



Article Info/Makale Bilgisi

✓Received/Geliş:30.09.2021 ✓Accepted/Kabul:22.11.2021

DOI:10.30794/pausbed.1003073

Araştırma Makalesi/ Research Article

Kurt, K., Aktaş, B. ve Turan, A. H. (2022). "Understanding Online Shopping Continuance Intention of Turkish Users: An Empirical Assessment", *Pamukkale University Journal of Social Sciences Institute*, Issue 50, Denizli, p. 144-160.

UNDERSTANDING ONLINE SHOPPING CONTINUANCE INTENTION OF TURKISH USERS: AN EMPIRICAL ASSESSMENT

Kadir KURT*, Bahadır AKTAŞ**, Aykut Hamit TURAN***

Abstract

Online shopping has become one of the most essential activities in our corporate as well as individual lives for the last couple of decades. Better understanding of socio-psychological, technical, and individual antecedents of adopting, more importantly continuously using websites have critical importance for the financial, organizational, economic, and technical success of online shopping activities. In this study, the factors affecting Turkish users' satisfaction with online shopping and their intention to continue using online shopping have been investigated by integrating the information system success model (ISSM), information system continuance model (ISCM), and technology acceptance theories. Especially continuance intention of online shopping is not widely investigated construct among Turkish E-Commerce Studies. This study also contributes in Information Systems research domain by integrating and empirically testing variety of research frameworks mentioned above. The empirical model of this study has been tested by using the partial least squares structural equation modeling (PLS-SEM) technique. Data were collected using the convenience sampling technique from 313 online shopping users. The results revealed that perceived usefulness and information quality have significant and profound effects on users' continued use of online shopping websites.

Keywords: *Antecedents of online shopping behaviour, Continuance of usage, Structural equation modelling.*

TÜRK KULLANICILARIN ONLINE ALIŞVERİŞLERİNE DEVAM ETME NİYETLERİNİN İNCELENMESİ: AMPİRİK BİR DEĞERLENDİRME

Öz

Online alışveriş, son birkaç on yıldır hem kurumsal hem de bireysel hayatımızda en önemli faaliyetlerden biri haline gelmiştir. Web sitelerini benimsemenin, daha da önemlisi sürekli kullanmanın sosyo-psikolojik, teknik ve bireysel öncüllerinin daha iyi anlaşılması, online alışveriş faaliyetlerinin finansal, organizasyonel, ekonomik ve teknik başarısı için kritik öneme sahiptir. Bu çalışmada, bilişim sistemleri (BS) başarı modeli, BS devam modeli ve teknoloji kabul teorileri entegre edilerek Türk kullanıcıların online alışverişe ilişkin memnuniyetleri ve online alışverişini kullanmaya devam etme niyetlerini etkileyen faktörler araştırılmıştır. Online alışveriş kullanım devamlılığı, Türkiye'de gerçekleştirilen e-ticaret çalışmalarında geniş çapta araştırılmamıştır. Bu çalışma, yukarıda bahsedilen BS araştırma modellerini entegre bir şekilde ampirik olarak test ederek BS araştırma alanına katkıda bulunmaktadır. Çalışmanın ampirik modeli kısmi en küçük kareler yapısal eşitlik modellemesi tekniği kullanılarak test edilmiştir. Veriler, 313 online alışveriş kullanıcısından kolayda örnekleme tekniği kullanılarak toplanmıştır. Araştırma sonuçları, algılanan kullanılabilirlik ve bilgi kalitesi değişkenlerinin kullanıcıların online alışveriş sitelerini kullanmaya devam etmeleri üzeri anlamlı ve güçlü etkileri olduğunu ortaya çıkarmıştır.

Anahtar Kelimeler: *Online alışverişin öncülleri, Kullanım devamlılığı, Yapısal eşitlik modellemesi.*

*PhD Candidate, Sakarya University, Graduate School of Business, MIS Doctoral Program, Sakarya, (Res. Assist., Adana Alparslan Türkeş Science and Technology University, Faculty of Business, Management Information Systems Department, ADANA.), e-posta:kadirkurt@sakarya.edu.tr, (<https://orcid.org/0000-0002-4857-2492>)

** Res.Assist., Sakarya University, Management Information Systems Department, SAKARYA, e-posta:bahadiraktas@sakarya.edu.tr, (<https://orcid.org/0000-0002-3650-6471>)

*** Prof., Sakarya University, Management Information Systems Department, SAKARYA, e-posta:ahturan@sakarya.edu.tr, (<https://orcid.org/0000-0002-8855-4643>)

1. INTRODUCTION

In the last couple of decades, companies have been making significant investments in Information and Communication Technologies (ICTs). Since the 1990s, the Internet and related information technologies have had profound effects on organizations. Many companies in different industries have started to move their services and offerings gradually online. Large and small firms have also felt the strong need to invest in electronic commerce applications. Hence, the Internet has re-defined business rules and offered alternative means for doing business (Mohamed, Hussein, Zamzuri, & Haghshenas, 2014). For many of us today, Internet shopping has become a daily and regular activity.

Electronic commerce has been defined as selling and buying products and services over the Internet. Digital media has some distinct advantages over traditional methods of doing commerce. Yet, the number of companies involved in online commerce increases with the existing competition among those firms (Adaji & Vassileva, 2016). Hence, acquiring new customers and keeping existing ones have become a significant challenge today. Consequently, Electronic Commerce websites with poor quality cannot attract, satisfy and retain customers (Chen et al., 2013). Designing and implementing web pages continuously attracting customers has become a competitive necessity.

Private and public organizations have been and will be spending millions of dollars in designing, implementing, and maintaining their websites. Yet, as academicians and practitioners, we are still struggling to effectively understand the user satisfaction of a website and measure website success effectively (Schaupp, 2010). Moreover, implementation of an online shopping site is risky to invest because of rapid changes in technology, and uncertainties in the future competitive environment. Many online shopping sites crash every year in Turkey on "Black Friday Discount Day(s)". These crashes may play a significant role in the expansion of Black Friday to days and even the whole of November in Turkey. During the website implementation which involves many parameters managers should understand the underlying factors and forces behind the website satisfaction of their existing and prospective customers to make better decisions.

This paper investigates the factors affecting individuals' satisfaction with online shopping and their intention to continue using online shopping by integrating TAM, IS Success model, and IS Continuance model theories. The research model presented in the following section is adapted from Schaupp (2010). Schaupp's (2010) study consists of individuals living in the United States, a developed country where the individualistic culture is common (Individualism Index (IDV) Score: 91) (Hofstede Insights, 2020). In comparison, our study sample consists of individuals living in Turkey, a developing country, where the individualistic culture is scarce (IDV: 37) (Hofstede Insights, 2020). Similarly, uncertainty avoidance and power distance are quite low in US culture (Uncertainty Avoidance Index (UAI): 46, Power-Distance Index (PDI): 40) as opposed to Turkish Culture, where uncertainty avoidance (UAI: 85) and power distance (PDI: 66) are high (Hofstede Insights, 2020). As can be seen, the USA and Turkey are at quite the opposite ends of the three cultural scales presented by Hofstede (1980).

Hofstede (1980) grouped the cultural dimensions as masculinity/femininity, individualism/collectivism, power distance, and uncertainty avoidance. Uncertainty avoidance refers to what extent individuals in a society can accept uncertainty and risk (UAI average: 65); power distance refers to the degree of acceptance of individuals in a society as normal to the fact that power is not equally distributed (PDI average: 57) (Rosillo-Díaz, Blanco-Encomienda, & Crespo-Almendros, 2019); individualism/collectivism describes the extent to which members of a culture rely on and demonstrate allegiance to either themselves or the group (IDV average: 43) (Hofstede, 1991). In line with these dimensions, various studies indicated intercultural differences. For example, Kueh and Voon (2007) have discussed that customers with low power distance have higher service quality expectations. Nath and Murthy (2004) expressed that societies with high uncertainty avoidance tend to have lower internet subscription rates and that people in these societies are risk-averse and unwilling to try new things. Lu et al. (2017) revealed that people with high uncertainty avoidance are more exposed to social influence in the use of mobile payments. On the other hand, Sia et al. (2009) found that customer endorsement can build trust in online shopping more effectively in collectivist cultures rather than individualistic cultures. In general, as Yaveroglu and Donthu (2002) argued that cultures high on individualism, low on power distance, and uncertainty avoidance are more likely to adopt innovations faster than countries located on the opposite side of these three scales. Especially countries with low power distance and uncertainty avoidance, such as the USA, are doing better in adopting new technologies and innovations. Unlike the USA, Turkey has a cultural structure with high power distance, high uncertainty avoidance, and low individualism (i.e., high collectivism). These cultural differences motivated us to investigate whether the results of research conducted in a country belonging to a quite different culture can be obtained in Turkey as well.

The rest of this paper is structured as follows. In the next section, we examined the theories our research model is based on. In Section 3, we introduced the theoretical research framework and the research hypotheses. In Section 4, the research methodology and the data collection procedures are explained. Also, in this section, the validity and reliability analysis of the constructs were reported. In Section 5, the hypotheses in the research model were tested, and the research findings were elaborated. Finally, we concluded with theoretical and practical implications, limitations of our study, and future research possibilities in our last section.

2. THEORETICAL BACKGROUND AND LITERATURE REVIEW

There have been two main streams of research in IS literature regarding IS success within the content of user satisfaction and technology acceptance (Kang & Lee, 2010). We tried to incorporate these two main research streams in this study. The technology acceptance model offers limited IS attributes to predict system usage (Kang & Lee, 2010). Yet, these two major research streams in the literature have some inherited shortcomings. Consequently, we hope to enhance our understandings of IS success by proposing a comprehensive and hybrid research model.

One of the most widely cited research done by DeLone and McLean (1992) was the Information System (IS) Success Model. IS success model was derived from Classic Communication Theory by Shannon and Weaver (1949), later adopted by Mason (1978) in the Information System field. This model consists of six constructs as information quality, system quality, use, user satisfaction, individual impact, and organizational impact. The IS Success Model is one of the most heavily cited IS Models in the literature (Chen et al., 2013). The model has been designed to identify factors leading to IS Success. DeLone and McLean's (1992) IS Success Model has been cited thousand times in the last couple of decades, and many researchers have enhanced the original model by incorporating additional variables. In our research model, we adopted information quality and system quality dimensions from IS Success Model.

The IS Success Model is not without its criticisms. Seddon (1997) argued that IS success is a success measure, and sometimes organizational and individual level benefits could result in opposite outcomes of the satisfaction. IS departments can be both service providers and information providers. Based on the years of accumulated knowledge and feedback, DeLone and McLean (2002) improved their model and incorporated a new variable called service quality. They also merged with Individual Impact and Organizational Impact output variable in a new variable called net benefits. In the 2002 model, there are quality construct as information, system, and service quality, measuring the overall quality of an IS system or software. These three quality antecedents as exogenous variables influence intentions to use the system and user satisfaction in turn. Net benefits capture users' overall impact and outcomes of system use and serve as the most important success factor (DeLone & McLean, 2002). First, Molla and Licker (2001) offered to use DeLone and McLean Model in an electronic Commerce study. Originally the updated IS Success Model was developed to assess electronic commerce sites' success, which is also the major focus of this study.

Expectation Confirmation or Disconfirmation Theory (EDT) from consumer behavior literature is a cognitive theory and argues that satisfaction of adopting a particular technology is the function of our expectations, perceived performance, and disconfirmation beliefs (Oliver, 1977, 1980). The theory has been initially adopted by marketing and psychology scholars and later by information systems scholars. The predictive validity of the theory has been presented in a variety of studies, especially in the marketing context (Koppius, Speelman, Stulp, Verhoef, & van Heck, 2005). If our perceptions after the adoption of technology exceed our expectations, we would have satisfaction; if not, we would have dissatisfaction. IS scholars largely adopt EDT to investigate the relationships among users' expectations, disconfirmations, and satisfactions of ICT usage (Hsu et al., 2006). In most EDT studies, satisfaction has been proposed as the most immediate impetus of our intentions. Satisfaction is also an important determinant of intention to repurchase from a website (Chiu, Hsu, Lai, & Chang, 2012). In our research model, we adopted the satisfaction construct from the Expectation Confirmation or Disconfirmation Theory.

The third antecedent of satisfaction, perceived usefulness, came from the Technology Acceptance Model (TAM) and Theory of Reasoned Action (TRA) model by respectively Davis, Bagozzi, and Warshaw (1989) and Ajzen and Fishbein (1980). TRA is a socio-psychology-based theory aimed to explain a variety of human behaviors. TRA has been developed to predict individual behaviors in a wide range of domains. TRA can explain all human behaviors, including technology use intentions (Ajzen & Fishbein, 1980). However, TRA was specifically designed to measure our conscious behaviors. TRA hypothesizes that individuals' behaviors are determined by their intentions, which in turn is determined by their attitudes and their Subjective Norms perceptions.

TAM is built on social psychology research and was adopted TRA as its foundation. TAM tries to assess users' acceptance of technology and attitudes towards using technology based on two independent beliefs as perceived ease of use and perceived usefulness. TAM is a straightforward and parsimonious model and integrates diverse theoretical perspectives. TAM has been around for a long time and has been adopted by IS researchers to inquire a variety of research questions in technology adoption and use. A major criticism of TAM is its oversimplification (Bagozzi, 2007). Hence, TAM works well when integrated into a broader model (Legris, Ingham, & Colletette, 2003).

Finally, our fourth antecedent of satisfaction construct, social influence, has been derived from the Theory of Planned Behavior (TPB) (Ajzen, 1988, 1991). TPB has been developed to understand and assess as well as predict deliberate human behaviors and actions under complete or incomplete volitional control (Collazo, 2018). TPB posits that our behaviors are the direct function of our intentions, which is a function of three socio-cognitive constructs: attitude, subjective or social influence, and perceived behavioral control. TBP has been quite successful in explaining and predicting diverse human behaviors. TPB is widely used in explaining and predicting the behavioral intention of adopting and using an ICT (Hsu et al., 2006). Hence, in this current study, we try to incorporate TAM, TRA, Expectation Confirmation Theory and IS Success Model.

Loyal customers returning to websites to repurchase on a continuance basis have quite significant value (Beránek, Nýdl, & Remeš, 2015). Loyal customers have important benefits for the companies in terms of their willingness to pay higher prices, valuable recommendations to other customers, and efficient word-of-mouth advertising. Continuance of intentions to purchase from a website also enhances the site's profitability from an organizational point of view.

The major studies published in peer-reviewed journals on continuance intentions of online shopping are presented in Table 1 below. The Table shows sample sizes of the studies, the main research constructs that they employed, and the unit analysis of the studies.

Table 1: Research on online shopping continuance

| Research | Method/ (Samp. Size)/ (Country) | Unit of Analysis | Constructs | Key Findings |
|--|---|--------------------------------------|--|--|
| (Odusanya, Aluko, & Lal, 2020) | Online Survey (207) (Sub-Saharan) | Electronic Retail Platforms | Information Quality (IQ) Perceived Ease of Use (PEU) Hedonic Motivation (HM) Perceived Risk (PR) Social Influence (SI) Trust (TRU) Continuance Intention | IQ, PEU, HM, SI →TRU; PR → (-) TRU; TRU→CI |
| (Ma, Ruangkanjanases, & Chen, 2019) | Online Survey (302) (Taiwan) | Cross-Border Shopping Websites | Electronic Word of Mouth (EWOM) Uncertainty Avoidance Index (NC) Trust (TRU) Website Design Quality (WDQ) Satisfaction (SAT) Continuance Intention (CI) | EWOM, NC, TRU, WDQ→SAT; SAT→CI |
| (Chopdar & Sivakumar, 2019) | Online Survey (302) (India) | M-Shopping Applications | Performance Expectancy (PEX) Social Influence (SI) Facilitating Conditions (FC) Hedonic Motivations (HM) Continuance Intention (CI) | PEX, SI, FC, HM, PV, H→CI |
| (Yassierli, Vinsensius, & Mohamed, 2018) | Survey (230) (Indonesia) | M- Commerce Application | Service Quality (SQ) Information Quality (IQ) Usability (U) Satisfaction (SAT) Continuance Intention (CI) | SQ, IQ, U→SAT; SAT, U→CI |

| | | | | |
|------------------------------|------------------------------|-------------------------|---|--|
| (Adaji & Vassileva, 2016) | Online survey (324) (Canada) | Online Shopping Website | Perceived Product Credibility (PBC) Perceived Review Credibility (PRC) Privacy and Security Concerns (PSC) Perceived System Credibility (PSCR) Primary Task Support (PTS) Social Support (SS) Perceived Effectiveness (PEF) Continuance Intention (CI) | PPC, PRC →PSC; PTS, SS→PEF; SS, PEF, PSCR→CI |
| (Cheung, Zheng, & Lee, 2015) | Online Survey (385) (China) | Online Shopping Website | Perceived Enjoyment (PE) Satisfaction (SAT) Alternative Attractiveness (AA) Continuance Intention (CI) | PE→SAT; SAT, PE→CI; AA → (-) CI |
| (Gao, Waechter, & Bai, 2015) | Online Survey (462) (China) | M-Shopping Applications | System Quality (SYQ) Information Quality (IQ) Service Quality (SQ) Trust (TRU) Privacy and Security Concerns (PSC) Satisfaction (SAT) Flow (F) Continuance Intention (CI) | SYQ, IQ, SQ→TRU; PSC → (-) TRU, F, SAT; IQ, SQ→F; SQ→SAT; TRU,F,SAT→CI |
| (Mohamed et al., 2014) | Survey (197) (Malaysia) | Online Shopping Website | Perceived Usefulness (PU) Perceived Ease of Use (PEU) Satisfaction (SAT) Continuance Intention (CI) | PU, PEU→SAT; PEU→PU; SAT, PEU→CI |
| (Hsu et al., 2012) | Survey (395) (Taiwan) | Online Shopping Website | Flow Experience (FE) Continuance Intention (CI) Purchase Intention (PI) Impulsive Buying (IB) | FE→CI, PI, IB |
| (Chen & Chou, 2012) | Online Survey (226) (Taiwan) | Online Shopping Website | Distributive Fairness (DF) Procedural Fairness (PF) Interactional Fairness (IF) Trust (TRU) Satisfaction (SAT) Continuance Intention (CI) | DF, PF, IF→ TRU; DF, TRU→SAT; SAT→CI |
| (Hsu et al., 2006) | Survey (201) (Taiwan) | Online Shopping Website | Confirmation (C) Perceived Behavioural Control (PBC) Satisfaction (SAT) Interpersonal Influence (II) Attitude (ATT) Continuance Intention (CI) | C→PBC, SAT, II; ATT, SAT, PBC, II → CI |

Note: → = Significant Positive Impact; → (-) = Significant Negative Impact

As we can see in Table 1 above, usually in Asian countries, continuance intention of online shopping studies has been carried out in recent years. Most of these studies, like our study, have tested and drove their findings from individual online shopping websites. A couple of mobile application usages were also investigated. The researchers employed a vast range of theoretical constructs as independent variables in those studies, yet the dependent construct was always continuance intention of online shopping.

2.1. Research Model and Hypotheses

Bhattacharjee (2001a) stated that information systems' long-term viability and final success depend on their continued use rather than the first-time use. Hence in our study, we investigate the possible effects of

satisfaction on consumers' intention to continue using online shopping sites and the determinants of users' satisfaction with online shopping sites.

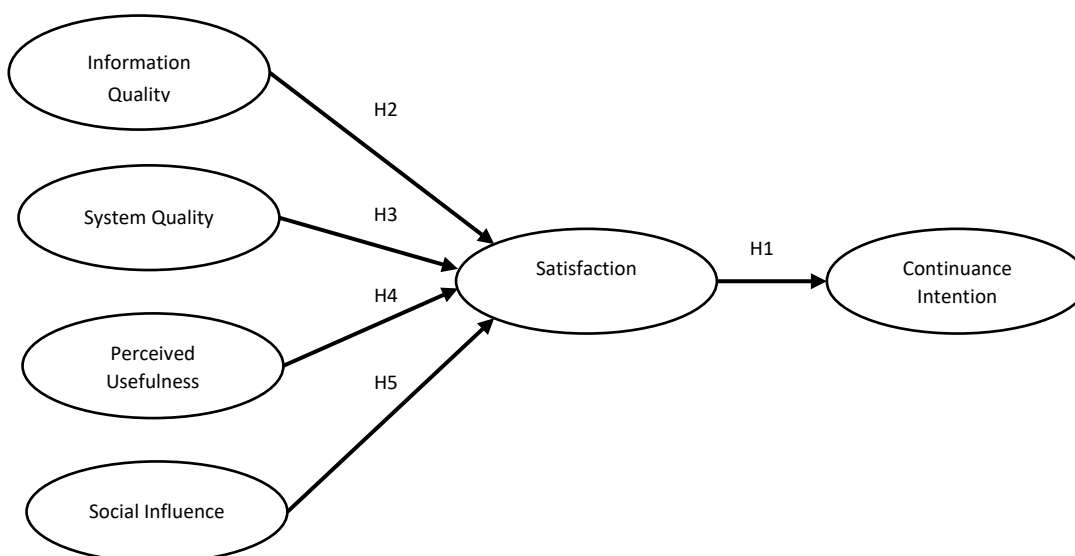


Figure 1: Research Model and Hypotheses

User satisfaction towards an IS depends on whether the user's expectations of the system are met (confirmation) and perceived usefulness of the IS and influences their intention to continue using IS (Mouakket, 2018). Koppius et al. (2005) proved that satisfaction is a strong determinant for individuals to purchase air tickets online again. Similarly, Hsu et al. (2006) found that consumer satisfaction regarding past online shopping experiences strongly influences their continued use of online shopping.

H1: Individuals' satisfaction regarding online shopping sites has a positive impact on their continuance intentions.

Information quality and system quality represent the two most important components in measuring the success of a system (DeLone & McLean, 2003). Information quality is generally measured by dimensions of accuracy, timeliness, relevance, and consistency (Chen et al., 2013). Poor information quality can make it difficult for users to access the information they want, and therefore users' experiences could be poor. Many studies have demonstrated the impact of the quality of information on individuals' satisfaction regarding the use of online services (Chen et al., 2013; Lee & Chung, 2009; Schaupp, 2010; Yassierli et al., 2018).

H2: Information quality of online shopping sites has a positive impact on the individuals' satisfaction regarding the online shopping sites.

The concept of system quality, first proposed by DeLone and Mclean (1992), is measured by user perceptions of the overall performance of a system (DeLone & McLean, 2003; Lee & Chung, 2009). An e-commerce system's low usefulness, usability, and responsiveness can discourage users from using the system (DeLone & McLean, 2004). In many studies, it has been found that individuals' satisfaction regarding using online services is affected by system quality (Chen et al., 2013; Kang & Lee, 2010; Lee & Chung, 2009; Schaupp, 2010).

H3: System quality of online shopping sites has a positive impact on the individuals' satisfaction regarding online shopping sites.

Perceived usefulness expresses the degree of an individual's belief that the use of an information system will increase the efficiency of the individual (Davis et al., 1989). According to IS Continuance model (Bhattacharjee, 2001a), user satisfaction depends on the perceived usefulness and whether the user's expectations of the system are met. Previous studies have found that perceived usefulness has a positive impact on user satisfaction with online shopping (Mohamed et al., 2014; Wen, Prybutok, & Chenyan, 2011).

H4: Perceived usefulness of online shopping sites has a positive impact on the individuals' satisfaction regarding online shopping sites.

Lu et al. (2017) found that social influence has a positive effect on individuals' intentions to continue using mobile payment services. In these studies investigating the acceptance of e-government applications, it has been found that social influence has a significant effect on the satisfaction of individuals regarding e-government applications (Athmay, Fantasy, & Kumar, 2016; Lai & Pires, 2010). With the popularization of Web 2.0 applications, consumers are able to share their online shopping experiences with each other (Lee et al., 2011). Individual's use of online shopping can make them feel that they are doing popular actions in the community, which can positively affect their satisfaction with online shopping.

H5: Social Influence has a positive impact on individuals' satisfaction regarding online shopping sites.

3. METHODOLOGY

3.1. Data Collection

The data collection process in this study was carried out between May 2019 and June 2019. Survey participants were Turkish users of online shopping sites. In order to cope with coverage error, we reached survey participants through two different methods, online and paper-based surveys. The online survey instrument was administered through social media platforms and via mail groups. Paper-based surveys were distributed to voluntary students from Sakarya University, Faculty of Business. According to the Turkish Statistical Institute's (TURKSTAT) report, the age group with the highest rate of computer and internet use every year from 2004 to 2019 is the 16-24 age range (TURKSTAT, 2020a). This high-level usage among young people motivated us to take samples among university students. There is a total of 339 survey participants when the two different sources are combined. Among these surveys, 24 of them were eliminated because they contained incomplete information. From the remaining 315 surveys, two are eliminated in preliminary tests since they are detected as outliers, and further analysis is conducted with 313 remaining samples.

3.2. Demographics

Our sample contains slightly more males (52.1%) than females (47.6%) (Table 2). The people who participated in the survey varied between 19 and 62 years of age. The average age of the participants is 24.7 and, 90% of the participants are below the age of 35. The age distribution of the participants is consistent with the TURKSTAT's report (TURKSTAT, 2020a), stating that the group which uses computers and the internet the most is the 16-24 age group, followed by the 25-34 age group. Therefore, the age distribution is thought to reflect the general e-commerce user-population in Turkey accurately.

Considering the distribution of income, 34.8% of the participants have a monthly income between US\$343 and US\$684, 26.2% of them have a monthly income between US\$685 and US\$1027. Considering that the minimum wage in Turkey is US\$345 as of 2019, the majority of respondents are seen as a middle-income class (T.R. Ministry of Family Labor and Social Services, 2020).

Table 2: Demographics

| Gender | Frequency | Percent | Monthly Family Income* | Frequency | Percent |
|---------------|-----------|---------|------------------------|-----------|---------|
| Male | 163 | 52,1 | US\$342 and less | 44 | 14.1 |
| Female | 149 | 47,6 | US\$343- US\$684 | 109 | 34.8 |
| Missing Value | 1 | 0.3 | US\$685- US\$1027 | 82 | 26.2 |
| Total | 313 | 100 | US\$1028- US\$1370 | 37 | 11.8 |
| Age | | | US\$1371- US\$1710 | 18 | 5.8 |
| Minimum | 19 | | US\$1711 and more | 22 | 7.0 |
| Maximum | 62 | | Missing Value | 1 | 0.3 |
| Mean | 24,7 | | Total | 313 | 100 |

* All monetary information is reported by converting the Turkish Lira into American Dollars at the rate as of 6th June 2019

When the participant's frequency of usage is examined, it is seen that the most widely used e-commerce platforms are Trendyol.com, N11.com, Hepsiburada.com, and Gittigidiyor.com, respectively (See Table 3).

Table 3: Usage Frequencies of Online Shopping Sites by respondents

| | Never (1) | Rarely (2) | Sometimes (3) | Often (4) | Always (5) | Missing Values | Average |
|--------------|-----------|------------|---------------|-----------|------------|----------------|---------|
| Trendyol | 63 | 59 | 57 | 89 | 45 | 0 | 2,98 |
| Hepsiburada | 61 | 72 | 102 | 59 | 19 | 0 | 2,69 |
| N11 | 87 | 75 | 75 | 56 | 20 | 0 | 2,51 |
| Gittigidiyor | 99 | 85 | 88 | 35 | 5 | 1 | 2,23 |
| Çiçeksepeti | 122 | 77 | 65 | 39 | 10 | 0 | 2,16 |
| Aliexpress | 142 | 64 | 63 | 29 | 15 | 0 | 2,07 |
| Idefix | 219 | 35 | 28 | 22 | 6 | 3 | 1,58 |
| Morhipo | 202 | 62 | 34 | 12 | 3 | 0 | 1,56 |
| Amazon | 215 | 38 | 47 | 8 | 3 | 2 | 1,54 |

Respondents were asked to indicate which online shopping site they do shopping mostly and the frequency of this shopping activity in respective websites. What we aim with this question is that we try to indicate the most visited and used websites among the variety of Turkish alternatives. Later questions did not really inquire the particular website experience, yet we are interested in learning the respondent's general experience, feelings, and attitudes towards Turkish online shopping sites. However, this experience is well being their most popular website based on their responses.

We aim to reach people who are experienced in the use of e-commerce sites and who frequently shop online. It can be seen in the survey results (See Table 4) that 10.5% of the participants have been shopping online for less than a year, and 24.6% have been shopping for more than five years. In addition, 70% of the participants' shop online at least several times a month. When the annual e-commerce expenditures are examined, it is seen that 67.5% of the participants have an annual e-commerce spending below US\$171, and 22% of the participants have an annual e-commerce spending are between US\$172 and US\$513 (See Table 4). By comparison, according to the Turkish Informatics Industry Association (TÜBİSAD) report on e-commerce spending in Turkey (TUBISAD, 2019), users spend an average of US\$186 a year on these platforms.

Table 4: E-Commerce Usage Habits

| Shopping Experience | Percent | Shopping Frequency | Percent | Yearly Spending | Percent |
|---------------------|---------|-----------------------|---------|-------------------|---------|
| Less than 1 year | 10.5 | Everyday | 7.3 | Less than US\$171 | 67.5 |
| Between 1-3 years | 31.9 | Several times a week | 17.3 | US\$172 - US\$513 | 22.0 |
| Between 3-5 years | 32.6 | Several times a month | 45.4 | US\$514 - US\$856 | 6.7 |
| More than 5 years | 24.6 | Several times a year | 30.0 | More than US\$857 | 3.8 |
| Missing Value | 0.3 | Missing Value | 0.0 | Missing Value | 0.0 |
| Total | 100 | Total | 100 | Total | 100 |

3.3. Measures

The survey instrument used in this study is adapted from Schaupp (2010). Survey questions are used to measure online shopping satisfaction and continuance intention to use. During the adaptation and translation process, feedbacks were received from five MIS experts via interviews in order to reach a consistent and meaningful questionnaire, and necessary edits and corrections were done based on these feedbacks. The survey consists of 22 items (see Table 5), not including demographic questions, and each item is measured on a 5-point Likert scale anchored from 1 (strongly disagree) to 5 (strongly agree).

3.4. Evaluation of the Measurement Model - Preliminary Tests

Structural Equation Modelling (SEM), a method frequently used by researchers to calculate the path coefficients of models and measure the consistency between the data set and the underlying model, is used in this study. The preliminary tests and SEM analysis are conducted within the scope of this study based on the road map proposed by Hair et al. (Hair et al., 2017). SPSS version 25 is used for descriptive analysis, and SmartPLS version 3¹ is used to test the hypothesis.

SEM offers exploratory and confirmatory multivariate methods that researchers need for more sophisticated data analysis. Among the two SEM types, covariance-based SEM (CB-SEM) is generally used in confirmatory studies, while PLS-SEM is generally used in exploratory studies (Hair et al., 2017). PLS-SEM requires fewer restrictions than CB-SEM (Hair et al., 2011). In PLS-SEM, scales containing fewer items (e.g., one or two) can be used than that CB-SEM requires (Hair et al., 2011). In this study, three scales measuring the constructs in the research model consist of three items. Therefore, we chose the PLS-SEM approach to evaluate the research model in this study.

First, the presence of missing data is observed within the scope of the preliminary tests. Since the rate of missing data is less than 2%, Hair et al.'s (2017) recommendation is followed, and the mean value replacement is performed instead of case-wise deletion. Secondly, Mahalanobis Distance analysis is performed to detect outliers. As a result of the analysis, two outlier values are detected, and these values are removed from the data set and are not used in further analysis. Lastly, Skewness and Kurtosis are evaluated to see if the data set had a non-normal distribution. When these two values and their histograms are examined, it is seen that the data set has a normal distribution.

3.5. Evaluation of the Measurement Model - Reliability and Validity Tests

Firstly, confirmatory factor analysis (CFA) is performed, and Composite Reliability (CR), Cronbach's Alpha, Average Variance Extracted (AVE), and Fornell-Larcker Criterion metrics are checked to test reliability and validity.

Cronbach's Alpha value, which measures internal consistency reliability and was introduced by Nunnally (1978), should be above 0.70. However, researchers state that values between 0.60 and 0.70 are also sufficient for composite reliability (Hair et al., 2017; Nunnally & Bernstein, 1994). According to Hair et al. (2017), the threshold value of Composite Reliability is 0.80, and the Average Variance Extracted metric measuring the Convergent Validity must be greater than 0.50.

The analysis results (See Table 5) indicate that the criteria of construct reliability and convergent validity are satisfied. Even though the Cronbach Alpha value of the System Quality variable was found to be 0.664 and remained below the threshold value of 0.70, hence the recommendations of Hair et al. (2017) and Nunnally and Barnstein (1994) were followed, and it is decided that this result is satisfactory since the value is more than 0.60. According to Hair et al. (2014), factor loadings should be 0.5 or higher and ideally 0.7 or higher in order to ensure construct validity. It is seen that the loadings are well above 0.5. Also, Composite Reliability values of all constructs are above the threshold value (>0,80) mentioned above (Table 5).

¹ Ringle, Christian M., Wende, Sven, & Becker, Jan-Michael. (2015). SmartPLS 3. Bönningstedt: SmartPLS. Retrieved from <http://www.smartpls.com>

Table 5: Reliability and Validity

| Constructs | Measurement Items | Loading >0.50 | Alpha >0.60 | CR >0.80 | AVE >0.50 |
|---|--|------------------|----------------|-------------|--------------|
| Information Quality Sources: (Rai, Lang, & Welker, 2002; Schaupp, 2010) | Online shopping sites provide the precise information I need. | 0.777 | 0.795 | 0.860 | 0.551 |
| | Online shopping sites provide an output that is exactly what I need. | 0.777 | | | |
| | Online shopping sites provide sufficient information to complete the task. | 0.730 | | | |
| | Online shopping sites have not errors that I have to work around. | * | | | |
| | I am satisfied with the accuracy of the information on online shopping sites. | 0.751 | | | |
| | The output options of online shopping sites are sufficient for my use. | 0.671 | | | |
| | Online shopping sites provide helpful information regarding my questions and tasks | 0.777 | | | |
| System Quality Sources: (Rai et al., 2002; Schaupp, 2010) | I think Online Shopping Sites to be user-friendly. | 0.739 | 0.664 | 0.817 | 0.599 |
| | I think Online Shopping Sites to be easy to use. | 0.808 | | | |
| | I think Online Shopping Sites to be well organized. | 0.773 | | | |
| Perceived Usefulness Source: (Schaupp, 2010) | I think online shopping sites to useful. | 0.842 | 0.834 | 0.900 | 0.751 |
| | Online shopping sites enable me to accomplish my task(s) quicker. | 0.892 | | | |
| | Using online shopping sites increases my productivity. | * | | | |
| | By using online shopping sites, I increase my chances of accomplishing my task(s). | 0.865 | | | |
| Social Influence Sources: (Schaupp, 2010; Venkatesh, Morris, Davis, & Davis, 2003) | Those who influence my behavior think I should use online shopping sites. | 0.857 | 0.749 | 0.844 | 0.579 |
| | People who're important to me think I should use online shopping sites. | 0.795 | | | |
| | I use online shopping sites because of the number of people around me who use it also. | 0.599 | | | |
| | People around me who use online shopping sites have more prestige. | 0.770 | | | |
| Satisfaction Sources: (Bhattacharjee, 2001b; Schaupp, 2010) | I am satisfied to use online shopping sites. | 0.781 | 0.791 | 0.878 | 0.706 |
| | I recommend using online shopping sites. | 0.854 | | | |
| | I am pleased to use online shopping sites. | 0.882 | | | |
| Continuance Intention Sources: (Bhattacharjee, 2001b; Schaupp, 2010) | I think I will continue using Online Shopping sites in the near future. | 0.901 | 0.772 | 0.898 | 0.815 |
| | I predict I will use online shopping sites again. | * | | | |
| | To make shopping, I would use online shopping sites again. | 0.904 | | | |

*Dropped Items

Discriminant validity, which implicates how the constructs are empirically different from each other, can be evaluated by Fornell-Larcker Criterion. This method is based on the comparison between the square root of Average Variance Extracted and the correlation of the latent constructs. Therefore, the square roots of the Average Variance Extracted values of each construct should be higher than their correlations with other latent constructs (Hamid et al., 2017; Fornell & Larcker, 1981). The analysis results (See Table 6) indicate that the square roots of the AVE values of each construct are higher than their correlations with other latent constructs; that is, the criteria of discriminant validity are satisfied.

Table 6: Discriminant Validity

| Construct | CI | IQ | PU | SAT | SI | SQ |
|----------------------------|---------------|--------------|--------------|--------------|--------------|--------------|
| Continuance Intention (CI) | 0.903* | | | | | |
| Information Quality (IQ) | 0.528 | 0.742 | | | | |
| Perceived Usefulness (PU) | 0.655 | 0.547 | 0.867 | | | |
| Satisfaction (SAT) | 0.674 | 0.575 | 0.803 | 0.840 | | |
| Social Influence (SI) | 0.335 | 0.341 | 0.341 | 0.447 | 0.761 | |
| System Quality (SQ) | 0.494 | 0.539 | 0.583 | 0.551 | 0.289 | 0.774 |

* Average Variance Extracted (AVE) values are given on the diagonal of the Table 5

3.6. Evaluation of the Structural Model

The structural model provides information about the quality of the theoretical model foreseeing the paths described in depth in the hypotheses (Halawi & McCarthy, 2008). The statistical significance of the proposed relationships in the model and R² analysis for each dependent structure was used to evaluate the structural equation model. Therefore, SmartPLS 3.0 software was used to evaluate the proposed research.

In our case, considering the R² values (Table 7), satisfaction is explained by the information quality, system quality, perceived usefulness, social influence with an R² value of 0,697. Therefore, we argue that satisfaction is explained sufficiently by the independent exogenous variables. The main reason for this high value would be that perceived usefulness could have a substantial effect on satisfaction. Continuance intention is also explained by satisfaction with the R² value of 0,454. Even though the R² value is greater than the threshold mentioned above, we can conclude that measurement errors should be reduced and/or more variables should be added to the model in order to better explain the continuance intention.

Then, we verified how predictive variables help explain the variance and significance (path coefficients or β) of the model's endogenous variables. According to the results (See Table 7), information quality has a significant positive effect on satisfaction (β = 0.139, p<0.001), and thus hypothesis 1 was supported. This indicates that the accuracy and reliability of the information on the online shopping sites and the proper presentation of the site's contents are important factors affecting the satisfaction of online shoppers.

Secondly, it was found that perceived usefulness has a strong significant effect on satisfaction (β = 0.637, p<0.001), and thus hypothesis 3 was supported as well. This is an expected result, and it shows the fact that online shoppers would make purchases successfully without any problems which affects the satisfaction they receive from this activity.

Social influence has a significant positive effect on satisfaction (β = 0.166, p<0.001), and thus hypothesis 4 was also supported too. This indicates perceptions of online shoppers' social environment on online shopping affect the satisfaction online shoppers receive from this activity.

Table 7: Path Coefficients and Significant Findings

| Path | Hypothesis | Path Coefficient | P Values | Supported? |
|---|------------|------------------|----------|------------|
| Information Quality → Satisfaction ¹ | H1 (+) | 0.139 | <0.001 | Yes |
| System Quality → Satisfaction | H2 (+) | 0.056 | 0.192 | No |
| Perceived Usefulness → Satisfaction | H3 (+) | 0.637 | <0.001 | Yes |
| Social Influence → Satisfaction | H4 (+) | 0.166 | <0.001 | Yes |
| Satisfaction → Continuance Intention ² | H5 (+) | 0.674 | <0.001 | Yes |

¹R²=0.697; ²R²=0.454

On the other hand, we found that system quality has no significant impact on satisfaction ($\beta = 0.056$, $p = 0.192$), and thus hypothesis 2 was not supported. This would be an unexpected finding. It seems that the usability of the system and the general perception of performance does not affect the satisfaction of the users. This may have been caused by the already high-quality expectations of online shoppers from these websites.

Finally, it was found that satisfaction has a significant effect on continuance intention ($\beta = 0.674$, $p < 0.001$). This indicates online shoppers tend to continue to use online shopping sites where they are satisfied. In other words, online shopping websites can acquire regular users by taking steps to increase the satisfaction of their current users.

4. DISCUSSION AND CONCLUSION

With the extremely rapid development of Internet technologies, organizations have also felt to dramatically change their business rules. Many companies that carry out their sales through traditional stores have started to use online shopping sites as a new sales or distribution channel. Electronic commerce usage in Turkey is rising steadily every year. According to the report published by the Turkish Statistical Institute (TURKSTAT), the rate of online shopping for personal use was 8.4% in 2011, while this figure reached 34.1% in 2019, representing a fourth-fold increase in eight years (TURKSTAT, 2020b). In today's world, where e-commerce is gaining more and more importance, knowing the factors affecting users' continued use of online shopping sites would provide important clues in managing companies' scarce and valuable IT investments. Therefore, this study investigates the factors affecting the users' continuance intentions of using online shopping sites.

The current study provides strong empirical evidence on which factors strongly affect individuals' satisfaction with online shopping sites as well as their continuance intentions of using the websites. This result is in line with the studies conducted on individuals from different cultures that investigate the continuance intention to use of online shopping services (Hsu et al., 2006; Kang & Lee, 2010; Koppius et al., 2005; Mohamed et al., 2014; Wen et al., 2011). For companies to make their investments in online shopping sites and be successful in the long term, managers should know the antecedents determining the shopping satisfaction of the customers. This information shall have great importance to keep existing customers.

According to the findings of the current study, the variable that has relatively more impact on the satisfaction construct has turned out to be perceived usefulness. This finding is also supported by similar studies in the literature (e.g. (Mohamed et al., 2014; Wen et al., 2011)). The cultural comparisons made using the Individualism Index (IDV), Uncertainty Avoidance Index (UAI), and Power Distance Index (PDI) defined by Hofstede (2001) are as follows.

A significant effect of perceived usefulness on satisfaction was observed in South East Asia country Malaysia (Mohamed et al., 2014), which has a low individuality (or high collectivism) and low uncertainty avoidance (IDV = 26, UA = 34) but a high power distance (PDI = 104). A similar effect was also observed in the United States of America (Wen et al., 2011), where individuality is very high (IDV = 91), but power distance and uncertainty avoidance are low (PDI = 40, UAI = 46). In addition to this, the current study was carried out in Turkey, where individualism is low (IDV = 37) and power distance and uncertainty avoidance is high (PDI = 66, UAI = 85), and a significant impact of perceived usefulness on satisfaction was also observed.

In line with our results, we can argue that successful purchases and transactions completed by individuals without a problem through online shopping sites have a positive effect on their shopping satisfaction and continuance of use, even in different cultural settings. Thus, it has been observed that this variable is an effective antecedent in determining the online shopping habits of individuals regardless of cultural changes.

Another factor affecting customers' satisfaction with online shopping sites is information quality. This result also coincides with the findings of similar studies that have a sample of people from different cultures, such as South Korea with very low individualism (IDV = 18), relatively high uncertainty avoidance (UAI = 85), and close to the average power distance (PDI = 60) (Lee & Chung, 2009), United States of America with high individualism (IDV = 91) but low power distance and uncertainty avoidance (PDI = 40, UAI = 46) (Schaupp, 2010), Indonesia with very high power distance (PDI = 78) and low individualism and uncertainty avoidance (UAI = 48, IDV = 14) (Yassierli et al., 2018), and lastly South East Asia countries with low individualism including Taiwan (IDV = 17) and Thailand (IDV = 20) (Chen et al., 2013).

Our study suggests that information quality's effect on customer satisfaction also applies in Turkey, a country with high collectivism (or low individualism) (IDV = 34), high power distance, and uncertainty avoidance. This indicates that in order for e-commerce sites to be competitive in the current business environment, they must

be rich, accurate, and knowledgeable. And it seems both pragmatist and hedonistic benefits from shopping experiences on e-commerce sites are valued by customers (To, Liao, & Lin, 2007).

On the other hand, we found that system quality has no significant effects on individuals' satisfaction with online shopping sites. This result contradicts the results of similar studies in the literature (e.g. (Chen et al., 2013; Kang & Lee, 2010; Lee & Chung, 2009)). In these studies, countries with a different cultural setting than Turkey, such as the USA (Schaupp, 2010) with high individualism and low power distance and uncertainty avoidance, Thailand, and Taiwan (Chen et al., 2013) with low individualism and close to average power distance and uncertainty avoidance have found a significant effect of System Quality on Satisfaction. However, besides these countries, a similar effect was also observed in South Korea (Kang & Lee, 2010; Lee & Chung, 2009), which is culturally similar to Turkey according to Hofstede, with low individualism (or high collectivism) and high uncertainty avoidance.

Also, the e-commerce sector in Turkey, unlike developed countries such as the USA and South Korea, recently began to grow and spread (TUBISAD, 2019), where e-commerce users are already accustomed to mature and high-quality online shopping sites, and even these expectations have become a standard.

Lastly, the overall usability of today's online shopping sites has higher standards, thanks to the more advanced software tools availability. Not only online shopping sites, but many services such as mobile applications, e-government applications, social network sites that individuals use every day are at higher standards compared to their first years. In other words, the fact that today's online shopping sites are user-friendly, easy to use, and well-organized can already be a familiar situation for customers. Therefore, in today's conditions and current cultural settings, it can be said that system quality does not determine customers' satisfaction with online shopping sites.

Another important finding is that social influence has an impact on individuals' satisfaction with online shopping sites. Social influence has a profound effect on adaptation to innovation in countries with high collectivism and high uncertainty avoidance, such as Turkey (Hofstede, 2001). In such societies, the social environment plays a major role in the integration of individuals into innovation (Yaveroglu & Donthu, 2002). In other words, the fact that people who are important to the individual think that the individual should use online shopping sites affects the individual's satisfaction and intention to use as well as reuse with the online shopping sites.

4.1. Implications

This study provides an insight into better understanding users' satisfaction with online shopping sites and their intention to continue using them. However, when we look at the research findings, we can say that the R² value of continuance intention to use is not high enough. Findings of this research present that 45% of the continuance intention is explained by its antecedents. In future studies for the large unexplained part, it would be appropriate to consider different variables such as perceived entertainment, trust (Wen et al., 2011), perceived credibility (Adaji & Vassileva, 2016), which are not included in this study.

On the other hand, the research findings provide important clues to the firms that want to invest in online shopping sites. In line with the results, we can say that the quality of the information on online shopping sites is very important for customers. For this reason, firms should pay strict attention to the accuracy, completeness, and accessibility of information on online shopping sites. Search filters must be well organized so that customers can easily access correct information. In addition, the fact that individuals carry out their shopping activities efficiently by using online shopping sites affects their satisfaction positively. This information can shape the marketing campaigns that will be organized for customers to start using online shopping sites. For example, the features of online shopping sites such as providing service independent of time and place, being fast and reliable, and having a wide product range can be considered as the points that will be emphasized in acquiring new customers.

4.2. Limitations

This study has several limitations. First, convenience sampling was used due to time and resource constraints. Online shopping behaviors may vary due to some cultural or technical reasons on the basis of regions or provinces in Turkey. For example, while the percentage of households that can access the internet in the 12 statistical regions is 96,4 for the Istanbul region, it was 81,4 for the West Black Sea region in 2020 (TURKSTAT, 2020c). For future research, a sampling method in which equal numbers of participants will be selected randomly from 12 statistical regions can provide more generalizable results.

Another limitation is that respondents answered these questions based on various online shopping websites, rather than responding to questions about a specific website. Characteristics of online shopping websites may affect customers' experiences and perceptions. Future research could consider the effect of various types of websites and the impact of different website characteristics. Also, this study examines the factors affecting only Turkish people's continuance intention to use online shopping sites. Factors affecting the intentions of individuals from different cultures in cross-cultural studies to continue using online shopping sites could reveal many valuable insights. Therefore, in order to explain the continuance intention dependent variable in future studies, it will be appropriate to determine the independent variables by considering the cultural characteristics of the individuals, who will participate in the research.

The final limitation would be our original study that we based on a research framework published a little more than 10 years ago. That would somehow hinder its applicability in today's conditions, given IS field is changing so fast. However, prior to adopting their instrument into Turkish context, we made some modifications and alterations, yet decades old frameworks are still valid and used in Information Systems context even today so that they are so robust. But in further studies, choosing a little current works might be more beneficial.

REFERENCES

- Ab Hamid, M. R., Sami, W., & Mohmad Sidek, M. H. (2017). Discriminant Validity Assessment: Use of Fornell & Larcker criterion versus HTMT Criterion. *Journal of Physics: Conference Series*, 890(1), 0–5.
- Adaji, I., & Vassileva, J. (2016). Perceived Effectiveness, Credibility and Continuance Intention in E-commerce: A Study of Amazon. *2016 Persuasive Technology conference* (pp. 293–305).
- Ajzen, I. (1988). *Attitudes, Personality, and Behavior*. Chicago, IL: Dorsey Press.
- Ajzen, I. B., & Fishbein, M. (1980). *Understanding Attitudes and Predicting Social Behavior*. Englewood Cliffs: NJ: Prentice-Hal.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211.
- Athmay, Al. A. A. AL, Fantazy, K., & Kumar, V. (2016). E-government adoption and user's satisfaction: an empirical investigation. *EuroMed Journal of Business*, 11(1), 57–83.
- Bagozzi, R. P. (2007). The legacy of the technology acceptance model and a proposal for a paradigm shift. *Journal of the Association for Information Systems*, 8(4), 244–254.
- Beránek, L., Nýdl, V., & Remeš, R. (2015). Factors Influencing Customer Repeated Purchase Behavior in the E-commerce Context. *The International Scientific Conference INPROFORUM* (pp. 123–128).
- Bhattacharjee, A. (2001a). Understanding Information Systems Continuance: An Expectation-Confirmation Model. *MIS Quarterly*, 25(3), 351–370.
- Bhattacharjee, A. (2001b). An empirical analysis of the antecedents of electronic commerce service continuance. *Decision Support Systems*, 32(2), 201–214.
- Chen, J. V., Rungruengsamrit, D., Rajkumar, T. M., & Yen, D. C. (2013). Success of electronic commerce Web sites: A comparative study in two countries. *Information and Management*, 50(6), 344–355. Elsevier B.V. Retrieved from <http://dx.doi.org/10.1016/j.im.2013.02.007>
- Chen, Y. T., & Chou, T. Y. (2012). Exploring the continuance intentions of consumers for B2C online shopping: Perspectives of fairness and trust. *Online Information Review*, 36(1), 104–125.
- Cheung, C. M. K., Zheng, X., & Lee, M. K. O. (2015). How the Conscious and Automatic Information Processing Modes Influence Consumers' Continuance Decision in an e-Commerce Website. *Pacific Asia Journal of the Association for Information Systems*, 7(2), 25–40.
- Chiu, C. M., Hsu, M. H., Lai, H., & Chang, C. M. (2012). Re-examining the influence of trust on online repeat purchase intention: The moderating role of habit and its antecedents. *Decision Support Systems*, 53(4), 835–845. Elsevier B.V. Retrieved from <http://dx.doi.org/10.1016/j.dss.2012.05.021>
- Chopdar, P. K., & Sivakumar, V. J. (2019). Understanding continuance usage of mobile shopping applications in India: the role of espoused cultural values and perceived risk. *Behaviour and Information Technology*, 38(1), 42–64. Taylor & Francis.
- Collazo, A. A. (2018). A Theory-Based Model for Understanding Faculty Intention to Use Students Ratings to Improve Teaching in a Health Sciences Institution in Puerto Rico. *Journal of Hispanic Higher Education*, 17(3), 229–248.
- Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1989). User Acceptance of Computer Technology: A Comparison of Two Theoretical Models. *Management Science*, 35(8), 982–1003.

- Delone, W. H., & E. McLean. (1992). Information Systems Success: The Quest for the Dependent Variable. *Information Systems Research. The Institute of Management Sciences (now INFORMS)*, 3(1), 60–95.
- DeLone, W. H., & McLean, E. R. (2002). Information Systems Success Revisited. *Proceedings of the 35th Annual Hawaii International Conference on System Sciences* (pp. 2966–2976). Big Island, HI.
- DeLone, W. H., & McLean, E. R. (2003). The DeLone and McLean model of information systems success: A ten-year update. *Journal of Management Information Systems*, 19(4), 9–30.
- DeLone, W. H., & McLean, E. R. (2004). Measuring e-Commerce Success: Applying the DeLone & McLean Information Systems Success Model. *International Journal of Electronic Commerce*, 9(1), 31–47. Retrieved from <https://www.tandfonline.com/doi/full/10.1080/10864415.2004.11044317>
- Fornell, C., & Larcker, D. F. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research*, 18(1), 39.
- Gao, L., Waechter, K. A., & Bai, X. (2015). Understanding consumers' continuance intention towards mobile purchase: A theoretical framework and empirical study - A case of China. *Computers in Human Behavior*, 53, 249–262. Elsevier Ltd. Retrieved from <http://dx.doi.org/10.1016/j.chb.2015.07.014>
- Hair, J., Hult, G., Ringle, C., & Sarstedt, M. (2017). *A primer on Partial Least Squares Structural Equation Modelling (PLS-SEM)* (2nd ed.). Los Angeles: SAGE Publications, Inc.
- Hair, Joe F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a silver bullet. *Journal of Marketing Theory and Practice*, 19(2), 139–152.
- Hair, Joseph F., Black, W. C., Babin, B. J., & Anderson, R. E. (2014). *Multivariate Data Analysis. Exploratory Data Analysis in Business and Economics*.
- Halawi, L., & Mccarthy, R. (2008). Measuring Students Perceptions of Blackboard Using the Technology Acceptance Model: a Pls Approach. *Issues in Information Systems*, 9(2), 95–102.
- Hofstede, G. (1980). *Culture Consequences: International Differences in Work-related Values*. Beverly Hills, CA.: Sage Publications.
- Hofstede, G. (1991). *Cultures and organizations: Software of the mind*. New York: McGraw-Hill.
- Hofstede, G. (2001). *Culture's Consequences: Comparing Values, Behaviors, Institutions, and Organizations Across Nations* (2nd ed.). CA: Sage.
- Hofstede Insights. (2020). Country Comparison. Retrieved March 10, 2020, from <https://www.hofstede-insights.com/product/compare-countries/>
- Hsu, C.-L., Chang, K.-C., & Chen, M.-C. (2012). Flow Experience and Internet Shopping Behavior: Investigating the Moderating Effect of Consumer Characteristics. *Systems Research and Behavioral Science*, 29(3), 317–332.
- Hsu, M. H., Yen, C. H., Chiu, C. M., & Chang, C. M. (2006). A longitudinal investigation of continued online shopping behavior: An extension of the theory of planned behavior. *International Journal of Human Computer Studies*, 64(9), 889–904.
- Kang, Y. S., & Lee, H. (2010). Understanding the role of an IT artifact in online service continuance: An extended perspective of user satisfaction. *Computers in Human Behavior*, 26(3), 353–364. Elsevier Ltd. Retrieved from <http://dx.doi.org/10.1016/j.chb.2009.11.006>
- Koppius, O., Speelman, W., Stulp, O., Verhoef, B., & van Heck, E. (2005). Why are customers coming back to buy their airline tickets online? theoretical explanations and empirical evidence. *Proceedings of the 7th International Conference on Electronic Commerce* (pp. 319–326).
- Kueh, K., & Voon, B. H. (2007). Culture and service quality expectations: Evidence from Generation Y consumers in Malaysia. *Managing Service Quality*, 17(6), 656–680.
- Lai, C., & Pires, G. (2010). Testing of a model evaluating e-government portal acceptance and satisfaction. *The Electronic Journal Information Systems Evaluation*, 13(1), 35–46.
- Lee, K. C., & Chung, N. (2009). Understanding factors affecting trust in and satisfaction with mobile banking in Korea: A modified DeLone and McLean's model perspective. *Interacting with Computers*, 21(5–6), 385–392. Elsevier B.V. Retrieved from <http://dx.doi.org/10.1016/j.intcom.2009.06.004>
- Lee, M. K. O., Shi, N., Cheung, C. M. K., Lim, K. H., & Sia, C. L. (2011). Consumer's decision to shop online: The moderating role of positive informational social influence. *Information and Management*, 48(6), 185–191. Elsevier B.V. Retrieved from <http://dx.doi.org/10.1016/j.im.2010.08.005>
- Legris, P., Ingham, J., & Collette, P. (2003). Why do people use information technology? A critical review of the technology acceptance model. *Information and Management*, 40(3), 191–204.

- Lu, J., Wei, J., Yu, C. S., & Liu, C. (2017). How do post-usage factors and espoused cultural values impact mobile payment continuation? *Behaviour and Information Technology*, 36(2), 140–164.
- Ma, Y., Ruangkanjanases, A., & Chen, S. C. (2019). Investigating the impact of critical factors on continuance intention towards cross-border shopping websites. *Sustainability (Switzerland)*, 11(21).
- Mason, R. O. (1978). Measuring information output: A communication systems approach. *Information & Management*, 1(4), 219–234.
- Mohamed, N., Hussein, R., Zamzuri, N. H. A., & Haghshenas, H. (2014). Insights into individual's online shopping continuance intention. *Industrial Management & Data Systems*, 114(9), 1453–1476.
- Molla, A., & Licker, P. S. (2001). E-Commerce Systems Success : an Attempt To Extend and Respecify the DeLone and Maclean Model of IS Success. *Journal of Electronic Commerce Research*, 2(4), 131–141.
- Mouakket, S. (2018). The role of personality traits in motivating users' continuance intention towards Facebook: Gender differences. *Journal of High Technology Management Research*, 29(1), 124–140. Elsevier Inc. Retrieved from <https://doi.org/10.1016/j.hitech.2016.10.003>
- Nath, R., & Murthy, N. R. V. (2004). A study of the relationship between Internet diffusion and culture. *Journal of International Technology and Information*, 13(1994), 123–132.
- Nunnally, J. C. (1978). *Psychometric Theory* (2nd ed.). New York: McGraw-Hill.
- Nunnally, Jum C., & Bernstein, I. H. (1994). *Psychometric Theory: 3rd (Third) edition*. New York: McGraw-Hill.
- Odusanya, K., Aluko, O., & Lal, B. (2020). Building Consumers' Trust in Electronic Retail Platforms in the Sub-Saharan Context: an exploratory study on Drivers and Impact on Continuance Intention. *Information Systems Frontiers*, (2016). Information Systems Frontiers.
- Oliver, R. L. (1977). Effect of Expectation and Disconfirmation on Postexposure Product Evaluations : An Alternative Interpretation. *Journal of Applied Psychology*, 62(4), 480–486.
- Oliver, R. L. (1980). A Cognitive Model of the Antecedents and Consequences of Satisfaction Decisions. *Journal of Marketing Research*, 17(4), 460–469.
- Rai, A., Lang, S. S., & Welker, R. B. (2002). Assessing the validity of IS success models: An empirical test and theoretical analysis. *Information Systems Research*, 13(1), 50–69.
- Rosillo-Díaz, E., Blanco-Encomienda, F. J., & Crespo-Almendros, E. (2019). A cross-cultural analysis of perceived product quality, perceived risk and purchase intention in e-commerce platforms. *Journal of Enterprise Information Management*, 33(1), 139–160.
- Schaupp, L. C. (2010). Web site success: Antecedents of web site satisfaction and re-use. *Journal of Internet Commerce*, 9(1), 42–64.
- Seddon, P. (1997). A respecification and extension of the DeLone and McLean model of IS. *Information Systems Research*. *Information Systems Research*, 8(3), 240–253. Retrieved from <https://pubsonline.informs.org/doi/abs/10.1287/isre.8.3.240>
- Shannon, C. E., & Weaver, W. (1949). *The mathematical theory of communication*. Urbana: University of Illinois Press.
- Sia, C. L., Lim, K. H., Leung, K., Lee, M. K. O., Huang, W. W., & Benbasat, I. (2009). Web strategies to promote internet shopping: Is cultural-customization needed? *MIS Quarterly: Management Information Systems*, 33(3), 491–512.
- T.R. Ministry of Family Labor and Social Services. (2020). Asgari Ücretin Net Hesabı ve İşverene Maliyeti (Yıllara Göre). Retrieved January 15, 2020, from <https://www.ailevecalisma.gov.tr/tr-tr/askari-ucret/askari-ucret-2020/>
- To, P. L., Liao, C., & Lin, T. H. (2007). Shopping motivations on Internet: A study based on utilitarian and hedonic value. *Technovation*, 27(12), 774–787.
- TUBISAD. (2019). Türkiye'de E-Ticaret, 2018 Pazar Büyüklüğü. Retrieved August 18, 2019, from http://www.tubisad.org.tr/tr/images/pdf/tubisad_2019_e-ticaret_sunum_tr.pdf
- TURKSTAT. (2020a). Individuals using the computer and Internet in the last 3 months by age groups and sex, 2004-2019. Retrieved February 17, 2020, from http://www.turkstat.gov.tr/PreTablo.do?alt_id=1028
- TURKSTAT. (2020b). Internet purchases by individuals in the last 12 months for the private use by type of goods and services by sex, 2011-2019. Retrieved January 12, 2020, from http://www.turkstat.gov.tr/PreTablo.do?alt_id=1028
- TURKSTAT. (2020c). Information and Communication Technology (ICT) Usage in Households and by Individuals. Retrieved from [https://data.tuik.gov.tr/Bulten/Index?p=Hanehalki-Bilisim-Teknolojileri-\(BT\)-Kullanim-Arastirmasi-2020-33679](https://data.tuik.gov.tr/Bulten/Index?p=Hanehalki-Bilisim-Teknolojileri-(BT)-Kullanim-Arastirmasi-2020-33679)

- Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User Acceptance of Information Technology: Toward a Unified View. *MIS Quarterly*, 27(3), 425–478.
- Wen, C., Prybutok, V. R., & Chenyan, X. (2011). AN INTEGRATED MODEL FOR CUSTOMER ONLINE REPURCHASE INTENTION. *Journal of Computer Information Systems*, 52(1), 14–23.
- Yassierli, Y., Vinsensius, V., & Mohamed, M. S. S. (2018). The Importance of Usability Aspect in M-Commerce Application for Satisfaction and Continuance Intention. *Makara Journal of Technology*, 22(3), 149.
- Yaveroglu, I. S., & Donthu, N. (2002). Cultural Influences on the Diffusion of New Products. *Journal of International Consumer Marketing*, 14(4), 49–63.

Beyan ve Açıklamalar (Disclosure Statements)

1. Bu çalışmanın yazarları, araştırma ve yayın etiği ilkelerine uyduklarını kabul etmektedirler (The authors of this article confirm that their work complies with the principles of research and publication ethics).
2. Yazarlar tarafından herhangi bir çıkar çatışması beyan edilmemiştir (No potential conflict of interest was reported by the authors).
3. Bu çalışma, intihal tarama programı kullanılarak intihal taramasından geçirilmiştir (This article was screened for potential plagiarism using a plagiarism screening program).