



## EVALUATION OF RELATIONSHIP BETWEEN ONLINE SHOPPING AND CONSUMER TRUST

### İNTERNET ALIŞVERİŞİ İLE TÜKETİCİ GÜVENİ ARASINDAKİ İLİŞKİNİN DEĞERLENDİRİLMESİ

Yusuf ÖCEL<sup>1</sup> - Hakan Murat ARSLAN<sup>2</sup>

#### Abstract

The main purpose of this study is to examine the relationship between online shopping and consumer trust. Survey technique was used in the research. The research population consists of individuals over the age of 18 living in the province of Düzce. Easy sampling method is used for study. The size of this sample is 400. Factor analysis, correlation analysis, ANOVA and Independent Sample T-test were performed using SPSS 21 package program.

As a result of the factor analysis, three dimensions related to online shopping have emerged. These dimensions are "Online Addiction", "Payment Simplicity" and "Complexity". According to consumer trust factor analysis result, four dimensions have emerged. These dimensions are "Control", "Self-confidence", "Comfort" and "Fear". According to the results of correlation analysis; meaningful relationships were observed between online shopping and consumer trust. According to the Independent Sample T-test and ANOVA test results, meaningful differences have emerged.

**Keywords:** Online Shopping, Consumer Trust, Statistical Analysis

#### Öz

Bu çalışmanın temel amacı internet alışverişi ile tüketici güveni arasındaki ilişkinin değerlendirilmesidir. Araştırmada nicel analiz yöntemlerinden anket tekniği kullanılmıştır. Araştırma evrenini Düzce ilinde yaşayan 18 yaş üstü bireyler oluşturmaktadır. Kolayda örneklem metodunun kullanıldığı bu çalışma da örneklemin büyüklüğü 400 olarak belirlenmiştir. SPSS 21 paket programının kullanıldığı araştırmada faktör analizi, korelasyon analizi, ANOVA ve Independent Sample T-testi yapılmıştır.

Yapılan faktör analizi sonucunda online alışveriş ile ilgili üç boyut ortaya çıkmıştır. Bu boyutlar "Online Bağımlılık", "Ödeme ve Kolaylık" ve "Karmaşıklık"tır. Tüketici güven duygusu faktör analizi sonucuna göre dört boyut ortaya çıkmıştır. Bu boyutlar "Kontrol duygusu", "Özgüven duygusu", "Rahatlık duygusu", "Korku duygusu"dur. Korelasyon analizi sonuçlarına göre internet alışverişi ile tüketici güven duygusu alt boyutları arasında anlamlı ilişkiler çıkmıştır. Yapılan Independent Sample T-testi ve ANOVA testi sonuçlarına göre de anlamlı farklılıklar ortaya çıkmıştır.

**Anahtar kelimeler:** İnternet Alışverişi, Tüketici Güveni, İstatiksel Analiz

<sup>1</sup> Dr. Öğr. Üyesi, Düzce Üniversitesi, İşletme Fakültesi, İşletme Bölümü, [yusufocel@duzce.edu.tr](mailto:yusufocel@duzce.edu.tr),  
ORCID:0000-0002-4555-7035

<sup>2</sup> Doç. Dr., Düzce Üniversitesi, Üniversitesi, İşletme Fakültesi, İşletme Bölümü, [muratarslan@duzce.edu.tr](mailto:muratarslan@duzce.edu.tr),  
ORCID: 0000-0002-3515-5358

## 1. INTRODUCTION

In the late 20th century, the internet, which has become a part of our lives, changed the rules of trade. Online shopping has emerged with the internet, which is an alternative to traditional shopping. Online shopping refers to the process of purchasing products or services through an internet channel (Özgüven, 2011, 28).

The internet, which forms the basic building block of globalization, reaches up to the consumer's products from thousands of kilometers away. With the online shopping that small businesses can compete with large businesses, a number of changes have taken place in the retail sector. Cost, time, stock, human resources, store installation, labor and so on. The competitiveness of the enterprises has been increased thanks to the savings provided in these issues.

Through online shopping, consumers and businesses can come together in a common environment. Online shopping is a selling and marketing method that provides a significant saving for the consumers because it provides quick, easy and affordable shopping opportunities while also eliminating problems such as physical space, staffing, and stocks, from the standpoint of businesses (Serhateri, 2015, 228). Many products can be purchased online from clothes to auto spare parts, from shoes to communication technologies and from furniture to electronic devices.

According to a conducted survey, more than half of the world's population and about 4 billion people are internet users. In addition, 39% of internet users (1.6 Billion people) are shopping online (wearesocial.com, 2018). In this case, the general nature of shopping has changed and it is necessary for enterprises to keep up with this approach.

In addition to the benefits provided by online purchasers in terms of consumers and businesses, there are a number of important problems. One of them is the security problem. Especially for consumers, there is the concern in online shopping as payment and identification information is passed to third side (Serhateri, 2015, 228).

The lack of necessary legal infrastructure on the internet is also triggering attacks on consumer information in this area. Businesses are trying to protect customers with a number of security systems. Because confidence is a major advantage among online shoppers (Reichheld and Schefter, 2000; 107).

In particular, the banks remove the drawbacks of giving consumers credit card information with their virtual card applications, and secure them with international programs for companies on the web and special signs on their sites protected by their web sites (Özgüven, 2011; 48).

Another important problem is the risk that there are some differences between the product that consumers see on their website and the product they obtain since the physical contact is not possible with online shopping. In traditional shopping, customers interact with the seller and the product. However, in online shopping, customers are less engaged with business and product. This is because; not knowing where the business is, distance, risks and uncertainties (Reichheld and Schefter, 2000; 107).

The main purpose of this study is to examine the relationship between online shopping and consumers' confidence sense. In addition, the demographic characteristics of consumers and online shopping perceptions will be examined to see whether there are differences in confidence sense.

## **2. LITERATURE**

### **2.1. Online Shopping Behavior**

Online shopping is increasingly becoming an indispensable part of consumers' lives today. The range of products received in the online environment is also becoming increasingly diverse. According to a conducted survey, the most frequently purchased online products are electronic products, clothing, books, financial services, tickets, household goods and daily necessities (Uygun et al., 2011; 380).

Consumers should consider a number of factors related to the shopping they will make. These factors are; information content, design, security, privacy, ease of use, payment, navigation between pages, shopping completion, promotions and the quality of the website. There are also important findings between online shopping and consumer characteristics. In other words, personality traits, demographic characteristics, attitudes, and so on. The literature on these factors is given below.

In a conducted research, businesses have stated that four key factors must be in place for an end-user (B2C) to be able to offer an effective website. These are: Information content, design, security and privacy. These factors imply that consumers are willing to buy (Ranganathan and Ganapathy, 2002: 457).

The use of web sites in online shopping is also important. In this case, the complexity of the website affects consumers' purchases. Complexity is important to establish an effective website, attract customers, and influence their purchases (Song and Zahedi, 2001, 205).

Features such as ease of use of web sites, navigation between pages, shopping completion, promotions, information flow, etc. are affecting online shopping. According to the researches, usefulness of web sites affects the quality of the site, shopping volume and customer satisfaction (Gefen and Straub, 2000; Lee et al., 2001; Song and Zahedi, 2001; Zhang and von Dran, 2000).

Online shopping is another aspect of payment simplicity that needs to be considered. The convenience of shopping without spending time is attractive to most consumers and leads to shopping on the Internet (Aydın and Derer, 2015: 128). With online shopping, consumers broaden information about product features. Because they have the opportunity to evaluate more than one product in a short time. Especially for enterprises that are physically distant from each other, the effort required is minimized. There are also facilities for payment in the online shopping environment where the price comparison is easily made. In this direction, financial risk is also minimized.

Personality traits and demographic characteristics of consumers also affect online shopping. According to a conducted research, demographic characteristics, personality traits and attitudes have a significant relationship with online shopping behavior (Belmann et al.,

1999; 32). Bhatnagar and colleagues found that online shopping was influenced by factors such as customer attitude, demographic features, product characteristics, and website quality. According to a conducted research on gender differences in online shopping attitude; three dimensions have emerged. They are cognitive, emotional and behavioral. The largest difference in these dimensions was cognitive behavior. The results show that the biggest gender difference is in cognitive attitude. This indicates that women perceive online shopping a less beneficial than their male counterparts (Hasan, 2010: 597).

In a conducted study, it was found that women were more likely to purchase clothes than men (Bhatnagar et al., 2000; 10). (Özgüven, 2011) found that, online shopping attitudes of women are higher than men and more young people are shopping online. Bachelors are more oriented towards online shopping than married ones, those with higher education tend to shop more online than middle income group and the private sector employees were more likely to use online shopping (Özgüven, 2011; 53).

Another study revealed that, the intention to buy again in online shopping is higher in women than in men (Chen et al., 2015: 278). In another study, it was determined that consumers who have higher education and high income levels use online shopping more than the others (Yayar and Sadaklıoğlu, 2012: 145).

## **2.2. Consumer Trust**

Trust can be defined as a psychological condition that allows the individual to accept a state of defenselessness based on positive expectations of others' intentions or behaviors. Lack of trust is a major obstacle to the adoption of online shopping (Chang et al., 2013: 439-440).

According to a conducted survey in Turkey about internet users; users think that the shopping system is unsafe as the reason for not doing online shopping. (Lightner et al., 2002: 375; Ayden and Demir, 2011: 160; Chang et al., 2013: 439). The way of gaining customer loyalty in online shopping is to build trust (Aydın and Derer, 2015: 127).

In online shopping, customers cannot come to terms with the seller, cannot physically evaluate the store, cannot touch the products and cannot physically see the products (Reichheld and Schefer, 2000; 107). Also, the physical characteristics of the product cannot be detected on the computer screen. Thus, the risk perceived by customers is increasing (Bhatnagar et al., 2000; 100). In this case, the marketing messages that customers trust more such as the image of business, consumer comments, oral communication, advice are becoming more important (Chang et al., 2013: 439). In this direction, customers are able to shop more than the sites they trust.

(Amazon.com) for example, is an online shopping site where millions of people shop, and share information confidently. According to a conducted study in Turkey (hepsiburada.com) ranks first with 37% preferred rate. Trust means consumers feel physiologically comfortable (Serhateri, 2015; 234).

Trust can be defined in three dimensions in general terms. These dimensions are characteristic based, process-based, and institution-based (Zucker, 1986). Characteristic confidence reflects personal characteristics. Process-based trust is a set of past and future developments, such as family structure, age, gender and race. Institutional-based confidence

is also embedded in social institutions and instrument mechanisms. Such as image, brand, warranty. Membership in an association, rules, laws, etc.

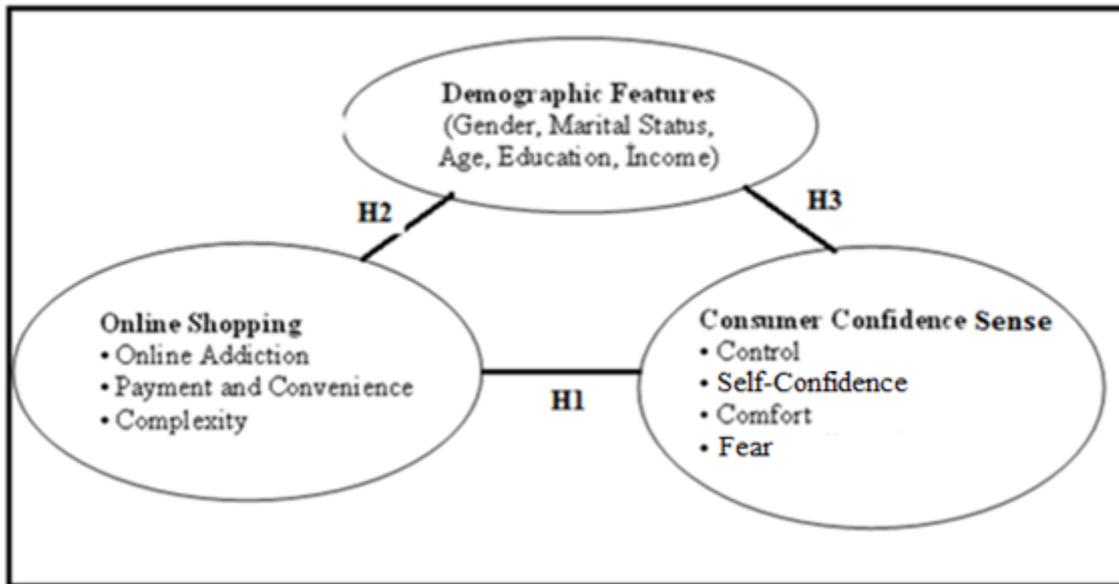
Intangibility is an issue that must be evaluated in online shopping. It is stated that the dimensions of risk that intangibility creates in studies are physical intangibility, mental intangibility and general intangibility (Eggert, 2006: 553). Risk breaks the courage of online shoppers and reduces the confidence of e-business (Vos et al., 2014: 420). In order to reduce the risks associated with brands of businesses and gain customer confidence, attention should be paid to privacy, brand name, oral communication, good online shopping experience and quality information issues (Haas, 2004: 329; Miyazaki and Fernandez, 2001: 27).

In a conducted study, the most important factor that is effective on online consumer behavior is found to be the perceived risk. Next, perceived behavioral control, perceived benefits, service and infrastructure characteristics, economic value, habits, confidence and innovativeness are observed (Uygun et al., 2011; 381). Consumers feel more at risk in technically complex products and product categories where touch feelings are important (Bhatnagar et al., 2000; 100). According to a conducted research results of Jarvenpaa, Tractinsky and Vitale in 2000, there is a positive relationship between business image and customer confidence. Consumers may be anxious about delivery and promotion on online shopping. Delays related to product delivery, deceptive and misleading advertisements can be evaluated within the security elements that prevent consumers from online shopping (Yayar ve Sadaklıoğlu, 2012: 145).

According to a conducted study of the relationship between personality traits and trust of consumers. Consumers with high trust tendencies are more satisfied with online shopping than those with low trust (Chen et al., 2015: 278). In this case, it can be said that young people who take risks are tend to trust more than older ones.

### **3. RESEARCH OBJECTIVES, MODELS AND HYPOTHESES**

The main purpose of this research is to examine the relationship between online shopping and consumer trust. In addition, it is the sub-objectives of the research to examine whether there is a difference between demographic characteristics and online shopping and consumer trust. According to the literature search and the questionnaire mentioned above, the research model as shown in Fig. 1 was established. Demographic characteristics, online shopping and consumer trust are variables of the model. Demographic characteristics include gender, marital status, age, education and income. Among the sub-dimensions of online shopping variables are online addiction, payment simplicity and complexity. The sub-dimensions of the consumer trust variable are the control feeling, self-confidence, comfort and fear.



**Figure 1: Research Model and Hypotheses**

### Basic Hypothesis-1:

**H1:** There is a significant relationship between online shopping and consumer trust.

### Sub Hypotheses:

**H<sub>1 a,b,c,d</sub>:** There is a significant relationship between online addiction and feelings of a) control, b) self-confidence, c) comfort, and d) fear.

**H<sub>1 e,f,g,h</sub>:** There is a significant relationship between payment simplicity which is the online shopping dimension and, feelings of e) control, f) self-confidence, g) comfort, and h) fear.

**H<sub>1 i,j,k,l</sub>:** There is a significant relationship between complexity which is the online shopping dimension and, i) control feeling, j) self-confidence feeling, k) comfort feeling, and l) fear feeling.

### Basic Hypothesis-2:

**H2:** There are significant differences between the demographic characteristics of participants and perceptions of online shopping behaviors.

### Sub Hypotheses:

**H<sub>2a,b,c,d,e</sub>:** There are significant differences between participants a) genders, b) their marital status, c) their age, d) their educational status, e) their income situation and online shopping behaviors.

### Basic Hypothesis-3:

**H3:** There are significant differences between the demographic characteristics of the participants and perceptions of the consumers' trust.

### Sub Hypotheses:

$H_{3a,b,c,d,e}$  :There are significant differences between a) genders of the participants, b) their marital status, c) their age, d) their educational status, e) their income situations and their trust in online shopping.

### 3.1. Method, Universe and Sampling

In this study, the relationship between online shopping and consumer trust was examined by questionnaire method of quantitative analysis methods. Variables related to online shopping and consumer trust were obtained with a 5-point likert type scale.

While creating the scale related to online shopping (Uygun et al., 2011), the study titled, "Factors Affecting Consumers' Online Shopping Behavior Online" was used. In addition, (Bassam, 2010) "Exploring gender differences in online shopping attitude" was used. Consumer trust scale is based on Serhateri's (2015) work entitled "The Impact of Consumers' Security on Electronic Commerce on Shopping Attitudes on The Internet: Kocaeli Example".

The data were collected from 1 April to 30 May 2017. In the study where 400 data were collected and easy sampling method was used. However, 16 surveys were incorrectly filled for that reason was not included in the analysis process. Analyzes such as Explanatory Factor Analysis, Correlation Analysis, ANOVA and Independent Sample T-Test are performed on the collected data.

## 4. Results

### 4.1. Demographic Findings

The demographic and behavioral characteristics of the individuals participating in the study and the related findings are shown in Table 1. Their demographic characteristics are gender, marital status, age, educational status and income. Behavioral characteristics "How many times do you shop on the internet during the year", "Which payment system is safe for online shopping", "In which conditions you prefer to shop online?" are the expressions.

**Table. 1 Demographic and Behavioral Features**

Demographic Characteristics	Groups	Number of people	Percentage value	Behavioral characteristics	Frequency	Percentage value	
Gender	Male	190	%49,5	How many times do you shop online during the year?	1-2 times	118	%30,7
	Woman	194	%50,5		3-5	109	%28,4
Marital Status	The married	85	%22,1		6-9	55	%14,3
	Single	299	%77,9		10 and over	102	%26,6
Age	18-24	238	%62	Which payment system is safe for online shopping?	At the door	210	%54,7
	25-35	83	%21,6		Credit card	121	%31,5
	36-46	38	%9,9		Transfer-EFT	23	%6,0
	47-57	19	%4,9		Pay mobile.	10	%2,6
	58 and over	6	%1,6		Other	20	%5,2
Education status	Primary education	25	%6,5	In which conditions would you	When I do not have time to buy from the stores	48	%12,5

	High school	112	%29,2	prefer to shop online?	When the product is discounted or low priced	183	%47,7
	Associate Degree	59	%15,4		If I cannot find the product outside the internet	79	%20,6
	License	170	%44,3		When I cannot reach the product	50	%13,0
	Graduate	18	%4,7		Other.	24	%6,3
Income	1400 TL an low	224	58,3				
	1401-2500 TL	87	%22,7				
	2501-3500 TL	38	%9,9				
	3501-4500 TL	18	%4,7				
	4501 TL and over	17	%4,4				

When Table 1 is examined, it is seen that number of male and female are close to each other according to the demographic characteristics of participants in the survey in Düzce. When the marital status is examined, it is observed that those who are single (77,9 %) are more than those who are married (22,1 %). Looking at the age group, it is observed that there are at most 18-24 age groups. Then, it is seen that the 25-35 age group has a higher rate. Most of the participants (64.4 %) are university graduates. In this direction, it can be assumed that the participants can understand the variables better. When the income situation is examined, it can be said that the participants' incomes are 1400 TL or less in the survey.

In addition, according to the behavioral characteristics stated in Table 1, it is seen that the question "How many times do you shop from the internet during the year" (59.1 %) is 5 times at maximum. Moreover, it is observed that those respondents in participants that shop 10 times or more (26.6 %). In the expression "Which payment system is safe for online shopping", it is understood that the participants preferred "paying at the door" and "pay by credit card" forms as the most secure payment system. For the question "Under which circumstances would you prefer to shop online?" it is concluded that the online shopping is more preferred when the product is discounted and the low price. The second most common reason for choosing online shopping is the fact that the product cannot be found outside the internet (20,6 %).

#### 4.2. Factor Analysis Results

Participants' perceptions of online shopping behaviors and their sense of confidence were analyzed through explanatory factor analysis. The analysis outputs carried out in this context are shown in Table 2 and Table 3. In order to apply factor analysis, it is necessary that the Kaiser-Meyer-Olkin sampling adequacy value is over 0.5 and the Barlett test result is meaningful (Altunışık et al., 2010, Kalaycı, 2008).

**Table 2. Factor Analysis Related to Online Shopping**

Factors	Expressions	Average	Factor Load	Described Variance	Eigen Value
Online Addiction	OA1	3,46	0,794	24,056	3,127
	OA2	3,42	0,788		
	OA3	3,41	0,775		
	OA4	3,42	0,724		
Payment Simplicity	PC1	2,94	0,745	16,813	2,186
	PC2	3,29	0,698		
	PC3	3,13	0,615		
	PC4	2,62	0,600		
	PC5	3,42	0,576		
	PC6	3,16	0,467		
Complexity	C1	2,92	0,863	11,738	1,526
	C2	2,61	0,749		
	C3	3,07	0,746		
Evaluation criteria	Kaiser-Meyer-Olkin Measure of Sampling Adequacy: <b>0,759</b> Approx. Chi-Square: <b>1067,451</b> Bartlett's Test of Sphericity: <b>0,000</b> Extraction Method: <b>Principal Components</b> Rotation Method: <b>Varimax</b> Total Explained Variance: <b>52,607</b> <b>(OA: Online addiction) (PC: Payment And Convenience) (C: Complexity)</b>				

Table 2 shows the results of factor analysis related to online shopping behavior. The results of the Kaiser-Meyer-Olkin (KMO) sample adequacy test and the Barlett test for factor analysis performed in Table 2 are considered to be sufficient (KMO value 0.759, Barlett Test result  $p < 0.001$ ). This result shows that the adequacy and size of sample for factor analysis in online shopping behavior is sufficient in this study. When Table-2 is examined, basic component analysis and Varimax rotation technique are used for factor analysis of online shopping behavior. Low equivalence values (expressions below 0.45) were subtracted from the scale. In this direction, the 8th and 9th questions from 15 items on the scale related to the online shopping behavior were removed because they showed low equivalence. Thirteen items remained after the 8th and 9th questions were removed from the scale. Table 2 shows that the remaining items are collected under three factors.

According to the results of the factor analysis, the first factor consists of four items, the second factor is 6 items and the third factor is three items. From Table 2, the loads of the first factor ranged from 0.794 to 0.724. When the expressions at this dimension are considered together, the factor is given the name "online addiction". The loads of the second factor range from 0.745 to 0.467. When the expressions in this dimension are considered together, the factor is given the name "payment simplicity". The loads of the third factor range from 0.863 to 0.476. When the expressions in this dimension are considered together, the factor is given the name "complexity".

When Table 2 is examined, it is seen that the total explained variance related to online shopping is 52,607%. Therefore, it can be said that the three factors that emerged explain the majority of the covariance. When the distribution of eigenvalues and explained variances are considered, it is seen that the highest eigen value (3,127) and the explained variance (24,056%) have the "online addiction" factor. The 2,186 eigen value of the "payment

simplicity” and the described variance of 16,813 seem to be the factor with the highest share after “online addiction”. These factors are followed by the “complexity” factor (eigenvalue 1,526 and variance 11,738). Another variable that is subjected to explanatory factor analysis within the scope of the research is the consumer trust. The results of the factor analysis are shown in Table 3.

**Table 3. Results of Factor Analysis Related to Consumer Confidence Sense**

Factor	Expressions	Averages	Factor Load.	Explained Variance	Eigen values
Control Feeling	SC1	3,69	0,800	24,639	2,710
	SC2	3,87	0,688		
	SC3	3,36	0,621		
Self-Confidence Feeling	SSC1	2,88	0,746	12,097	1,331
	SSC2	3,21	0,611		
	SSC3	2,90	0,585		
Comfort Feeling	CS1	3,25	0,830	11,8238	1,301
	CS2	3,80	0,598		
Fear Feeling	FF1	2,98	0,755	9,264	1,019
	FF2	3,46	0,642		
	FF3	3,35	0,550		
Evaluation criteria	Kaiser-Meyer-Olkin Measure of Sampling Adequacy: <b>0,711</b> Approx. Chi-Square: <b>566,548</b> Bartlett's Test Of Sphericity: <b>0,000</b> Extraction Method: <b>Principal Components</b> Rotation Method: <b>Varimax</b> Total Of Explained Variance: <b>57,822</b> <b>(SC: Sensation of control) (SSC: Sensation of self-confidence)( CS: Comfort sensation)</b> <b>(FF: Feeling of fear)</b>				

When Table 3 is examined, basic components analysis and varimax rotation technique are used in the factor analysis of the consumer trust. No statement has been removed from the scale since there is no variable that has low equivalence. In this respect, it is seen in Table 3 that the 11 items in the scale related to the consumer trust is collected under four factors.

According to the results of the factor analysis, the first factor consists of three items, the second factor consists of three items, the third factor has two items and the fourth factor has three items. From Table 3, the load of the first factor varies between 0,800 and 0,621. When the expressions in this dimension are considered together, the factor is given the name "sense of control". The load of the second factor varies between 0,476 and 0,585. When the expressions at this dimension were considered together, this factor was given the name "sense of self-confidence". The load of the third factor is between 0,830 and 0,598. When the expressions in this dimension are considered together, this factor is given the name "sense of comfort". The load of the fourth factor ranges from 0,755 to 0,550. When the expressions in this dimension are considered together, this factor is given the name "sense of fear".

When Table 3 is examined, it is seen that the total explained variance of the consumer trust is 57,822%. Therefore, it can be said that the four factors that arise explain a large part of the total variance. When the distribution of the eigen values and the explained variances are examined, it is seen that the “control” factor has the highest eigen value (2,710) and the explained variance (24,639%). The eigen value of “self-confidence” is 1,331 and explained variation is 12,097 which is considered to be the factor with the highest share after “control”. These factors are followed by “comfort feeling” factor (eigen value 1,301 and explained variance 11,8238) and a “fear” factor (eigen value 1,019 and explained variance 9,264).

#### 4.3. Result of Correlation Analysis

**Table 4. Correlation Analysis Results**

	1	2	3	4	5	6	7
<b>1. Online Dependence</b>	1						
<b>2. Payment Simplicity</b>	,278**	1					
<b>3. Complexity</b>	,160**	-,033	1				
<b>4. Control Feeling</b>	,178**	,353**	,002	1			
<b>5. Self-Confidence Feeling</b>	,173**	,553**	,106*	,274**	1		
<b>6. Comfort Feeling</b>	,357**	,352**	,024	,338**	,269**	1	
<b>7. Fear Feeling</b>	,294**	,092	,392**	,157**	,099	,217**	1

\*Correlations were significant at 0.05 level, \*\* Correlations were significant at 0.01 level

When Table 4 is examined, it is seen that low and medium levels of meaningful and positive relationships exist between the sub-dimensions of online shopping and the consumer's trust variables. Values between 0.00-0.30 are low level associations, values between 0.30-0.70 are intermediate level relations, values between 0.70-1.00 indicate high level of perfect association (Büyüköztürk, 2015).

When the results of the correlation analysis are examined in Table 4 within the frame of these assumptions; there is a low positive correlation between "online addiction dimension", which is an online shopping variable, and "sense of control ", "sense of self-confidence" and "sense of fear". There is a moderately positively meaningful relationship between "online addiction dimension" and "comfort feeling".

In this respect, hypotheses have been accepted that "**H<sub>1a,b,c,d</sub>**: with “online addiction” and, a) control, b) self-confidence, c) comfort, d) fear. There is a moderately meaningful and positive relation between "payment simplicity" which is dimensions of online shopping variable and feelings of "control", "self-confidence" and "comfort". In this direction,

hypotheses have been accepted that “ $H_{1e,f,g}$ : with payment simplicity, e) control f) self-confidence g) comfort.  $H_{1h}$  is rejected.

There is a meaningful positive relationship between the dimension of "complexity" and the dimension of "self-confidence" and the dimension of "fear". In this respect, there is a significant relationship between  $H_{1j,l}$ : the complexity of “online shopping” dimension, j) self-confidence and l) fear hypotheses have been accepted. The hypotheses "  $H_{1i,k}$  " are rejected.

#### 4.4. Independent Sample T-Test and ANOVA Analysis Results

The T-test results showing the participants' online shopping behaviors and trust perceptions differing by marital status groups are shown in Table 5. Participants were not included in the table because there were no significant differences according to gender groups.

**Table 5. T-Test Results**

Faktörler	Medeni durum	N	X	sd	t	p	Significant differences
<b>Complexity</b>	The married	85	3,11	382	2,715	<b>0,002*</b>	<b>Single - married</b>
	Single	299	2,80				
<b>Self-Confidence Feeling</b>	The married	85	2,97	382	0,320	<b>0,001*</b>	<b>Single - married</b>
	Single	299	3,00				

\* The difference between the groups was significant at 0.05 level.

When Table 5 is analyzed, participants' online shopping behaviors and trust perceptions differ significantly based on marital status. When we look at the perceptions of participants about "complexity" from the dimensions of online shopping variables, it is found that married people have more positive perceptions than single ones. In this case, among the hypothesis on demographic characteristics the hypothesis that " $H_{2b}$ : b) There is a significant difference between the attitudes towards online shopping behaviors depending on their marital status" is accepted. Furthermore, when the perceptions of the participants regarding the dimension of "self-confidence", which is the sub-dimension of the consumer trust variable, are examined, it is found that single people have more positive perceptions than the married. In this case, among the hypothesis about the demographic characteristics the hypothesis that " $H_{3b}$ : b) there is a significant difference in the opinions between participants about trust depending on their marital status". The ANOVA results, which revealed the difference between online shopping behaviors and trust perceptions by age groups, education levels and income levels of participants, are shown in Table 6.

**Table 6. ANOVA Test Results**

Factors	Source of variations	Total of Squares	Sd	Averages of Squares	F	p	Ages Groups	N	X	
<b>Comfort feeling</b>	Between Groups	17,417	4	4,354	4,811	<b>0,001*</b>	18-24	238	3,69	
	In side of Groups	342,988	379	0,905			25-35	83	3,20	
	Total	360,406	383				36-46	38	3,32	
	<b>Significant difference (A-B);18-24 Age Groupe -25-35 Age Groupe</b>							47-57	19	3,44
								58 and over	6	3,16
<b>Fear Feeling</b>	Between Groups	8,012	4	2,003	2,964	<b>0,020*</b>	18-24	238	3,18	
	In side of Groups	256,094	379	0,676			25-35	83	3,26	
	Total	264,106	383				36-46	38	3,51	
	<b>Significant difference (A-B);18-24 Age Groupe -36-46 Age Groupe -47-57 Age Groupe</b>							47-57	19	3,71
								58 and over	6	3,44
<b>Payment Simplicity</b>	Between Groups	13,197	4	3,299	5,380	<b>0,000*</b>	Primary school	25	2,50	
	In side of Groups	232,424	379	0,613			High school	112	3,13	
	Total	245,622	383				Pre-license	59	2,98	
	<b>Significant difference (A-B); Primary School –High school and License</b>							License	170	3,21
								Postgraduate	18	2,83
<b>Complexity</b>	Between Groups	9,492	4	2,373	2,756	<b>0,028*</b>	Primary school	25	3,14	
	In side of Groups	326,366	379	0,861			High school	112	3,00	
	Total	335,859	383				License	170	2,70	
	<b>Significant difference (A-B); License- Primary school, High school, Pre-license</b>							Pre-license	59	3,00
								Postgraduate	18	2,83
<b>Control Feeling</b>	Between Groups	11,702	4	2,926	2,551	<b>0,039*</b>	Primary school	25	3,05	
	In side of Groups	434,685	379	1,147			High school	112	3,71	
	Total		383				License	170	3,68	
	<b>Significant difference (A-B); High school –Primary school</b>							Pre-license	59	3,73
								Postgraduate	18	3,33
<b>Comfort Feeling</b>	Between Groups	11,900	4	2,975	3,235	<b>0,013*</b>	1400 TL and under	224	3,64	
	In side of Groups	348,505	379	0,920			1401-2500	87	3,21	
	Total	360,406	383				2501-3500	38	3,47	
	<b>Significant difference (A-B); 1400 TL and under- between 1401-2500 TL</b>							3501-4500	18	3,61
								4501 TL and over	17	3,61
<b>Fear Feeling</b>	Between Groups	10,362	4	2,590	3,869	<b>0,004*</b>	1400 TL and under	224	3,18	
	Inside groups	253,745	379	0,670			1401-2500	87	3,27	
	Total	264,106	383				2501-3500	38	3,74	
	<b>Significant difference (A-B); between 2501-3500 TL – under 1400 TL and between 1401-2500 TL</b>							3501-4500	18	3,31
								4501 TL and over	17	3,19

\* The difference between the groups is significant at 0.05 level.

If Table 6 is carefully examined; it is seen that there is a significant difference regarding “comfort” and “fear” with sub-dimensions of the variable of trust according to age groups of participants. According to this result;

- For comfort, 18-25 age group is more positive than the 25-35 age group.
- For fear, the 18-25 age group is observed to be in a more negative perception than the 36-46 age group and the 47-57 age group.

When Table 6 is examined, it is seen that there is a significant difference between payment simplicity according to education levels of participants and “control”. According to this result;

- It has been found that those who are in high school and bachelors level in terms of payment simplicity is in a more positive perception than those in primary school level.
- In the aspect of complexity, those who have bachelors have reached to the result that they are in a more negative perception than those at primary school, high school and 2 year college degree education level.
- For control, the result is that those in high school education are in a more positive perception than those in primary school education.

In Table 6, it is seen that there is a significant difference between the groups regarding the sense of comfort and fear, which is the sub-dimension of the trust variable according to the income levels of the participants. According to this result;

- In the dimension of comfort, it is seen that those who have a income of 1400 TL or under and those with an income of 1401-2500 TL have a positive perception compared to those who have an income.
- In the dimension of fear, it is seen that those who have the income between 2501-3500 TL are in a more positive perception than those who have the income between 1400 TL and under and between 1401-2500 TL.

In the light of the above conclusions, there are significant differences in the hypothesis about demographic characteristics between "H<sub>2</sub> c, d, e: Participants' c) Age of the participants d) Educational conditions e) Income cases" H<sub>3</sub> c, d, e: Participants' c) Ages d) Educational condition and e) income attitudes. “ these hypotheses are accepted.

## 5. Conclusion and Suggestions

Nowadays, it is important to increase online shopping and try to understand the consumers' feelings. Therefore, in this study, it is aimed to evaluate the relationship between online shopping and the consumer's trust. In this direction, data were collected from 400 individuals and according to the obtained data; factor, correlation, T-Test and ANOVA tests were conducted.

According to the result of factor analysis, three factors related to online shopping have emerged. These are "Online Addiction", “Payment Simplicity “and "Complexity". The results related to payment simplicity and complexity are similar to studies of Song and Zahedi (2001), Gefen and Straub (2000), Lee et al. (2001) and Zhang and von Dran (2000).

According to consumer trust factor analysis result, four dimensions have emerged. These dimensions are "Control", "Self-confidence", "Comfort" and "Fear". These results are similar to studies of Eggert (2006) and Elite et al. (2011).

According to the results of correlation analysis, relationships between online shopping dimensions and consumer trust dimensions appeared. There was a positive relationship between "online addiction " and "control", "self-confidence", "comfort" and "fear". There was a positive relationship between "payment simplicity" and "control", "self-confidence" and "comfort". There was a positive relationship between "complexity" dimension and "self-confidence" at a low level and positive interest between "fear".

According to the results of the T-test, when the participants' perceptions of the "complexity" dimension are examined, it is found that the married ones are more positive than the single ones. Looking at the perceptions of the participants about "self-confidence" dimension, it was found that who were single had a more positive perception than those who were married.

According to the ANOVA test results; there were differences in the perceptions of the participants regarding the payment simplicity, complexity, control, comfort and fear. It is seen that who have higher education level have a more positive perception of " payment simplicity" which is an online shopping dimension and "control" which is a consumer trust variable. This result is similar to the study of Yayar and Sadaklıoğlu (2012). In the case of complexity dimension, the situation is exactly opposite.

While young people are in a positive perception of "comfort" according to elderly people, in the "fear" dimension, the situation is exactly opposite. It can be said that, the dimension of "fear" differed from the study of Chen and his colleagues (2015) results. Participants with a low income were found to have a positive perception of "comfort feeling" as compared to consumers with high income. In "fear", the situation is exactly opposite.

When the above conclusions are taken as a whole, the relationship between online shopping and consumer trust is discussed in general. In this case, more specific sectors can be selected to compare their trust. This research was limited to Düzce province. Data can be collected and analyzed at a wider range. Businesses can create a number of strategies for product delivery, price, and oral communication. For example, the product can be delivered to the consumer in a shorter period of time. Unexpected amounts of price should not arise.

Businesses should be stable to customers about prices. Moreover, purchasing can be achieved by giving scores related with shopping made by the customer. Customer loyalty programs can be implemented. Customers experience in shopping can be displayed online. Thus a more convincing and reliable shopping can be achieved.

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