The purpose of this study is to investigate the factors affecting consumers’ online buying behavior. In this study; In addition to Theory of Planned Behavior, Technology Acceptance Model and Diffusion of Innovation Theory, a model has been created by adding Consumer Habits and Confidence Factors and the effects of these factors on the online purchasing behavior of consumers were investigated. A questionnaire was used as the data collection tool and the analyzes were conducted on 438 respondents. The data collected by the questionnaire were analyzed using SPSS (Statistical Package for the Social Sciences) program. The reliability and validity analyses of the data were carried out firstly, and then, statistical analyses were performed for the expressions. As a result of the research; the factors examined were found to be effective in online buying behavior.

**KeyWords:** Online Buying, Online Consumer, Consumer Behavior, Theory of Planned Behavior, Technology Acceptance Model, Diffusion of Innovation Theory

1. **INTRODUCTION**

Today, the most important condition of being an information society is defined as continuous information flow, access to information and using all of these in an efficient way. The rapid spread of the Internet to many segments of society has changed the behavior of individuals as consumers as well as their lives. Shopping over the internet is one of the important phenomena that have emerged in recent years. In this sense, shopping over the Internet has become an increasingly important topic for academics and practitioners as a result of incorporating technology management principles into marketing practices. Shopping over the Internet is becoming an increasingly popular phenomenon, and a growing number of companies maintain their presence in the virtual environment, and sales over the Internet constitute one of the major revenue sources of these companies (Goby, 2006).

The Internet is increasingly being used as a new purchasing environment where consumers can access all kinds of information very quickly and interactively participate in the purchasing process and at the same time act very quickly. (Kottler, 1999:520).
Unlike the physical environment, the internet is the area where the consumer is completely free. The norms of behavior encountered in ordinary stores do not apply on the internet. The Internet has made the shopping environment as personal as possible. Since there is no physical effort to shop, many websites can be visited in a short time. The most important factors affecting the buying behavior on the internet are the abundance of options and the security issue. The Internet creates its own consumer profile and accordingly the internet consumer is knowledgeable, conscious and extremely demanding, which controls the purchasing processes unlike the traditional environment. (Kircavoava, 2012:118).

Trying to get to know the online consumer is difficult because the rapid development of e-commerce leads to an increase in both technologies and consumption types. It is also known that the type of product has a significant impact on online consumption behavior, which makes it difficult to identify consumer characteristics (Christopher & Huarg, 2003). According to Kotler and Armstrong, the Internet is a completely new way that fundamentally changes consumer perceptions of suitability, price, speed, product and service information, and offers marketers the opportunity to develop consumer relationships and create consumer value (Kotler and Armstrong, 2008).

Various studies have been conducted to determine the characteristics of the online consumer. Swinyard et al. (2006) identifies the online consumer as having the following characteristics: younger, richer, better educated, with a higher "computer literacy", and larger retail spenders. Donuthou and Garcia (1999), online consumers, older, more money-seeking, convenience seekers, innovative, impulsive, variety seeker, low risk awareness, less brand and price awareness and more positive attitude towards advertising and direct marketing people. Some of these features are similar, but some are opposite features.

Although there are studies showing differences between internet consumer and traditional consumer behavior, there are different studies and results. Another study shows that traditional consumers and online buyers have many common features. It is a common feature that consumers want to act with social interaction and perform the purchasing activity only because they do not evaluate it in a utilitarian way (Denis et al., 2009).

Studies indicate that internet consumers can obtain various conveniences. These facilities put forward in different studies; Reduced time for shopping, flexibility in shopping time, minimizing the physical effort to visit the stores, eliminating the risk of encountering bad situations, increasing customer satisfaction, an abundance of options, the variety of possibilities offered in installments, and unplanned response to any advertising activity way to purchase (Donuthu and Garcia, 1999), (Ayden ve Demir, 2014).

2. ONLINE CONSUMER BEHAVIOR MODELS

It is important to know that an entire online trading environment consists of buyers, suppliers and service providers who are actually users of information technology. (Koufaris, 2002).

Online consumer behavior can be examined from consumer-oriented and technology-oriented perspectives. In the consumer-oriented perspective, each consumer's prominent beliefs about online shopping, technology-oriented perspective focuses on the technical characteristics of online stores (Zhou et al., 2007: 41). Chen (2009: 7) states that a consumer-oriented perspective and technology-oriented perspective complement each other (Mutlu vd., 2011).

There are many theoretical models developed for human behavior used in marketing, e-commerce and computer technologies studies. The most common theories used to examine online consumer behavior are Theory of Reasoned Behavior (TRA), Theory of Planned Behavior (TPB), and Technology Acceptance Model (TAM).
2.1. Theory of Planned Behavior (TPB)

Theory of Planned Behavior was first put forward by Fishbein and Ajzen in 1975 and reorganized by Ajzen (1991). Accordingly, people's social behavior is under the control of certain factors, resulting from certain reasons and occurs in a planned way. In order for a behavior to emerge in a human being, the purpose of the behavior must first be established. The factors affecting the aim towards behavior are attitude towards behavior, subjective norms and perceived behavior control. (Erten, 2002).

Theory of Planned Behavior, which is frequently used in scientific research, has been developed in order to explain the behaviors of individuals according to their own will and will. According to this theory, which is frequently used to explain the reactions of individuals to different events; behavior determines behavioral intent. Behavioral intention is determined by the attitude of the person and the subjective norm (influence of relatives) (Koç ve Turan, 2014).

![Figure 2.1. The Model of Theory of Planned Behavior](image)


In the literature, online consumer behaviors made within the scope of Planned Behavior Theory are examined; Literatürde Planlı Davranış Teorisi kapsamında yapılan online tüketici davranışları incelendiğinde; Lam and Wu (2011) examined the behavior of Internet pet acquisition; In general, animal acquisition, religion, gender as attitude towards behavior, subjective norms as friends, relatives are effective; they also stated that all dimensions were effective in attitudes towards behavior in their study by evaluating personal abilities and resources as perceived behavioral control.

In their study, Liao et al. (1999) made a model comparison for different tools for the use of virtual banking and it was seen that Theory of Planned Behavior was partially explanatory.

Lin, Chan and Wei (2011), in the study, the behavior of choosing software between web applications facilitates the life of the software, is a good idea, entertainment, attitudes towards love behavior, friends subjective norm; knowledge, resource, control, behavioral control and satisfaction, usability of all other aspects of the behavior stated that effective.

Kim (2010) examined the subjective norm and the behavioral control of ability, resource, information, and the behavior of mobile data services use, and showed that two dimensions other than attitude were effective in explaining intention.

Ramus and Nielsen (2015) examined the attitudes towards the characteristics of online shopping in online grocery shopping behavior, the importance of individuals, family subjective norm and ability to use, resources, knowledge, skills, perceived behavioral control variables, and confidence in the logistics of the firm, trust in the firm and payment system, and behavior was effective in all dimensions.

Henderson, Rickwood and Roberts (1998) concluded that the use of e-supermarkets was fun to use and peer effect was the most influential dimensions of intent.
2.2. Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM) is one of the most important theories developed in the Management Information Systems (MIS) literature to measure technology acceptance and adaptation behavior, and to explain the behavior of individuals in general and whether they use technology in particular or not. More importantly, it can provide important ideas to researchers and practitioners in the process of forecasting (Liao ve Cheung, 2001).

![Figure 2.3. Teknoloji Kabul Modeli](image)


This model (Figure 2.3), developed by Davis (1989) to explain the behavior of technology use, is built on the basis of Theory of Reasoned Behavior. This model, developed to understand the acceptance of computer technology in the works, is frequently used in online consumer behavior research due to its simple and general nature. Technology Acceptance Model is explained by perceived benefit and perceived ease of use variables.

Hausman and Siekpe (2009) used TAM to examine the interface impact of web pages on consumer online intention and found that purchasing behavior was influenced by the web interface (Yılmaz ve Tamtürk, 2015).

In this area, Gefen (2000) conducted a descriptive study of the roles of familiarity and trust in electronic commerce. Trust, habit, research, purchasing and trust tendency dimensions are discussed.

2.3. Diffusion of Innovations Theory

In Rogers (1995) theory; The concept of innovation is defined as an idea, action and object that is newly accepted by individuals or organizations. Innovation does not necessarily have to be an unheard of concept that has never been seen before; it is sufficient that the individual or organization has not experienced it before. In addition to developing alternative solutions to the problems of the individual or organization, innovation can be new ways of perceiving the problem. From this perspective, it is possible to define the concept of innovation as a new product, technology, perspective or solution for individuals or organizations. (Demir, 2006).

Spread is defined as “communicating innovation to members of a social system through certain channels within a certain period of time” (Rogers, 1995).

Rogers, the Innovation Decision Process is described in the following five steps and modeled in Figure 2.4 (Rogers, 1995).

1. Knowledge is the stage in which one has an idea of how innovation is used, as well as an awareness of the existence of innovation.
2. This is the stage in which one has a positive or negative attitude towards innovation.
3. The decision is the stage at which a person decides to accept or reject innovation.
4. Application is the stage in which one begins to use innovation.
5. Approval occurs when the person needs support in relation to the previous innovation decision, and if he cannot find the support sought, he may change his previous decision.
Since online shopping is a relatively new phenomenon, it may require users to acquire new skills. Since innovative consumers are more inclined to try and adopt new technologies, it is clear that personal innovation is related to the trend of online shopping (Uygun vd., 2011).

Innovation is a key variable in accepting new products. Because it is one of the most important factors affecting the spread rate of new products (Steenkamp et al., 1999, 65). Innovation is an individual's level of making innovative decisions regardless of others. Midgeley and Dowling described natural (innate) innovation as an individual's ability to quickly grasp new ideas and to take decisions independently of the experience of others. (Midgeley ve Dowling, 1978, 236).

There are two main approaches that are accepted in the literature on consumer innovation. The first is the concept of personal innovation, which describes consumer innovation as a personality trait. The other approach is characterized as product-based or field-specific innovation and argues that consumers can change their innovation for each product or product category. According to this approach, the fact that the consumer has a high level of innovation for certain products or categories of products makes the person an innovative consumer and the low level of the consumer affects the opposite direction (Bülbü ve Özoğlu, 2014).

In this study, Theory of Planned Behavior, Technology Acceptance Model and Diffusion of Innovations Theory were used. In addition to this, the trust which has been evaluated as an effect of internet consumers on shopping behaviors and used in the literature to measure online shopping behavior (Grefen, 2003., Jarvenpaa, 1999, 2000., Pavlou, 2003) and consumer habits (Chiu et al., 2012., Pahnila and Warsta, 2010.) variables were also examined.

3. PURPOSE AND IMPORTANCE OF RESEARCH

The aim of the study is to analyze the factors that affect the online shopping behaviors of internet users based on Technology Acceptance Model, Theory of Planned Behavior and Innovation Propagation Theory. In this context, the relationships between online shopping behavior and
consumer habits (Chiu et al., 2012; Pahnila and Warsta, 2010) and trust (Grefen, 2003; Jarvenpaa, 1999, 2000; Pavlou, 2003) have been discussed using the mentioned theories and the effect of these factors on online shopping behavior.

In the literature, it has been seen that the mentioned theories are not examined together and it is evaluated that it will be beneficial to understand the buying behavior of the consumer by examining them together. However, it was found that the studies aimed at analyzing the online buying behaviors of Turkish consumers were limited and this study aimed to contribute to the literature by analyzing the online buying behaviors of Turkish consumers.

4. RESEARCH MODEL

The research model is created by using consumer habits (Chiu et al., 2012; Pahnila and Warsta, 2010) and trust (Grefen, 2003; Jarvenpaa, 1999, 2000; Pavlou, 2003) which are used to explain online shopping behaviors in the literature and combination of Technology Acceptance Model, Theory of Planned Behavior and Diffusion of Innovations Theory.

The proposed model is given in Figure 2.1. Variables in the model are shown below.

![Figure 2.1. Research Model](sssjournal.com)

In this model, Theory of Planned Behavior is examined with Perceived Behavioral Control and Subjective Norm Factors; Technology Acceptance Model is examined Perceived Benefit, Perceived Ease of Use and Attitude factors; Diffusion of Innovation Theory is examined with the factors of Consumer Innovation and Area-Specific Innovation.

The scales used in the study; Perceived Behavioral Control scale Taylor and Todd (1995), Madden et al. (1992), Ajzen and Madden (1986); Subjective Norm scale Taylor and Todd (1995), Baker et al. (1996), George, (2004) and Madden et al. (1992); The Perceived Benefit scale was from Dishaw and Strong (1999) and Davis (1989); Perceived Ease of Use scale is from Saade and Bahli (2005) scale; The attitude scale was developed by George (2004) and Javadi et al. (2012); The Consumer Innovation scale was developed by Martinez and Montaner (2006); Domain Specific Innovativenes scale George (2004), Javadi, (2012) and Lassar et al. (2005) Consumer Habits scale Chiu et al. (2012), Pahnila and Warsta (2010); The trust scale was translated from Grefen (2003), Jarvenpaa (1999, 2000) and Pavlou (2003) scales, and Online Shopping Behavior from Lin (2007) scales into Turkish. The selected scales were selected from the studies consistent with the study.
4.1. Data Collection Process

Data were collected by survey method. Since the survey, which was created via Google Drive in a virtual environment, was aimed at internet users, social media and mail were used to reach the target audience. The answers of the survey participants were collected in the electronic repository. All analyzes were conducted on 438 respondents. The data collected by the questionnaire were analyzed using SPSS (Statistical Package for the Social Sciences).

4.2. Distribution of Scale Scores and Reliability Scores

The mean and standard deviations of the scores given by the respondents to each scale question and the total scale scores are given in Table 1.

Each question in the scales was prepared with a 5 Likert Score (Strongly Disagree.....Strongly Agree) and was answered by the respondents in this way. In the study, Cronbach alpha coefficients were used to determine and measure the reliability of the scales separately and the total questionnaire reliability. In the literature, Cronbach alpha ≥0.70 is generally accepted as reliable (Kline, 2005; Polit and Beck, 2004). In this study, Cronbach alpha values ranged from 0.470 to 0.889. Only the alpha values of the Domain Specific Innovativenes and Attitude scales were below the threshold and their reliability could not be proved. These variables were removed from the model and tested. When the reliability of the answers given to all the questionnaire questions was examined, an alpha value of 0.921 was obtained, indicating that the questionnaire was reliable.

### Table 3.2. Ölçek Güçlendirlik Skorları

<table>
<thead>
<tr>
<th>Scales</th>
<th>Cronbach Alfa</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domain Specific Innovativenes</td>
<td>0.470</td>
</tr>
<tr>
<td>Subjective Norm</td>
<td>0.878</td>
</tr>
<tr>
<td>Perceived Behavioral Control</td>
<td>0.823</td>
</tr>
<tr>
<td>Attitude</td>
<td>0.654</td>
</tr>
<tr>
<td>Consumer Innovation</td>
<td>0.772</td>
</tr>
<tr>
<td>Consumer Habits</td>
<td>0.868</td>
</tr>
<tr>
<td>The Perceived Benefit</td>
<td>0.889</td>
</tr>
<tr>
<td>Perceived Ease of Use</td>
<td>0.741</td>
</tr>
</tbody>
</table>

Demographic characteristics of the respondents are given in Table 2.

### Table 2. Demographic Characteristics

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>143</td>
<td>32,9</td>
</tr>
<tr>
<td>Female</td>
<td>291</td>
<td>67,1</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21 and under</td>
<td>74</td>
<td>17,0</td>
</tr>
<tr>
<td>22-29</td>
<td>147</td>
<td>33,8</td>
</tr>
<tr>
<td>30-39</td>
<td>149</td>
<td>34,3</td>
</tr>
<tr>
<td>40-49</td>
<td>35</td>
<td>8,0</td>
</tr>
<tr>
<td>50 and up</td>
<td>30</td>
<td>6,9</td>
</tr>
<tr>
<td><strong>Eğitim</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High School</td>
<td>131</td>
<td>30,3</td>
</tr>
<tr>
<td>Graduate</td>
<td>238</td>
<td>55,0</td>
</tr>
<tr>
<td>Masters</td>
<td>43</td>
<td>9,9</td>
</tr>
<tr>
<td>Doctorate</td>
<td>21</td>
<td>4,8</td>
</tr>
<tr>
<td><strong>Aylık Gelir</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1000 TL and under</td>
<td>115</td>
<td>26,8</td>
</tr>
<tr>
<td>1001-3000 TL</td>
<td>126</td>
<td>29,4</td>
</tr>
<tr>
<td>3001-4000 TL</td>
<td>71</td>
<td>16,6</td>
</tr>
<tr>
<td>4001-5000 TL</td>
<td>31</td>
<td>7,2</td>
</tr>
<tr>
<td>5001 TL and up</td>
<td>86</td>
<td>20,0</td>
</tr>
<tr>
<td><strong>Meslek</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IT</td>
<td>20</td>
<td>4,6</td>
</tr>
<tr>
<td>Science and engineering</td>
<td>55</td>
<td>12,6</td>
</tr>
<tr>
<td>Education</td>
<td>45</td>
<td>10,3</td>
</tr>
<tr>
<td>Retired</td>
<td>14</td>
<td>3,2</td>
</tr>
<tr>
<td>Law, social and cultural</td>
<td>28</td>
<td>6,4</td>
</tr>
<tr>
<td>Business and management</td>
<td>49</td>
<td>11,2</td>
</tr>
</tbody>
</table>
32.9% of the respondents were male and 67.1% were female. When age distributions are examined, it is seen that 85.1% are under 40 years of age. 55% of the respondents are university graduates, 30.3% are high school graduates, 9.9% are postgraduate and 4.8% are PhD. When ranking according to monthly income, it is seen that the majority (56.2%) has a monthly income of 3000 TL and less. The highest percentage of students in the occupational groups was students (23.7%) and the lowest was the members of the armed forces (1.4%).

4.3. Testing the Relationship Between Consumer Habits and Purchasing Behavior-Regression Analysis

In this study, simple linear regression analysis was conducted and the hypotheses of the study were investigated in order to examine the relationship between each independent variable and the dependent variable and to determine in what direction and how much it depends. In order to use this analysis method, the following two assumptions must be provided;

- Independence of error terms independent of each other
- Linear relationship between dependent and independent variable

Normal distribution of error terms

Durbin-Watson test was used to test the independence of error terms.

As a result of the correlation analysis, the variables with a value less than 0.5 were excluded from the model because the relationship was lower than the medium level and the effect of the Consumer Habits on Online Shopping Behavior was tested by simple linear regression analysis.

<table>
<thead>
<tr>
<th>Prediction Variable</th>
<th>B</th>
<th>SH</th>
<th>a</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumer Habits</td>
<td>0.436</td>
<td>0.009</td>
<td>0.921</td>
<td>49.215</td>
<td>0.001***</td>
</tr>
</tbody>
</table>

***p<0.001; R = 0.921 R² = 0.847; F(2422,105) = p<0.001

When the effect of consumer habits factor on online shopping behavior (Table 3.26.) Is examined, it is seen that people have a significant effect on online shopping behavior (F (2422,105) = p <0.001) and hypothesis is supported according to these findings. Although the consumer habits factor has a positive effect on online shopping behavior, it can explain 84.7% of the change in online shopping behavior. A 1-unit increase in Consumer Habits by Model will increase the Online Purchasing Behavior by 43.6%

5. CONCLUSION AND DISCUSSION

The respondents of this study were accessed by using social media (Facebook and Twitter) and e-mails via the online survey application. The most important advantage of the online survey method is that it enables researchers to reach a broad spectrum of participants. Although it is an easy way to reach people, some people may not want to spend time to fill out the survey. Since the researcher has no chance of persuading the respondent, these people can easily ignore the request for an online survey. Therefore, the online survey carries a low risk of being answered compared to other survey methods.

In this study, consumer habits had an effect on online shopping behavior. Findings Limayem and Hirt (2003), Chiu et al. (2012) and Pahnila and Warsta (2010). It is also suggested that consumers should be supported with rewards and incentives in order to make habit of Online Shopping Behavior.
Since the scope of the study was the consumers who shop online, internet users were selected as the sample. This study is limited to Turkey, so researchers can narrow the possibilities of future work by changing the sampling method; they can repeat in a more specific group. In the same way, different cultures can be applied and intercultural differences can be evaluated.

With the rapid spread of the Internet in human life, in parallel with the changing human lives, the behavior of consumers is changing. Online shopping provides many advantages such as saving time for consumers, eliminating geographical constraints, expanding its product range and thus has a growing economy. However; All kinds of transactions over the internet, can be measured more clearly and easily than traditional methods; It also enables companies to monitor consumer behavior more easily. Companies are trying to determine what can be done to transform these behaviors that they can monitor and measure into shopping behaviors; researchers also try to understand the behavior of online consumers by analyzing them.

The ever-growing online trading pie draws the attention of researchers and firms to the growing number of online consumers. One of the most important questions for the marketing world is the determination of what depends on whether consumers perform shopping behavior or not. Increasing Internet shopping; it raises the idea that online shopping will be used more frequently than traditional shopping, and therefore the importance of analyzing the behavior of online consumers is increasing.

References


