

**EXPLORING GENDER DIFFERENCES IN PERCEIVED WEB SITE QUALITY<sup>1</sup>****Serkan KILIÇ<sup>2</sup>**  
**Erkan ÖZDEMİR<sup>3</sup>****ABSTRACT**

The aim of the present study is to identify web site quality dimensions perceived by the consumers and determine whether these dimensions differ in terms of gender variable. In this sense, in this study conducted on students who were the primary users of the internet, initially, the web site quality dimensions perceived by the consumers were identified by factor analysis. The perceived website quality dimensions identified as a result of analysis were; design and visual appeal, system quality and ease, interactivity and business process, security and confidence, links, customer-oriented information / content, innovation and image, providing useful information. After that, the differences in the quality dimensions of the web site that the consumers perceived by gender were investigated by t-test analysis. As a result of the analysis, it was found that the web site quality dimension of "providing useful information" was significantly different by gender.

**Keywords:** Web Site Quality, Online Marketing, Gender, Gender Differences, Turkey

**Jel Codes:** M30, M31, L81

**ALGILANAN WEBSİTE KALİTESİNDEKİ CİNSİYET FARKLILIKLARI****ÖZ**

Bu çalışmanın amacı, tüketiciler tarafından algılanan web site kalite boyutlarını ortaya koymak ve cinsiyet değişkeni açısından farklılık olup olmadığını belirlemektir. Bu anlamda başlıca internet kullanıcıları olan öğrenciler üzerinde gerçekleştirilen çalışmada ilk olarak tüketicilerin algıladıkları web site kalite boyutları faktör analiziyle ortaya konulmuştur. Analiz sonucunda algılanan web site kalite boyutları; tasarım ve görsel çekicilik, system kalitesi ve kolaylık, interaktivite ve iş süreçleri, güvenlik ve gizlilik, bağlantılar, müşteri odaklı bilgi/içerik, yenilik ve imaj ile yararlı bilgi sunma olarak bulunmuştur. Sonrasında tüketicilerin cinsiyetine göre algıladıkları web site kalite boyutlarındaki farklılıklar t-testi analiziyle araştırılmıştır. Analiz sonucunda "yararlı bilgi sunma" web site kalite boyutunun cinsiyete göre anlamlı farklılık gösterdiği bulunmuştur.

**Anahtar Kelimeler:** Web Site Kalitesi, Online Pazarlama, Cinsiyet, Cinsiyet Farklılıkları, Türkiye

**Jel Kodları:** M30, M31, L81

<sup>1</sup> This study was expanded from the abstract and presentation of "The dimensions of perceived website quality by young consumers: the case of Turkey" in International Journal of Arts & Sciences (IJAS) Conferences, November 15-18, 2016, Rome.

<sup>2</sup> Assistant Professor Dr., Uludag University, Economics and Administrative Sciences Faculty, Business Administration Department, skilic@uludag.edu.tr

<sup>3</sup> Associate Professor Dr., Uludag University, Economics and Administrative Sciences Faculty, Business Administration Department, eozdemir@uludag.edu.tr

## **INTRODUCTION**

Web sites, in the business environment of today, are an important point of contact for the businesses to interact with the stakeholders (Seethamraju, 2006) and have an important role in the dissemination of information and communication activities of businesses (Sarnot et al., 2008). Just like the stores have various furniture, decor, etc., web sites, should have various qualities such as visual appeal, navigability, security and response time (Wells et al., 2011). Web site quality from the consumer's point of view refers to the entire perceived quality of the web site (Poddar et al., 2009). Web site quality is based on task-related factors such as presentation quality, appearance, content and functional adequacy and navigability that impact the end users. Furthermore, the quality of web site consists of many factors that affect the web site performance of the business such as response time, transaction volume, reliability, and durability. Web site quality also includes many factors that affect web site developers such as code complexity, code readability, code flexibility, portability, page comprehension and changeability (Rababah and Masoud, 2010). Aladwani and Palvia (2002: 469) defined web site quality as user evaluations of web site characteristics that met the needs of the users and as the reflection of the excellence of the web site with all of its aspects. The web site quality (McCoy et al., 2009), which is an important factor that directly affects users' tendency to use the web site, is much more important, especially for the travel and tourism businesses (Bai et al., 2008).

The web site quality which significantly impacts the success of businesses in the online world (Galati et al., 2016) is an important factor in attracting the attention of consumers, meeting their demands and needs and creating loyalty (Xie and Barnes, 2008). For instance, in their study, Hausman and Siekpe (2009) found that web site design features were an important factor in the online purchasing of consumers. In addition to the computer factors that provide functionality, the use of human factors including the hedonic elements on the web site and the use of sensory stimulants are effective in the online purchasing decisions of consumers and users' repeat visits of the web sites.

With the development of the e-commerce, today more people are increasingly engaged in online shopping (Zhang and Prybutok, 2002) and seeking information and opinion in online (Kılıç et al., 2016). Potential consumers can compare the web sites of a large variety of businesses with regard to finding information or purchasing products or services (Harridge-March, 2004). Therefore, in order to attract consumers through the internet, businesses need to design their web site as uncomplicated and appealing to use as possible (Taylor and England, 2006). Additionally, businesses need to improve the appeal of their web sites due to the ever-increasing online competition (Karayanni and Baltas, 2003). Businesses should design the quality web site and focus on quality rather than quantity. In addition, the web sites' being at the top of the search engines will benefit the popularity of the business. In this respect, the key words that represent the business performed and the company in the search engines should be selected. Businesses must provide links to other web sites related to their products. The download speed of web sites is very important, especially in consumers' purchasing decisions. Moreover, the tools such as main

menu, help page, keyword usage and site map aimed to increase web site usability should facilitate the quick search for information. It is important to optimize the quality of information of web sites, their design and provides accurate and up-to-date information. There should not be any deficient information on transactions such as security, confidentiality, payment methods in order not to lose potential customers. When there is a problem, the information of how to contact the business should be available on the web site. Thus, confidence in business can be enhanced and long-term customer satisfaction can be improved (Hernández et al., 2009: 369).

The purpose of the present study is to determine the web site quality evaluations of young consumers and whether there are differences in assessments concerning the web site quality by young consumers' gender, explicate where these differences exist, and offer suggestions to e-marketing executives about the web site quality based on the gender of young consumers targeted. In an era of intense competition and customer responsiveness, online consumers are major stakeholders and consumers' perspectives of web site quality by gender should not be ignored in e-marketing. Web site quality is an important component of e-marketing strategies. E-marketing executives should be interested in such issues as how web quality influences their web site traffic and how it determines the success of e-marketing strategies by the gender of online young consumers. Since the online market is a place where marketing and web design interact, the web designers and e-marketers need to corporate to increase the likelihood of the success of e-marketing. Therefore, e-marketing executives should focus on their web site quality by gender as the primary method of increasing their consumer base. Thus, the better understanding of young consumers' perspectives of web site quality by gender is critical for designing and managing effective web sites that can help businesses to attract and retain online customers.

The organization of this study is as follows: The next section lays the groundwork by reviewing the relevant literature about web site quality and gender of consumers. The third and the fourth sections deal with the empirical analysis and results of the study. The conclusion section evaluates the findings of the study.

## **I. LITERATURE REVIEW**

### **A. Web Site Quality**

When the literature on web site quality is analyzed, it is seen that this subject has been examined with different scales. Some of these scales are: SiteQUAL (Yoo and Donthu, 2001), WebQual (Barnes and Vidgen, 2001; 2002), ComQ/eTailQ (Wolfenbarger and Gilly, 2003), e-SQ/e-SERVQUAL/e-S-QUAL (Parasuraman et al., 2005; Zeithamal, 2000; Zeithamal et al., 2002), and Etransqual (Bauer et al., 2006), WebQuall (Loiacono et al., 2007). As can be seen, research models in time have been implemented in accordance with many different scales and questions. Therefore, the results obtained

from the researches also led to the emergence of the web site quality dimension in different numbers and names and these dimensions were examined in related works. For example, in their study Liu et al. (2000) found that a well-designed web site possessed the dimensions of quality of information, learning ability, playfulness-orientation, system use and service quality. Barnes and Vidgen (2002) pointed out as the dimensions of web site quality usability, web site design, quality of knowledge, confidence, and empathy. Yoo and Donthu (2001) measured the web site quality with the SiteQUAL scale, and as the results of their study, they obtained 4 dimensions such as ease of use, aesthetic design, processing speed and security and examined these results in their study. In the study in which they investigated the web site quality perceptions of students, Van Iwaarden et al. (2004) conducted a web site quality evaluation based on the SERVQUAL scale and composed of fifty variables by factor analysis. As a result of the factor analysis, five of the dimensions of service quality evaluation used in the service sector were found in the web site quality evaluation. As a result of the research, it was stated that the quality dimensions used in the service sector could be used in web site quality evaluation as well.

While web site quality was assessed by Flavian et al. (2006) as usability, confidence and user satisfaction, it was assessed as information quality, service, system use, playfulness-orientation and web site design by Liu and Arnett (2000). In their study in which they emphasized the service rather than web site design, Loiacono et al. (2000) developed the WebQual scale and introduced the 12 web site quality dimensions. The quality dimensions of web site introduced in the present study are useful information, interaction, trust, response time, the appeal of the web site design, visual appeal, intuitiveness of the web site, innovation, integrated communication, business processes, and viable substitute.

In their study in which they investigated the quality of their e-commerce sites where students shopped on such as Amazon.com, biggerbooks.com, and half.com, Cao et al. (2005) found that web site quality was collected under seven factors. The results of the study showed that e-commerce web sites should be designed in such a way to provide accurate information, reduce loading and research time, make the search easier, and provide security. A quality website should also be designed to be attractive. Lin (2007) considered the web site quality as system quality, information quality, and service quality; Wu (2007) added the dimension of user satisfaction in addition to the dimensions of Lin (2007). Moustakis et al. (2006) assessed the web site quality under the dimensions of navigation, design and structure, appearance, multimedia, and uniqueness. Robbins and Stylianou (2003) evaluated their study under the dimensions of contents and design; Ranganathan and Ganapathy (2002) under the dimensions of design, security and confidentiality of information; and Bell and Tang (1998) under the dimensions of access, content, graphics, structure, proximity, navigation, usability and special characters. In their study in which they investigated the important web site quality factors that were effective in attracting consumers to join the virtual communities, Chen and Chang (2010) also examined the quality of web sites in three major dimensions of usability, quality of service and service interactions.

Hernández et al. (2009) examined the key factors that needed to be considered in designing a commercial web site and used the factors of access, speed, navigation, and content to evaluate the web quality. In his study in which he studied the most important web site quality dimensions perceived by the Jordanian university students using 12-dimensional web quality measure, Awwad (2006) identified only 10 of the 12 dimensions of the student sample as the most important quality dimension of the web site. The quality dimensions of the web site identified were fit-to-task, interaction, confidence, response time, intuitiveness, visual appeal, innovativeness, emotional appeal, integrated communication and business processes. Canziani et al. (2016) also considered the web site quality dimensions as usability, information / content, interaction (Web 2.0), mobility / integration and semantic intelligence (Web 3.0). Kaya (2010) also evaluated the e-business web site quality assessment methodology with the modified fuzzy TOPSIS approach. Fan and Tsai (2010) also investigated the impact of web design quality and internet marketing strategy on the success of a web site.

As a result of studies on web site quality, it was found that web site quality had an impact on different factors. For instance, in their study in which they investigated sub-dimensions of the web quality, online store and image, system quality and information quality, Bai et al. (2008) found that web site quality had a direct and positive impact on the consumer satisfaction, and the consumer satisfaction had direct and positive impact on consumers' purchasing intentions. In his study in which he investigated the relationships between the web site quality dimensions, consumers' attitudes towards web sites and purchasing intentions on a student sample, Aladwani (2006), on the other hand, tested the model in which the quality of the web site, which consisted of technical quality, general content quality, specific content quality and appearance quality, affected consumers' attitudes towards the web site, which subsequently has an impact on the intention to make a purchase it. As a result of the study, it was found that only the technical dimension of the web site quality, directly and indirectly affected the purchasing behaviors through the attitudes of the consumers towards the web site. It was found that the specific content quality and appearance quality, on the other hand, had a stronger relationship with the consumer attitudes towards the web site than the technical quality and general content quality.

Zhang and Von Dran (2001) analyzed the web site quality features in a two-stage study. First of all, they addressed the subject within the context of the KANO model and dealt with the web site quality characteristics of the 32 web site quality features examined under the dimensions of basic, performance and exciting. The basic dimension is the minimum acceptable quality dimension expected by the customers that are offered to customers and not considered. Performance quality expectations, on the other hand, are the dimensions that are consciously emphasized. This dimension is advertised and when it is missing, it is perceived as disappointment or disadvantage. The exciting quality dimension, on the other hand, comprises the dimension that satisfies the customers and makes them loyal customers. In that study, they stated that there were nine web site quality features in the basic dimension and they pointed out that the most important feature of the basic dimension was the visual design, the accuracy

of the information and the web site responsiveness. The performance dimension, on the other hand, consisted of sixteen web site quality features, which included ease of orientation, clear layout of information, visual design, updating of information and up-to-date information. The exciting quality dimension, on the other hand, consisted of six web quality features; a variety of information sources, timely info, appropriate descriptive text, search tools, data security, product and service prices. Fink and Nyaga (2009) also found in their study that web site quality was measured by their usefulness, interactivity, knowledge quality and risk. As a result, they found that usefulness was indicative of high quality and riskiness was indicative of low quality.

In their study in which they investigated the impact of the online advertising on the known and unknown web sites on the perceived quality of the advertised web sites, and the consumer's intention to re-use these web sites, McCoy et al. (2009) found that the known web sites and online advertising had an impact on consumer perceptions of web site quality and re-use. This conclusion confirmed that online consumers' familiarity with a web site was important for the success of online trade.

Jones and Kim (2010) investigated the effect of retail brand confidence, off-line patronage, clothing involvement and web site quality on the tendency to purchase clothes online. The quality of the web site in this study on female consumers was dealt with in three basic dimensions; usability and knowledge quality, visual appeal and image quality, and finally interaction and innovation quality. As a result of the study, it was found retail brand confidence, off-line patronage, clothing involvement and two dimensions of web site quality (usefulness and information quality; visual appeal and image quality) had a significant impact on women's tendency to purchase clothes online. Another result of the study was that the off-line patronage had the strongest impact on online consumers' tendency to shop online. Delone and McLean (2003) also found in their study that web site quality had a direct impact on the productivity of businesses. In the same study, the web quality was considered as information quality, system quality, service quality and the unique quality of the seller.

Wells et al. (2011) found that the quality of the web site significantly influenced consumers' perceptions of the product quality, especially when consumers were enabled a high level of information asymmetry and this, in turn, affected the consumers' intent positively to purchase online. The result of this study was that the quality of the web site could affect the perceived product quality when consumers had limited information about the product. As a result of their study in which they investigated the web sites of three large internet bookstores selling from the İnternet on the student sample and evaluated them using the WebQual 2.0, Barnes and Vidgen (2001) found that the web users tried to find the most accurate information and were interested in ordering and getting their products reliably. These features are very important in terms of e-commerce web sites.

In their study in which they investigated the relationship between web site quality dimensions and consumer satisfaction, Sadeh et al. (2011) found that web site quality dimensions were research facility, providing detailed information, privacy and security, interaction facilities and contacts, speed,

and facility of access, availability of relevant downloads and reliable and up-to-date information. As a result of this study, it was found that all of these dimensions positively and significantly affected the consumer satisfaction. Similarly, in their study, Hsu et al. (2012) investigated the effects of playfulness and perceived flow, which were perceived as mediators on consumers' satisfaction and purchase intentions. As a result of the study, it was found that the quality of the web site had an impact on the playfulness and perceived flow of the customers, which in turn impacted the customer satisfaction and their intention to make a purchase. It was found that the service quality dimension, one of the web site quality dimensions examined in this study affected the purchasing intention and satisfaction of customers more than the other dimensions (information quality and system quality).

Liao et al. (2006) investigated the impact of users' perceived web site quality consisting of appearance, content quality, specific quality, technical sufficiency / adequacy and their habits in e-commerce on the intention of the users' confidence and perceived benefits to continue to use the site afterward. As a result of the study, they found that consumers' intention to continue using a B2C web site was determined by consumers' perceived benefits, confidence, and habits. Interestingly, according to the other web quality dimensions of the web site, it was found that the technical capability dimension was the dimension with the most important influence on confidence.

Lee and Kozar (2012) considered the web site usability as telepresence, navigability, interactivity, learnability, readability, content relevance and credibility and found that these dimensions had a direct impact on the purchasing intentions of consumers. As a result of the study, it was found that content relevance was the most important factor affecting the purchasing intentions of consumers. As a result of the studies they performed on students, Ha and Im (2012) found that the quality of the web site had an indirect impact on pleasure, arousal and perceived product information quality, and an indirect impact on satisfaction, and the intention of word of mouth marketing. In a study conducted on 457 American consumers, Cho et al. (2014) found that web site quality played an important role in the perceived risk and quality of the wine, and the service quality and quality of information reduced consumers' perceived risk of online wine purchase.

Éthier et al. (2006) investigated the relationship between the consumer emotions and B2C web site quality during online shopping. The results of the study showed that the quality of the web site during online shopping had a positive effect on the cognitive evaluations of the consumers, which were expressed as liking, joy, pride, dislike, and frustration. Very few participants stated that they did not feel any emotion. The results of the study also demonstrated that a large majority of consumers experienced the feelings of liking and joy more intensively. In a similar study, Ahn et al. (2007) found that playfulness had a significant positive impact on the individual attitude and behavioral intention to use an online retail web site. Consumers continued to use these web sites when they felt their web sites were fun and they were loyal to these interesting and playful web sites. As a result of the study, the quality of

the web site, classified as the system, information and service quality, also had a significant impact on the consumers' perceived ease of use, playfulness, and usefulness.

In their study in the United States where they investigated the impact of web site quality dimension of the consumers' willingness to use the online travel agents, Park et al. (2007) found that the ease of use was the most important dimension in determining the willingness of consumers to use the web site. It was found that the other dimensions were information / content, responsiveness, fulfillment and security / privacy, respectively. Interestingly, there was no relationship between the visual appeal and willingness to use the web site.

In their study in which they investigated the impact of web site quality perception of consumers on their loyalty of the web sites where they shopped online, Deneçli (2015) found that web site quality dimensions were providing information, interaction, design, system and fulfillment quality. As a result of the study, it was found that interaction, system and fulfillment quality dimensions had an impact on the online loyalty of consumers. Karaosmanoğlu et al. (2016), on the other hand, found that the web site quality dimensions, which they regarded as technical capability, specific content, information quality, security, interactiveness, and responsiveness impacted the consumers' tendency to purchase by means of consumer-focused brand equity.

In a study by Sörüm et al. (2013) in which they investigated how the web administrators working in government agencies evaluated the web site quality, it was revealed that usability was the most important dimension in web site quality. User friendliness, the usability of the web site, content related issues and access were other important dimensions. In particular, the quality of information was an important factor for users to come back to the site. In their study in which they examined the web sites of churches, Zech et al. (2013) investigated the quality dimensions of the church web sites and concluded that there were three main dimensions. These dimensions were technical capability, web site content and web site view.

It is seen that some studies on web site quality are cross-cultural. In one of these studies, Kim and Lee (2006) investigated the web quality perceptions of the US and Korean web site users through a designated web site. As a result of the study, while the twelve of the twelve-factor web site quality dimensions were found in the American sample, ten of these dimensions were found in the Korean sample. This result suggested that the emerging quality dimensions of the web site were not consistent for both samples.

## **B. Web Site Quality Dimensions and Gender of Consumers**

Whether there is a relationship between the dimension of the web site quality and the demographic factors of users or consumers is one of the important topics discussed in the relevant literature. For instance, Kim et al. (2004) investigated the demographic characteristics of the quality dimensions of retail web sites of American and Korean internet users and how perceptions of



respondents in both samples affected their attitudes toward online shopping. The web site quality dimensions defined in the study were information quality, confidence, ease of use, visual appeal and business process. As a result of the study, it was found that the elderly consumers in both samples had less confidence in their web sites than the younger consumers. This result showed that online retailers targeting elderly consumers should provide enough information to increase the confidence of elderly customers trading on their sites. Besides, unlike the Korean sample, the American female shoppers in the American sample had a positive perception of the visual attractiveness of the web site in comparison to men. This particular result was explained by the fact that according to the researchers, women were more sensitive and prone to the visual experience of online shopping.

In their study in which the web site quality dimensions for apparel retailers and whether these quality dimensions were the determinants of the shopper's satisfaction on 273 American women's online apparel shoppers, Kim and Stoel (2004a) identified six web site quality dimensions. According to the data obtained from the female consumers in the age range of 19-77 years (with the average age of 36) participating in the study, these dimensions were; web site appearance, playfulness, fit to task information, capability, response time, and confidence. Out of these dimensions, it was found that fit to task information, capability and response time dimensions were the important predictors of female consumers' satisfaction. This particular result revealed that the content of a web site and its transactional qualities were important in increasing customer satisfaction. It was found that the participants (96% of the sample) were satisfied with the web sites where their questions were answered.

In their other study, Kim and Stoel (2004b) compared and examined the dimensional hierarchy of retail web site quality, based on the five proposed models, with the data obtained from 273 American female online clothing shoppers. The research results revealed that the web site quality of the sites where clothing products were sold was best conceptualized as a twelve-dimensional structure. The web site quality included the perception of twelve different dimensions of web users rather than a single holistic measure. These were composed of the following dimensions; fit to task information, tailored communication, online completeness, relative advantage, visual appeal, innovation, emotional appeal, consistent image, ease of understanding, intuitive operations, response time, and confidence. Seethamraju (2006) investigated web site quality in terms of user perceptions and found that there were no significant differences between men and women. However, it was found that women were more satisfied with their online purchasing experience than men.

Since there were undergraduate students in the sample of the present study and the age of the students were at a certain interval, the age criteria could not be investigated. Based on the information in the relevant literature mentioned above, it was aimed to investigate whether there were differences between consumers' web site quality preferences in terms of gender and if so, which dimension caused this difference. Based on this, the following hypothesis was established.

**H<sub>1</sub>:** Consumers' preferences for web site quality are different by gender.

## **II. METHODOLOGY**

### **A. Purpose**

The purpose of this paper is to investigate web site quality dimensions and whether there exist differences in web site quality dimensions based on the gender of the respondents as consumers.

### **B. Sampling**

There is no listing of consumers using the internet that can be used for sampling in Turkey. For the sampling procedure, convenience sampling was used. Therefore, we decided to include the undergraduate students (1847 total) using the internet at the Business Administration Department of Uludag University in Bursa, one of the largest cities in Turkey.

### **C. Data Collection and Questionnaire**

Face to face questionnaire was used to collect the data. The questionnaire adopted from the previous researches (Loiacono et al., 2000; Zhang and Von Dran, 2001; Barnes and Vidgen, 2001; Kim and Stoel, 2004b; Aladwani, 2006; Liao et al., 2006; Kim and Lee, 2006) was used to measure consumers' web site quality evaluations. The questionnaire was comprised of five multiple-choice and 30 Likert-type items. The questionnaire also elicited respondents' biographical data regarding their age and gender. Web site quality evaluations were rated by respondents on a 5-point Likert scale (not all important =1; very important=5). Prior to the final data collection, the questionnaire was pre-tested with 30 respondents to evaluate how well the questionnaire was understood. It turned out that none of the questions needed simplification. The questionnaire was conducted during the period of May -June 2016.

### **D. Data Analysis**

The data were analyzed by descriptive statistics (frequencies and means). Exploratory and confirmatory factor analyses were conducted to identify the main groups of web site quality evaluations. Independent-sample t-tests were performed in order to analyze the gender differences in preferences towards web site quality dimensions. For the statistical analyses, SPSS 23 and AMOS 23 were used. The level of significance was set at 0.05. Further analysis on the scales' reliability was conducted by calculating Cronbach's alpha. The reliability of the scale items was 0.852 (indicating good reliability) and no items were extracted from the scale.

### **III. RESULTS**

#### **A. Participants' Characteristics**

The study carried out was composed of a total of 262 participants 128 of whom were males and 134 females using the internet. Students aged between 18 and 24 participated in the survey. The sample corresponded to approximately 14% of the total number of the undergraduate students (1847 total) at the Business Administration Department of Uludag University in Bursa.

#### **B. Measures**

##### **1. Web Site Quality Dimensions**

One of the main purposes of this research was to establish which web site quality factors were preferred by the consumers. Thus, a varimax rotated exploratory factor analysis was carried by using the principle components technique. Prior to the exploratory factor analysis, the Cronbach's Alfa value of the scale was examined and it was seen that no variable existed within the scale that reduced the reliability. The Kaiser-Meyer-Olkin (KMO) measurement regarding the proficiency of sample was 0.827. This value was within the acceptable limits. The Barlett Sphericity Test results revealed that factor analysis could be used for these scale questions ( $\chi^2= 2855.701$ ;  $p=0.00$ ). The varimax rotated principle components technique was used in order to test the validity of the theory-based model. The factor analysis demonstrated that a consistent structure in which there were 29 variables was collected under 8 factors. One item (up-to-date information) was omitted from the analysis as it scored lower than 0.50 factor loading. The exploratory factor analysis results showed that the factor loadings were between 0,41 and 0,83. 8 factors (composing nearly 62% of the total variation) whose eigenvalue were greater than 1 were found and these factors (according to their total variances) were named as design and visual appeal, system quality and ease, interactivity and business process, security and confidence, links, customer-oriented information / content, innovation and image, providing useful information. The factors, the features of these factors, the sub-variables included in each factor and factor loadings are illustrated in Table 1.

After the factors obtained as a result of factor analysis and the sub-variables related to these factors were examined, it was found that design and visual appeal accommodated nearly 22% of the total variation. This factor had 5 sub variables and of these factors, the factor that had the highest factor loading had the variable “attractiveness of the web site background (background image)” (factor loading = 0.720). The other sub variables of “sufficient level of brightness of the display on the web site” (factor loading = 0.713) and “use of attractive colors on the web site” (factor loading = 0.708) were those that had the highest share. The factor of system quality and ease was composed of 4 sub variables and explicated nearly 14% of the total variation. The sub variables of “fast loading of pages in a web site” (factor loading = 0.784) and “Easy access to the web site” (factor loading = 0.761) were the ones that

had the highest share in this factor. The interactivity and business process factor was composed of the sub variables of “offering after-sales services (such as product return and replacement) to the customer via the web site” (factor loading = 0.700) and “interaction and feedback between the consumer and the business on the web site” (factor loading = 0.645) had the highest shares in this factor and this factor explicated nearly 5% of the total variation. The factor of security and confidence explicated nearly 4,9% of the total variation and was comprised of four sub variations. “Disclosure of warranty and return policies on the web site” (factor loading = 0.697) and “safe and easy payments on the web site” (factor loading = 0.657) sub variables had the highest shares in this factor. The links factor was composed of the sub variables of “links from the home web site to other web sites” (factor loading = 0.835) and “links from the other web sites to the home web site” (factor loading = 0.790) and explicated nearly 4,5% of total variation. The customer-oriented information / content factor explicated nearly 4 % of the total variation together with the sub variables of “presence of customer-oriented information on the web site” (factor loading = 0.710), “presence of customer-oriented useful information on the web site” (factor loading = 0.645), and “presence of the company's products / services on the web site” (factor loading = 0.619). The factor of innovation and image accommodated nearly 3,7% of the total variation and was composed of 3 sub variables: “consistent image of the web site with the image of the business” (factor loading = 0.753), “innovative and creative design of the web site” (factor loading = 0.492), and “preference of the web site by other people”(factor loading = 0.416). Providing useful information factor explicated nearly 3,3% of the total variation together with the sub variables of “easy to read, understand and remember name of the web site” (factor loading = 0.796), “detailed information on web site” (factor loading = 0.520), and “predictable place for the information searched on the web site” (factor loading = 0.482).

**Table 1: Web Site Quality Factors, Factor Loadings, and Means**

Web Site Quality Items	Web Site Quality Factors and Factor Loadings								Means	
	Design and Visual Appeal	System Quality and Ease	Interactivity and Business Process	Security and Confidence	Links	Customer-Oriented Information / Content	Innovation and Image	Providing Useful Information	Male	Female
1. Presence of customer-oriented information on the web site						0.710			3.85	3.78
2. Presence of customer-oriented useful information on the web site						0.645			4.27	4.24
3. Presence of the company's products / services on the web site						0.619			4.16	4.21
4. Correct Information on the web site			0.571						4.49	4.54
5. Quick reply to the customers on the web site			0.561						4.38	4.40

Web Site Quality Items	Web Site Quality Factors and Factor Loadings									Means
	Design and Visual Appeal	System Quality and Ease	Interactivity and Business Process	Security and Confidence	Links	Customer-Oriented Information / Content	Innovation and Image	Providing Useful Information	Male	Female
6. Resolving customer problems on the web site			0.553						4.20	4.32
7. Offering after-sales services (such as product return and replacement) to the customer via the web site			0.700						4.23	4.30
8. Interaction and feedback between the consumer and the business on the web site			0.645						4.13	4.25
9. Safe and easy payments on the web site				0.657					4.64	4.56
10. Safe storage of customer information on the web site				0.637					4.61	4.52
11. Disclosure of warranty and return policies on the web site				0.697					4.34	4.22
12. Sending the digital bill to the customers				0.612					4.20	4.25
13. Presence of multimedia tools (such as sound and images) on the web site	0.585								4.00	3.99
14. Sufficient level of brightness of the display on the web site	0.713								3.55	3.75
15. Presence of headings and shapes on the web site homepage	0.622								3.66	3.84
16. Use of attractive colors on the web site	0.708								3.37	3.59
17. Attractiveness of the web site background (Background image)	0.720								3.46	3.51
18. Quick access to web site		0.557							4.40	4.40
19. Fast loading of pages in a web site		0.784							4.35	4.40
20. Easy access to the web site		0.761							4.40	4.40
21. Presenting information on the web site impartially		0.500							4.19	4.28
22. Detailed information on the web site								0.520	4.22	4.27
23. Easy to read, understand and remember name of the web site								0.796	3.96	3.95
24. Predictable place for the information searched on the web site								0.482	4.09	4.18
25. Links from the home web site to other web sites					0.835				3.41	3.50
26. Links from the other web sites to the home web site					0.790				3.41	3.44

Table 1: Web Site Quality Factors, Factor Loadings, and Means (Continued)

Web Site Quality Items	Web Site Quality Factors and Factor Loadings								Means	
	Design and Visual Appeal	System Quality and Ease	Interactivity and Business Process	Security and Confidence	Links	Customer-Oriented Information / Content	Innovation and Image	Providing Useful Information	Male	Female
27. Innovative and creative design of the web site							0.492		3.86	3.93
28. Consistent image of the web site with the image of the business							0.753		3.95	4.28
29. Preference of the web site by other people							0.416		3.77	3.76
<b>Eigenvalues</b>	6.543	4.144	1.527	1.479	1.363	1.223	1.109	1.015		
<b>Variation</b>	21.809	13.812	5.092	4.930	4.543	4.078	3.696	3.384		

The structure coherence of the scale used for the analysis was also tested by confirmatory factor analyses. The eight factor confirmatory factor analysis was performed. We used the confirmatory factor analysis in order to simultaneously evaluate the relations of each item with the factor representing the construct they were supposed to measure and to determine whether these eight factors together represent a valid structure. Confirmatory factor analysis was conducted to determine the validity of the scale when a scale was applied in a different culture. In this study, the values of skewness and kurtosis of the data were examined and it was seen that the data showed normal distribution. The skewness and kurtosis values of the factors were as follows; design and visual appeal (skewness= -.732; kurtosis= .533), system quality and ease (skewness= -.985; kurtosis= .738), interactivity and business process (skewness= -1.280; kurtosis= 1.429), security and confidence (skewness= -1.203; kurtosis= 1.371), links (skewness= -.510; kurtosis= -.683), customer-oriented information / content (skewness= -.933; kurtosis= .545) innovation and image (skewness= -.833; kurtosis= .381), providing useful information (skewness= -.992; kurtosis= .986). The values of skewness and kurtosis were between the values of -1,5 and +1,5. These values are within the required limits (Tabachnick and Fidel, 2012). As a result of the analysis carried out in AMOS 23 programme, it was seen that some modifications have to be made. It was found that the coherence indexes of the scale before modification were  $\chi^2/df=2,05$ , root mean square error of approximation (RMSEA)= 0.06, root mean square residual (RMR)= 0.05, goodness of fit index (GFI)= 0.85, comparative fit index (CFI)= 0.85,  $p=0.001$ . It was found that the coherence indexes of the scale after modification were  $\chi^2/df=1,88$ , root mean square error of approximation (RMSEA)= 0.05, root mean square residual (RMR)= 0.05, goodness of fit index (GFI)= 0.90, comparative fit index (CFI)= 0.90,  $p=0.001$ . In the literature, the accepted values of these indices were  $\chi^2/df \leq 3$ ;  $GFI \geq .90$ ;  $CFI \geq$

.90;  $0.05 \leq RMSEA \leq 0.08$  (Baumgartner and Homburg, 1996; Iacobucci, 2010; Weston and Gore, 2006). The results of the confirmatory factor analysis show a good fit.

## 2. The relationship between web site quality dimensions and gender of consumers

In this study, it was examined whether there were significant differences in the preferred features in web site quality based on the gender of young consumers; a t-test analysis was used to reveal in which features those differences were found among the features analyzed. The means of the features likely to be preferred in web site quality based on gender used in the t-test are illustrated in Table 2. Looking at Table 1, (the means of the features likely to be preferred in web site quality) it is clearly seen that females, when compared to males, were more interested in the following issues of “sufficient level of brightness of the display on the web site, presence of headings and shapes on the homepage, use of attractive colors on the web site and consistent image of the web site with the image of the business”. Males, when compared to females, on the other hand, were more interested in the issues of “safe and easy payments on the web site, safe storage of customer information on the web site and disclosure of warranty and return policies on the web site”.

When the t-test analysis was applied to the hypothesis formed, the eight dimensions preferred for the web site quality displayed the differences in terms of gender. Looking Table 2, since 2-sided sig. values of only one dimension (providing useful information) is  $< 0.05$ , the H1 hypothesis was accepted. In other words, no significant gender-based differences amongst young consumers were found in the other dimensions apart from those of one.

**Table 2:** T-test results about web site quality factors by gender of young consumers

Web Site Quality Factors by Gender of Young Consumers	t	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95 % Confidence Interval of the difference	
						Lower	Upper
Design and Visual Appeal	0.202	259	0.84	0.02	0.09	-0.16	0.20
System Quality and Ease	1.619	259	0.11	0.11	0.07	-0.02	0.25
Interactivity and Business Process	0.441	259	0.66	0.03	0.08	-0.12	0.18
Security and Confidence	1.771	259	0.08	0.12	0.07	-0.01	0.26
Links	1.851	259	0.07	0.24	0.13	-0.02	0.49
Customer-Oriented Information / Content	0.760	259	0.45	0.06	0.08	-0.10	0.23
Innovation and Image	0.362	259	0.72	0.04	0.10	-0.16	0.23
Providing useful information	2.020	259	<b>0.04</b>	0.16	0.08	0.00	0.32

## CONCLUSION

In the success of their web sites, businesses should see the internet as a tool to reach niche markets around the world. Web site quality features were an important factor in the online purchasing of consumers. The *appearance quality* of the web site quality significantly affects the perceived usefulness of the users. In this sense, an aesthetic and attractive web site will increase the user's perception of usefulness. In order to increase this perception, businesses should emphasize features such as layout in web site design, use of colors, fonts and graphics. The *content quality* of the web site also affects the usefulness and confidence that consumers perceive. In this sense, the properties of web sites such as usefulness, completeness, clarity, currency, conciseness, and accuracy should be emphasized. If these are not taken into consideration, customers may be able to stop making purchases and turn to competitors' products. Since customers cannot touch, feel and try out the products in online shopping, they should be informed clearly and in detail in their purchasing. The *specific content quality* of the web site affects consumer perception and trust. For this reason, in order to enhance the confidence of the consumers, all useful contents related to consumers, especially contact information, customer policies, product / service details, and after-sale support must be presented to consumers in a clear and complete way. Factors that constitute the *technical qualification of the web site* such as security, ease of navigation, search facilities, usability, valid links, personalization or customization, speed of page loading, interactivity, ease of accessing the site raise the confidence and perceived usefulness of consumers (Liao et al., 2006: 479-480).

One of the most important factors affecting the success that businesses want to achieve through their web sites, as far as we are concerned, is that both the business and consumer sides have different perspectives. The results of the study conducted by Lee and Kozar (2006) on this issue support this particular idea. In their study in which they conducted on the online consumers and web site managers / designers of e-businesses, Lee and Kozar (2006: 1396-1397) investigated the impact of web site quality on the success of e-businesses. As a result of the study, firstly, it was found that each of the four web site quality dimensions, which were defined as information quality, service quality, system quality and vendor-specific quality, were relevant criteria in the selection of the most preferred web site. Secondly, it was found that online customers perceived the web site quality factors in different e-business domains with different significance. Another interesting point in the study was that perceptions between the online customers and managers / designers were different as well. For instance, while managers / designers consider the price as the most important factor in choosing the most preferred online travel site, the online customers thought that information relevance and navigability were the most important factors. This result demonstrated that the expectations of both sides and their thoughts were different. Finally, it was found that there was a positive relationship between the web site preference of customers and the performance of the business. It is because the order of the most preferred web sites matches with the ranking of the highest performing web sites. This suggests that the web sites with higher web site



quality will provide higher business performance. Furthermore, the web site quality perception is also important to the success of e-commerce businesses as a factor directly affecting the intention of consumers to use the web site (McCoy et al., 2009).

In the present study, firstly, the perceived web site quality dimensions of consumers were investigated. As a result of the present study, eight web site quality dimensions were identified. These web site quality dimensions are consistent with the web site quality dimensions that exist in other studies in the relevant literature as well. For instance, the dimension of design and visual appeal was identified in the studies conducted by Loiacono et al. (2000), Liu and Arnett (2000), Barnes and Vidgen (2002), Yoo and Donthu (2001), Robbins and Stylianou (2003), Zhang and Von Dran (2001), Moustakis et al. (2006), Hausman and Siekpe (2009). Similarly, the following dimensions were identified by the following researchers in their studies; the dimension of system quality and ease by Lin (2007), Bai et al. (2008), Lee and Kozar (2006), Zhang and Von Dran (2001), Ahn et al. (2007), Park et al. (2007); the dimension of interactivity and business process by Awward (2006), Sadeh et al. (2011), Liao et al. (2006), Lee and Kozar (2012); the dimension of security and confidence by Robbins and Stylianou (2003), Hernández et al. (2009), Rababah and Masoud (2010), Barnes and Vidgen (2002), Yoo and Donthu (2001), Loiacono et al. (2000), Liao et al. (2006), Sadeh et al. (2011), Park et al. (2007), Ranganathan and Ganapathy (2002); the dimension of links by Hernández et al. (2009), Liao et al. (2006); the dimension of customer-oriented information / content by Kim et al. (2004), Kim and Stoel (2004a), Lee and Kozar (2006), Liu et al. (2000), Liu and Arnett (2000), Lin (2007), Ranganathan and Ganapathy (2002), Canziani et al. (2016), Zhang and Von Dran (2001), Bai et al. (2008), Fink and Nyaga (2009), Jones and Kim (2010), Delone and McLean (2003), Sadeh et al. (2011), Hsu et al. (2012), Ahn et al. (2007), Sørsum et al. (2013); the dimension of innovation and image by Bai et al. (2008), Jones and Kim (2010), Kim and Stoel (2004b), Loiacono et al. (2000); and the dimension of providing useful information by Kim and Stoel (2004b), Lee and Kozar (2006), Loiacono et al. (2000).

In the present study, secondly, it was investigated whether there was a relationship between the quality of the web site perceived by the consumers participating in the survey and the gender of the consumers. As a result of the study, it was found that only the dimension of "providing useful information" differed according to gender. This particular result supports the research hypothesis, but is different from the study of Seethamraju (2006), which investigated the quality of web quality between the male and female consumers and found no significant difference; it has a similarity with the result of Kim and Stoel (2004a;b) that female online shopper sought appropriate information regarding the dimension of web site quality. In other words, the gender-specific differentiation of the "providing useful information" dimension from the web site quality dimensions obtained from the study supports Kim and Stoel (2004a;b). This result obtained is closely related to the women-specific characteristics. Women, in comparison to men, give more attention to details, and they have more elaborate and holistic thinking abilities in what they are interested in. This ability comes from the fact that the female brain has different

characteristics from the male brain. In other words, the fact that there are more neural networks between the female brain hemispheres and the thicker fibers that provide linkage cause women to keep more details in memory than men and remember better the details in the past (Barletta, 2003: 29). While women's attention to details is a threat to businesses that are not aware of this particular characteristic of women, it is a great opportunity for businesses that are aware of this characteristic. It is because women consumers can detect many details and create an impression of the company. For this reason, especially the businesses targeting women consumers, should take advantage of this characteristic (Cleaver, 2004).

The present study was conducted on the students as consumers who used the internet in evaluating the dimensions of web site quality. However, carrying out a research on students was in line with the aim of the present study, since students used the internet more intensively than older consumers. Furthermore, the use of student samples is widespread in e-commerce, internet usage and online shopping behavior research (Aslanbay et al., 2009; Athiyaman, 2002; Chan and Fang, 2007; Cyr and Bonanni, 2005; Dittmar et al., 2004; Jackson et al., 2001; Mummalaneni and Meng, 2009; Sherman et al., 2000) and the patterns of findings in online shopping behavior are similar amongst student and non-student samples (Ahuja et al., 2003). More recently, Hasan (2010) used student participants exploring the gender differences in online shopping attitude. Investigating the other consumer groups in the future studies and identifying the differences will be an important factor for market segmentation. Similarly, the web quality issues can be evaluated in terms of web designers as well. The findings of the present study have been validated only in one country. The study can also be extended through the evaluation of web sites of businesses in different sectors and countries. In future studies, the relationship between the web site quality dimensions and intention to make a purchase, consumer satisfaction and loyalty can be examined within the framework of a model.

## REFERENCES

- Ahn, Tony - Seewon Ryu - Ingoo Han (2007), "The Impact of Web Quality and Playfulness on User Acceptance of Online Retailing", *Information & Management*, 44(3), pp. 263-275.
- Ahuja, Manju - Babita Gupta - Pushkala Raman (2003), "An Empirical Investigation of Online Consumer Purchasing Behavior", *Communications of The ACM*, 46(12), pp. 145-151.
- Aladwani, Adel M. - Prashant C. Palvia (2002), "Developing and Validating an Instrument for Measuring User-Perceived Web Quality", *Information & Management*, 39(6), pp. 467-476.
- Aladwani, Adel M. (2006), "An Empirical Test of the Link between Web Site Quality and Forward Enterprise Integration with Web Consumers", *Business Process Management Journal*, 12(2), pp. 178-190.
- Aslanbay, Yonca - Muhiddin Aslanbay - Emine Çobanoğlu (2009), "Internet Addiction among Turkish Young Consumers", *Young Consumers*, 10(1), pp. 60-70.

- 
- Athiyaman, Adeel (2002), "Internet Users' Intention to Purchase Air Travel Online: An Empirical Investigation", *Marketing Intelligence & Planning*, 20(4), pp. 234-242.
- Awwad, Mohammad (2006), "Web Site Quality Factors from Jordanian Universities Students' Viewpoint", *Jordan Journal of Business Administration*, 2(1), pp. 147-160.
- Bai, Billy - Rob Law - Ivan Wen (2008). "The Impact of Web Site Quality on Customer Satisfaction and Purchase Intentions: Evidence from Chinese Online Visitors", *International Journal of Hospitality Management*, 27(3), pp. 391-402.
- Barletta, Marti (2003), *Marketing To Women: How To Understand, Reach And Increase Your Share Of The World's Largest Market Segment*, Chicago: Dearborn Trade Publishing.
- Barnes, Stuart J. - Richard Vidgen (2001), "An Evaluation of Cyber-Bookshops: The WebQual Method", *International Journal of Electronic Commerce*, 6(1), pp. 11-30.
- Barnes, Stuart J. - Richard T. Vidgen (2002), "An Integrative Approach to the Assessment of E-Commerce Quality", *Journal of Electronic Commerce Research*, 3(3), pp. 114-127.
- Bauer, Hans H. - Tomas Falk - Maik Hammerschmidt (2006), "eTransQual: A Transaction Process-Based Approach for Capturing Service Quality in Online Shopping", *Journal of Business Research*, 59(7), pp. 866-875.
- Baumgartner, Hans - Christian Homburg (1996), "Applications of Structural Equation Modeling in Marketing and Consumer Research: A Review", *International Journal of Research in Marketing*, 13(2), pp. 139-161.
- Bell, Hudson - Nelson KH Tang. (1998), "The Effectiveness of Commercial Internet Web Sites: A User's Perspective", *Internet Research*, 8(3), pp. 219-228.
- Canziani, Bonnie Farber - Bonnie Farber Canziani - Dianne HB Welsh - Dianne HB Welsh (2016), "Web Site Quality for SME Wineries: Measurement Insights", *Journal of Hospitality and Tourism Technology*, 7(3), pp. 266-280.
- Cao, Mei - Qingyu Zhang - John Seydel (2005), "B2C E-Commerce Web Site Quality: An Empirical Examination", *Industrial Management & Data Systems*, Vol. 105 Iss 5 pp. 645 - 661
- Chan, Kara- Wei Fang. (2007), "Use of the Internet and Traditional Media among Young People", *Young Consumers*, 8(4), pp. 244-256.
- Chen, Long-sheng – Pao Chung Chang. (2010), "Identifying Crucial Web Site Quality Factors of Virtual Communities", *In Proceedings of the International MultiConference of Engineers and Computer Scientists 2010*, Vol. 1, pp. 487-492.
- Cho, Meehee - Mark A. Bonn - Sora Kang (2014), "Wine Attributes, Perceived Risk and Online Wine Repurchase Intention: The Cross-Level Interaction Effects of Web Site Quality", *International Journal of Hospitality Management*, 43, pp. 108-120.
- Cleaver, Joanne (February 2004), "What Women Want: The Growing Economic Power of Women Consumers is Transforming Today's Marketplace. Find out How to Tap into The Desires of Women- and Watch Your Business Take Off", *Entrepreneur Media*, [http://www.findarticles.com/p/articles/mi\\_m0dt/is\\_2\\_32/ai\\_112686130/](http://www.findarticles.com/p/articles/mi_m0dt/is_2_32/ai_112686130/), (09.06.2005): 1-4.
-

- 
- Cyr, Dianne - Carole Bonanni (2005), "Gender and Web Site Design in E-Business", *International Journal of Electronic Business*, 3(6), pp. 565-582.
- Delone, William H. - Ephraim R. McLean (2003), "The DeLone and McLean Model of Information Systems Success: A Ten-Year Update", *Journal of Management Information Systems*, 19(4), pp. 9-30.
- Deneçli, Sevda (2015), "The Impact of E-Shopping Website Quality on E-Loyalty", *Approaches on New Media: Proceedings of 1st International New Media Conference*, (May 21, 2015), Istanbul, Turkey, pp. 135-149.
- Dittmar, Helga - Karen Long - Rosie Meek (2004), "Buying on the Internet: Gender Differences in On-Line and Conventional Buying Motivations", *Sex Roles*, 50(5-6), pp. 423-444.
- Éthier, Jean - Pierre Hadaya - Jean Talbot - Jean Cadieux (2006), "B2C Web Site Quality and Emotions during Online Shopping Episodes: An Empirical Study", *Information & Management*, 43(5), pp. 627-639.
- Fan, Wei-Shang – Ming Chun Tsai (2010), "Factors Driving Web Site Success–The Key Role of Internet Customisation and the Influence of Web Site Design Quality and Internet Marketing Strategy", *Total Quality Management*, 21(11), pp. 1141-1159.
- Fink, Dieter - Casty Nyaga (2009), "Evaluating Web Site Quality: the Value of a Multi Paradigm Approach", *Benchmarking: An International Journal*, 16(2), pp. 259-273.
- Flavián, Carlos - Miguel Guinalíu - Raquel Gurrea (2006), "The Role Played by Perceived Usability, Satisfaction and Consumer Trust on Web Site Loyalty", *Information & Management*, 43(1), pp. 1-14.
- Galati, Antonino - Maria Crescimanno - Salvatore Tinervia - Dario Siggia (2016), "Web Site Quality and Internal Business Factors: An Empirical Investigation in the Italian Wine Industry", *International Journal of Wine Business Research*, 28(4), pp. 308-326.
- Ha, Young - Hyunjoo Im (2012), "Role of Web Site Design Quality in Satisfaction and Word of Mouth Generation", *Journal of Service Management*, 23(1), pp. 79-96.
- Harridge-March, Sally (2004), "Electronic Marketing, the New Kid on the Block", *Marketing Intelligence & Planning*, 22(3), pp. 297-309.
- Hasan, Bassam (2010), "Exploring Gender Differences in Online Shopping Attitude", *Computers in Human Behavior*, 26(4), pp. 597-601.
- Hausman, Angela V. - Jeffrey Sam Siekpe (2009), "The Effect of Web Interface Features on Consumer Online Purchase Intentions", *Journal of Business Research*, 62(1), pp. 5-13.
- Hernández, Blanca - Julio Jiménez - M. José Martín (2009), "Key Web Site Factors in E-Business Strategy", *International Journal of Information Management*, 29(5), pp. 362-371.
- Hsu, Chia Lin - Kuo-Chien Chang - Mu-Chen Chen (2012), "The Impact of Web Site Quality on Customer Satisfaction and Purchase Intention: Perceived Playfulness and Perceived Flow as Mediators", *Information Systems and e-Business Management*, 10(4), pp. 549-570.
- Iacobucci, Dawn (2010), "Structural Equations Modeling: Fit Indices, Sample Size, and Advanced Topics", *Journal of Consumer Psychology*, 20(1), pp. 90-98.
-

- 
- Jackson, Linda A.- Kelly S. Ervin - Philip D. Gardner - Neal Schmitt (2001), "Gender and the Internet: Women Communicating and Men Searching", *Sex Roles*, 44(5-6), pp. 363-379.
- Jones, Christie, and Soyoung Kim (2010), "Influences of Retail Brand Trust, Off-Line Patronage, Clothing Involvement and Web Site Quality on Online Apparel Shopping Intention", *International Journal of Consumer Studies*, 34(6), pp. 627-637.
- Karaosmanoğlu, Elif- Ramazan Nacar-Nimet Uray (2016), "Websiteleri Firmalara Ne Kazandırabilir? Websitesi Kalitesi, Tüketici-Odaklı Marka Değeri ve Satınalma Eğilimi Arasındaki İlişki", *Anadolu Üniversitesi Sosyal Bilimler Dergisi*, 16(1), 159-174.
- Karayanni, Despina A. - George A. Baltas (2003), "Web Site Characteristics and Business Performance: Some Evidence from International Business-To-Business Organizations", *Marketing Intelligence & Planning*, 21(2), pp. 105-114.
- Kaya, Tolga (2010), "Multi-Attribute Evaluation of Web Site Quality in E-Business Using an Integrated Fuzzy AHPTOPSIS Methodology", *International Journal of Computational Intelligence Systems*, 3(3), pp. 301-314.
- Kılıç, Serkan - Erkan Özdemir - Hande Arıkan Kılıç (2016), "Consumers' Online Information and Opinion Search Behaviors: A Research on the X and Y Generation of Consumers", *İşletme Araştırmaları Dergisi*, 8(4), pp. 296-323.
- Kim, Soyoung - Leslie Stoel (2004a), "Apparel Retailers: Web Site Quality Dimensions and Satisfaction", *Journal of Retailing and Consumer Services*, 11(2), pp. 109-117.
- Kim, Soyoung - Leslie Stoel (2004b), "Dimensional Hierarchy of Retail Web Site Quality", *Information & Management*, 41(5), 619-633.
- Kim, Soyoung - Reginald Williams - Yulee Lee (2004), "Attitude toward Online Shopping and Retail Web Site Quality: A Comparison of US and Korean Consumers", *Journal of International Consumer Marketing*, 16(1), pp. 89-111.
- Kim, Soyoung - Yuri Lee (2006), "Global Online Marketplace: A Cross-Cultural Comparison of Web Site Quality", *International Journal of Consumer Studies*, 30(6), pp. 533-543.
- Lee, Younghwa - Kenneth A. Kozar (2006), "Investigating the Effect Of Web Site Quality on E-Business Success: An Analytic Hierarchy Process (AHP) Approach", *Decision Support Systems*, 42(3), pp. 1383-1401.
- Lee, Younghwa - Kenneth A. Kozar (2012), "Understanding of Web Site Usability: Specifying and Measuring Constructs and their Relationships", *Decision Support Systems*, 52(2), pp. 450-463.
- Liao, Chechen - Prashant Palvia - Hong-Nan Lin (2006), "The Roles of Habit and Web Site Quality in E-Commerce", *International Journal of Information Management*, 26(6), pp. 469-483.
- Lin, Hsiu-Fen (2007), "The Impact of Web Site Quality Dimensions on Customer Satisfaction in the B2C E-Commerce Context", *Total Quality Management and Business Excellence*, 18(4), pp. 363-378.
- Liu, Chang - Kirk P. Arnett (2000), "Exploring the Factors Associated with Web Site Success in the Context of Electronic Commerce", *Information & Management*, 38(1), pp. 23-33.
-

- 
- Liu, Chang - Kirk P. Arnett - Chuck Litecky (2000), "Design Quality of Web Sites for Electronic Commerce: Fortune 1000 Webmasters' Evaluations", *Electronic Markets*, 10(2), pp. 120-129.
- Loiacono, Eleanor T. - Richard T. Watson - Dale L. Goodhue (2000), "WebQual: A Web Site Quality Instrument", *Working Paper 2000-126-0*, University of Georgia, pp. 1-71.
- Loiacono, Eleanor T. - Richard T. Watson - Dale L. Goodhue (2007), "WebQual: An Instrument for Consumer Evaluation of Web Sites", *International Journal of Electronic Commerce*, 11(3), pp. 51-87.
- McCoy, Scott - Andrea Everard - Eleanor T. Loiacono (2009), "Online Ads in Familiar and Unfamiliar Sites: Effects on Perceived Web Site Quality and Intention to Reuse", *Information Systems Journal*, 19(4), pp. 437-458.
- Moustakis, Vassilis - Loukas Tsironis - Charalampos Litos (2006), "A Model of Web Site Quality Assessment", *The Quality Management Journal*, 13(2), pp. 22-37.
- Mummalaneni, Venkatapparao - Juan Meng (2009), "An Exploratory Study of Young Chinese Customers' Online Shopping Behaviors and Service Quality Perceptions", *Young Consumers*, 10(2), pp. 157-169.
- Parasuraman, Ananthanarayanan - Valarie A. Zeithaml - Arvind Malhotra (2005), "ES-QUAL a Multiple-Item Scale for Assessing Electronic Service Quality", *Journal of Service Research*, 7(3), pp. 213-233.
- Park, Young A. - Ulrike Gretzel - Ercan Sirakaya-Turk (2007), "Measuring Web Site Quality for Online Travel Agencies", *Journal of Travel & Tourism Marketing*, 23(1), pp. 15-30.
- Podar, Amit - Naveen Donthu - Yujie Wei (2009), "Web Site Customer Orientations, Web Site Quality, and Purchase Intentions: The Role of Web Site Personality", *Journal of Business Research*, 62(4), pp. 441-450.
- Rababah, Osama Mohammed Ahmad - Fawaz Ahmad Masoud (2010), "Key Factors for Developing a Successful E-Commerce Web Site", *Communications of the IBIMA*, pp. 1-9.
- Ranganathan, C. - Shobha Ganapathy (2002) "Key Dimensions of Business-To-Consumer Web Sites", *Information & Management*, 39(6), pp. 457-465.
- Robbins, Stephanie S. - Antonis C. Stylianou (2003), "Global Corporate Web Sites: An Empirical Investigation of Content and Design", *Information & Management*, 40(3), pp. 205-212.
- Sadeh, Sina - Ehsan Sadeh - Leila Mousavi - Farid Asgari (2011), "The Effects of Web Site Quality Dimensions on Customer Satisfaction in E-Retailing System", *Middle-East Journal of Scientific Research*, 10(3), pp. 366-369.
- Sarnot, S.L. - Nandwani, U.K. - Sondhi, R.P. (2008), "Web Site Quality: A Prerequisite to Addressing Citizen Expectations in E-Governance", *In Proceedings of the 2nd International Conference on Theory and Practice of Electronic Governance*, pp. 469-470.
- Seethamraju, Ravi (2006), "Web Quality—A study of User Perceptions", *IIMB Management Review*, 18(1), pp. 15-24.
-

- 
- Sherman, Richard C. - Christian End - Egon Kraan - Alison Cole - Jamonn Campbell - Zachary Birchmeier - Jaime Klausner (2000), "The Internet Gender Gap among College Students: Forgotten But Not Gone?", *Cyber Psychology & Behavior*, 3(5), pp. 885-894.
- Sørum, Hanne - Kim Normann Andersen - Torkil Clemmensen (2013), "Web Site Quality in Government: Exploring the Webmaster's Perception and Explanation of Web Site Quality", *Transforming Government: People, Process and Policy*, 7(3), pp. 322-341.
- Tabachnick, Barbara G. - Linda S. Fidell (2012), *Using Multivariate Statistics*, 6th ed., New Jersey: Pearson.
- Taylor, M. J. - D. England (2006), "Internet Marketing: Web Site Navigational Design Issues", *Marketing Intelligence & Planning*, 24(1), pp. 77-85.
- Van Iwaarden, Jos - Ton Van Der Wiele - Leslie Ball - Robert Millen (2004), "Perceptions about the Quality of Web Sites: A Survey amongst Students at Northeastern University and Erasmus University", *Information & Management*, 41(8), pp. 947-959.
- Wells, John D. - Joseph S. Valacich - Traci J. Hess (2011), "What Signals are You Sending? How Web Site Quality Influences Perceptions of Product Quality and Purchase Intentions", *MIS Quarterly*, 35(2), pp. 373-396.
- Weston, Rebecca - Paul A. Gore (2006), "A Brief Guide to Structural Equation Modeling", *The Counseling Psychologist*, Issue 34, pp. 719-751.
- Wolfenbarger, Mary - Mary C. Gilly (2003), "eTailQ: Dimensionalizing, Measuring and Predicting Etail Quality", *Journal of Retailing*, 79(3), pp. 183-198.
- Wu, Joy Wendy (2007), "Extending the DeLone and McLean Information Systems Success Model for E-Commerce Web Site Success", *University of Nevada*, Las Vegas.
- Xie, Zhou Cheng - Stuart J. Barnes (2008), "Web Site Quality in the UK Airline Industry: A Longitudinal Examination", *Journal of Computer Information Systems*, 49(2), pp. 50-57.
- Yoo, Boonghee - Naveen Donthu (2001), "Developing and Validating a Multidimensional Consumer-Based Brand Equity Scale", *Journal of Business Research*, 52(1), pp. 1-14.
- Zech, Charles - William Wagner - Robert West (2013), "The Effective Design of Church Web Sites: Extending the Consumer Evaluation of Web Sites to the Non-Profit Sector", *Information Systems Management*, 30(2), pp. 92-99.
- Zeithaml, Valarie A. (2000), "Service Quality, Profitability, and the Economic Worth of Customers: What We Know and What We Need to Learn", *Journal of the Academy of Marketing Science*, 28(1), pp. 67-85.
- Zeithaml, Valarie A. - Arun Parasuraman - Arvind Malhotra (2002), "Service Quality Delivery through Web Sites: A Critical Review of Extant Knowledge", *Journal of the Academy of Marketing Science*, 30(4), pp. 362-375.
- Zhang, Ping - Gisela Von Dran (2001), "Expectations and Rankings of Web Site Quality Features: Results of two Studies on User Perceptions", *In System Sciences, 2001. Proceedings of the 34th Annual Hawaii International Conference on* (pp. 10-pp).
-

Zhang, X. - V.R. Prybutok (2002), “Development of a Survey to Validate a Model of Internet Consumer Purchasing Behavior”, *In Decision Sciences Institute, Annual Meeting Proceedings*, pp. 1131-1136.