of the indirect and direct relationships between the constructs will constitute the total effect (Hair et al., 2006).

Both the indirect effect and the total effects can facilitate understanding of important questions and relationships that are not addressed when investigating the direct effect alone (Kline, 1998). The direct and indirect effects (Hair et al. 2006) in Table 12 reveal that the greatest total influences of direct and indirect (mediated) effects on continuance intentions come from enjoyment (0.749 for the 35 years and older, and 0.705 for younger than 35 years). The next greatest influences derive from site quality (0.624 for the 35 years and older, and 0.620 for younger than 35 years). Additionally, social pressure has the second highest direct influence on continuance intention (0.215 for younger than 35 years and 0.212 for 35 years and older). Therefore, site quality, trust, perceived usefulness, enjoyment, and social pressure all play significant direct and indirect roles for continuance intentions regarding e-shopping for both age groups.

**Table 12: Direct and Indirect influences on CIU**

Construct	CIU (Younger than 35)			CIU (35 and older)		
	Direct	Indirect	Total	Direct	Indirect	Total
SQ	-----	0.620	0.620	-----	0.624	0.624
TRUST	-----	0.318	0.318	-----	0.269	0.269
PU	0.211	0.215	0.426	0.263	0.244	0.506
SP	0.215	0.131	0.346	0.212	0.241	0.453
ENJ	0.741	-----	0.741	0.749	-----	0.749
R <sup>2</sup> = 0.55						

## 8 DISCUSSION

This research provides an integrated conceptual model that clarifies the theoretical problems of continuance e-shopping intentions and age behavioural differences in Saudi Arabia. All hypotheses are confirmed, demonstrating that perceived enjoyment, perceived usefulness, and social pressure are the main determinants of continuance intentions, explaining 55% of continuance e-shopping intentions. However, enjoyment is most influential (see Table 6; SRW = 0.455, C.R. = 8.963), followed by perceived usefulness (SRW = 0.282, C.R. = 6.037), and then social pressure (SRW = 0.216, C.R. = 5.250). These findings are consistent with previous research (e.g., Bhattacharjee 2001a; Childers 2001; Davis et al. 1989; George 2002; Shih and Fang 2004; Teo et al. 1999; Venkatesh et al. 2003). Enjoyment, perceived usefulness, and social pressure have positive influences (direct or indirect) on consumers' continuance e-shopping intentions.

The measurement weights of the younger and older groups are consistent and similar. However, the social pressure → enjoyment path is non-invariant between the age groups. That is, younger people are more influenced by evaluations of the opinions of others (young RW = 0.186, C.R. = 7.039; old RW = 0.322, C.R. = 5.694;  $\Delta\chi^2=5.609$ ,  $p=0.018$ ). This may reflect the general tendency of more mature people to rely on their own experience; thus young people are more influenced by peer groups (Spero and Stone 2004).

Site quality and trust are strong antecedents of perceived usefulness (site quality SRW = 0.420, C.R. = 7.859; trust SRW = 0.379, C.R. = 7.077). Both site quality (0.620) and trust (0.318) have large indirect effects on continuance intentions (Table 12). These findings are consistent with the collectivist culture of Saudi Arabia, where people tend to trust only those within their in-group (Yamagishi and Yamagishi 1994).

The latent means of trust, enjoyment and continuance intention are higher among the younger population (trust  $p=0.004$ ; enjoyment  $p<0.001$ ; continuance intention to use  $p=0.025$ ). Thus, trust is 0.278 higher among the younger sample than the older sample. The same goes for enjoyment with 0.401 and continuance intention to

use with 0.217; both higher among the younger sample than among older sample, and consistent with the expected greater readiness of younger people to embrace technological innovations.

## **9 RESEARCH LIMITATIONS**

Typical of most survey research, this study suffers some limitations. First, the novelty associated with using an online survey indicates that empirical data may lead to novelty effect bias. Second, the online survey was posted, with permission, on Saudi universities' online forums. However, the survey may suffer a non-response bias, but there is no systematic way to determine the response rate in an online survey. Although the survey attracted a large sample of participants (928 in the first two months) and covers all three main commercial geographical regions in Saudi Arabia, it may still suffer from the biases that are inherent to survey studies. Conversely, this survey can claim to be more realistic than typical laboratory experiments, as it addresses real consumers and real shopping issues, outweighing the disadvantages of the method.

The adoption of e-shopping and online revisit intention might also be influenced by the product or service itself (Klein 2003). Since this study has not focused specifically on any particular products or e-retailers, it is not known to what extent our research results may be extended to specific products or services. Without referring to the nature of the product, participants in this research have used their Internet shopping preferences to answer the questionnaires. Certain products or services on a website may be relatively simple, low-touch products that require relatively less trust, have some unique features (e.g., web-based, graphics-rich, interactive interface), purpose (e.g., learning new concepts), or more complex high-touch products for which trust issues are expected to be more dominant. Such related differences may alter some of the path effects reported in our study. Therefore, future research needs to assess the generalisability of the model for the purchase of relatively simple low-touch or for more complex high-touch products, including applicability to other related online industries, such as financial services and airlines industries.

Furthermore, Girard, Korgaonka, and Silverblatt (2003) find that e-shopping preferences depend on product types. Men are more likely to shop online for utilitarian experience goods (e.g., cell phones, computers), whereas women shop online for hedonic experience goods, such as perfume and clothing. Our study focuses on consumers who had previously purchased from an e-vendor's website, without any preferences for any particular industry. The results may differ from those of consumers who have never purchased from a site other than a preferred one. Thus, the generalisability of results to potential consumers of an e-vendor that have never visited or have never purchased from the e-vendor's website is not immediately obvious and, therefore, warrants further investigation.

## **10 CONCLUSIONS, CONTRIBUTION AND AREAS FOR FURTHER RESEARCH**

This study was motivated by prior research indicating that many consumers who search different online retail sites abandon their purchase intentions. In order to study the important, little-researched area of continuance e-shopping, we adapted the TAM and ECT. By integrating these and deriving our own model, we have contributed to an understanding of the factors that encourage consumers to continue their e-shopping intention. A key conclusion from this study is the importance of both the direct and indirect effects of age differences in Saudi Arabia, which should be considered when developing any website and marketing strategy for e-retailing.

The latent mean findings reveal that younger consumers have higher continuance intention. Akhter (2003) suggests that younger people are more likely than older consumers to purchase using the Internet. These contributions are in line with previous research that young people are more likely than older adults to use the Internet, which represent one of the main environments for young people to play, learn, communicate, and share experiences (Alreck and Settle 2002; Spero and Stone 2004; Williamson, 2006; Rainie and Horrigan, 2005). Additionally, previous researchers demonstrated that consumers who experience pleasure and joy from using e-shopping are likely to use it more extensively than others (Davis 1992; Malone 1981; Webster 1989). Therefore, managers should work to increase the level of trust, enjoyment, and continuance intention among older consumers.

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 and indirect effects on continuance intention. The greater positive indirect effects of site quality and trust suggest that e-retailers should increase the positive perceptions of trust and site quality to make their e-shopping environment more useful and enjoyable. For example, if a new customer is more likely to judge a website by its appeal, reflecting its quality and trustworthiness rather than its usability, then e-retailers need to increase the appeal of their sites. Furthermore, e-retailers should emphasise their trustworthiness by, for example, marketing their robust security and policies measures, adding a Frequently Asked Questions section and including statements such as "secure servers" (Gehrke and Turban 1999).



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). According to Wilska (2003 p.459), the customer's relation to technology would impact consumers' lifestyles. To have a significant effect on e-shopping continuance intentions, any e-shopping environment should encourage a shopping experience that is useful and enjoyable. Customers' involvements in the product design process are likely to be perceived as more enjoyable. For example, Nike online shoppers ([www.nike.com](http://www.nike.com)) can customize shoes, colours, styles, and even select a name or message. Another example involves e-retailers that provide online customer services through modern communication tools, such as real time chat or Twitter (see Zappos, [www.zappos.com](http://www.zappos.com)). Similarly, communication on useful offers, as is done with social networking sites such as Osoyou ([www.osoyou.com](http://www.osoyou.com)), is likely to be perceived as a useful way of sharing with friends and relatives.

Second, the results support previous research that 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 2001a).

Third, few prior studies use SEM as their methodological approach in Saudi Arabia, and even fewer apply invariance analysis to verify age behavioural differences. This study addresses this knowledge gap for a unique culture.

Users in our study have different experiences based on whether they trust local or international e-retailers, and other related issues when shopping online. 41.1% for young users and 46.2% for old users trust international e-retailers, compared to 11.1% for young users and 10.3% for old users for the local retailers. Though not discussed in this research, the type of e-retailer (local or international), the mode of payment, online security, and language barriers may constrain the research model constructs on continuance e-shopping intention. Since prior research in the context of e-shopping in Saudi Arabia has not distinguished between these constraints, further research is recommended to explore such distinction.

## **11 RESEARCH MODEL GENERALIZABILITY**

Hofstede (1984) argues with reference to several contexts that the popular theories are culture-bound. The theoretical basis of this study is the extended TAM, which is derived from the TRA model, and the extended ECT. Both extended TAM and ECT have adapted other constructs to measure continuance intention (Agarwal and Prasad 1999; Dishaw and Strong 1999; Gefen and Keil 1998; Moon and Kim 2001; Venkatesh and Davis 2000; Premkumar and Bhattacharjee 2008; Lin, Wu and Tsai 2005).

The research model in this study confirms that online shopping involves hedonic as well as utilitarian value. Additionally, social pressure and social influence, play an important role in Saudi Arabia. As expected based on current IS literature, perceived usefulness (utilitarian) and perceived enjoyment (hedonic) value are influential indicators of intention and revisit intention (Davis et al., 1992; Van der Heijden, 2004; Lin, Wu and Tsai, 2005; Donovan and Rossiter 1982; Al-maghrabi, Dennis, and Halliday, 2011). 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. However, TAM omits subjective norms, primarily because Davis claimed that they are not significant in explaining behavioural intentions (Davis et al., 1989). The similarity and distinction in the findings between this research and literatures could be attributed to cultures, which suggest that information technology and management practices should be modified for different cultural contexts.

The Arab World culture, including Saudi Arabia, is dominated by high collectivism, i.e., an individual's beliefs depend on the social norms of the group (Kluckhorn and Strodtbeck, 1961). Additionally, other studies suggest that individuals place more trust in people similar to themselves and assess trustworthiness based on second-hand information and on stereotypes (McKnigh et al., 1998; Morgan and Hunt, 1994; Zucker, 1986). In a similar vein, recent studies in the marketing literature have also confirmed the importance and dynamics of social pressure on consumer behaviour. For instance, Takada and Jain (1991) have found that the diffusion of consumer goods in South Korea and Taiwan is directly influenced by social value.

Prior research indicates that consumers in all shopping channels shop for both utilitarian and hedonic outcomes (Childers et al., 2001), which is also consistent with previous research that social influence plays an important role in collectivist cultures (Foucault et al. 2005; Anandarajan, 2002). The author of this research suggests that the research model and the results of this study could be generalized into other contexts in general, Arab countries in particular, and Gulf Cooperation Council countries (GCC) in specific. This is because Arab

countries are classified by Hofstede (1984) as collectivist culture. The generalization of the research model to the Gulf Cooperation Council countries is more likely to be applicable because of having parallels with Saudi Arabia in sharing similar values, tribes, relatively young population, and rapid economic growth rates (Nations Online, 2008).

Additionally, the growth of disposable family income in and distribution of the spending within families in GCC countries are similar. Shopping is done by good value of the economic potential available, on the experience of each person, on the social scale of the individual and on the peer groups and sub-groups that individual mixed in, specially that most of the GCC countries have been ranked in the top 30 in the 2010 Kearney Global Retail Development Index for retail attractiveness (Kearney GRDI, 2010).

However, the author in this research suggests that the external validity (generalisability) of TAM and ECT in other cultures is questionable. The author recommends that the research model should be further tested in other cultural contexts to show the potential generalisability, particularly cultures that may have similarities with Saudi Arabia.

## **12 MANAGERIAL IMPLICATIONS**

This study provides managers with useful and important information to encourage shoppers to complete their online purchases, and we suggest that this should feed into website planning and marketing strategies. Managers and site developers should focus on the quality and informative content, which reflect usefulness and enjoyment. Managers also should not underestimate the power of the technology and the Internet, especially in a young population. Continuance shopping is important, because customers who fail to return reduce the firm's customer base and its revenues, and may well require substantial expenditure to attract them back from competitors. Managers cannot ignore either direct (perceived usefulness, enjoyment, social pressure) or indirect (site quality, trust) influences on continuance intention. The findings indicate that both young and old respondents have concerns about trusting local e-shopping sites. Managers are advised to enhance website security, content and design quality, and add a dual language feature, in order to retain consumers and build long term, trusting relationships.

Online retailers can build positive word of mouth to enhance the perceptions of friends and family members of current customers regarding the website's usefulness, site quality, interactivity, and enjoyment, thus increasing perceptions of the firm's trustworthiness. The research findings confirm that young people spend more time and money in e-shopping, and trust Internet shopping more than do older people. Therefore, managers should communicate the product benefits and values, and rely on young people to spread positive word of mouth and recommend the product. Peer pressure would engage and encourage consumers to enjoy shopping online, leading to more intention to e-shop. Use should be made of social networks such as Facebook, Twitter, and many more, to enhance the perceptions of family, friends, potential and actual customers of their websites' usefulness and trustworthiness. This is more important among young consumers as they are making the online world their environment, developing personal relationships, playing, learning, and spreading experiences.

Based on the current research findings, understanding the utilitarian and hedonic roles of e-shopping would enable marketing managers to increase the scope of e-shopping. For example, interactive activities such as an inside look at an airplane in a 360° view, selecting your travel seat using virtual model technology, or trying-on clothing can provide enjoyment in addition to facilitating product evaluation. Sophisticated technologies used in e-shopping can provide e-retailers with many techniques that will increase e-shopping usefulness and enjoyment, resulting in the continuity of loyal e-shoppers. Amazon's technique ('users who bought this item were interested in this item as well') is probably the most famous example using customer profiles. Thus, given the current research findings, e-retailers should ensure that they are providing sufficient hedonic value to online shoppers before attempting to focus on other aspects of their website development.

## **APPENDIX A**

### **Questionnaire (Measurement indicators)**

#### **Perceived Usefulness** (Strongly disagree . . . Strongly agree)

Adapted from (Gefen et al., 2003).

- The website I use for my online shopping is useful for searching and purchasing.
- The website I use for my online shopping improves my performance in searching and purchasing.
- The website I use for my online shopping enables me to search and purchase faster.
- The website I use for my online shopping enhances my effectiveness in searching and purchasing.
- The website I use for my online shopping makes it easier to search for and purchase.
- The website I use for my online shopping increases my productivity in searching and purchasing.

**Trust** (Strongly disagree . . .Strongly agree)

Adapted from (McKnight et al., 2002b).

**Trusting Beliefs (Benevolence)**

- **I believe that the website I use for my online shopping would act in my best interest.**
- If I required help, the website I use for my online shopping would do its best to help me.
- The website I use for my online shopping is interested in my well-being, not just its own.

**Integrity**

- The website I use for my online shopping is truthful in its dealings with me.
- I would characterize the website I use for my online shopping as honest.
- The website I use for my online shopping would keep its commitments.
- The website I use for my online shopping is sincere and genuine.

**Competence**

- The website I use for my online shopping is competent and effective in providing online business.
- The website I use for my online shopping performs its role of giving shopping advice very well.
- Overall, the website I use for my online shopping is a capable and proficient Internet shopping provider.
- In general, the website I use for my online shopping is very knowledgeable about its service.

**Trusting Intentions (Willingness to Depend)**

- When an important shopping issue or problem arises, I would feel comfortable depending on the information provided by the website I use for my online shopping.
- I can always rely on the website I use for my online shopping in a tough shopping situation.
- I feel that I could count on the website I use for my online shopping to help with a crucial shopping problem.
- If I had a challenging shopping problem, I would want to use the website I use for my online shopping again.

**Perceived Enjoyment** (Strongly disagree . . .Strongly agree)

Adapted from (Childers et al., 2001).

- Shopping online in this website would be fun for its own sake.
- Shopping online in this website would make me feel good.
- Shopping online in this website would be boring.
- Shopping online in this website would involve me in the shopping process.
- Shopping online in this website would be exciting.
- Shopping online in this website would be enjoyable.
- Shopping online in this website would be uncomfortable.
- Shopping online in this website would be interesting.

**Perceived Site Quality** (Strongly disagree . . .Strongly agree)

Adapted from (McKnight et al., 2002b).

- Overall, this website worked very well technically.
- Visually, this website resembled other sites I think highly of.
- This website was simple to navigate.
- On this website, it was easy to find the information I wanted.
- This website clearly showed how I can contact or communicate with online shopping customer service.

**Social Pressure** (Strongly disagree . . .Strongly agree)

Adapted from (Shine and Fang, 2004).

- Most people who are important to me would think that using the website to shop online is a wise idea.
- Most people who are important to me would think that using the website to shop online is a good idea.
- Most people who are important to me would think I should use the website to shop online.
- My family who are important to me would think that using the website to shop online is a wise idea.
- My family who are important to me would think that using the website to shop online is a good idea.

- My family who are important to me would think I should use the website to shop online.

**Continuance Intention** (Strongly disagree . . .Strongly agree)

Adapted from (Yang and Peterson, 2004).

- I say positive things about the website I use for my online shopping to other people.
- I would recommend the website I use for my online shopping to those who seek my advice about such matters.
- I would encourage friends and relatives to use the website I use for my online shopping.
- I would post positive messages about the website I use for my online shopping on some Internet message board.
- I intend to continue to do business with the present website.
- I intend to do more business with the present website.

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