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The Moderating Role of Website Familiarity in the Relationships Between e-Service Quality, e-Satisfaction and e-Loyalty

Bahar Kaya^a, Elaheh Behravesh^a, A. Mohammed Abubakar^b,
Omer Sami Kaya^c, and Carlos Orús^d

^aDepartment of Business Administration, Faculty of Business and Economics, Eastern Mediterranean University, North Cyprus Via Mersin 10, Turkey; ^bCollege of Business and Social Sciences, Antalya Bilim University, Antalya, Turkey; ^cDepartment of Computer Education and Instructional Technologies, Eastern Mediterranean University, North Cyprus Via Mersin 10, Turkey; ^dDepartment of Marketing, University of Zaragoza, Zaragoza, Spain

ABSTRACT

Intense competition drives e-tailers to search for radically new ways to maintain and increase their market share. Drawing on Bagozzi's (1992) appraisal → affective response → behavior framework, this study highlights the need, and develops a framework for customer e-loyalty and website familiarity for e-tailer. The purpose of this study is to investigate the moderating role of website familiarity in the relationships between e-service quality, e-satisfaction and e-loyalty in the context of an emerging economy, Turkey. The survey data were obtained using a judgmental sampling technique and analyzed through structural equation modeling. The findings show that website familiarity has a significant positive moderating effect on the relationship between e-satisfaction and e-loyalty, while e-service quality positively affects e-loyalty directly and indirectly through e-satisfaction. Implications for research and practice are discussed.

KEYWORDS

Customer e-satisfaction;
e-loyalty; e-service quality;
website familiarity

Introduction

The e-Marketer forecast report for the period 2016–2020 predicts that global e-tail transactions will reach 4 trillion dollars, that's double of the traditional retails (eMarketer 2016). This massive growth of the e-tailing industry comes along with intense global and local competition with the traditional retailers (Tamimi and Sebastianelli 2016). In this intensively competitive context, achieving customer's loyalty is paramount for the company's survival. Previous research highlights that it is less expensive to retain customers than to attract new customers; this is true for both traditional offline and online markets (Anderson and Srinivasan 2003; Oliver

2014). Customers loyal to e-tailers contribute to their sales volumes and share favorable electronic word-of-mouth (Hyrynsalmi et al. 2015). Existing research on consumer loyalty and market/brand familiarity is mostly within the offline context (Bilgihan 2016).

The study of e-loyalty has gained interest from academics and practitioners, primarily due to intense online competition (Parra-Lopez, Martínez-González, and China-Martín 2018), and the decline in loyalty levels toward e-commerce websites (Bilgihan, 2016; Chou, Chen, and Lin 2015). This may be the result of low customer's search cost in virtual environment; consumers can easily and conveniently navigate and compare prices and various service benefits online, making switching behavior a common pattern (Bakos 1991; Keiningham et al. 2005).

In the online context, the link between service quality and customer satisfaction, and their relationship with loyalty, have been examined in previous literature. The relationship between customer satisfaction and loyalty should be studied considering utilitarian motives, such as consumers' website knowledge, information technology know-how and preferences for online versus offline purchases (Toufaily, Ricard, and Perrien 2013). Thus, there is a need to develop new mechanisms and practices to attract customers, encourage online shopping and activities to foster e-loyalty.

However, little is known about the influential role of website familiarity on the formation of e-loyalty (Blut et al. 2015; Li 2014). Familiarity powerfully influences consumer behavior; the existing literature mostly discusses the concept in the context of traditional distribution channels and, thus, there is a need to bridge this research gap for the online context (Casaló, Flavián, and Guinalú 2008). Zhang and Ghorbani (2004) claim that increasing familiarity with an e-tailing site helps to build online trust. More specifically, familiarity breeds online trust, which can later be translated into loyalty. According to McCoy et al. (2013), website familiarity has a significant direct impact on advertisement evaluation, and an indirect impact on website quality (through advertisement entertainment and informativeness). Several empirical investigations evaluate website quality (Ahmad, Rahman, and Khan 2017; Hsu, Chang, and Chen 2012; Jeon and Jeong 2017), however studies into website familiarity are scarce and not very rigorous (Anaza and Zhao 2013). More specifically, there has been very little diagnosis of the impact of website service quality on customer e-satisfaction and the impact of customer e-satisfaction on customer loyalty conditioned by website familiarity.

The influence of website familiarity on the e-tailing context may be especially relevant in emerging economies, where e-commerce is currently in a growth stage. Most of the research in the e-tailing industry has been conducted mainly in the advanced Western nations, and researchers call for

rigorous empirical investigation in developing countries and/or emerging economies (e.g., Mummalaneni, Meng, and Elliott 2016) and non-Western cultures (Blut et al. 2015). Given the current theoretical discussions, and evidence from developed countries, this study is devoted to understanding the interaction between the above-mentioned variables in an emerging economy, Turkey. Turkey arguably straddles the line between developed and developing countries. Institutions, such as the IMF, Dow Jones, and the FTSE, consider Turkey to be a developing nation, while The CIA World Factbook classifies it as a developed nation. These mixed evaluations make Turkey a good study context for consumer behavior, as it provides critical insights for managers in countries experiencing economic transition. Moreover, the Turkish service industry has undergone a tremendous transformation due to the financial crisis and fierce competition (Yildirim 2014).

The study of Turkish e-tailing context is relevant from both the theoretical and managerial perspectives, given that its young consumer population has a median age of 30 years (worldometers.info, 2017). These young consumers are constant users of the Internet (Parra-Lopez, Martínez-González, and China-Martín 2018), use e-commerce (Jing et al. 2015), have a great potential to influence their peers, and consume online products and services. In addition, empirical insights from this emerging economy interrogate theories drawn from Western and other, more advanced nations. This study develops an integrated model that assesses the impact of online service quality on customers' e-satisfaction and e-loyalty, the mediating role of customers' e-satisfaction, and the moderating role of website familiarity.

Theoretical framework and hypothesis development

Self-regulatory processes empower intentions, initiate behaviors and lead to goal achievement (Bagozzi 1992). Drawing on Bagozzi's (1992) appraisal → affective response → behavior framework, this paper proposes that e-service quality generates the affective responses of customer satisfaction and loyalty; and that website familiarity amplifies the strength of these associations (see Figure 1). The research model consists of four constructs: e-service quality, customer e-satisfaction, customer e-loyalty, and website familiarity as a moderator.

The importance of measuring and controlling e-service quality emerged from the phenomenal growth of e-tailing. *E-service quality* is associated with web services that are delivered via the Internet and has been defined as "the extent to which a website enables efficient and effective shopping, purchase and delivery of products and services" (Zeithaml, Parasuraman, and Malhotra 2002, 363). E-service quality covers customized products and

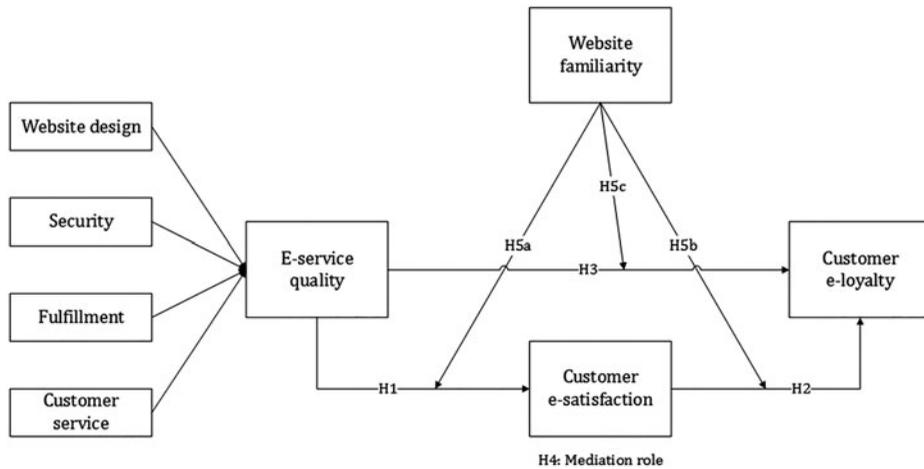


Figure 1. Research model.

service presentation, offerings, sales by e-tailers, e-tailing customer support and service, and service delivery (Rowley 2006).

E-satisfaction is basically “more related with attitudinal dimensions of e-loyalty and has been found to be the single most important factor determining the loyalty in both online and offline settings” (Li et al. 2015, 589). The holistic evaluation of the association between a website user and an e-tailer is referred to as online customer satisfaction (Jeon and Jeong 2017). More specifically, customer e-satisfaction denotes the degree of joy consumers feel when their purchase and post-purchase experiences exceed their expectations.

Loyalty refers to the commitment to repurchase an item or service from the same seller, without switching (Oliver 2014). Advances in technology gave birth to the electronic loyalty that exists in online contexts. *E-loyalty* denotes “a commitment to consistently revisit a website because of a preference for shopping on that website without switching to other websites” (Chou, Chen, and Lin 2015, 544). More specifically, it is a situation in which consumers develop the willingness to revisit a website and repurchase from the same e-tailer, and even encourage other consumers to make purchases from that e-tailer.

Familiarity reflects the direct and indirect information about a product and/or service that is available to an individual (Alba and Hutchinson 1987). According to Casaló, Flavián, and Guinalú (2008), familiarity is not limited to product use (internal sources), but includes also information obtained through advertisements and word-of-mouth (external sources). *Website familiarity* denotes an individual’s knowledge about a website, its functionality, its offers and values. Website familiarity reflects the variety of experiences in the product and service category in terms of purchased goods, services and consumption contexts of a website (Casaló, Flavián,

and Guinalíu 2008). It is worth mentioning that, within the e-tailing industry, the terms website familiarity and brand familiarity are used interchangeably (cf. Ha and Perks 2005). In fact, the e-tailer's website is essentially its brand. For instance, Ha and Perks (2005) argued that the consumer's previous accumulated knowledge of a website was his/her "brand familiarity" with the website.

The relationship between e-service quality and customer e-satisfaction

Traditional service quality is defined by Parasuraman, Zeithaml, and Berry (1988) as a customer's judgment about an entity's overall superiority or excellence. Service quality leads to potential strategic gain, such as improvement in customer loyalty and growth in a firm's operations, efficiency and profitability (Zeithaml 2000). Accordingly, it is very important to understand service quality within the e-commerce domain, and what consumers value in their web-based transactions. One of the primary definitions of e-service quality is by Zeithaml, Parasuraman, and Malhotra (2002, p.363); "the extent that a website facilitates efficient and effective shopping, purchasing, and delivery of product and services."

Previous research has focused on the different dimensions of e-service quality, customer online experience, behaviors, loyalty, purchase intention and satisfaction (Carlson and O'Cass 2011; Rowley 2006). Other scholars also questioned the consistency, appropriateness and dimensionality of the eTailQ scale (Ahmad and Khan 2017; Ahmad, Rahman, and Khan 2016; Connolly, Bannister, and Kearney 2010). However, in a recent meta-analysis, Blut et al. (2015) found that the four-dimension model of the e-service quality by Wolfinbarger and Gilly (2003) is superior to the six-dimension model developed by Parasuraman, Zeithaml, and Malhotra (2005). Thus, the eTailQ scale remains popular among e-tailing scholars because it is easy and straightforward to apply with some degree of validity and reliability. In the current study, we assess service quality using Wolfinbarger and Gilly's (2003) 14-item EtailQ scale, which is composed of four dimensions, namely web design, fulfillment, security and customer service. A recent study by Blut (2016) increased the number of items to 16, yet the dimensions remain the same.

Customer (dis)satisfaction is the overall attitude of customers toward a good/bad service after they have bought and used it. That is, the overall negative/positive feeling about service value delivered. Al-Hawari and Ward (2006) considered the positive effects of e-service quality on bank customers' satisfaction and its impact on the bank's profitability. Zeithaml, Parasuraman, and Malhotra (2002) confirmed that e-service experience significantly influences customers' evaluations and trust; in other words,

e-service quality can create long-term customer relationships. In line with Bagozzi's (1992) theoretical framework, appraisal of service quality leads to affective response of satisfaction and ultimately leads to repurchase behavior. Most marketing researchers agree with the theoretical framework that consumer's perceived value and e-satisfaction are driven by consumer's evaluation of e-service quality (Connolly, Bannister, and Kearney 2010; Gounaris, Dimitriadis, and Stathakopoulos 2010; Schaupp 2010; Xiao 2016; Zarei, Asgarnezhad Nuri, and Noroozi 2019). Based on the above reasoning, this study proposes that:

H1: E- service quality positively affects customer e-satisfaction.

The relationship between customer e-satisfaction and customer e-loyalty

E-loyalty is the positive attitude that customers exhibit toward an e-tailer, which, in turn, leads to repurchase behavior (Anderson and Srinivasan 2003). However, what does the customer really want from an e-tail purchasing experience? What items are important in his/her judgments of quality, satisfaction, and loyalty? The answers to these questions affect the online customer's perception of quality and play an important role in e-loyalty, companies' profitability and market share (Reichheld and Schefer 2000).

Contrary to the common belief that the Internet may help increase loyalty, it has been found that it is much harder to gain loyalty in the e-marketplace than in brick-and-mortar stores, stressing security, trust and privacy concerns as key factors (Faraoni et al. 2019). Given that online shoppers have sufficient time and information, the possibility of switching is high; in e-commerce settings, switching is only one click away (Keiningham et al. 2005). For this reason, it is crucial for e-tailers to determine how to build a loyal clientele. Anderson and Srinivasan (2003, 125) define e-loyalty as "the customer's favorable attitude toward an e-business resulting in repeat buying behavior". This implies that e-loyalty is made up of two components: attitudinal and behavioral loyalty. Thus, e-loyalty entails positive attitudes and behaviors (i.e., intention to repurchase and to spread positive word-of-mouth) toward an e-tailer. The present study will consider the conative (behavior intention) dimension of attitudinal loyalty.

Satisfaction has received much attention in e-marketing literature (e.g., Evanschitzky et al. 2004; Harris and Goode 2004). Satisfaction is considered as "the consumer's fulfillment response" (Oliver 2014, 8). Anderson and Srinivasan (2003, p.125) describe e-satisfaction "as the contentment of the customer with respect to his or her prior purchasing experience with a given electronic commerce firm." Research shows that satisfied customers engage in repurchase behaviors (e.g., Chang 2005; Cronin, Brady, and Hult 2000; Evanschitzky et al. 2004; McDougall and Levesque 2000). It is

reasonable to assume that satisfied online consumers will be loyal toward the e-tailer. Bearing in mind that website familiarity may alter the relationship, this study proposes that:

H2: Customer e-satisfaction positively affects customer e-loyalty.

The relationship between e-service quality and customer e-loyalty

Companies can invest in service quality by applying two strategies: *capturing new customers* (offensive marketing action) or *retaining existing customers* (defensive marketing actions). The main force behind these strategic actions is economic necessity, in the sense that capturing new customers to replace lost customers can be much more expensive (Anderson and Srinivasan 2003). As loyal customers provide higher revenues than “casual” customers, (Elkhani, Soltani, and Jamshidi 2014; Fang, Shao, and Wen 2016; Gounaris, Dimitriadis, and Stathakopoulos 2010), firms often expend more resources on retaining existing customers than on attracting new customers (Fornell and Wernerfelt 1987). The consumer’s decision whether to return or not to a website is a critical matter for online service companies.

Generally, consumers tend to use their previous retail service experience to make decisions and formulate strategies for repurchase behavior (Huang 2008). Internet consumers are more likely to have switching behaviors than non-Internet consumers, due to the immense opportunities e.g., product, service and price comparison. High website service quality might persuade customers to return to the site and provide a higher retention rate (Zeithaml, Berry, and Parasuraman 1996). Similarly, the direct effect of service quality on customer loyalty has been repeatedly emphasized (Chang Wang, and Yang 2009; Jeon and Jeong 2017; Zeithaml 2000). However, the link between e-service quality and customer e-loyalty has received little attention. Consequently, to explore the nature of this relationship when website familiarity is added into the equation may extend Bagozzi’s (1992) framework; this study proposes that:

H3: E-service quality positively affects customer e-loyalty.

The mediating role of customer e-satisfaction

The marketing service literature (Cronin, Brady, and Hult 2000) argues that consumer decision-making is a comprehensive and complex process. Consumers do not only assess the quality of the service, they also consider the satisfaction they feel based on the provided service. According to some studies, service quality has an indirect effect on consumers’ behavioral intentions through customer satisfaction (Hackman et al. 2006; Lee and Lin

2005; Shamdasani, Mukherjee, and Malhotra 2008). One of the specific types of behavioral intention influenced by e-quality and satisfaction is consumer switching behaviors. Athanassopoulos, Gounaris, and Stathakopoulos (2001) state that service availability and accessibility, as well as convenience, may improve customer satisfaction and, subsequently, decrease the possibility of switching behavior.

There is considerable evidence in the traditional marketplace indicating that customer satisfaction can be a conduit between service quality and customer loyalty (Ahmad et al. 2017; Jeon and Jeong 2017). The evidence for a relationship between e-service quality, e-satisfaction and e-loyalty is mixed. Some findings show that e-service quality has a positive effect on e-loyalty, both directly and through e-satisfaction (Anderson and Srinivasan 2003; Gounaris, Dimitriadis, and Stathakopoulos 2010; Krystallis and Chrysochou 2014). Other authors argue that consumer heterogeneity results in different ways of determining e-loyalty, and that satisfaction is a necessary but not sufficient condition for e-loyalty (Fang, Shao, and Wen 2016). According to service-profit-chain framework (Heskett et al. 1994) which is widely accepted among service marketing scholars, customer loyalty is derived from customer satisfaction and customer satisfaction is derived from service quality. Several studies have found significant and positive correlations between e-service quality, e-customer satisfaction and e-loyalty. Specifically, satisfaction affects users' behavior and the assessment of the e-service influences satisfaction, which in turn affects loyalty (e.g. Schaupp 2010; Zarei, Asgarnezhad Nuri, and Noroozi 2019). Bearing in mind Parasurman et al.'s (2005) study which highlighted that service quality dimensions influenced not only perceived quality and perceived value, but also directly affected loyalty intentions, the current study considers a partial mediation effect of e-satisfaction. Thus:

H4: Customer e-satisfaction partly mediates the relationship between e-service quality and customer e-loyalty.

The moderating role of website familiarity

Research has shown that satisfaction (Mittal and Lassar 1998) and/or e-service quality (Cristobal, Flavián, and Guinalú 2007) are predictors of loyalty. However, other variables such as website familiarity can shape and/or alter the nature of the above said relationship. Familiarity has been much studied by marketing researchers in recent decades. Familiarity is the knowledge that an individual has about a product or service through personal experience, advertisements or word of mouth (Luhmann 2000). Familiarity with a product or service can influence the consumer's

decision-making process (e.g., Desai and Hoyer 2000). In the context of e-tailing, shoppers prefer to shop on sites with which they are familiar (i.e., in terms of usage, website design, payment and delivery; Johnson, Bellman, and Lohse 2003). Familiarity has been considered as a subjective mechanism that can help consumers to manage risk and uncertainty in online transactions (Gefen 2000).

Therefore, consumers' perceptions and shopping decisions can be altered by website familiarity. For instance, Flavián, Gurrea, and Orús (2010) found that website familiarity moderates the impact of different information presentation modes on information recall and perceived information quality. Gefen and Straub (2004) showed that consumer familiarity has a positive effect on the process of formation of online trust. Balabanis, Reynolds, and Simintiras (2006) noted that familiarity can increase website loyalty, given that consumers are reluctant to spend energy, time and effort to explore new websites. While there is empirical evidence showing the effects of familiarity on the quality dimensions of a website (e.g., Flavián, Gurrea, and Orús 2010; McCoy, Everard, and Loiacono 2009), satisfaction and e-loyalty (e.g., Balabanis, Reynolds, and Simintiras 2006), few studies examine the possible moderating effect of website familiarity.

Moreover, as the consumers' knowledge of a website increases, they may be more satisfied when it complies with their service requirements; this, in turn, leads to a stronger link between e-service quality and e-satisfaction, in comparison to a consumer unfamiliar with the website. Casaló, Flavián, and Guinalú (2008) found that the consumer's familiarity moderates the relationship between perceived usability and loyalty. Specifically, where familiarity is reduced, usability influences loyalty indirectly through consumer satisfaction. However, for consumers highly familiar with a site, usability directly influences loyalty, and indirectly through satisfaction, thus making its total impact greater. Therefore, website familiarity may amplify the impact of e-service quality and e-satisfaction on e-loyalty. In line with these arguments, we formulate the following hypotheses:

***H5a:** Website familiarity moderates the positive relationship between e-service quality and customer e-satisfaction, such that the relationship is stronger when website familiarity is high.*

***H5b:** Website familiarity moderates the positive relationship between customer e-satisfaction and customer e-loyalty, such that the relationship is stronger when website familiarity is high.*

***H5c:** Website familiarity moderates the positive relationship between e-service quality and customer e-loyalty, such that the relationship is stronger when website familiarity is high.*

Method

Sample and procedures

Turkey has an increasing number of e-tailers and a large, young population, which give it significant potential for growth in e-commerce. According to the Turkish Informatics Industry Association (TÜBİSAD), e-commerce in Turkey grew by 42% in 2018 (TÜBİSAD 2019). However, Turkish e-tail transactions represent only 5.3% of the total retail transactions in the country, while the rate of e-tail transactions in developed countries is 11.1%. This indicates that e-tailing activities in Turkey are still in their infancy in comparison with North America and Europe (TÜBİSAD 2019). Given its demographics and potential Turkey is a suitable research context.

Data were obtained, using a judgmental sampling technique, from students studying at two universities in Ankara (Turkey). Although students may have lower buying power than older generations, they represent the largest segment of online shoppers in Turkey (eShopWorld 2017). The respondents' anonymity was assured. Participation was completely voluntary, and the participants were informed that their responses would be used solely for academic purpose. They were requested to select one from a list of e-tail websites on which they had made a purchase within the previous three months. They were then asked to complete a questionnaire based on their last purchase experience. Of 300 self-report questionnaires distributed, 250 valid questionnaires were returned, a response rate of 83%. The language of the survey was originally English, but it was back-translated into Turkish (Parameswaran and Yaprak 1987). The questionnaire was tested with a pilot sample of 10 students; the results demonstrated that the survey questions were fully understood, therefore no changes were made.

Measures

For the purpose of this study, 5-point Likert type scales were utilized, ranging from 1 = strongly disagree, to 5 = strongly agree. Participants were asked to rate their level of agreement with statements based on their recent online transaction experience. The appendix shows the items used in the questionnaire. E-service quality was measured via 14 items adopted from Wolfenbarger and Gilly (2003). We specifically used this scale based on the latest meta-analysis of Blut et al. (2015), who found it to be better than other available scales for measuring e-service quality. It consists of four dimensions, website design, fulfillment, security and customer service. The scale for customer e-satisfaction was adopted from (Szymanski and Hise 2000). To measure degree of familiarity with an e-tailer, we used five items

adopted from Gefen (2000). Customer e-loyalty was measured with five items adopted from Zeithaml et al. (1996). The variable is divided into two dimensions (1) consumer willingness to recommend the company, and (2) repurchase intention. See the appendix.

Demographic variables

Of the respondents, some 77% were between 18 and 24 years, 19.2% were between 25 and 34 and the rest were above 35. Males made up 54.8% of the total. An overwhelming number of the respondents (91.2%) are taking their first degrees, and the rest higher degrees. As to income levels, 31.2% of the respondents have monthly income between 1,500 and 2,999 Turkish Lira; 24.4% are earning above 5,000 Turkish Lira; 22.4% are earning between 3,000 and 4,999 Turkish Lira and the rest less than 1,499 Turkish Lira¹. About 79.6% have 5 or less years Internet experience, 10.8% have between 5 and 7 years, and 9.6% have more than 7 years of experience. In terms of e-shopping frequency, 32.8% shop once a year, 22.4% shop twice a year, 14.4% shop three times a year, and 30.4% shop more than 4 times a year. Regarding product types, 38.4% purchased clothes, 20.8% electronics, 18.4% watches and other accessories, 11.6% books, music, film and other entertainment items, 6% housing and furniture, and 4.4% health and beauty items.

Results

Second-order construct

Using the IBM-SPSS AMOS program v21 we conducted a confirmatory factor analysis (CFA) on e-service quality as a second-order construct with four first-order constructs: website design, fulfillment, security and customer service. We began by assessing the measurements of goodness of fit; the overall fitness indices of the structural model were satisfactory ($\chi^2 = 104.7$, $p < .000$, $\chi^2/df = 1.54$, GFI = .94, IFI = .98, TLI = .97, CFI = .98, RMSEA = .047). Thus, the dimensional structure suggested by Blut et al. (2015) to measure e-service quality seemed to work well.

Measurement model

Prior to hypotheses testing, we evaluated and assessed the topology of the scale items, that is, whether the scale items loads on the predicated theoretical factor structure. CFA was conducted with: a (1) one-factor model where all the factors were forced to load on a single factor ($\chi^2 = 1011.9$, $p < .000$, $\chi^2/df = 3.18$, GFI = .74, IFI = .80, TLI = .78, CFI = .80,

Table 1. Model fit indices.

Alternative models	GFI	IFI	TLI	CFI	RMSEA	CMIN(df)	R. χ^2	$\Delta \chi^2$
Single factor model	.74	.80	.78	.80	.094	1011.9 ₍₃₁₈₎	3.18	–
Three factor model	.82	.89	.87	.89	.071	708.9 ₍₃₁₄₎	2.26	303.0
Measurement model	.85	.92	.91	.92	.062	606.0 ₍₃₁₁₎	1.95	102.9

Notes: $\Delta \chi^2$ - Change in chi-square; R. χ^2 = Relative chi-square.

RMSEA = .094); (2) a three-factor model that combined customer e-satisfaction and website familiarity as one variable. This produced: ($\Delta \chi^2 = 303.0$, $\chi^2 = 708.9$, $p < .000$, $\chi^2/df = 2.26$, GFI = .82, IFI = .89, TLI = .87, CFI = .89, RMSEA = .071); and, (3) the measurement model with four (4) factors: ($\Delta \chi^2 = 102.9$, $\chi^2 = 606.0$, $p < .000$, $\chi^2/df = 1.95$, GFI = .85, IFI = .92, TLI = .91, CFI = .92, RMSEA = .062).

Table 1 shows that the measurement model provided acceptable and satisfactory fit indices, better than the tested alternatives. The change in chi-square was significant enough, as the difference was notable, the model fit for the one factor model was poorer, suggesting that our dataset is not affected by common method variance (CMV), as recommended by (MacKenzie and Podsakoff 2012). The standardized loadings of the scale items ranged from .45 to .86 and the t-statistics from 6.56 to 14.83, thus confirming convergent validity (Anderson and Gerbing 1988; Hair et al. 2010). Furthermore, the Cronbach's alpha values were all above the benchmark of .70 (Nunnally 1976). Composite reliability (CR) and average variance extracted (AVE) values were all above the recommended points of .60 and .50. A first order construct, website design, and a second order construct, e-service quality, had AVE values below .50. However, we considered that this was not problematic as their respective CR values were above .70 (Fornell and Larcker 1981). Thus, discriminant validity was confirmed (Anderson and Gerbing 1988; Hair et al. 2010).

Table 2 presents the mean values, standard deviations, and inter-correlations of the variables in the measurement model. The data shows that the four dimensions of e-service quality have positive and significant associations with the research variables. Furthermore, we uncover a positive relationship between e-service quality and customer e-satisfaction ($r = .546$, $p < .001$), website familiarity ($r = .613$, $p < .001$), and e-loyalty ($r = .642$, $p < .001$). Also, customer e-satisfaction has a positive relationship with website familiarity ($r = .542$, $p < .001$) and e-loyalty ($r = .644$, $p < .001$). These results provide support for convergent and discriminant validity (Cronbach's alpha, composite reliability and average variance extracted), which were all above the recommended thresholds. See Table 2.

Study findings

Structural equation modeling (SEM) was applied, using the IBM-SPSS AMOS program v21, to test the hypothesized model; a bias-corrected

Table 2. Mean, Standard deviation and correlation coefficients.

Variables	Mean	SD	α	CR	AVE	1	2	3	4	5	6	7	8
Website design	3.51	.82	.85	.83	.49	—							
Fulfillment	3.57	.89	.79	.81	.59	.527**	—						
Security	3.55	.79	.79	.80	.57	.445**	.633**	—					
Customer service	3.38	.82	.75	.75	.50	.520**	.562**	.594**	—				
E-service quality	3.50	.67	.90	.89	.38	.833**	.819**	.781**	.796**	—			
Customer e-satisfaction	3.56	.87	.75	.75	.60	.319**	.520**	.519**	.494**	.546**	—		
Website familiarity	3.55	.89	.87	.87	.58	.421**	.565**	.560**	.494**	.613**	.542**	—	
Customer e-loyalty	3.50	.79	.86	.86	.51	.435**	.568**	.526**	.609**	.642**	.644**	.570**	—

Notes: Composite scores for each variable were computed by averaging respective item scores, α , Cronbach's alpha; SD, standard deviation; *Correlations are significant at the .05 level
 **Correlations are significant at the .01 level.

Table 3. Standardized direct effect coefficient.

Independent/Control Variables	Dependent variables	β	S.E	t	p
Age	Customer e-loyalty	.017	.082	.281	.778
Gender	Customer e-loyalty	-.040	.093	-.661	.509
Education	Customer e-loyalty	.018	.135	.292	.771
Monthly Income	Customer e-loyalty	-.092	.044	-1.507	.132
E-shopping frequency	Customer e-loyalty	.157	.039	2.581	**
Product usually bought	Customer e-loyalty	-.031	.025	-.509	.611
Internet experience in years	Customer e-loyalty	.207	.050	3.405	***
E-service quality	Customer e-loyalty	.366	.060	6.712	***
Customer e-satisfaction	Customer e-loyalty	.398	.046	7.312	***
Website familiarity	Customer e-loyalty	.172	.038	3.767	***
E-service quality	Customer e-satisfaction	.546	.069	10.279	***
<i>Interaction</i>					
E-service quality	Customer e-loyalty	.334	.059	6.065	***
Customer e-satisfaction	Customer e-loyalty	.409	.046	7.444	***
Website familiarity	Customer e-loyalty	.156	.037	3.396	***
E-service quality	Customer e-satisfaction	.546	.069	10.279	***
(E-satisfaction* website familiarity)	Customer e-loyalty	-.137	.024	-2.969	**

Notes: β , beta value; S.E, standard error; **Significant at the $p < .05$ level (two-tailed); ***Significant at the $p < .001$ level (two-tailed).

Table 4. Standardized total, direct, and indirect effect coefficients.

Independent Variables	Dependent Variables	Total	Direct	Indirect	LO	UP	p
E-service quality	- Customer e-loyalty	.583	.366	.217	.120	.318	***
Customer e-satisfaction	- Customer e-loyalty	-	.398	-			
Website familiarity	- Customer e-loyalty	-	.172	-			
E-service quality	- Customer e-satisfaction	-	.546	-			

Notes: LO, confidence level lower bound; UP, confidence level upper bound); ***Significant at the $p < .001$ level (two-tailed).

bootstrapping analysis was undertaken for the mediation analysis. First, we controlled for the potential effect of control variables. Table 3 illustrates that Internet experience and shopping frequency have significant impacts on e-loyalty. Next, we showed that the direct effect of e-service quality on customer e-satisfaction was positive and significant ($\lambda = .546$, $p < .001$). This provides support for *hypothesis 1*. In addition, we found that higher customer e-satisfaction leads to higher e-loyalty ($\lambda = .398$, $p < .001$), thus providing support for *hypothesis 2*. Finally, the dataset shows that higher perceptions of e-service quality result in higher e-loyalty ($\lambda = .366$, $p < .001$), which supports *hypothesis 3*.

Furthermore, we proposed that customer e-satisfaction mediates the relationship between e-service quality and e-loyalty. Bootstrapping analysis with 2,000 subsamples and 95% bias-corrected confidence intervals (e.g., Preacher and Hayes 2004; Hayes 2015) was carried out. The indirect effect of e-service quality on e-loyalty through customer e-satisfaction was significant ($\lambda = .217$, $p < .05$). Moreover, the bias-corrected confidence 95% interval did not include the zero value (see Table 4), suggesting partial mediation. Thus, *hypothesis 4* is supported.

Table 5. Results of model = 59 for moderation effects of website familiarity.

Predictor		<i>B</i>	SE	<i>t</i>	<i>p</i>
Customer e-satisfaction					
E-service quality		.447	.086	5.195	.000
Website familiarity		.325	.063	5.139	.000
E-service quality * familiarity		.007	.058	.128	.898
E-loyalty					
E-service quality		.341	.069	4.924	.000
Customer e-satisfaction		.378	.052	7.297	.000
Website familiarity		.129	.050	2.555	.011
E-service quality * familiarity		-.177	.053	-3.362	.001
E-satisfaction * familiarity		.097	.049	1.989	.048
Website familiarity					
	Direct effect	SE	<i>P</i>	Boot LL	Boot UL
Conditional direct effect of e-service quality at $N\text{-exp} = M \pm 1\text{ SD}$					
Low	.499	.072	.000	.356	.641
Medium	.341	.069	.000	.204	.477
High	.183	.094	.052	-.002	.367
Website familiarity					
	Indirect effect	Boot SE		Boot LL	Boot UL
Conditional indirect effect of e-service quality at $N\text{-exp} = M \pm 1\text{ SD}$					
Low	.128	.059		.042	.277
Medium	.169	.055		.080	.300
High	.210	.076		.097	.405

Notes: $n = 250$. Confidence interval calculated at 95% of significance. Bootstrap sample size = 5,000. LLCI: lower limit confidence interval; ULCI: upper limit confidence interval.

Finally, hypothesis 5 proposed moderation effects of website familiarity on the relationships between e-service quality and e-satisfaction (H5a), e-satisfaction and e-loyalty (H5b) and e-service quality and e-loyalty (H5c), suggesting that high levels of familiarity lead to stronger relationships. To test the significance of the moderating effects, we used the macro PROCESS for SPSS developed by Hayes (Hayes 2015; <http://afhayes.com/spss-sas-and-mplus-macros-and-code.html>), to analyze the conditional process model. In addition to the flexibility of this method, familiarity can be treated as a continuous variable, as suggested by the specialized literature (MacCallum et al. 2002). Specifically, we examined the direct and moderation effects of website familiarity on all the relationships in the model (model 59 in the PROCESS macro; Hayes 2015). The results of the model can be seen in Table 5. All the variables were mean centered prior to the analysis.

The results of the model offer several interesting insights. First, customer e-satisfaction was significantly affected by e-service quality and website familiarity; however, the interaction term was not significant (see Table 5), thus hypothesis 5a is rejected; higher levels of familiarity lead to higher levels of e-customer satisfaction, but this personal variable did not amplify the effects of e-service quality. On the other hand, hypothesis 5b was supported by the data, since the interaction between website familiarity and e-customer satisfaction impacted significantly on e-loyalty (Table 5); the

relationship between satisfaction and loyalty became stronger as the level of website familiarity increased.

Finally, the interaction between e-service quality and website familiarity on e-loyalty was significant, but negative, contrary to what was proposed in hypothesis 5c. Unexpectedly, as the degree of website familiarity increased, the effect of e-service quality on e-loyalty was lower, although it remained positive. Model 59 also tested for the possibility of a moderated mediation, in terms of the mediation of e-customer satisfaction in the relationship between e-service quality and e-loyalty for different levels of website familiarity. As can be seen at the bottom of [Table 5](#), the partial mediation found previously was confirmed for different levels of familiarity, which rejects this possibility.

Discussion

This study adopted Bagozzi's (1992) appraisal → affective response → behavior framework and developed a model that investigates the nexus between e-service quality dimensions, website familiarity, customer e-satisfaction and e-loyalty in the case of Turkish e-tailers. The mediating role of customer e-satisfaction and moderating role of website familiarity were examined. First, the data provides support for the four-dimension E-tailQ scale developed by Wolfinbarger and Gilly (2003). In light of Blut et al.'s (2015) study, e-service quality dimensions in association with overall service quality vary across different cultures. Thus, based on the present study's finding, it can be stated that online shoppers in Turkey, whose dominant culture is uncertainty avoidance (Hofstede 1984), perceive service quality based on four factors of website design, security, fulfillment and customer service.

Second, the sequential hypothesized positive relationships between e-service quality dimensions, e-satisfaction and e-loyalty were supported. In addition, customer e-satisfaction partially acts as a mediator between e-service quality and e-loyalty. Meta-analyses by Toufaily et al. (2013) and Blut et al. (2015) propose that customer e-loyalty cannot be achieved only through satisfaction; other variables should be investigated in this regard. Our findings reveal that e-service quality has a strong effect on e-loyalty, both directly and indirectly through e-satisfaction.

Third, data analysis reveals that website familiarity does not moderate the effect of e-service quality on e-satisfaction. This logical fallacy lends credence to Liang and Lai (2002)'s contention that website design quality, a component of e-service quality, is more predictive than an e-tailer's reputation of a consumer's likelihood to revisit a site and make a purchase. Bart et al. (2005) found website familiarity to be a non-significant driver of trust

in an e-tailer. Logically, e-satisfaction is an inclusive category; therefore, familiarity with a website doesn't necessarily increase the effect of the site's service quality on consumers' e-satisfaction. This implies that the impact of e-service quality on consumer' e-satisfaction might be enhanced or deteriorated by a variety of factors (e.g. consumers' mood, situational factors) and not necessarily by a high degree familiarity, since satisfaction is context-dependent (Fournier and Mick 1999). Furthermore, as stated by Wilson et al. (2016, p.148) "For a customer, an acquaintanceship is effective as long as the customer is relatively satisfied", hence moderating impact of familiarity may not be realized before the customer becomes satisfied and level of trust is deepened.

Fourth, website familiarity moderates the effect of e-satisfaction on e-loyalty, the significant positive interaction term indicating that the more familiarized is the customer, the greater will be the impact of e-satisfaction on e-loyalty. This finding is in line with Casaló, Flavián, and Guinalú (2008), who found that consumer familiarity moderates the co-relation between perceived usability and the website loyalty formation process. Thus, it appears to be a feedback effect with implications for e-tailers. E-tailers should implement strategies to increase the traffic on their websites, even if their users do not have purchase intentions. If the encounter is satisfactory, regardless of its purpose, the resulting level of familiarity will improve consumer perceptions of the website and will drive their satisfaction to increased loyalty. This study delineates that in a cultural context such as Turkey, where its society members are highly interdependent on each other (collectivist) and people have low tolerance for uncertainty (Hofstede 1984), familiarity with the website increased the effect of satisfaction on loyalty towards the website.

Finally, contrary to our prediction, we found that website familiarity moderates the effect of e-service quality on e-loyalty, but the significant negative interaction term indicates that the more familiarized is the customer, the less will be the impact of e-service quality on e-loyalty. This finding is intriguing, because the effect of e-service quality on e-loyalty is positive for all levels of familiarity. This finding may be explained by confounding factors. That is, familiarized consumers may take a certain level of e-service quality for granted and, in this circumstance, this variable may no longer operate as a predictor of e-loyalty. Instead, they may focus on other factors of the e-business (e.g., information richness, possibilities of social interaction); however, e-satisfaction may be a stronger predictor of loyalty for low-familiarized consumers. Nevertheless, further research is required to provide comparative evidence for the observed interplay.

Implications for practitioners

This article provides insights for practitioners in the online market environment in developing countries, which can help them better understand the determinants of customer values, satisfaction and loyalty. Indeed, e-tailer websites talk to the customer and determine their values, satisfaction and, consequently, their loyalty. For instance, as a signal of the strength of the website's design, stylish photos visualizing products should be used to make the website esthetically pleasing. Similarly, user-friendly navigation interfaces on the website are important indicators of the efficiency of the website's design.

For the customer service dimension, managers in developing economies should recognize that, faced with stiff competition, an organization cannot survive without high-quality customer service. As online services lack face-to-face interactions, it is vital that managers ensure that their IT-based communication systems operate effectively. Managers should ensure that their employees tasked with customer contact have access to the necessary information about these customers so that they can respond to them promptly, easily and accurately in their technology-based interactions. In addition, organizational human resource practices should ensure that customer-facing, and backstage employees are knowledgeable, prompt and willing to satisfy customers (Abubakar, Ilkan, and Sahin 2016). Based on current discussions, this paper infers that e-service quality has the potential to enhance the consumer's positive appraisal and emotion (satisfaction) and ultimately increase repurchase behavior (loyalty).

More importantly, the finding of this study stress website familiarity as a way to enhance loyalty of satisfied customers, thus the finding is valuable for relationship marketers who look for ongoing relationships with their current customers. This study suggests e-tail marketers to keep track of satisfied customers by investing in centralized Information Technology systems to recognize satisfied customers and increase their familiarity by offering personalized and customized services. Considerable investment should be allocated to advanced technology and information systems to establish different channels of communication with customers, such as online chats, emails, mobile applications and messaging, call centers and social media platforms (e.g., Facebook, Instagram, Twitter).

Marketers need to communicate with customers and facilitate online transactions to increase website familiarity and establish personal contacts. For instance, past scholars (i.e., Connolly, Bannister, and Kearney 2010) suggested that managers should concentrate on communicating the functionality of their e-services. In accordance with the concept of customer relationship management (CRM), repeated interactions with customers help to reduce the uncertainty and risk associated with online purchases and will result in more website familiarity and, thus, more loyal customers.

The results of this study suggest to marketers that they should increase their customer touchpoints to make the brand/website more familiar, through integrating the business with mobile applications, social media platforms, search engines and blogs, since familiarity with an online store is based on consumers' previous communications with the websites (Anaza and Zhao 2013). Effective use of information systems and social media, market segmentation, and gathering feedback from customers through online surveys, are some ways firms can aggregate their customer knowledge. With this knowledge they can customize offerings which will, in turn, contribute to raising the customers' familiarity with the websites.

Limitations and future research directions

This research has a number of limitations that might be addressed in future studies. First, the study sample is demographically homogeneous, which limits the generalizability of the results. Although most internet users are young and educated consumers (Parra-Lopez, Martínez-González, and China-Martín 2018) and previous studies within e-commerce had used students as a valid sample (e.g. Barnes and Vidgen 2001; Childers et al. 2001; Parasuraman et al. 2005), future studies might address this limitation by using a wider-ranging sample of online shoppers. Second, a cross-sectional design was used, which limits the analysis of causal relationships. Future studies might broaden the composition of the sample and verify the findings by applying a longitudinal design. Third, data were collected via a self-report survey. Future studies might use machine learning techniques and churn analysis to predict e-loyalty. Fourth, this research focuses on the e-tail industry as an online service; the fact that no particular website was examined might also limit the validity of the results. Replication of the research model in other industries and examination of specific websites may provide additional insights. Future research might explore the effects of variables such as social bonds, habit-driven behaviors, online purchase experience and switching costs. Fifth, a critical misconception in the present study is the lack of consideration of peer recommendation as an outcome of e-service quality, e-satisfaction and e-loyalty. Thus, future scholars are advised to consider peer recommendation. Sixth, the present study utilizes e-Service quality scale developed decades ago, future researchers can adopt and test the newly developed scale by Blut (2016).

Conclusion

Grounded in Bagozzi's (1992) appraisal-affective-response-behavior framework, this study examined and reported significant direct and indirect effects of e-service quality on consumers' e-loyalty through mediating role

of e-satisfaction. The findings also indicated that service quality within e-tail industry of Turkey has significant positive association with dimensions of website design, security, fulfillment and customer service. The moderating role of website familiarity was tested in three relationships of: “e-service quality and e-satisfaction”, “e-satisfaction and e-loyalty and “e-service quality and e-loyalty”. Using questionnaire data and structural equation modeling, it was found that website familiarity significantly strengthened the impact of e-satisfaction on e-loyalty, but did not significantly moderate the impact of e-service quality on e-satisfaction. Furthermore, the relationship of e-service quality and e-loyalty was negatively moderated by website familiarity, since the positive impact of e-service quality on e-loyalty decreased as the degree of familiarity increased. The results of this study shed new lights to better understand the dynamics that contribute to customers’ e-loyalty in an emerging economy and help marketing managers of e-tail industry to implement effective strategies to maintain long-lasting relationships with their customers.

Note

1. 1 USD = 5.81 Turkish Lira

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Appendix - Construct measurement items

Service Quality

1. The website provides in-depth information.
2. The site doesn't waste my time.
3. It is quick and easy to complete a transaction on this website.
4. The level of personalization on this site is about right, not too much or too little.
5. This website has a good selection of product.
6. The product that arrived was represented accurately on the website.
7. You get what you order from this site.

8. The product is delivered when promised by the company.
9. I feel like my privacy is protected on this site.
10. I feel safe in my transactions with this website.
11. The website has adequate security features.
12. The company is willing and ready to respond to customer needs.
13. When you have a problem, the website shows a sincere interest in resolving it.
14. Inquiries are answered promptly.

Website Familiarity

15. I am familiar with searching for products on this website
16. I am familiar with buying products on this website
17. I am familiar with this website
18. I am familiar with the processes of purchasing products on this website
19. I am familiar with inquiring about product ratings on this website

Customer Satisfaction

20. My overall experience of this website was very satisfying
21. My overall experience of this website was very pleasing

Loyalty

22. I would say positive things about this site to other people.
23. I would recommend this site to someone who seeks advice.
24. I would encourage friends and others to do business on this site
25. I would post positive messages about the company on internet message boards
26. I would encourage friends and others to do business on this site
27. I would post positive messages about the company on internet message boards