

# A Research on The Effect of E-Service Quality, Confidence in Website and Perceived Risk on Perceived Value and Positive Behaviours of Consumers

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## Abstract

The aim of this study is to determine the effect of e-service quality, confidence in website and perceived risk on perceived value and positive behaviours of consumers. The questionnaire form developed in order to accomplish the aim of the research was performed on a total of 520 consumers in Turkey who shopped online via e-commercial websites between the period of August and October 2018. As a result of the research, while e-service quality perception of consumers was an aspect that affected the perceived value and customer satisfaction, it was determined that the perception of confidence in website was a variable that had an effect on perceived value, e-loyalty, customer satisfaction and intention to repurchase. However, it was identified that the perceived risk, a third independent variable, affected solely the intention to repurchase. Considering the data obtained from the research results, various suggestions were presented to the owners and managers of e-commerce enterprises to increase their e-commerce volumes.

Keywords: E-service quality, E-loyalty, Perceived risk, Positive behaviours, Turkey



# E-Hizmet Kalitesi, Web Sitesine Duyulan Güven ve Algılanan Riskin Algılanan Değer ve Tüketicilerin Olumlu Davranışlarına Olan Etkisi Üzerine Bir Araştırma

Öz

Yapılan bu araştırmanın amacını e-hizmet kalitesi, web sitesine duyulan güven ve algılanan riskin tüketicilerin algılanan değer ve olumlu davranışlarına olan etkisinin ortaya konulması oluşturmaktadır. Araştırmanın amacını gerçekleştirmeye yönelik geliştirilen anket formu 2018 yılının Ağustos ve Ekim ayları arasında Türkiye'de son bir ay içerisinde e-ticaret sitelerini kullanarak alışveriş yapan toplam 520 tüketici üzerinde gerçekleştirilmiştir. Yapılan araştırmanın sonucunda tüketicilerin ehizmet kalitesi algısı, algılanan değer ve müşteri memnuniyetini etkileyen bir husus olurken, web sitesine duyulan güven algısının algılanan değer, e-sadakat, müşteri memnuniyeti ve tekrar satın alma niyetini etkileyen bir değişken olduğu sonucu tespit edilmiştir. Bununla birlikte üçüncü bir bağımsız değişken olan algılanan riskin ise yalnızca tekrar satın alma davranışını etkilediği sonucu tespit edilmiştir. Araştırma sonucundan elde edilen veriler dikkate alınarak işletmelere, e-ticaret hacimlerini arttırabilecekleri çeşitli önerilerde bulunulmuştur.

Anahtar Kelimeler: E-hizmet kalitesi, E-sadakat, Algılanan risk, Olumlu davranışlar, Türkiye

#### Introduction

Online shopping and e-commerce have become prominent among the most important economic activities in recent years (Liu et al. 2000; Loiacono, 2007; Lai et al. 2013; Huh ve Shin, 2014). In 2017, 1,66 billion people realized online purchasing transaction and the total amount of these transactions was 2.3 trillion dollars (www.statista.com). The fact that online shopping increases its potential every year has led to consider the importance of ecommerce sites to a larger extent (Wolfinbarger ve Gilly, 2003; Cry & Bannon, 2005). In this context, the content of e-commerce sites and their success in meeting the customer expectations in terms of provided service qualities are extremely important (Loiacono et al. 2007). While the quality of service provided to the consumers via e-commerce sites increase the customer satisfaction to e-commerce site, the confidence in e-commerce site becomes a very significant factor both for making the decision to purchase and intention of repurchase by affecting consumers' purchasing habits on ecommerce sites (Cho & Park, 2001; Heijden et al. 2005).

The security concern arising from online shopping or the feeling of insecurity towards the visited website causes the consumers to adopt negative attitudes towards the website (Chen ve Dubinsky, 2003; Chiu et al. 2012). On the other hand, in accordance with the researches, it is seen that lack of consumers' confidence in online shopping, their concerns about phishing of their personal details or their thoughts about in failure in problem solving methods when encountered a problem have a significant effect on people's confidence in e-commerce sites (Featherman ve Pavlou, 2003; Glover ve Benbasat, 2010). While the concept of perceived value in marketing literature has become one of the most important and considered concepts in recent years, the fact that there is guite limited information about revealing the effect of this value on e-commerce sites or online shopping reveals the exigency to examine the concept of perceived value in terms of e-commerce sites (Anderson ve Srinivasan,2003). In classical marketing literature, it was determined that customer satisfaction as a result of service quality significantly affects the loyalty behaviour, positive word-of-mouth advertising behaviour and tendency to revisit thatenterprise (Parasuraman et al.1988). The relevant situation also emerges for online shopping (Kuzic ve Giannatos, 2010; Song et al. 2012). Numerous researches in the relevant literature

have concluded that e-service quality of e-commerce sites has a significant impact on the positive behaviour of consumers (Yang ve Fang, 2004; Al-Dweeri, 2017). From this point of view, this study aims to suggest whether the consumers' e-service quality perception, their confidence in that web site and the perceived risk have an effect on the positive behaviours such as perceived value of consumers and the customer satisfaction, e-loyalty, their intention to repurchase and recommendation to others. The relevant research is characterized with being the first study that has taken all specified variables into account and created a structural model for this purpose.

## Literature review

## E-service quality

In its most basic definition, e-service quality means to provide goods and services in line with the expectations of costumers (Giritlioglu et al. 2014). In classical marketing literature, factors such as the abstractness of the services, the simultaneous realization of production and consumption and the challenges in standardization indicate that the measurement of service quality varies from person-to-person (Parasuraman et al. 2005). E-service quality is a phenomenon that is provided via the internet, managed by customers and has interactive features (Al-dweer et al. 2017). While e-commerce sites offer a variety of services to consumers, such as service businesses, there are no indicators containing physical characteristics in these enterprises (Lin et al. 2011). Rather than the physical features of a website, its design and content are important indicators for e-commerce sites, so the way it is designed well significantly affects online costumers. In addition that the content of a website is a very important issue for e-commerce sites, information, navigation and visual design of an effective website should be quite satisfactory (Cyr ve Bannon, 2005). On the other hand, the researches in the related literature found that e-service quality had an impact on purchasing trend of customers, customer satisfaction (Song et al. 2012; Gures et al. 2015; Ting et al. 2016), brand and company image of the website (Kuzic and Giannatos, 2010), behaviour of e-loyalty and positive consumer tendencies (Kim and Niehm, 2009; Udo et al. 2010).

The high increase of online shopping in recent years has led the enterprises to transfer their marketing processes to the outside world and this has enabled companies to give importance to internet marketing via websites (Cho and Park, 2001). The consumer, who visits a website with the intention to purchase, has some expectations from that website, and providing products or services in line with customer expectations will significantly and positively affect customer satisfaction (Song et al. 2012). On the other hand, enterprises perform various website-focused activities to attract the customers' attention in order to increase their e-commerce performances (Cho and Park, 2002). When the relevant literature is examined, it is seen that a lot of research has been done on e-service quality (Liu et al. 2000; Wolfinbarger & Gilly, 2003; Loiacono et al. 2007; Parasuraman et al. 2015) and when the details of these researches are analyzed, it is understood that these researches focus on e-commerce sites by considering the e-service quality. Parasuraman et al. (2015) determined in their research that e-service quality scale consisted of four dimensions: efficiency, system availability, fulfilment and privacy. Loiacono et al. (2007) revealed that the measurement model called WEBQUAL was composed of 12 dimensions. Liu et al. (2000) dimensioned the quality of websites as information quality, learning ability, entertainment, system quality, system usage and e-service quality. Wolfinbarger and Gilly (2003) found that e-service quality had four dimensions: website design, fulfilment / reliability, privacy/security and customer service. Beneke et al. (2011) suggested that e-service quality was dealt with in 8 dimensions: site features, information, accessibility, communication, confidence, responsiveness and customization.

## Confidence in website

E-commerce has developed on the basis of the increase and development of internet facilities in recent years, and these developments made a major contribution to local economies (Clemes et al. 2012). While confidence, in its most basic definition, means faith of a person in another person without doubt, in today's e-commerce world, at the point of realizing the purchase transaction, customer's confidence in website is one of the most important factors (Huh and Shin, 2014). On the other hand, confidence in websites is among the paramount conditions for long-term purchases of customers

A Research On The Effect Of E-Service Quality, Confidence In Website And Perceived Risk On Perceived Value And Positive Behaviours Of Consumers

(Casalo et al. 2007; Karimov et al. 2011). In all online transactions, customers' confidence in e-commerce site really matters. Since customers provide their credit card and personal details during their purchases, they expect a variety of guarantees in terms of being provided that this information is well-protected. The lack of mutual communication, and various phishing incidents in online shopping causes the perception that online shopping is "unsafe", therefore, it leads to consumers' confidence in websites to be adversely affected (Lai et al. 2013; Pappas, 2016). In a study conducted by Beneke et al. (2011), it was determined that confidence is the primary variable in online shopping of customers. On the other hand, detailed information about products on the websites and effective contents of these platforms significantly influence the decision process of consumers to purchase (Chen and Dubinsky, 2003).

In e-commerce transactions, confidence in websites is analysed under three titles (Heijden et al. 2005). Competence, the first one of these titles, focuses on the relationship with the consumers. The second title of confidence in e-commerce transactions is trustworthiness and explains the complete fulfilment of all promises. Benevolence, the third title, refers to the behaviour of consumers to make them feel good and to the effective elimination of any adverse situation (Casalo et al. 2007). The confidence in websites reflects on the positive behaviours of consumers. As consumers' confidence in websites or e-commerce enterprises increases, the decision-making of purchasing gets easier in the same manner (Heijden et al. 2005). Lack ofs confidence in website constitutes the first behaviour of the customer not to shop via that website (Cyr and Bannon, 2005). On the other hand, the reliability and privacy practices of a website in the past period are the main reasons to encourage the customers to repurchase (Huh and Shin, 2014). The increased confidence of consumers in websites leads them to revisit that website, to repurchase and to recommend that website to other people (Liu et al. 2005).

## Perceived risk

As a result of the development of online shopping in recent years, customers have had a more effective and active role in this shopping process. This causes customers to be affected by more than one variable in their purchas-

ing processes (Cho & Park, 2001). Perceived risk is the consumers' perception of the uncertainty and concomitant adverse consequences of buying a product of services (Chen & Dubinsky, 2003). Compared to the oldfashioned purchasing process, online purchasing seems riskier for consumers (Glover & Benbasat, 2010). Lack of personal communication in online shopping leads the consumers to perceive a significant risk. Therefore, during the exchanges between buyer and seller in online shopping, consumer confidence has been the first concept to be focused on (Cyr and Bonanni, 2005). Perceived risk is one of the priority concepts related to the customers' online purchase behaviour and this concept significantly influences the decision of consumers whether to buy a product (Kim et al. 2008; Glover and Benbasat, 2010). The lower the perceived risk, the higher decision-making to purchase (Heijden et al.2005). The perceived risk in online shopping is analysed under three titles as financial risk, performance risk and privacy (Chen and Dubinsky, 2003). Clemes et al. (2012), in their study, found that the increase in the perceived risk in internet banking decreased the rate of using internet banking. In e-commerce shopping, consumers pay high attention to payment reliability, easy payment and privacy policies that affect perceived risk (Cyr, 2008). Online shopping holds risks. Since the customers are not able to exactly estimate the expected product after their purchase transaction, sometimes they face some unpleasant experiences. The concept of risk is more mentioned in online shopping rather than in classical purchasing methods. If the perceived risk is at high levels, this negatively affects the behaviour of repurchasing. The higher the perceived risk, the less the purchasing behaviour of consumers(Chiu et al. 2012). It has been determined that there is an inverse relationship between the risk perceived by consumers and their will of purchasing (Heijden, 2003; Cyr and Bannon, 2005; Kim et al. 2008). According to Cuningham et al. (2005), highly perceived risk may cause the consumers to delay their purchase decision and even completely abandon purchasing. On the other hand, the increase in the perceived risk significantly causes the customers to prefer other companies. When the consumers consider the high-level risk in their online shopping, then they begin to search other companies. Featherman and Pavlou (2003) determined that like the ease of use of websites increases, the perceived risk level decreases.

## Perceived Value

In terms of customers, having different options in online shopping, many alternative companies and the opportunity to visit all of them in a short time have caused different points to be considered (Chen & Dubinsky, 2003); nevertheless, the fact that too many companies began e-commerce activities led the company managers to focus more on the concepts of customer satisfaction and operational profitability. It is extremely difficult for the companies that cannot provide products and services to customers at the level they expect (Anderson & Srinivasan, 2003).

Perceived value includes all the issues the company offers to customers and all financial or non-financial issues that customers expect from the enterprise and those that the products or services provide to customers. While there are significant relations between perceived value, satisfaction and loyalty, this concept has a significant impact on customers' purchasing decisions and firms' prominence in the competition (Cretu & Brodie, 2007). While the value perceived by the customers is determined as the process of evaluating what they deserve, this content focuses on what it offers to the customer in all aspects of a product or service (Chen et al. 2009). Zeithaml (1988) defines value as "the consumer's overall assessment of the utility of a product based on perceptions of what is received and what is given". The importance of perceived value in electronic commerce stems from the fact that it is easy to compare product features as well as prices online (Anderson &Srinivasan, 2003). Customer value as a customer's perceived preference for and evaluation of those product attributes, attribute performances, and consequences arising from use that facilitate achieving of the customer's goal and purchase in use situations (Hu et al. 2009). Perceived value is one of the most important indicators for customers to make a decision to purchase and is highly effective (Chen & Dubinsky, 2003). Perceived value is extremely important for customers. If customers are not provided with the products and services in line with the perceived value, in such a case, customers will also look for other sellers offering the perceived value. As a result, perceived value is one of the important variables of e-commerce in terms of affecting both customer satisfaction and customer loyalty (Chiu et al. 2005).

#### Positive Behaviours of Consumers

The growing trend of online shopping in many countries, particularly in the United States, provides some factors such as the flexibility of marketing, business opportunities with lower inventories, opportunity to increase market share, low-cost management, faster operations, delivery of product line to wider segments and a better market concentration. Considering all these circumstances, positive behaviours of consumers become more of an issue in terms of the enterprise (Srinivasan et al. 2002).

In this study, the first concept that is described as positive behaviour is satisfaction. Customer satisfaction is an important issue in e-commerce enterprises as in old-fashioned enterprises (Chiu et al. 2005). Customer satisfaction refers to the positive result obtained by the customers in consequence that they have evaluated their feelings (Chang et al. 2009), and refers to customer satisfaction in communication with the stage of a company's product offering to customers (Casalo, 2007). In e-commerce, having a good navigation of the website and its good design positively affects customer satisfaction (Cyr &Bonanni, 2005). Customer satisfaction is one of the most essential concepts in enterprises and online shopping (Cho & Park, 2000; Cyr &Bonanni, 2005; Al-dweeri et al. 2017).

Another variable that is described as a positive behaviour following customer satisfaction is the variable of e-loyalty (Cho &Park, 2000; Cyr & Bonanni, 2005). E-loyalty is the behaviour that enables enterprises to survive in a destructive competition environment and that allows customers to buy continuously from an enterprise (Lin et al. 2011; Al-dweeri et al. 2017). Customer satisfaction is a highly related attitude with customer loyalty. Customers' satisfaction with the products and services provided is one of the most important reasons for them to repurchase. Therefore, enterprises must be aware of the level of satisfaction and loyalty of their customers (Eriksson &Nilson, 2007; Lin et al. 2011). At a global level, customer loyalty (e.g. customer retention) is generally very strongly related to the profitability and long-term growth of a firm (Eid, 2011). Loyalty is defined as "the preferential, attitudinal and behavioural response toward one or more brands in a product category expressed over a period of time by a consumer" (Anderson & Srinivasan, 2003). According to Srinivasan et al. (2002), e-loyalty in ecommerce is extremely important and should be applied. On the other

hand, Zeithaml et al. (1988) think that the e-loyalty of customers is a matter that significantly affects their positive behaviour. It is stated that it is unlikely that customers with e-loyalty will show a tendency towards other firms in relation to price elasticity and service procurement (Srinivasan et al. 2002). Increased loyalty in e-commerce leads consumers to display behaviour of repurchasing and revisiting that website (Cyr & Bonanni, 2005).

Customer loyalty leads to display the behaviour of repurchasing from an enterprise (Chen et al. 2009). Online repurchasing behaviour involves the visit of a website to repurchase the product bought from that website. When considered from the perspective of the consumer, since the products and services of an online-based company were previously experienced, online shopping from this company is an easier and less tiring activity (Chiu et al. 2014). Another positive behaviour that is important in terms of research is the behaviour of recommending the products or services to others, and it means the satisfaction of the consumers as a result of the purchase and then recommending the company or the website to others (Lien et al. 2011). This is the result that e-commerce companies expect. As a result, the website, and therefore the enterprise, will increase both its sales volume and profitability and competitive advantage.

# Methodology

The survey method was preferred in this study. The questionnaire form used in the research consists of six parts. In the first part of the questionnaire, a total of 5 questions were asked to determine the demographic characteristics of the respondents. In the second part, 5 questions were asked to measure the perceived value, these relevant questions were created by using the studies conducted by Kim and Niehm (2009), Wu et al. (2014) and Harris and Goode (2004). Third part of the questionnaire covers the confidence in e-commerce website. In this part, 5 questions were asked and the questions were created by using the studies conducted by Wu et al. (2018), and Harris and Goode (2004). The fourth part is composed of 5 questions about perceived risk, and these questions were developed by using the research conducted by Udo et al. (2010). In the fifth part, there are 17 questions about eservice quality which were created by using the studies conducted by Parasuraman et al. (2005), and Lee and Lin (2005). In the sixth part of the questionnaire, there are questions about positive behaviours of the consumers. The questions in this part were created by using the following references given respectively: 4 questions about customer satisfaction from Udo et al. (2010) and Harris and Goode (2004); 5 questions about e-loyalty from Srinivasan et al. (2002), Tin et al. (2010) and Kim and Niehm (2009); 5 guestions about the intention of repurchasing from Udo et al. (2010), Pee et al. (2018) and Aren et al. (2013); 4 questions about the behaviour of recommendation to others from Kim and Niehm (2009), Ting et al. (2010) and Wu et al. (2018). Before the distribution of questionnaire form to the target audiences, a pilot scheme was conducted on 230 people with the same characteristics as the target audience. As a result of the pilot scheme, some minor changes had been made and the revised questionnaire form was distributed to target audiences via internet and social media between the period of August and October 2018. Prior to filling the questionnaire form by the target audiences, the target audiences were asked whether they made any purchasing transaction via e-commerce sites, after then, the link of the questionnaire form was sent to respondents who replied in the affirmative way and thus they were included in the survey. The obtained data were analysed by using SPSS 21 statistical package and AMOS 19 package. The model of research is given in Figure 1. According to this model 15 hypothesis was created according to carry out of the study.



Figure 1. The model of research

# Findings

Demographic characteristics of the respondents are given in Table 1. According to the related table, 70.8% of the respondents were male and 24.8% were female. 61.9% of the respondents were married and 31% were single. 30.4% of the respondents were in the 25-34 age group, 24.4% in the 35-44 age group and 18.3% in the 45-54 age group. 38,5% of the respondents were in bachelor's degree, 21,7% were in associate's degree and 11,7% were in master's degree. 23,7% of the respondents had a monthly income of 3000-4499 TL, while 19,8% of them had an income of 1500-2999 TL. The percentage of respondents with monthly income between 4500-5999 TL is 19,4%. 35.2% of the respondents were wage-earners in the public sector, while 22.7% of them wage-earners in the private sector. 12.3% of the respondents were self-employed and 7.7% of them were unemployed or job-seekers.

Variable	N	%
Gender		
Male	368	70.8
Female	129	24.8
Missing data	23	4,4
Total	520	100
Marital Status		
Married	322	61,9
Single	161	31,0
Missing data	37	7,1
Total	483	92,6
Age		
18 years and younger	12	2,3
19-24	72	13,8
25-34	158	30,4
35-44	127	24,4
45-54	95	18,3
55 years and older	33	6,3
Missing data	23	4,4
Total	520	100
Educational Status		
Primary Education(Elementary/Secondary)	19	3,7
High School	58	11,2
Undergraduate	113	21,7
Graduate	200	38,5
Postgraduate	61	11,7

Table 1. Distribution of respondents according to their demographic characteristics

Doctorate	47	9,0	
Missing data	22	4,2	
Total	520	100	
Monthly Income			
1499 TL and below	63	12,1	
1500-2999 TL	103	19,8	
3000-4499 TL	123	23,7	
4500-5999 TL	101	19,4	
6000-7499 TL	42	8,1	
7500 TL and above	56	10,8	
Missing data	32	6,2	
Total	520	100	

## Validity and reliability analysis

Prior to the structural equation model of research, the validity and reliability analyses of the variables used in the research were conducted. In order to ensure the validity of the variables, first of all, exploratory factor analysis were conducted for all variables separately and the results are shown in Table 2. When the relevant table is examined, KMO and Barlett results of tests for sphericity, factor load values and total variances were found to have acceptable values according to the related literature.

Propositions	Factor Load Value
Perceived Value (5 Items)	
Eigenvalue	3,061
Total Described Variance (%)	72,028
KaiserMaierOlkin Test	,000
Barlett Test for Spherecity	,885
Cronbach's Alpha	,902
E-Loyalty (5 Items)	
Eigenvalue	3,353
Total Described Variance (%)	67,062
KaiserMaierOlkin Test	,862
Barlett Test for Spherecity	,000
Cronbach's Alpha	,874
Customer Satisfaction (4 Items)	
Eigenvalue	3,006
Total Described Variance (%)	75,145
KaiserMaierOlkin Test	,838
Barlett Test for Spherecity	,000
Cronbach's Alpha	,889
Confidence in E-Commerce Website (5 Items)	

Table 2. Validity and reliability results of variables

#### A Research On The Effect Of E-Service Quality, Confidence In Website And Perceived Risk On Perceived Value And Positive Behaviours Of Consumers

Eigenvalue	3,513
Total Described Variance (%)	70,253
KaiserMaierOlkin Test	,861
Barlett Test for Spherecity	,000
Cronbach's Alpha	,891
E-Service Quality (17 Items)	
Eigenvalue	9,733
Total Described Variance (%)	57,524
KaiserMaierOlkin Test	,951
Barlett Test for Spherecity	,000
Cronbach's Alpha	,952
Perceived Risk (5 Items)	
Eigenvalue	4,002
Total Described Variance (%)	80,047
KaiserMaierOlkin Test	,878
Barlett Test for Spherecity	,000
Cronbach's Alpha	,937
Recommendation to Others (4 Items)	
Eigenvalue	3,353
Total Described Variance (%)	70,045
KaiserMaierOlkin Test	,785
Barlett Test for Spherecity	,000
Cronbach's Alpha	,850
Re-Purchase Intention (5 Items)	
Eigenvalue	3,455
Total Described Variance (%)	69,096
KaiserMaierOlkin Test	,879
Barlett Test for Spherecity	,000
Cronbach's Alpha	,888

In order to clarify the validity of the variables as a result of exploratory factor analysis, confirmatory factor analysis was conducted for each of the variables by using AMOS 19 package. As a result of confirmatory factor analysis performed on all variables, the necessity of deleting 5 propositions from e-service quality has emerged, and it was decided to delete the relevant five propositions (propositions 2, 4, 6, 7 and 12). As a result of confirmatory factor analysis, goodness of fit values are given in Table 3. As understood from the related table, among the scales forming the variables, while the variables of perceived risk, customer satisfaction, perceived value, behaviour of recommendation to others and re-purchase intention were found to have perfect goodness of fit value, the variables of e-loyalty, confidence in e-commerce site and e-service quality have acceptable goodness of fit value. Based on these results, it can be suggested that the scale items are correctly

explained by variables, that e-service quality has the ideal model of goodness of fit value after deleting five propositions and that thus the construct validity of all scales used in the research had been ensured. When the reliability test results of the valid scales are examined, Cronbach's Alpha value of all scales was found to be higher than 0.7. As a result of this finding, it can be stated that all of the scales used in the study are reliable.

Table 3:Criteria of goodness of fit and measured values of goodness of fit						
	CMIN/DF	RMSEA	GFI	CFI	NFI	
Perfect Goodness of Fit Index	0≤ χ2/sd≤2	,00≤RMSEA≤,05	,95≤GFI≤1,00	,95≤CFI≤1,00	,95≤NFI≤1,00	
Acceptable Goodness of Fit Index	2≤ χ2/sd≤3	,05≤RMSEA≤,08	,90≤GFI≤,95	,90≤CFI≤,95	,90≤NFI≤,94	
Perceived Value	1,914	,042	,993	,997	,994	
E-Loyalty	3,743	,073	,988	,991	,988	
Customer Satisfaction	,765	,000,	,999	1,000	,999	
Confidence in E- Commerce Site	3,412	,026	,989	,994	,991	
E-Service Quality	3,830	,074	,943	,957	,943	
Perceived Risk	2,684	,057	,992	,997	,995	
Behaviour of Recom- mendation to Others	,028	,000	1,000	1,000	1,000	
<b>Re-Purchase Intention</b>	2,680	,057	,990	,994	,988	

Table 3:Criteria of goodness of fit and measured values of goodness of fit

## Structural equation model and hypothesis testing

In order to test the hypothesis developed within the scope of the research, a structural equation model has been established by taking into account the variables as a result of confirmatory factor analysis. At first step, all variables were originally inserted into the established structural equation model and as result, it was determined that the model did not have the expected and acceptable goodness of fit values. However, to increase the goodness of fit value of the model, respectively, the following propositions were decided to be removed from the scale since they reduce the goodness of fit value of the model: 5 propositions from the service quality scale (propositions numbered 1, 9, 11, 14 and 19); 1 proposition from the perceived risk scale (proposition numbered 3); 2 propositions from the confidence in website scale (propositions numbered 1 and 4); and 1 proposition from the behaviour of repurchase (proposition numbered 5). On the other hand, the goodness of fit

of the modelhas been increased by adding covariance between the propositions of loyalty numbered 2 and 3; and the propositions of recommendation numbered 3 and 4. As a result of deletion of propositions and modifications made, it was seen that the CMIN/df value of the model was 2,482; the RMSEA value was 0,53; GFI value was ,872; CFI value was ,941 and NFI value was ,905. Considering these relevant values, structural equation model has been found to have acceptable goodness of fit values. Since the goodness of fit value was found acceptable, hypothesis testing was carried out in accordance with the model given in Figure 2, and the findings examining the effect between the variables are given in Table 4.



Figure 2. Structural equation model

## Findings on the effect of e-service quality variable on other variables

As a result of H1hypothesis developed on the effect of E-service Quality on Perceived Value, it was found that  $\beta$ =0,258 and p=0,000. According to the data obtained, this hypothesis was accepted. E-service quality positively affects the customer satisfaction. In the context of H2 hypothesis, it was found that  $\beta$ =0,202 and p=0,000. According to the data obtained, this hypothesis was accepted. In other words, e-service quality affects customer satisfaction positively. E-service quality positively affects e-loyalty. In the context of H<sub>3</sub> hypothesis, it was found that  $\beta$ =0,154 and p=0,009. According to the data obtained, this hypothesis was accepted. In other words, e-service quality affects e-loyalty positively. E-service quality positively affects repurchase intention. In the context of H4 hypothesis, it was found that  $\beta$ =0,051 and p=0,343. According to the data obtained, this hypothesis was rejected. In other words, e-service quality is not a variable that positively affects the re-purchase intention. E-service quality positively affects the behaviour of recommendation to others. In the context of H5 hypothesis, it was found that  $\beta$ =0,069 and p=0,195. According to the data obtained, this hypothesis was rejected. In other words, e-service quality is not a variable that positively affects the behaviour of recommendation to others.

## Findings on the effect of trust in website to other variables

Trust in the website positively affects the perceived value. In the context of H<sub>6</sub> hypothesis, it was found that  $\beta$ =0,507 and p=0,000. According to the data obtained, this hypothesis was accepted. In other words, trust in website affects perceived value positively. Trust in website positively affects customer satisfaction. In the context of H<sub>7</sub> hypothesis, it was found that  $\beta$ =0,254 and p=0,000. According to the data obtained, this hypothesis was accepted. In other words, trust in website significantly affects the customer satisfaction. Trust in the website positively affects the e-loyalty. In the context of H<sub>8</sub> hypothesis, it was found that  $\beta$ =0,364 and p=0,000. According to the data obtained, this hypothesis, it was found that  $\beta$ =0,364 and p=0,000. According to the data obtained, this hypothesis was accepted. In other words, trust in website is one of the factors that positively affects the e-loyalty. Trust in website positively affects the re-purchase intention. In the context of H<sub>9</sub> hypothesis, it was found that  $\beta$ =0,229 and p=0,000. According to the data obtained, this

hypothesis was accepted. In other words, consumers' trust in website significantly affects the re-purchase intention. Trust in website positively affects the behaviour of recommendation to others. In the context of H<sub>10</sub> hypothesis, it was found that  $\beta$ =0,047 and p=0,481. According to the data obtained, this hypothesis was rejected. In other words, trust in website does not affect the behaviour of recommendation to others.

## Findings on the effect of perceived risk variable on other variables

Perceived risk negatively affects the perceived value. In the context of H11 hypothesis, it was found that  $\beta$ =0,055 and p=0,138. According to the data obtained, this hypothesis was rejected. In other words, perceived risk does not have any effect on perceived value. Perceived risk negatively affects the customer satisfaction. In the context of H12 h12 hypothesis, it was found that  $\beta$ =0,032 and p=0,265. According to the data obtained, this hypothesis was rejected. In other words, perceived risk is not an affecting factor for customer satisfaction. Perceived risk negatively affects the e-loyalty. In the context of H<sub>13</sub> hypothesis, it was found that  $\beta$ =0,008 and p=0,811. According to the data obtained, this hypothesis was rejected. In other words, perceived risk is not a variable that affects the e-loyalty. Perceived risk negatively affects the re-purchase intention. In the context of H14 hypothesis, it was found that  $\beta$ =0,105 and p=0,000. According to the data obtained, this hypothesis was rejected. In other words, perceived risk positively affects the re-purchase intention, i.e. not in a negative manner. Perceived risk negatively affects the behaviour of re-purchase intention. In the context of H<sub>15</sub> hypothesis, it was found that  $\beta$ =0,041 and p=0,181. According to the data obtained, this hypothesis was rejected, and it was determined that the perceived risk was not a variable affecting the behaviour of recommendation to others.

			Non-	Beta	Standard	t	р	Result
			StandardisedBeta	Error			•	
Perceived Value	<	E-Service	,242	0,258	,060	4,014	***	Acceptance
		Quality						-
Customer	<	E-Service	,214	0,202	,053	3,998	***	Acceptance
Satisfaction		Quality						-
E-Loyalty	<	E-Service	,177	0,154	,067	2,617	,009	Acceptance
		Quality						
Re-Purchase	<	E-Service	,063	0,051	,066	,949	,343	Rejection
Intention		Quality						
Behaviour of	<	E-Service	,091	0,069	,070	1,297	,195	Rejection
Recommendation		Quality						
to Others								
Perceived Value	<	Confidence	,433	0,507	,059	7,354	***	Acceptance
		in Website						
Customer	<	Confidence	,245	0,254	,060	4,069	***	Acceptance
Satisfaction		in Website						
E-Loyalty	<	Confidence	,380	0,364	,071	5,330	***	Acceptance
		in Website						
Re-Purchase	<	Confidence	,255	0,229	,075	3,379	***	Acceptance
Intention		in Website						
Behaviour of	<	Confidence	,056	0,047	,080,	,705	,481	Rejection
Recommendation		in Website						
to Others								
Perceived Value	<	Perceived	-,034	-0,055	,023	-	,138	Rejection
		Risk				1,482		
Customer	<	Perceived	,022	0,032	,020	1,114	,265	Rejection
Satisfaction		Risk						
E-Loyalty	<	Perceived	-,006	-0,008	,026	-,239	,811	Rejection
·		Risk						-
Re-Purchase	<	Perceived	,085	0,105	,026	3,327	***	Acceptance
Intention		Risk						
Behaviour of	<	Perceived	,036	0,041	,027	1,337	,181	Rejection
Recommendation		Risk						
to Others								

#### Table 4. Structural equation model results of effects between variables

## Discussion

Internet use in today's enterprises has become a very important issue in providing products and services via Internet (Song et al. 2012). In this study we conducted, it was determined that e-service quality positively affected the perceived value. While Corbitt et al. (2003) concluded that the quality of website content significantly increased the consumer confidence, Cretu and Brodie (2007) found that e-service quality affected the perceived value. In

addition, e-service quality was proved to be a variable that positively affected the customer satisfaction. This obtained result is similar to the findings of the study conducted by Al-dweeri et al. (2017). According to Lin et al. (2011), e-service quality was a factor that had an effect on the customer satisfaction. Jeon (2009) determined that e-service quality affected the customer satisfaction. In this study conducted by us, it was identified that e-service quality had a positive effect on the e-loyalty. While Chang (2009) figured out that e-service quality-oriented customer satisfaction had an influence on the e-loyalty, Jeon (2009) found that e-service quality was a factor affecting the e-loyalty. While Hu (2009) suggested that e-service quality affected positive behaviours, in our study, it was determined that e-service quality had no effect on the behaviour of purchasing, nor the behaviour of recommendation to others. However, according to Lin et al. (2011), e-service quality was a factor that had a significant impact on customers' searching information and purchase decision.

Another variable taken into account in this study is the variable of confidence in website. The design and content of the websites are one of the issues that have a significant impact on the company image and the potential of the enterprise (Kuzic et al. 2010). In our study, it was determined that confidence in website positively affected both perceived value and customer satisfaction. While Song et al. (2012) determined that the content of the website had a significant impact on customer satisfaction, Clemens et al. (2010) found that the user-friendly website increased the tendency to use online banking in the banking sector. On the other hand, confidence in website positively affects e-loyalty. Wolfinbarger and Gilly (2003) concluded that website design had an influence in customer satisfaction and e-loyalty behaviour. In our study, it was determined that the trust in website significantly affects the behaviour of re-purchasing and recommendation to others. In this context, the more confidence in website increases, the more the behaviour of re-visiting the website increases. Hejden et al. (2005) determined that the perceived risk decreased as the confidence in the website increased, and interest for online shopping increased as the perceived risk decreased. In addition, Cho and Park (2000) found that satisfaction with online shopping resulted in the purchase. Chiu et al. (2012) found that user-friendliness of the website was a factor affecting repurchase. According to Pi et al. (2007), online security applications significantly increased customer trust in the website. In this context, it was determined that transaction security and website design affected trust (Pi et al. 2007). Lai et al. (2013) found that the trust in website affected the online shopping.

Another independent variable in this study is the perceived risk. As perceived risk is the most important concept in e-commerce transactions, the fear of credit card phishing constitutes the priority of the perceived risk in online shopping (Cyr & Bonanni, 2005). According to Chen and Dubonski (2003) the perceived risk is a variable that affects the perceived value. In this study, it was determined that the perceived risk was not a variable affecting the perceived value. On the other hand, there was no effect between the perceived risk and customer satisfaction. Clemens et al. (2010) found that the user-friendly website increased the tendency to use internet banking in the banking sector, and besides, the increase of perceived risk decreased the use of internet banking. It was found in this study that the perceived risk had no effect on the behaviours of e-loyalty and recommendation to others, on the other hand, the perceived risk was a variable affecting the behaviour of re-purchase intention. Kim et al. (2008) found a negative relationship between perceived risk and purchase intention. According to Chiu et al. (2010), the increased perceived risk was one of the factors that negatively affected the re-purchase intention. The higher the perceived risk, the less the purchasing behaviour of consumers.

## Conclusion

In this study, the effect of e-service quality, confidence in website and perceived risk on the perceived value and consumers' positive behaviours were analysed. As a result of the evaluation, while e-service quality perception of consumers was a factor that affects perceived value and customer satisfaction, it was determined that the perception of confidence in website was a variable that affected perceived value, e-loyalty, customer satisfaction and re-purchase intention. However, it was identified that the perceived risk, a third independent variable, only affected the intention to repurchase. Based on the results obtained, the owner and managers of the e-commerce site may be suggested that websites should have a sufficient content, be in accordance with customer expectations and that page loadings and page speed should be presented quickly at the expected level. Moreover, ecommerce site managers are expected to provide the safety of users, personal information and payment methods at the highest security level in ecommerce transactions. It is recommended that e-service quality should be measured at certain periods and necessary modifications should be made, additionally, all services and products that are committed on the website are expected to be submitted within the specified time and in the promised quality. It is recommended that the owners and managers of e-commerce sites should eliminate all transactions and processes considered as a risk by the consumer by means of applications that ensure the consumers trust in the website. However, establishing the opportunity to regularly communicate with the target audience and making efforts to solve a problem experienced by the target audience as immediate as possible is another suggestion to be presented within the scope of this research.

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A Research On The Effect Of E-Service Quality, Confidence In Website And Perceived Risk On Perceived Value And Positive Behaviours Of Consumers

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