

ANTECEDENTS OF IMPULSIVE ONLINE SHOPPING BEHAVIOR  
DURING THE COVID-19 PANDEMIC  
IN TURKEY

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DURING THE COVID-19 PANDEMIC IN TURKEY

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## DECLARATION OF ORIGINALITY

I, Asya Özışıklıoğlu, certify that

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## ABSTRACT

### Antecedents of Impulsive Online Shopping Behavior

#### During the Covid-19 Pandemic in Turkey

Technological improvements lead the world towards digitalization, shaping new marketplaces and changing consumer buying behaviors. When these rapid changes meet a global pandemic, an atmosphere that further speeds up change emerges. Theories of consumer behavior in traditional marketing have also been affected by this significant global situation and therefore have had to evolve. The purpose of this study is to understand the antecedents of a well-known consumer behavior, impulsive buying in online platforms during the Covid-19 Pandemic. The impact of two psychographic variables (i.e. fear of missing out and fear of pandemic), three demographic variables (gender, age and income) and two motives (hedonic and utilitarian) are studied as potential antecedents of impulsive online shopping behavior. The study contributes to the literature by taking into account the impact of Covid-19 Pandemic and by investigating the impact of a scarcely studied issue, fear of missing out, on impulsive online shopping. Data have been collected by the use of a questionnaire developed on the basis of an extensive literature review and hypotheses have been tested on a sample of 150 consumers with different demographic and socio-economic backgrounds. Findings of the study point out to fear of missing out and hedonic shopping value as two significant determinants of impulsive online shopping behavior. Income, as expected but contrary to the mainstream literature, does not have an impact on online impulse buying. Although impacts of fear of pandemic and demographic variables of gender and age are in the expected direction, they are not statistically significant.

## ÖZET

Covid-19 Pandemi Döneminde Türkiye'deki Çevrimiçi İçgüdüsel Satın Alma

Davranışlarının Uyarıları

Teknolojik gelişmelerin dünyayı dijitalleşmeye yöneltmesi, yeni pazar alanları yaratmakta ve tüketicilerin satın alma davranışlarını değiştirmektedir. Bu ani değişimler global bir pandemi ile çakıştığında, değişimin hızının arttığı bir ortam oluşmaktadır. Geleneksel pazarlamadaki tüketici davranışı teorileri de bu önemli global durumdan etkilenmiş ve değişim göstermiştir. Bu çalışmanın amacı Covid-19 pandemisinde, online platformlarda gerçekleşen oldukça bilinen bir tüketici davranışı olan içgüdüsel satın alma davranışının uyarılarını anlamaktır. Bu çalışmada iki psikografik değişken (gelişmeleri kaçırma korkusu ve pandemi korkusu), üç demografik değişken (cinsiyet, yaş ve gelir) ve iki güdü (hazcı ve faydacı), içgüdüsel çevrimiçi satın alma davranışının potansiyel uyarıları olarak incelenmiştir. Çalışma, Covid-19 pandemisinin etkilerini göz önünde bulundurarak ve hakkında oldukça az araştırma bulunan içgüdüsel çevrimiçi satın alma üzerindeki gelişmeleri kaçırma korkusunu araştırarak literatüre katkı sağlamıştır. Veri, yoğun bir kaynak taramasına dayanan bir anket ile toplanmış ve hipotezler farklı demografik ve sosyo-ekonomik geçmişlere sahip 150 tüketiciden oluşan örneklem üzerinde test edilmiştir. Sonuçlara göre hazcı alışveriş değeri ve gelişmeleri kaçırma korkusu içgüdüsel çevrimiçi satın almada belirleyici iki faktördür. Gelirin, genel kanının aksine hipotezde de savunulduğu gibi bir etkisi olmadığı görülmüştür. Pandemi korkusu, yaş ve cinsiyetin etkileri beklenen yönde olsa da istatistiksel olarak belirgin değildir.

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# CHAPTER 1

## INTRODUCTION

The Covid-19 pandemic is the greatest challenge the world has faced in the recent decades. On a macro scale, its spread across the world has not only created a public health crisis but also affected the social and economic balance in every country. On a micro scale, it forced everyone to change their priorities, including how they should spend money. The lockdowns coupled with large-scale social restrictions lead consumers to online marketplaces. Therefore, consumers have begun spending more time on the internet for two reasons: they have so much free time to spend on the internet because of the lockdowns and other restrictions and there are so few options alternative to online shopping. This rapid change in daily life can also be expected to affect consumer buying behavior. During the pandemic, consumers experienced swings in their actions and attitudes, including impulsive buying behavior.

Impulsive buying behavior has drawn attention of researchers for many years. Its definition has evolved and improved over the years, starting with a focus on the purchase itself to encompass the environment and the individual consumer. Throughout years, various antecedents of impulsive buying have been identified and more recently meta-analyses have been conducted to categorize them. Recent decades have also witnessed a surge in the interest on impulsive online shopping behavior as online shopping websites and mobile applications started to take the place of bricks-and-mortar stores. The shift towards online shopping became even stronger during the pandemic.

The aim of this study is to investigate the antecedents of impulsive online shopping behavior. In order to take into account the unusual circumstances the world

has been going through, the impact of the fear Covid-19 pandemic created is studied as an antecedent of impulsive online shopping behavior. In addition to this psychographic variable, another scarcely studied psychographic variable, fear of missing out, is also taken into consideration. Gender, age, income, hedonic shopping value and utilitarian shopping value are the other independent variables of the study. Data have been collected by using a survey and the hypotheses of the study have been tested on a sample of 150 respondents.

This study consists of six chapters. The second chapter focuses on the theoretical background of the study and contains detailed research findings and important highlights about the selected antecedents of impulsive online shopping behavior. The hypotheses and conceptual model of the study are also presented in this chapter.

The third chapter gives information about context of the study. It is based on two important topics relevant to this study, the Covid-19 Pandemic and online shopping in the world in general and in Turkey, in particular. The chapter briefly explains the history and effects of Covid-19 Pandemic as well as the volume and importance of online shopping for the whole world and Turkey.

The fourth chapter focuses on research design and methodology. It begins with a description of the data collection methods, the survey, and the sample. Operationalization of the variables, scales used to measure them, and adaptations made on the scales particularly for this study are then summarized. The chapter ends with reliability analyses of the scales and normality checks for the variables.

The fifth chapter begins with descriptive findings and continues with correlation analyses for ordinal and scale variables and t-tests for the only nominal variable of (Stankevich, 2017) the study, gender. The chapter also provides the

results of the regression analysis used to test the hypothesis and concludes with a summary on the results of the hypothesis testing.

In the last chapter, there is a final discussion on the findings of the study. Furthermore, managerial implication of the study is discussed and suggestions are provided. Finally, limitations this study and areas of further research are presented.

## CHAPTER 2

### LITERATURE REVIEW

Most customers have experienced buying more products than they wanted at the end of an online shopping session. The extra product might be displayed at the bottom of the product page as a recommended add-on product such as a hair cream for a shampoo. The hair cream might not have been on the shopping list at all, but the decision to buy it along with the shampoo can be made in seconds. In another case, the consumer looking for a mid-priced handbag may see that there is a discount on the brand she has always admired. The favorite brand handbag is still more expensive than the mid-range handbag despite the discount, but the consumer may decide to upgrade her choice. The examples show how a consumer can decide to make a purchase in seconds. E-business channels spend a big amount of their budget to make the buying process as easy and quick as possible because the longer the process takes, the higher the probability that the customer will have a second thought about that purchase, which in turn, could result in a cancelation. These quick, unplanned purchases shaped by a consumer's sudden but persistent urge to buy something are based on a behavior called impulsive shopping behavior. This behavior demolishes the general consumer decision-making process of need recognition, information search, evaluation of alternatives, purchase decision and post purchase evaluation (Stankevich, 2017). The consumer who feels the urge to buy impulsively ignores the first three steps completely and goes directly to the purchase decision. This temptation has been of interest not only to retailers who enjoy higher sales thanks to it but also to researchers (Amos, Holmes & Keneson, 2014).

Therefore, this study aims to investigate the antecedents of impulsive online shopping behavior taking also into account the Covid-19 pandemic the world is going through. This chapter reviews the literature first on impulsive shopping behavior and then impulsive online shopping behavior with a focus on their antecedents. The conceptual model of the study and the hypotheses are also presented in this chapter.

### 2.1. Impulsive Shopping Behavior

Studies on impulse buying go back to 1950s (Rook, 1987) and have gone through three stages (Piron, 1991). Initially, impulse buying was seen as equivalent to unplanned buying and the only emphasis of research was the purchase. Later on, in the second phase, a stimulant in the shopping environment which motivates the consumer to make the purchase was added to the equation. Stern (1962) contributed to this phase of research by identifying four different types of impulse buying: pure, reminder, suggestion and planned impulse buying. According to him, while pure impulse buying is fully impulsive and is a display of a break from the consumer's regular shopping patterns, planned impulse buying is a smart decision such that the consumer searches for and utilizes the available promotions and maximizes purchasing power. In any case, the purchase is triggered by a stimulus in the environment, creating a room for the environment in the studies on impulse buying.

In third phase, the consumer, his/her cognitive and emotional responses during the purchase, also began to be considered. A pioneer in this phase, Rook (1987) defines impulse buying as "a sudden, often powerful and persistent urge to buy something" (p.191). According to Rook, impulse buying is a fast, rather than a slow, and an emotional, rather than a rational, experience which does not involve a

deliberate consideration of alternatives and consequences. It is a hedonically complex phenomenon which may create emotional conflict and is usually deemed as bad rather than good. As such, it may lead to inconvenient and wrong decisions on the part of consumers (Taşkın & Özdemir, 2017) and result in post-purchase regret (Lim, Lee, & Kim, 2017).

Amos et al. (2014) put forward three criteria for a purchase to be qualified as impulse buying. First of all, the time between the desire to buy and the actual purchase must be short as in unplanned buying. However, different from the latter, the act of buying is accompanied with a positive mood in the former. Second, in impulse buying, the individual does not consider the consequences of the purchase and third, he/she feels a strong temptation for immediate self-satisfaction through purchase. In line with the developments in the literature, this study relies on Sharma, Sivakumaran, & Marshall's (2010) definition of impulse buying as "a sudden, compelling, hedonically complex purchase behavior in which the rapidity of the impulse purchase decision precludes any thoughtful, deliberate consideration of alternatives or future implications" (p.277).

Despite the large number of studies on antecedents of impulse buying, the literature remains fragmented (Iyer, Blut, Xiao & Grewal, 2020). Yet, there are meta-analytical studies which aim to categorize antecedents (e.g. Amos et al., 2014; (Santini, Laderia, Vieira, Araujo, & Sampaio 2019; Iyer et al., 2020). Amos et al. (2014) identifies three antecedent categories as dispositional, situational and socio-demographic. Dispositional antecedents originate from the individual consumer and refer to those personal characteristics that vary from one person to another consistently and permanently. They include psychological constructs such as impulse buying trait, dispositional motivational influences, psychographics,

impatience, and susceptibility to influence. Situational antecedents are external environmental factors and cannot be controlled by the consumer. They include social influence, situational affect, purchase type (hedonic vs. utilitarian), external cues, retail environment, situational time pressure, product characteristics, available finances at time of purchase, situational motivational forces (e.g., involvement) and shopping behavior (e.g., browsing vs. planned shopping trip). Finally, sociodemographic antecedents include demographic and socioeconomic characteristics such as gender, age, ethnicity, and income. In another effort to categorize antecedents of impulse buying, Santini et al. (2019) come up with two categories as behavioral and environmental. Their behavioral elements fairly encompass dispositional and sociodemographic antecedent categories of Amos et al. (2014) while environmental elements correspond to the latter's situational category.

In a very recent meta-analytical study, Iyer et al. (2020) identify four groups of antecedents as trait-related, resources, motives and norms and marketing stimuli. Trait-related antecedents, similar to dispositional antecedents, are individual based and can be exemplified by impulse buying tendency, sensation seeking and self-identity. Their resources category corresponds to Amos et al.'s (2014) sociodemographic factors but also include time as an antecedent. Motives and norms category refer to hedonic and utilitarian motives and the consumer's perceptions about his/her impulse buying behavior. Finally, marketing stimuli category is composed of external stimuli such as discounts, promotional campaigns, and store ambiance.

## 2.2 Impulsive Online Shopping Behavior

Improving technology provides new marketplaces for suppliers and consumers. The internet has become a very important shopping medium, growing more rapidly than other sales channels (Dawson and Kim, 2009), and online shopping websites and mobile applications started to take the place of bricks-and-mortar stores.

The most commonly used theoretical framework in the field of online impulse buying behavior is the S-O-R framework where “S” denotes the stimulus, “O” the organism and “R” the response. A stimulus is an activator that arouses the consumer and can be external (e.g., situational, marketing and website stimuli) or internal (consumer characteristics). Organism refers to the internal evaluation of consumers. It can be cognitive or affective. Finally, the response is a result of consumers' reaction(s) to the online impulse buying stimuli and their internal evaluations (Chan, Cheung, & Lee, 2017). According to the S-O-R framework, when people are exposed to a stimulus, they give cognitive and affective reactions in line with their internal evaluation processes, which in turn, shape their behavior (Parboteeah, 2005). For example, a promotional campaign offered for a limited time (a marketing stimulus) may please the consumer (an affective reaction) and make him/her think that acting fast is necessary (a cognitive reaction) and mobilize him/her to buy the product (response).

Online shopping is expected to fuel impulse buying more than traditional shopping for various reasons. First of all, it increases the ease of purchase as consumers are no longer limited by time and space; they can buy anytime and anywhere. Additionally, the ability to browse a wide variety of items, locate an extensive range of retailers, compare prices and complete a purchase with a single click makes shopping easier. Removal of time and space limits coupled with the ease

of shopping increase impulse buying (Parboteeah, 2005). Second, as the examples given at the beginning of this section show, web sites and online apps facilitate the use of cross-selling and up-selling strategies (Dawson and Kim, 2009). The cross-selling strategy involves selling additional, and often related, products to the customer in addition to what he/she intends to buy or has already bought. The up-selling strategy, on the other hand, aims at upgrading an existing customer's purchase and results in selling customers a better product than they already intended to buy (Dawson & Kim, 2009, p. 21). Cross-selling and up-selling strategies motivate impulse buying and digital marketing tools provide the opportunity to pursue these strategies more easily compared to in-store shopping experiences. Online shopping tools remove the physical boundaries to present supplementary products. For example, in stores it is physically impossible to show the picnic table and meat, which is a popular food for picnics, together at first glance since both products have specific storage needs. In contrast, while shopping online customer can see the image of meat and table together on one page. Third, personalization enabled by web tools improves online shopping experience and can increase impulsive online shopping behavior (Parboteeah, 2005). It enables creation of different shopping experiences for each customer based on their past behavior. This can be seen as a digitally enhanced version of the salesperson-loyal customer relationship that takes place in stores.

Past studies on antecedents of impulsive online shopping behavior focused mainly on website design factors such as ease of navigation, (Chih, Wu, & Li, 2012) website appearance, visual appeal, media format, search mechanisms, consumer control and security (Koufaris, Kambil, & Labarbera, 2001; Chih et al, 2012; Chen, Su, & Widjaja, 2016; Wang & Chapa, 2021). As few studies have explored the issue

from the perspective of individual customers, this study investigates the impact of two psychographic variables, namely, fear of missing out and fear of pandemic; three demographic variables, namely, gender, age and income as well as hedonic and utilitarian values as motives on online impulsive shopping behavior.

### 2.3 Fear of Missing Out

The argument of the Greek philosopher Aristotle, "Man is a social animal," is still valid after more than two thousand years and keeps inspiring thousands of scientific studies over the centuries since. One of the most well-known psychological theories supporting this thought is Maslow's Hierarchy of Needs. Maslow suggests that after physiological and safety needs such as food, sleep, air, warmth, shelter, security, and stability, the third level of human needs is social and it is the need for belongingness (Maslow, 1943). This need, which he originally named as love needs, solidifies man's hunger for loving relationships and for a place in his/her group that identifies him/her as a social animal.

Advances in technology are leading to a new era where people have two distinct forms of existence; one in real life, physical existence, and one for the digital world, existence with social media accounts. Social media not only provides easy access to real-time information, news, events, and trends, but also requires and encourages having a digital identity.

Communication technologies, which include social media, play a major role in the way people live, think, and interact with others. (Chayko, 2014) Social media platforms, where all users with internet access can create content, share their daily lives, and express opinions on various topics, provide this type of communication and interaction without any time or place limitation. Social media encourages

individuals to present themselves to others and determine the way they would like to be perceived in addition to helping them to connect and interact with others and participate in the activities they want. (Gündüz, 2017) This special way of communication works in two directions: the individual belongs to a community in which he/she can participate with his/her own sharing, posts and comments while also following what others are doing. This dynamic between online and real world has kindled a new phenomenon called the Fear of Missing Out (FOMO).

Despite the fact that FOMO is a newly recognized phenomenon in the literature, it has been defined by many researchers. In his own blog, Daniel Herman claims that he observed this phenomenon while working with a focus group and later named it as FOMO in the middle of 90's. (Herman, 2012) . However, the most widely accepted initial definition of FOMO is provided by J. Walter Thompson (JWT) Worldwide as 'the uneasy and sometimes all-consuming feeling that you're missing out – that your peers are doing, in the know about, or in possession of more or something better than you' (Hodkinson, 2016, p.3). In a similar manner, Przybylski, Murayama, DeHaan, and Gladwell (2013) define FOMO as 'a pervasive apprehension that others might be having rewarding experiences from which one is absent'. To clarify it with real life examples, FOMO is the feeling of someone who is receiving many social media notifications and beginning to question himself/herself about whether he/she is missing out an opportunity to have better time instead of that dinner he/she decided to join. Or it can be exemplified by the situation of a student who is working on an essay but gets distracted by nagging thoughts and anxiety about missing out a potentially exciting experience.

FOMO is a consumption and marketing related phenomenon associated with higher levels of behavioral engagement with social media (Przybylski et al. 2013).

Social media plays an important role in shaping consumption, sharing experiences, creating awareness and self-branding (Argan & Tokay-Argan, 2018). Naturally, for marketers to adapt and utilize this phenomenon in commercial advertising was inevitable. Commercial industries took advantage and co-opted this concept into their marketing strategies via FOMO-based advertising appeals. (Hodkinson, 2016) This relationship between FOMO and consumption has even created a new term fonsumerism by combining the words of FOMO and consumerism. It refers to a notion of consumption for an individual's social needs and desires, a way of sharing social media, opinion or tendency based entirely upon his or her interactions. The consumer who experiences FOMO can be called a fonsumer (Argan & Tokay-Argan, 2018).

The association between FOMO and consumption is a result of a new paradigm that assumes new perspectives regarding marketing and consumer behavior. (Argan & Tokay-Argan, 2018) Marketers already started to use this concept and created many different advertising models to attack this emotion. There are thousands of Google research results with the title "Clever FOMO Marketing Techniques to Boost Sales". Some of the most common used techniques are time limitation, social proof and promoting experiences. These types of marketing tools are created to trigger FOMO in targeted consumers' minds. For instance, social proof is a tool which tells a consumer viewing a product how many people already checked that product. In this way, the consumer is led to believe that so many other people are already interested in this product, and it is time to rush and purchase it. A research was conducted after a poster advertising for a travel to Europe with the slogan, "FOMO? – Book now for Europe" was seen on a campus. The poster displayed a grey-silhouetted image representing a missing person who could be the next person

booking for the travel and joining the fun of the others on the poster. Thus, FOMO-based marketing tactics are not uncovered all the time. Marketeers do not hesitate to show they use FOMO in their communications by directly naming it in content (Hodkinson, 2016).

FOMO may create an urge to make an unintended, immediate, and unreflective purchase just because others are enjoying a specific product and the individual does not want to miss the same experience. Thus, it is proposed that individuals with higher FOMO will be more inclined to do impulsive online buying behavior:

H1: A higher level of FOMO is expected to intensify impulsive online shopping behavior.

#### 2.4 Fear of Pandemic

The Covid-19 pandemic not only threatens the lives of millions of people and disrupts healthcare systems, but it also has an unsettling impact on the socio-economic environments of entire countries. Economically, businesses and sectors has experienced a great shock because of the lockdowns in both demand and supply side and obstacles to the service sector (Phillipson et al. 2020). Cancellation of all social, religious and festive activities, social distancing rules and travel bans, on the other hand, demolished social life almost to the point of zero ( (Haleem, Javaid, & Vaishya, 2020). This unpredictable outbreak also changed the relation between businesses and consumers, forced companies to monitor changes in consumer behavior and adopt new strategies accordingly (Eger, Komárková, Egerová, & Mičík, 2021). At the beginning of the outbreak, during the lockdowns people developed some positive behaviors, such as working out indoors, learning new skills

and following healthier diets. However, social distancing also had a negative impact on cognitive performance and led to negativity and depression (Donthu, 2020).

According to Eger et al. (2021), consumer shopping behavior during the Covid-19 pandemic generally depends on fear. Marketeers are indeed familiar with fear appeals -the persuasive messages designed to frighten individuals by evoking or exaggerating dire consequences of neglecting a serious fact- and have used them in advertising (Addo, Jiaming, Kulbo, & Liangqiang, 2020). Fear appeal, for example, is widely used in marketing and advertising for health and life insurance, because these services are known to be associated with the fear factor even before the Covid-19 pandemic. The outbreak of the pandemic created its own fear factors in addition to the commonly known ones.

Fear of complete lockdown is one of them. Whether it is complete or partial, lockdown leads to anxious consumers who engage in panic buying to stock essential items (Ahmed, Streimikiene, Rolle, & Duc, 2020). The scarcity of essential products on the shelves created another fear because although supermarkets quickly restocked the shelves, they were emptied immediately by consumers shopping for essential products such as water, frozen food, bread, toilet paper and other groceries (Kim & Su, 2020). As it was mentioned before, Covid-19 affected supply side and created a limited supply for essential goods. The lockdowns affected durability and consistency of supply chain systems of the companies and combined with a sharp increase in demand, it resulted in panic buying (Ahmed et al. 2020; Omar, Nazri, Ali, & Alam, 2021). All these fears can be grouped under the construct of pandemic-based fear. Recent research studies report that Covid-19 pandemic has significantly increased impulse buying behavior around the world (Eger et al. 2020; Ahmed et al. 2020). According to Ahmet et al. (2020), pandemic-based fear and panic buying

fostered by the pressure of scarcity of essential products on the shelves and limited supply of essential goods has had a significant influence on impulsive buying behavior.

Additionally, the pandemic increased the demand of e-commerce businesses for many reasons such as restrictions, people's avoidance to go out and keeping to social distance (Grashuis, Skevas, & Segovia, 2020). Since consumers started to spend more time on social media and internet (Donthu, 2020), it is highly possible that consumer who are exposed to pandemic-based fear will also show more impulsive online buying behavior. For these reasons, the following hypothesis is developed regarding the relationship between fear of pandemic and impulsive online shopping behavior:

H2: A higher level of fear of pandemic is expected to intensify impulsive online shopping behavior.

## 2.5 Demographics

### 2.5.1 Gender

Gender is one of the basic segmentation criteria that has been used for decades. Researchers have been investigating gender differences in shopping decisions and consumer behavior for many years. Even though there is a new phenomenon called "future is genderless" which is elaborated in marketing strategies of some global brands, men and women show significant differences in terms of consumer behavior (Tifferet & Herstein, 2012). Past studies provide various examples of these differences: women display a higher intention to give gifts and to more recipients, start shopping earlier for special events and spend more time shopping (Zhang & Prybutok, 2003), they enjoy shopping more, they pay more attention to advertising

and interpret information for purchase decisions, and they are more likely to buy aesthetic products, while men tend to prefer functional products (Coley & Burgess, 2003).

Similar studies and examples show that gender is significantly associated with online shopping (Zhang & Prybutok, 2003). Previous studies before the advent of online shopping highlight that women are considered better shoppers, but when it comes to online shopping, men are catching up. Although the number of internet users is evenly split between the genders, more men than women shop online (Rodgers & Harris, 2003). Male consumers have a more positive current and future attitude toward online shopping than women. They make more online purchases and spend more money online, and they intend to maintain this relationship in the future (Zhou, Dai, & Zhang, 2007). Even though women are primary shoppers for store-visit-based shopping and thus may be expected to show the same performance in online shopping, they are not. (Rodgers & Harris, 2003)

However, that men buy more online does not necessarily mean that they are more prone to online impulse buying. Additionally, past studies (e.g. Tifferet and Herstein 2012; Santini et al., 2019; Iyer et al., 2020) point out to that women are more prone to impulsive buying mainly because they enjoy shopping more and thus they spare more time and energy for shopping. Their higher hedonic consumption tendency leads them to also have a greater inclination for impulse buying (Tifferet and Herstein 2012; Santini et al., 2019). Additionally, women have a greater tendency to suffer from anxiety and depression than men and see shopping as a means to feel better (Tifferet and Herstein, 2012). Since impulse buying is an emotional rather than a rational experience (Rook, 1987), it is more likely to be triggered when one feels anxiety or is depressed. Finally, women are more likely to

experience a mixture of pleasure and guilt, which, again describes the mental state during impulse buying. On the basis of these considerations, the following hypothesis is developed:

H3: Female gender is expected to intensify impulsive online shopping behavior.

### 2.5.2 Age

Along with gender, age is another important segmentation criterion not only for marketers but also for researchers. Just as human body changes physically throughout life, preferences, perceptions, desires, and decision patterns also change. Buying behavior is significantly influenced by these changes (Chaney, Touzani, & Slimane, 2017). It is so unexpected that the same consumer prefers the same product throughout his/her life, and the social value of a brand may become less important over the years for the same consumer (Nadeem, Akmal, Omar, & Mumtaz, 2017).

According to Trocchia and Janda (2000), older consumers are more reluctant to shop online compared to younger generations for three reasons. They are not experienced enough in using information technologies, they resist to change, and they insist on trying the product before buying it. Oppositely, children demonstrate independent shopping skills and become more confident in online shopping because they feel more respected and valued than they do during in-store visits without control of their parents (Taichon, 2017). Although it may seem like a gap that can never be filled between young and old, it is likely that when the perception of the benefit obtained become more immediate, this buying behavior may become more common for all types of customers regardless of age (Hernandez, Jimenez, & Martin, 2011).

Past studies reveal that younger individuals have higher impulsive buying tendency (Badgaiyan & Verma, 2015) and are more inclined to impulse buying (Amos et al. 2014; Iyer et al., 2020). This is mainly attributed to the young's need to satisfy the expectations of their peers to affirm their place in the group; purchased items tend to be a means to fulfill the judgmental criteria of the peers (Santini et al., 2019). Since younger consumers are more comfortable with online shopping and show higher impulsive buying tendency compared to older consumers, a negative association is expected between age on impulsive online shopping behavior.

Therefore, the following hypothesis is developed:

H4: Older age is expected diminish impulsive online shopping behavior.

### 2.5.3 Income

According to Mahmood, Bagchi, & Ford (2004), consumers who do online shopping are well educated and wealthier and thus expected to spend more money thanks to their higher income. Past studies (e.g., Rana & Tirthani, 2011; Santini et al., 2019) also reveal that wealthier customers are more impulsive in their buying decisions. At a first glance, high income may more easily be positively associated with impulsive buying behavior, as it gives customers the ability to decide and spend money in a matter of seconds. However, impulse buying is not just about luxury consumption; people with low incomes can also be prone to impulsive buying behavior. For example, a low-income customer may be more receptive to promotional discounts with time limits. If he/she deems an offer as advantageous, he/she may feel the urge to buy impulsively. A negative impact of income on impulsive buying may be more valid for consumers from emerging economies where people are relatively poorer.

As income can have different effects for different income levels in different contexts, the following null hypothesis is developed.

H5: Income is expected not to be associated with impulsive online shopping behavior.

## 2.6 Hedonic and Utilitarian Shopping Value

Babin, Darden, & Griffin (1994) view shopping as an experience the main result of which is shopping value. This value may be hedonic and/or utilitarian and shopping may be fueled by both hedonic and utilitarian motives. These motives for consumption are not completely separated from each other (Batra & Ahtola, 1991). The output of a shopping experience might serve both ways; a shampoo may prevent dandruff, and thus deliver utilitarian value, while also providing pleasure with its nice scent and offer hedonic value.

Hedonic value is the value obtained through multisensory, imaginative, and emotional aspects of the shopping experience while utilitarian shopping value taps on the task-oriented, cognitive, and non-emotional dimension of shopping experience (Jones, Reynolds, & Arnold, 2006). Hedonic value emerges as shopping may become an emotional experience for consumers, which they associate it with pleasure and entertainment and through which they seek gratification. Thus, in hedonic shopping, shopping becomes an end in itself. In utilitarian shopping, on the other hand, what matters for the consumer is the utility of the purchase and shopping is just a means to an end (Babin et al., 1994; Wang & Chapa, 2021).

Consumers seeking hedonic shopping value are more valuable from a retailer's perspective than those that seek utilitarian shopping value (Wang & Chapa, 2021).

E-commerce websites and applications in particular work to create an aesthetically positive and enjoyable user experience to recall hedonic value. (Babin et al. 1994). They constantly improve their marketing strategies to create that hedonic value with a purchase by focusing on their web browsing, variety of selection, price and sensory attributes (Park, Kim, Funches, & Foxx, 2012). Literature (e.g., Iyer et al. 2020; Kim & Eastin, 2011; Wang & Chapa, 2021) suggests that hedonic value has a direct influence on impulsive buying and is one of its crucial antecedents. Studies on online shopping (e.g., Parboteeah, Valacich, & Wells, 2009) also point out the use of interface to arouse hedonic reactions to motivate impulsive buying. On the basis of these considerations, the following hypothesis is developed:

H6: A higher level of hedonic shopping value is expected to intensify impulsive online buying behavior.

Utilitarian value is recognized as the dark side of shopping (Babin et al. 1994). It is associated with “shopping as work” mentality (Holbrook & Hirschman, 1982) and focuses on the instrumental value of the purchased product’s functional attributes (Batra & Ahtola, 1991) rather than the gratification and enjoyment shopping provides. Higher utilitarian value from the perspective of the consumer has a tendency to create brand loyalty and is more related to repatronage intentions (Jones et al. 2006). The rationality associated with utilitarian motives may prevent a sudden purchase which precludes any thoughtful, deliberate consideration of alternatives or future implications. Based on these consideration, utilitarian shoppers are expected not to be susceptible to impulsive buying. Therefore, the following hypothesis is proposed:

H7: A higher level of utilitarian shopping value is expected to diminish impulsive online shopping behavior.

## 2.7 Conceptual Model of the Study

This simple conceptual framework represents the basis of this study and shows independent variables and dependent variable of this research. Independent variables are hedonic shopping value, utilitarian shopping value, fear of missing out, pandemic based fear, gender, income and age, dependent variable is impulsive online shopping behavior.

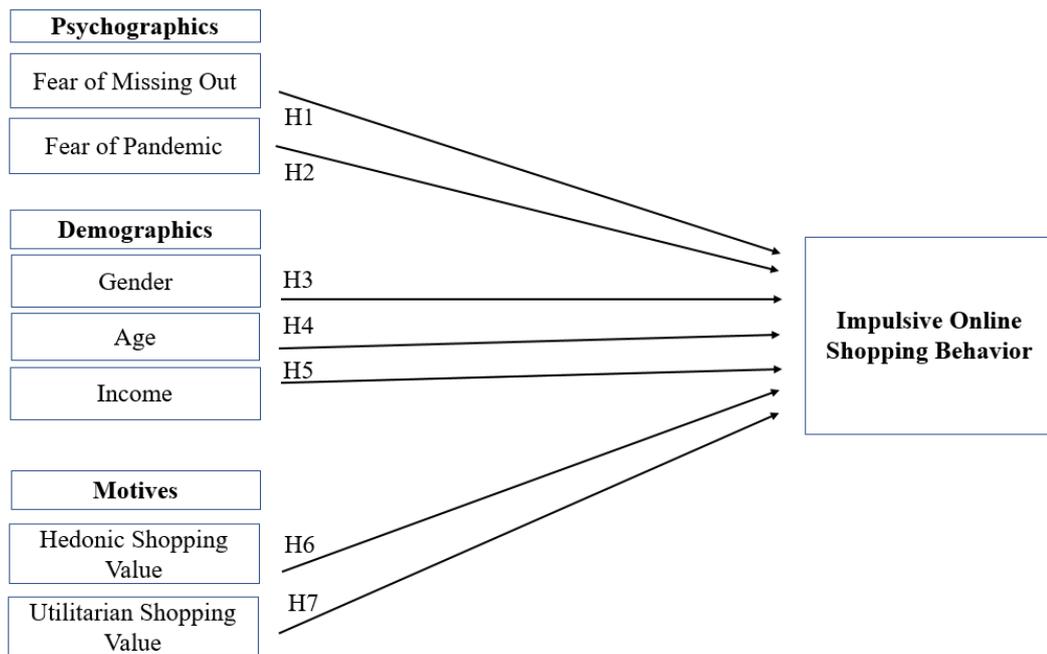


Figure 1. Conceptual model of the study

## CHAPTER 3

### CONTEXT OF THE STUDY

#### 3.1 Covid-19 Pandemic

In December 2019, the first known case of coronavirus disease was identified in Wuhan, China. On January 30, 2020, the World Health Organization (WHO) Emergency Committee declared a global health emergency due to the increasing number of cases in China and its bordering countries. Since then, the disease has spread worldwide, and as of June 2021 the WHO confirmed more than 177.5 million cases and 3.5 million deaths around the world. Recently, vaccines have been developed by several firms and 21.8 per cent of the world population has received at least one dose of a Covid-19 vaccine. As of the last weeks of June, about 2.7 billion doses have been administered globally and approximately 38 million doses are administered each day (Mathieu, Ritchie, & Ortiz-Ospina, 2021). Yet, the outbreak is still ongoing with the emergence of new mutations of the virus. This pandemic is not the first, and according to the WHO it will not be the last.

Throughout history, mankind has witnessed several epidemics, all of which affected countries in different aspects. Between 1347-1352, the plague called Black Death caused millions of deaths throughout Europe, starting from the United Kingdom. The loss of millions of lives forced the British population to change their daily routines and adopt a new, more people-oriented lifestyle, providing a better standard of living for the poor population. The improvements in daily life are not the only changes that have taken place; habits of production and consumption, architecture, art, and culture have also transformed (Karaimamoğlu & Gümüş, 2020). As this pandemic occurred hundreds of years ago, its impact is difficult to measure today.

Spanish Flu, or the Great Influenza, on the other hand, is one of the biggest disasters of the 20th century. It took place towards the end of the World War I and its damage was as big as the war. Despite the fact that it is called "Spanish", the first case was seen in Kansas City, United States of America. Since wartime has created an environment of high social mobility, its rate of spread around the world was augmented (Yolun, 2012). It is estimated that nearly 39 million people from 43 countries lost their lives because of this pandemic (Ceylan, Özkan, & Mulazimoğulları, 2020).

Although these two pandemics occurred under different circumstances, their devastating effects on the world's economy and politics were similar in one respect. Both forced societies to renew their standards of living and adopt a new way of life. Similarly, for the Covid-19, the long-term effects of the outbreak are yet to be seen but the immediate impact on the economy and social life is significant. It is widely accepted that Coronavirus posed major challenges to public health systems of almost all countries. In such a vital sector, maintaining a healthy and well-organized environment for doctors, health workers and patients while responding to urgent requests of the patients was extremely vital. This crisis management forced some developed countries to make changes in digital health services and created radical advancements (Öncü, Yıldırım, Bostancı, & Erdoğan, 2021). On the other hand, the pandemic has broken already fragile health care systems of developing countries. India announced that its health care system has collapsed, while Italy and Brazil had to admit that their systems came to the edge of collapse right before the vaccinations were started. Moreover, in Italy, doctors had to make dreadful decisions about whose life to prioritize at the cost of another due to the shortages of equipment, beds, and staff. After those desperate times, thanks to

vaccination developments, today countries work on to share their facilities with the rest of the world and to ensure a fairer distribution.

Governments have had to enforce border closures, travel restrictions, and quarantines to flatten the curve for health care systems, that is, to keep the number of patients below the limits of care that health care systems can provide. Although these regulations have affected all sectors and investment flows, their effect on travel, tourism, leisure, and catering has been particularly critical (Ceylan et al. 2020). From a macro perspective, mandatory regulations followed to save lives have damaged economies and caused some irreversible situations. As China is the center of production for industrial intermediate products and since it was the first country to be affected by the pandemic, exports of parts and components were disrupted. In addition, Japan, Korea and Singapore, the other leading players in the continent, were also affected. When the pandemic hit the economies of the G7 countries, which account for 60 per cent of world supply and demand, 65 per cent of world production and 41 per cent of exports, the threat became even more frightening (Baldwin & Weder Di Mauro, 2020). On a micro basis, enterprises struggled to survive as they followed strict regulations. As many people prioritized their health and cut any interaction with outside world, service sector firms in general and the hospitality sector in particular suffered.

For some countries, the worst-case scenarios did not actualize. China, the origin country of the pandemic, did not grow economically in 2020 but country's economic output is expected to rise to pre-pandemic levels in following years. European countries are not so lucky. Italy and Spain are not expected to return to their previous levels in the next few years, while Brazil and Japan join them (Statista, 2020). Nevertheless, the future is not so bleak; global GDP is expected to surpass

2019 levels as early as 2021. Researchers are positive suggesting that the pandemic could have shaken the global economy, but after every recession comes recovery at some point.

### 3.2 Covid-19 Pandemic in Turkey

Turkey's first official case of coronavirus was announced by the Minister of Health on March 11, 2020. The first death was registered just six days later, on March 17. Turkey had the advantage of experiencing the outbreak after many other countries, and observations on previously infected countries guided the government for the measures to be taken. International flights were regulated immediately but Turkey welcomed pilgrims who returned from their visit of Mekke. It was later suggested that the pilgrims might be one of the factors which contributed to the initial acceleration in the growth of patient numbers. On the other hand, the government acted fast in mimicking the regulations enforced in other countries in various areas.

Education in primary and high schools were suspended at first but then Ministry of Education started to use a TV channel and various online sources to resume education. Similar regulations were made for the universities. All restaurants, cafes, museums, shopping malls, beauty salons, hotels, gyms, concert areas, nightclubs, wedding venues were temporarily closed, and flights were canceled during the first peak. Wearing a mask is announced as mandatory and new rules have been put into place for public transport. In order to prevent the spread of the virus among more vulnerable, bans were imposed on certain age groups. In addition, regardless of age, closures were imposed for the entire country during evenings and weekends. The scope and duration of these lockdowns are adjusted by closely monitoring the number of cases and the economic situation of the country. Recently,

the country had a 17-day closure between April 29 and May 17. After a short period of time following the lockdown, vaccination has accelerated. Turkey has gone through three peaks since the beginning of the breakout.

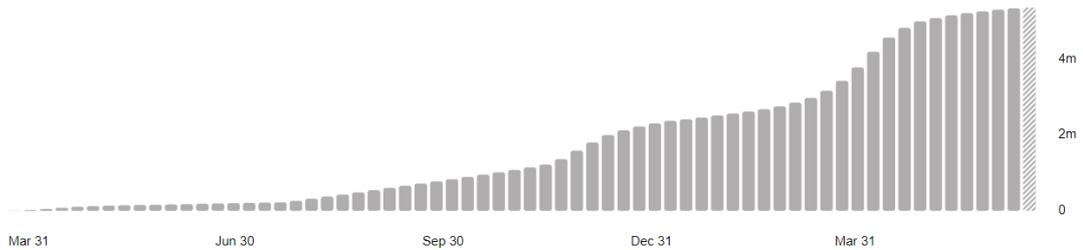


Figure 2. Confirmed Covid-19 cases in Turkey

In order to balance economic well-being with the need to control the spread of the disease, the government loosened and tightened the regulations in line with the number of infected people. Moreover, government supported the businesses financially to prevent a collapse but whether the support is sufficient has been an issue of discussion. According to the Union of Chambers and Commodity Exchanges of Turkey's report, more than 24 thousand businesses were closed while majority of working-class work from home (TOBB, 2021). Due to a research, only 10 percent of workers in Turkey are able to work from home. This means that the majority of the working class has vulnerable jobs and about 7 million workers could lose their jobs because of the Covid-19 pandemic (Demir Şeker, Nas Özen, & Acar Erdoğan, 2004).

The development of vaccination has been received as good news in Turkey as elsewhere. According to the Ministry of Health, there are more than 32 million people who had their first doses and more than 14 million who had their second (Health, 2021). The government has announced that restrictions will be relaxed for

the summer of 2021. This will lead Turkey to join the team of countries that have begun to adjust life before the pandemic.

### 3.3 Online Shopping

There are several definitions for online shopping in the dictionary, but they all have similar meanings. Basically, it is "the process that consumers go through to buy products or services over the internet", but if the instruments used are also mentioned, it can be defined as "customers purchasing goods and/or services over the internet using digital devices such as tablet, laptop or mobile phone" (Global, 2021). Even though many may think that Jeff Bezos, the founder of Amazon.com, is the father of this sector, the first transaction took place at NetMarket.com in 1994 (Gilbert, 2004). The site's founder sold an album for \$ 12.48 to his friend, who made the payment online using his credit card. Today, e-commerce which began more than twenty years ago with a CD purchase, has a huge transaction volume and its capacity is growing due to the technological improvements and increasing demand respectively. The market has reached maturity with established players and established certain rules, but it continues to evolve everyday thanks to the flow of innovations.

According to Statista's (2020) e-commerce report, top segment of online shopping is fashion. It is followed by electronics and media, toys, hobby and do-it-yourself (DIY), furniture and appliances and food and personal care. Country wise comparisons show that China was the biggest in online shopping in 2019 with revenues of \$ 525.1 billion worldwide (Statista, eCommerce Report, 2020) and the country which is the origin of the pandemic is expected to be the first country in the world where digital sales will surpass the physical one (Gourtsilidou, 2021). The

U.S. is the second biggest market with \$ 862.6 billion and is followed by Europe with \$ 351.9 billion in 2019. Besides that, forecasts for all the markets show an increase in generated sales. Even though the most current numbers belong to 2019 and 2020 is the year of unexpected events, researchers are making estimates about 2020 numbers. Statista also adjusted their 2020 forecast in November, claiming that e-commerce sales will increase by 10 percent.

Food and personal care became the biggest gainers from the Covid-19 pandemic and are followed by toys and, hobby and DIY products. Fashion is also expected to see a boost (Statista, eCommerce Report, 2020) The rise in food and personal care can be explained by the fact that online shopping has become necessary for some customers especially if they are in the risk-groups identified by WHO (Inci, 2021). According to Digital Commerce 360's (2020) survey, 84.5% of the participants hesitate to do in-store grocery shopping because they are concerned about contracting the virus. If people hesitate to go to physical stores to meet an essential need such as groceries, they can be expected to do the same for their non-essential needs. This is also supported by the studies conducted during the pandemic.

Figure 3 shows the shifts between sectors regarding online shopping traffic.

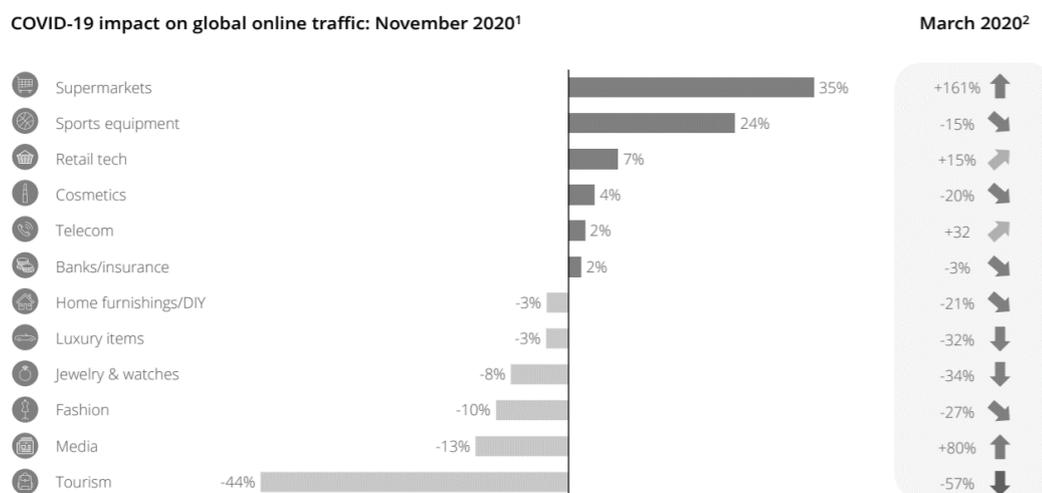


Figure 3. COVID-19 impact on global online traffic: November 2020

For example, a survey highlighted that online shopping sectors of consumer electronics, hobby products and pharmaceutical and health care products represent the largest growth in online sales due to the pandemic (Development, 2020). This increased demand is also leading the players in the digital world to improve the customer experience on digital marketplaces and develop new areas to get the biggest piece of the pie. Online shopping has become very important and investment in search engine optimization is playing an important role in attracting customers more than ever. Delivery optimizations and simplification of checkout and payments are also being developed to improve online shopping journey from the starting point to the end (Statista, eCommerce Report, 2020).

Turkey showed a similar reaction to these rapid changes. In Turkey, there are 37 million e-commerce users, and the country has generated \$ 8 billion net sales from online sales in 2019 and the biggest segment was fashion as was the case in global metrics. According to the chairman of the Association of E-commerce Operators, Turkey's e-commerce volume reached \$24.68 billion by the end of 2019 and the expectations for 2020 and 2021 are approximately \$32.5 billion and \$52 billion, respectively (Gunyol, 2020).

Online shopping is expected to capture more of the market in the future by developments in the digital world and consumer behaviors. Covid-19 pandemic has been a strong push-factor and it has already shown its huge impact on many sectors. As people have gotten more used to online shopping in Turkey and the world alike, share of online sales vis-à-vis physical sales is likely to grow further in the coming years, hopefully in an era which we will call post-pandemic.

## CHAPTER 4

### RESEARCH DESIGN AND METHODOLOGY

This chapter presents research design and methodology and has three subsections. First, data collection method is described. In the second subsection, variables of the study and the scales used to measure them are presented. Finally, data analysis methods are explained.

#### 4.1 Methodology, Data Collection and Survey

As the aim of the study is to determine the antecedents of impulsive online buying behavior during the Covid-19 Pandemic in Turkey, after literature review, a questionnaire was conducted, and quantitative research methods are applied. Based on the literature review and the conceptual model, seven hypotheses were generated. Statistical analysis methods used in this study are descriptive statistics, internal reliability and normality checks, correlation analysis, t-tests and regression analysis. The main data is collected by the use of a questionnaire.

Due to the difficulties of data collection during the pandemic, the questionnaire was distributed in cooperation with a research firm, which has access to a panel of 90,000 participants via a mobile application. Since being involved in the sample does not require specific qualifications, the only criterion given to the firm was to assure a relatively equal size of female and male participants for the health of statistical analysis. No criteria were provided regarding the other demographic independent variables of the study as it would make the data collection process more complex and because they could be recategorized to ensure a balanced size for subgroups. The overall sample size is 150.

The questionnaire has five parts the first four of which focus on fear of pandemic, FOMO, hedonic and utilitarian shopping value, and impulsive shopping behavior. The last part probes independent demographic variables of the study as well as other demographics such as marital status, educational background and profession. Five-point Likert scales ranging from ‘‘Totally Disagree’ to ‘Totally Agree’ are used with ‘‘1’’ referring to the former and ‘‘5’’ the latter. Questions on demographics, on the other hand, were presented in a multiple-choice format. The sample includes 150 participants in total; 75 females and 75 males from İstanbul, Ankara and İzmir, the three biggest cities of Turkey. About two thirds of the sample, 101 of them, are married while the rest is single. 36 of the participants have graduated from primary school and 61 from high school. While approximately one third of them (49 respondents) have a bachelor’s degree, only four of them have master’s degrees. 32 percent of the respondents work in the private sector, slightly more than 10 percent are governmental officials. Retirees, housewives and students establish 10.67, 24.0 and 15.0 percent of the sample, respectively. Finally, 12.67 percent of them are unemployed.

## 4.2 Research Design and Variables

This study is quantitative and cross-sectional. Scales used in this study have been adapted from past studies and are explained in detail below.

### 4.2.1 Impulsive Online Shopping Behavior

The five-point Likert scale of the dependent variable of the research was adapted from a study that examined the influence of website characteristics on impulsive shopping behavior (Parboteeah et al. 2009). The three items establishing the scale

were created to capture a consumer's current state of impulsivity after being exposed to a website. This variable's internal reliability is the second highest among all variables with a Cronbach's alpha ( $\alpha$ ) score of 0.867.

#### 4.2.2 Fear of Missing Out

FOMO is evaluated by an adapted version of the scale developed by Przybylski, Murayama, DeHaan, & Gladwell (2013). Przybylski et al. recruited a large and diverse sample and asked them about their individual opinions on fear of missing out. After reviewing it with an empirical and data-driven approach, 10 items were identified and utilized as a psychometric instrument that can differentiate among low, moderate, and high levels of FOMO.

In addition to that, validity and reliability of the Turkish version of this 10-item scale were supported (Gökler, Aydın, Ünal, Metintaş, & Selma, 2016). Since the original scale refers to the social media use, the items were modified to refer to consumer purchasing behavior in order to remain in context without undermining the credibility of the scale. Examples of some items were rewritten such that "I get anxious when I do not know what my friends are up to" was changed to "I get anxious when I do not know what my friends are buying" and "Sometimes, I wonder if I spend too much time keeping up with what is going on" was changed to "Sometimes, I wonder if I spend too much time keeping up with popular brands/products". FOMO has the highest internal reliability among all variables with a Cronbach's alpha ( $\alpha$ ) score of 0.903.

#### 4.2.3 Fear of Pandemic

Fear of pandemic combines various concepts such as fear of complete lockdown, scarcity of food and essential items on shelves, limited supply of food and essential products, panic buying and such. The scale has three items and is adapted from Ahmed, Streimikiene, Rolle, & Duc's (2020) fear of lockdown in COVID-19 Pandemic. This variable is also internally reliable; its Cronbach alpha ( $\alpha$ ) score is 0.723.

#### 4.2.4 Gender

Gender is a categorical variable coded as "1" if the respondent is a female and "2" if the respondent is male. In order to analyze the variable's effect properly, men and women are equally represented in the sample.

#### 4.2.5 Age

Age is a categorical variable with four categories. The ranges are 18-24, 25-34, 35-44, and 45 and older. Respondents in the first category are coded as "1", in the second category as "2", in the third category as "3" and in the fourth category as "4".

#### 4.2.6 Income

Income is a categorical variable. Initially, eight categories were established. However, as the number of respondents who had incomes between 6001-9000 TL, 9001-12.000 TL and more than 12.000 TL were very few in number, they were recategorized as "those earning more than 6000TL". The respondent's household incomes of whom are less than 3000 TL is coded as "1", those between 3001 TL and 6000 TL are coded as "2" and those more than 6001 are coded as "3". There was also

an option for participants who did not want to share this information and this option is coded as 9.

#### 4.2.7 Hedonic Shopping Value

Hedonic shopping value is measured by its original scale which is improved by Babin et al. in 1994. Besides the fact that this scale was used many times by researchers from all around the world, the scale was used in local studies as well (e.g. Akgül, 2014; Tanrikulu, 2020; Cevizci, 2019). The scale has 11 items to measure hedonic shopping value and it has a high internal reliability with a 0.845 Cronbach's alpha ( $\alpha$ ) score.

#### 4.2.8 Utilitarian Shopping Value

Similar to hedonic shopping value, utilitarian shopping value scale was adapted from Babin et al.'s study (1994). The four-item scale was used by many Turkish and foreign researchers (e.g. Tanrikulu, 2020; Cevizci, 2019). However, the scale showed an unacceptable level of internal reliability with a Cronbach's alpha ( $\alpha$ ) score of 0.313. Therefore, utilitarian shopping value was eliminated from further analyses.

Table 1. Reliability Analysis of the Scales

Name of the Variable	Cronbach's Alpha	Number of Items
Impulsive Online Buying Behavior	.867	3
FOMO	.903	10
Fear of Pandemic	.723	3
Hedonic Shopping Value	.845	11
Utilitarian Shopping Value	.313	4

### 4.3 Data Analysis

Data analysis of this study was made by using IBM Statistics 27. Internal reliability of the scales was evaluated by calculating Cronbach's alpha ( $\alpha$ ) and as mentioned above utilitarian shopping value was removed from further analysis. Kolmogorov-Smirnov test was used to check if variables are normally distributed. Only hedonic shopping value variable was normally distributed.

Table 2. Tests of Normality

	Kolmogorov-Smirnova <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Impulsive Online Buying Behavior	.111	149	.000	.961	149	.000
FOMO	.096	149	.002	.964	149	.001
Fear of Pandemic	.100	149	.001	.963	149	.000
Gender	.342	149	.000	.636	149	.000
Income	.281	149	.000	.836	149	.000
Age	.200	149	.000	.852	149	.000
Hedonic Shopping Value	.056	149	.200*	.989	149	.288
Utilitarian Shopping Value	.130	149	.000	.970	149	.003

\*. This is a lower bound of the true significance.

<sup>a</sup>. Lilliefors Significance Correction

According to Pallant (2007), if the normal probability plot of the regression standardized residuals lies in a reasonably straight diagonal line from bottom left to top right, there is no major deviations from normality. Additionally, if the scatter plot of the standardized residuals is roughly rectangularly distributed, with most of the scores concentrated in the center, deviation from normality is not high. As this was

the case, and the sample size is relatively large, parametric tests were preferred. In addition to the stepwise regression analysis used to test the hypotheses, Spearman's correlation, t-tests, ANOVA tests were also run to analyze the data.

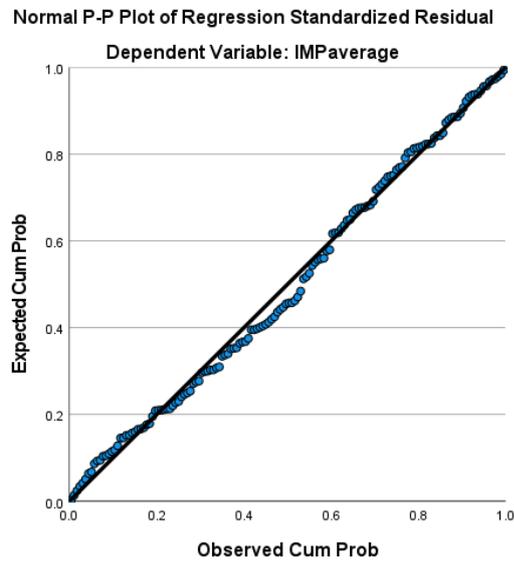


Figure 4. Normal P-P plot of regression standardized residual

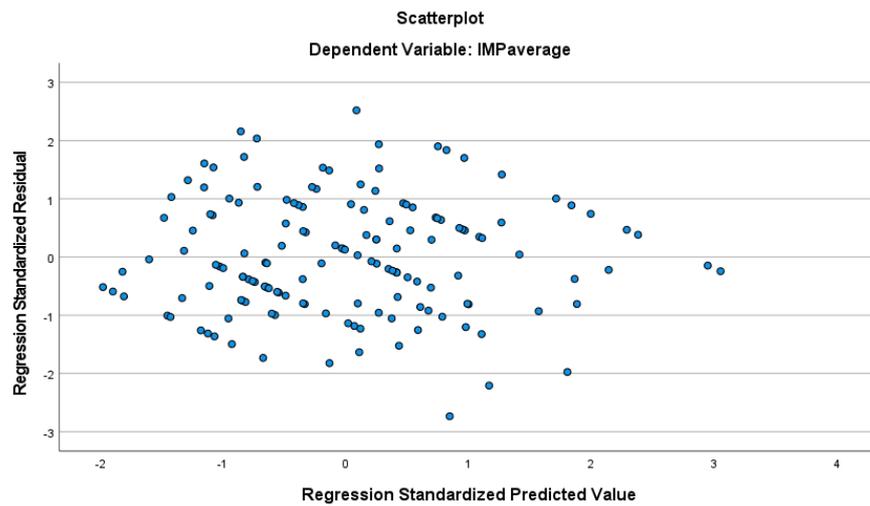


Figure 5. Scatterplot of regression

## CHAPTER 5

### ANALYSIS AND FINDINGS

This chapter explains general descriptive findings of the research then continues with correlation and regression analyses. The chapter is finalized with a summary of the results of the hypothesis testing.

#### 5.1 Descriptive Findings

##### 5.1.1 Impulsive Online Shopping Behavior

Table 3. Impulsive Online Shopping Behavior of the Participants in the Sample

	Frequency	Percent	Valid Percent	Cumulative Percent
1.00 - 2.67	69	46%	46%	46%
3.00	24	16%	16%	62%
3.33 - 5.00	57	38%	38%	100%

As the Table 3 shows, 46 per cent of the sample has an average lower than 3, the neutral point, for impulsive online shopping behavior, showing that they tend to disagree on items of the scale. This means that approximately half of the respondents believe that they do not shop impulsively online. While 16 per cent of the sample has an average of 3, indicating that overall, they do not agree or disagree with the items, 38 per cent have averages higher than 3, pointing out to impulsive buying. This variable's mean is 2.90 with a standard deviation of 1.089 and its median is 3. As the mean is lower than the neutral point of 3, it is possible to say that respondents tend not to perceive themselves as impulsive buyers.

### 5.1.2 Fear of Missing Out

Table 4. Fear of Missing Out Level of the Participants in the Sample

	Frequency	Percent	Valid Percent	Cumulative Percent
1.00 - 2.67	104	69,3%	69,3%	69,3%
3.00	11	7,3%	7,3%	76,7%
3.33 - 5.00	35	23,3%	23,3%	100%

For this variable, participants who do not agree with the items establish the majority by 69,3 per cent. This, in turn, means that most of the participants would not describe themselves as people with FOMO. On the other hand, 23.3 per cent of the participants has FOMO and 7.3 per cent show neutral result. This variable's mean is 2.617 with a standard deviation is 0,875 and a median of 2.60.

### 5.1.3 Fear of Pandemic

Table 5. Fear of Pandemic Level of the Participants in the Sample

	Frequency	Percent	Valid Percent	Cumulative Percent
1.00 - 2.67	93	62%	62%	62%
3.00	21	14%	14%	82%
3.33 - 5.00	36	24%	24%	100%

Fear of Pandemic shows a pattern similar to that of FOMO. 62 per cent of the participants display a low level of fear of pandemic and 24 per cent demonstrates a high level. On the other hand, neutral results are much higher than FOMO with 14 per cent. This variable's mean is 2.607 with a standard deviation of 0,9601 and its median is 2.667.

#### 5.1.4 Gender

Table 6. Gender of Participants in the Sample

	Frequency	Percent	Valid Percent	Cumulative Percent
Female	75	50%	50%	50%
Male	75	50%	50%	100%

As mentioned previously, the sample is divided equally between genders. This was the only criterion given to the firm, which collected the data. T-tests were run to compare men and women in terms of their impulsive online buying behavior, FOMO, fear of pandemic and hedonic shopping value. As can be seen in Table 7, women score significantly higher on impulsive online buying behavior ( $p < 0.001$ ) and hedonic shopping value ( $p < 0.05$ ). As far as FOMO and fear of pandemic are concerned, although women have higher scores, differences between men and women are not statistically significant.

Table 7. T-Test Results for Gender

		Group Statistics			
	Gender	N	Mean	Std. Deviation	Std. Error Mean
Impulsive Online Shopping Behavior	Female	75	3.16	1.12	.129
	Male	75	2.63	.994	.114
FOMO	Female	75	2.80	.874	.100
	Male	75	2.43	.843	.097
Fear of Pandemic	Female	75	2.72	.964	.111
	Male	75	2.49	.948	.109
Hedonic Shopping Value	Female	75	3.37	.735	.084
	Male	75	2.93	.709	.081

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2- tailed)	Mean Differ ence	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Impulsive Online Shopping Behavior	Equal variances assumed	1.56	.213	3.081	148	.002	.533	.173	.191	.875
	Equal variances not assumed	2		3.081	145.8	.002	.533	.173	.191	.87549
FOMO	Equal variances assumed	.012	.914	2.624	148	.010	.368	.140	.090	.645
	Equal variances not assumed			2.624	147.8	.010	.368	.140	.090	.645
Fear of Pandemic	Equal variances assumed	.000	1.000	1.451	148	.149	.226	.156	-.082	.535
	Equal variances not assumed			1.451	147.9	.149	.226	.156	-.082	.535
Hedonic Shopping Value	Equal variances assumed	.003	.954	3.741	148	.000	.441	.117	.208	.674
	Equal variances not assumed			3.741	147.7	.000	.441	.117	.208	.674

### 5.1.5 Age

Table 8. Age Levels in the Sample

	Frequency	Percent	Valid Percent	Cumulative Percent
18-24	24	16 %	16%	16%
25-34	38	25,3%	25,3 %	41,3%
35-44	39	26%	26 %	67,3%
45+	49	32,7%	32,7 %	100%

The number of respondents belonging to each age category shows that age was more normally distributed compared to the other variables. While 16 percent of the sample is between 18 and 24 years old, the number of participants older than 45 years is twice as high, comprising 32.7 percent of the sample. The proportion of young adults between 25 and 34 years old and adults between 35 and 45 years old are very close, 25.3 and 26 percent, respectively.

In order to compare age groups on the basis of impulsive online shopping behavior, FOMO, fear of pandemic and hedonic shopping value, an ANOVA was run. Results show that age groups vary on the basis of impulsive online buying behavior and FOMO. In case of impulsive online buying behavior, the difference originates from the lower scores of participants between 35-44 years of age from those participants who are younger than them. For FOMO, on the other hand, variance emerges from the relatively higher scores of those between 25-34 years of age than those older.

Table 9. ANOVA Results for Age Groups

		Descriptives							
		N	Mean	Std. Dev.	Std. Error	95% Confidence Interval for Mean		Min.	Max.
						Lower Bound	Upper Bound		
Impulsive Online Shopping Behavior	18-24	24	3.22	1.106	.225	2.75	3.68	1.00	5.00
	25-34	38	3.12	1.108	.179	2.75	3.48	1.00	5.00
	35-44	39	2.58	.989	.158	2.26	2.91	1.00	5.00
	45+	49	2.82	1.097	.156	2.50	3.13	1.00	5.00
	Total	150	2.90	1.089	.088	2.72	3.07	1.00	5.00
FOMO	18-24	24	2.74	.818	.167	2.39	3.08	1.00	4.60
	25-34	38	2.88	.916	.148	2.58	3.19	1.20	5.00
	35-44	39	2.41	.791	.126	2.16	2.67	1.40	5.00
	45+	49	2.50	.897	.128	2.24	2.76	1.00	5.00
	Total	150	2.61	.875	.071	2.47	2.75	1.00	5.00
Fear of Pandemic	18-24	24	2.90	1.023	.208	2.47	3.33	1.33	5.00
	25-34	38	2.54	.911	.147	2.24	2.84	1.00	5.00
	35-44	39	2.64	1.059	.169	2.30	2.99	1.00	5.00
	45+	49	2.47	.874	.124	2.22	2.72	1.00	5.00
	Total	150	2.60	.960	.078	2.45	2.76	1.00	5.00
Hedonic Shopping Value	18-24	24	3.18	.890	.181	2.81	3.56	1.00	4.45
	25-34	38	3.19	.662	.107	2.97	3.41	1.73	5.00
	35-44	39	3.10	.823	.131	2.83	3.36	1.00	4.55
	45+	49	3.14	.708	.101	2.94	3.35	1.73	5.00
	Total	150	3.15	.753	.061	3.03	3.27	1.00	5.00

		ANOVA				
		Sum of Squares	df	Mean Square	F	Sig.
Impulsive Online Shopping Behavior	Between Groups	8.421	3	2.807	2.431	.068
	Within Groups	168.589	146	1.155		
	Total	177.010	149			
FOMO	Between Groups	5.364	3	1.788	2.397	.071
	Within Groups	108.911	146	.746		
	Total	114.275	149			
Fear of Pandemic	Between Groups	3.160	3	1.053	1.146	.333
	Within Groups	134.189	146	.919		
	Total	137.349	149			
Hedonic Shopping Value	Between Groups	.202	3	.067	.117	.950
	Within Groups	84.286	146	.577		
	Total	84.488	149			

### 5.1.6 Income

Table 10. Income Levels in the Sample

	Frequency	Percent	Valid Percent	Cumulative Percent
Less than 3000 ₺	40	26,7%	26,7%	26,7 %
3001 – 6000 ₺	75	50 %	50 %	76,7 %
More than 6001 ₺	25	16,7 %	16,7 %	93,3 %
Did not specify	10	6,7 %	6,7%	100 %

As the Table 10 shows, half of the participants' household income is between 3001 and 6000 TL. While 26,7 per cent of the respondents' household income is less than 3000 TL, 16,7 per cent of them have income of more than 6000 TL. About seven per cent of the participants did not want to share this information.

ANOVA analysis revealed that income groups show a statistically significant difference only on the basis of the fear of pandemic ( $p < 0.10$ ). This difference emerges from the higher fear of pandemic experienced by the group with lowest income vis-à-vis the wealthier groups.

Table 11. ANOVA Results for Income Groups

		Descriptives							
		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Min.	Max.
						Lower Bound	Upper Bound		
Impulsive Online Shopping Behavior	1	40	2.96	1.223	.193	2.57	3.35	1.00	5.00
	2	75	2.95	.996	.115	2.72	3.18	1.00	5.00
	3	25	2.68	1.077	.215	2.23	3.12	1.00	5.00
	Total	140	2.90	1.077	.091	2.72	3.08	1.00	5.00
FOMO	1	40	2.70	.895	.141	2.41	2.99	1.00	5.00
	2	75	2.67	.849	.098	2.47	2.86	1.00	5.00
	3	25	2.29	.865	.173	1.93	2.64	1.00	5.00
	Total	140	2.61	.872	.073	2.46	2.75	1.00	5.00
Fear of Pandemic	1	40	2.30	.963	.152	1.99	2.60	1.00	5.00
	2	75	2.75	.912	.105	2.54	2.96	1.00	5.00
	3	25	2.70	1.072	.214	2.26	3.14	1.00	5.00
	Total	140	2.61	.970	.082	2.45	2.77	1.00	5.00
Hedonic Shopping Value	1	40	3.03	.772	.122	2.79	3.28	1.36	5.00
	2	75	3.20	.793	.091	3.02	3.38	1.00	5.00
	3	25	3.17	.646	.129	2.90	3.43	2.18	4.55
	Total	140	3.15	.761	.064	3.02	3.27	1.00	5.00

## ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Impulsive Online Shopping Behavior	Between Groups	1.577	2	.788	.676	.510
	Within Groups	159.772	137	1.166		
	Total	161.348	139			
FOMO	Between Groups	3.176	2	1.588	2.121	.124
	Within Groups	102.569	137	.749		
	Total	105.744	139			
Fear of Pandemic	Between Groups	5.568	2	2.784	3.042	.051
	Within Groups	125.381	137	.915		
	Total	130.949	139			
Hedonic Shopping Value	Between Groups	.742	2	.371	.637	.531
	Within Groups	79.860	137	.583		
	Total	80.602	139			

Multiple Comparisons

LSD

Dependent Variable	(I) Income	(J) Income	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Impulsive Online Shopping Behavior	1	2	.015	.211	.941	-.4025	.4337
		3	.286	.275	.300	-.2578	.8311
	2	1	-.015	.211	.941	-.4337	.4025
		3	.271	.249	.279	-.2221	.7643
	3	1	-.286	.275	.300	-.8311	.2578
		2	-.271	.249	.279	-.7643	.2221
FOMO	1	2	.033	.169	.846	-.3020	.3680
		3	.413	.220	.063	-.0232	.8492
	2	1	-.033	.169	.846	-.3680	.3020
		3	.380	.199	.059	-.0151	.7751
	3	1	-.413	.220	.063	-.8492	.0232
		2	-.380	.199	.059	-.7751	.0151
Fear of Pandemic	1	2	-.451*	.187	.017	-.8215	-.0807
		3	-.406	.243	.098	-.8890	.0756
	2	1	.451*	.187	.017	.0807	.8215
		3	.044	.220	.841	-.3924	.4813
	3	1	.406	.243	.098	-.0756	.8890
		2	-.044	.220	.841	-.4813	.3924
Hedonic Shopping Value	1	2	-.167	.149	.265	-.4630	.1282
		3	-.132	.194	.498	-.5172	.2526
	2	1	.167	.149	.265	-.1282	.4630
		3	.035	.176	.842	-.3135	.3838
	3	1	.132	.194	.498	-.2526	.5172
		2	-.035	.176	.842	-.3838	.3135

\*. The mean difference is significant at the 0.05 level.

### 5.1.7 Hedonic Shopping Value

Table 12. Hedonic Shopping Value Level of Participants in the Sample

	Frequency	Percent	Valid Percent	Cumulative Percent
1.00 - 2.67	54	36 %	36 %	36 %
3.00	9	6 %	6 %	42 %
3.09 - 5.00	87	58 %	58 %	100 %

More than half of the participants have scores of hedonic shopping value over 3. Therefore, they have a tendency to agree with that shopping has a hedonic value for them. 36 per cent of the participants report that they do not derive hedonic value from shopping. Finally, 6 per cent stands neutral. This variable's mean is 3.1552, median is 3.1818 and standard deviation is 0.7530.

### 5.2 Inter-Correlation Analysis of the Variables

In this study, the correlation coefficients are calculated by using Pearson non-parametric correlation. Table 11 shows correlation matrix of all variables.

Among the independent variables, FOMO shows the highest correlation with the dependent variable, impulsive online shopping behavior ( $p < 0.001$ ). Fear of pandemic and hedonic shopping value also display quite high and statistically significant positive correlations with impulsive online buying behavior ( $p < 0.001$  for both).

Correlation analysis also shows that age, as expected, is negatively associated with impulsive shopping behavior ( $p < 0.10$ ). Finally, a t-test analysis comparing men and women in terms of impulsive buying shows that women are impulsive than men. There are significant correlations among independent variables as well. Income and age, hedonic shopping value and fear of pandemic, FOMO and fear of pandemic.

FOMO and hedonic shopping value are the other pairs of variables which show significant positive correlation.

Table 13. Inter-Correlation Analysis of the Variables

		Correlations					
		Fear of Pandemic	FOMO	Age	Income	Hedonic shopping value	Impulse online shopping behavior
Fear of pandemic	Pearson Correlation	1	.373**	-0.118	0.105	.385**	.349**
	Sig. (2-tailed)		0.000	0.151	0.200	0.000	0.000
	N	150	150	150	150	150	150
FOMO	Pearson Correlation	.373**	1	-0.155	-0.097	.555**	.661**
	Sig. (2-tailed)	0.000		0.058	0.239	0.000	0.000
	N	150	150	150	150	150	150
Age	Pearson Correlation	-0.118	-0.155	1	.254**	-0.029	-0.157
	Sig. (2-tailed)	0.151	0.058		0.002	0.723	0.054
	N	150	150	150	150	150	150
Income	Pearson Correlation	0.105	-0.097	.254**	1	0.063	-0.070
	Sig. (2-tailed)	0.200	0.239	0.002		0.442	0.396
	N	150	150	150	150	150	150
Hedonic shopping value	Pearson Correlation	.385**	.555**	-0.029	0.063	1	.492**
	Sig. (2-tailed)	0.000	0.000	0.723	0.442		0.000
	N	150	150	150	150	150	150
Impulse online shopping behavior	Pearson Correlation	.349**	.661**	-0.157	-0.070	.492**	1
	Sig. (2-tailed)	0.000	0.000	0.054	0.396	0.000	
	N	150	150	150	150	150	150

### 5.3 Regression Analysis

A stepwise regression analysis was used to test the conceptual model of the study.

The first variable to enter the model is FOMO. In the first model, adjusted  $R^2$  is 0.433. Then, hedonic shopping value enters the model and significantly improves the adjusted  $R^2$ . Other independent variables, which are not significant at alpha  $\alpha = 0.10$  level, do not enter the model. The final model has an adjusted  $R^2$  of 0.452 and is significant with a p value of  $p < 0.001$ .

As seen in the coefficients table, VIF values are less than 5. This, in turn, points out to that the model does not have a multi-collinearity problem.

Table 14. Regression Analysis

Model	Variables Entered/Removed <sup>a</sup>		Method
	Variables Entered	Variables Removed	
1	FOMO		Stepwise (Criteria: Probability-of-F-to-enter $\leq .050$ . Probability-of-F-to-remove $\geq .100$ ).
2	Hedonic shopping value		Stepwise (Criteria: Probability-of-F-to-enter $\leq .050$ . Probability-of-F-to-remove $\geq .100$ ).

Dependent Variable: Impulsive online shopping behavior

Table 15. Model Summary and ANOVA

Model Summary						
Model	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	Std. Error of the Estimate		
1	.661 <sup>a</sup>	0.437	0.433	0.82080		
2	.678 <sup>b</sup>	0.459	0.452	0.80691		

a. Predictors: (Constant). FOMO  
b. Predictors: (Constant). FOMO. Hedonic shopping value

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	77.302	1	77.302	114.741	.000 <sup>b</sup>
	Residual	99.709	148	0.674		
	Total	177.010	149			
2	Regression	81.298	2	40.649	62.431	.000 <sup>c</sup>
	Residual	95.712	147	0.651		
	Total	177.010	149			

a. Dependent Variable: Impulse online shopping behavior  
b. Predictors: (Constant). FOMO  
c. Predictors: (Constant). FOMO. Hedonic shopping value

Table 16. Coefficients Table

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.750	0.212		3.538	0.001
	FOMO	0.822	0.077	0.661	10.712	0.000
2	(Constant)	0.251	0.290		0.867	0.387
	FOMO	0.698	0.091	0.561	7.691	0.000
	Hedonic shopping value	0.261	0.106	0.181	2.477	0.014

a. Dependent Variable: Impulsive Online Shopping Behavior

Table 17. Excluded Variables

Excluded Variables <sup>a</sup>						
Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics Tolerance
1	Fear of Pandemic	.119 <sup>b</sup>	1.809	0.072	0.148	0.861
	Gender	-.111 <sup>b</sup>	-1.773	0.078	-0.145	0.956
	Age	-.056 <sup>b</sup>	-0.901	0.369	-0.074	0.976
	Income	-.006 <sup>b</sup>	-0.096	0.924	-0.008	0.991
	Hedonic shopping value	.181 <sup>b</sup>	2.477	0.014	0.200	0.692
2	Fear of Pandemic	.087 <sup>c</sup>	1.293	0.198	0.106	0.815
	Gender	-.082 <sup>c</sup>	-1.285	0.201	-0.106	0.910
	Age	-.067 <sup>c</sup>	-1.092	0.277	-0.090	0.971
	Income	-.028 <sup>c</sup>	-0.451	0.653	-0.037	0.971

a. Dependent Variable: Impulsive Online Shopping Behavior

b. Predictors in the Model: (Constant). FOMO

c. Predictors in the Model: (Constant). FOMO. Hedonic shopping value

Overall, hypotheses on FOMO, income and hedonic shopping value are supported. As expected, both FOMO and hedonic shopping value are statistically significant antecedents of impulsive online shopping behavior whereas income does not have a statistically significant relationship with the dependent variable. Although t-test shows that women are more prone to impulse buying, gender did not emerge as a statistically significant determinant of impulse online shopping behavior. Finally, although both fear of pandemic and age displayed significant correlations with the dependent variable in the expected direction, they did not enter the final regression model either. A summary of the results of the hypothesis testing can be found below.

Table 18. The Results of the Hypothesis Testing

Hypothesis No	Hypothesis Developed	Result
1	A higher level of FOMO is expected to intensify impulsive online shopping behavior.	Supported
2	A higher level of fear of pandemic is expected to intensify impulsive online shopping behavior.	Not supported
3	Female gender is expected to intensify impulsive online shopping behavior.	Not supported
4	Older age is expected diminish impulsive online shopping behavior.	Not supported
5	Income is expected not to be associated with impulsive online shopping behavior.	Supported
6	A higher level of hedonic shopping value is expected to intensify impulsive online buying behavior.	Supported

## CHAPTER 6

### CONCLUSION

This chapter presents an overview of the study with a focus on the findings regarding antecedents of impulsive online buying behavior. Furthermore, managerial implications of the findings study are discussed, and limitations of the study are specified.

The purpose of this study is to investigate the antecedents of impulsive online buying behavior during the Covid-19 Pandemic in Turkey from the perspective of individual customers. Borrowing from antecedent categories developed by Amos et al. (2014) and Iyer et al. (2020), hypotheses are developed on two psychographic variables (i.e. FOMO and fear of pandemic), three demographic variables (i.e. gender, age and income) and two motives (i.e. hedonic and utilitarian shopping value). Among these independent variables, the two psychographic variables are particularly significant in terms of contribution to the literature.

The world is going through a pandemic unprecedented in modern times and studies taking into account the impact of pandemic on various constructs are newly emerging. Governments are facing challenges many times exceeding their ability to create a healthy environment for the public and maintain consistency. Because of this unexpected outbreak, businesses are changing their focus and adopting new strategies to follow changing consumer behavior. Thus, investigating the impact of the fear of pandemic on impulse online shopping behavior is expected to contribute to the literature. Additionally, FOMO, a popular phenomenon of recent years, has been scarcely taken into consideration in the literature on impulse buying and not considered at all in buying impulsively online, to the best of our knowledge.

Data have been collected with an online survey and the sample includes 150 participants from different educational, occupational, and economic backgrounds. Other than the hypothesis on utilitarian shopping value, which had to be removed from the analysis due to an unacceptable level of reliability, were tested by a stepwise hierarchical analysis.

The study identifies FOMO and hedonic shopping value as two statistically significant antecedents of impulsive online shopping behavior, supporting Hypothesis 1 and 6.

FOMO in general, is defined as the anxiety over a missed event or an opportunity but also it is a common term for stock market. In this study, FOMO is associated with consumer buying behavior and explained to participants in terms of online shopping experience. The uneasiness emerging from the fear that you are missing a product that your peers may be enjoying acts as a stimulus and the consumer acts to eliminate this uneasiness by acquiring it. In other words, FOMO leads to an impulse purchase. Hedonic shopping value, on the other hand, represents the pleasure and entertainment an individual derives from shopping, which directs the individual towards a search for further gratification by continuing to shop without considering its consequences. Thus, people who attribute higher hedonic value to shopping, that is, people who shop for fun have a greater tendency to show impulsive buying behavior.

In this study, different from mainstream literature, income is hypothesized not to have an impact on impulse shopping. This hypothesis, which also found support, was shaped by the idea that income can lead to impulsive online buying under two opposing conditions. In other words, both high- and low-income people could equally intend to buy impulsively online, but for different reasons. While the well-off

consumers may do it with the power of available money. relatively poorer consumers may do it so as not to miss the opportunity to buy something stockable at a lower price.

Fear of pandemic is the self-developed variable for this study. Although various types of fear have been investigated in the literature. since the closest pandemic took place in almost hundred years ago. this fear was quite new to this generation. However. our results show that this fear based on this unexpected global situation does not enhance the impulsive online buying behavior. Moreover. the literature will gain more widely accepted information on this topic in the next few years as it is on researchers' agenda today.

Age is one of the demographics that is already related and investigated hundreds of times when it comes to online shopping. Since the new generations are born into this new technological world. they even have hard times just to picture the life before the internet. On the other hand. age brings chance to live more impulsively if it comes with a stability of income or available savings. However. these circumstances did not show their effect on our sample and according to our result age did not emerge as a statistically significant antecedent of impulsive online buying behavior.

Even though fear of pandemic and age do not emerge as significant determinants of impulsive online shopping behavior. both variables display statistically significant correlations with the dependent variable. Correlation analysis also shows that fear of pandemic is significantly positively correlated with FOMO and hedonic shopping value and thus its impact may be felt through these antecedents. In a similar manner. although gender does not enter the regression model. a t-test comparing men and women on the basis of FOMO. hedonic shopping

value and impulse online shopping behavior reveals that women have higher scores on all three variables. Thus, the impact of gender may also be felt through FOMO and hedonic shopping value. Yet, these findings show us that neither the fear spread by the pandemic nor the demographic characteristics of gender and age render consumers particularly vulnerable to impulse buying.

Based on the findings of the study, firms can be recommended to rely on consumers' FOMO and the hedonic value they derive from shopping and shape their marketing strategies accordingly. Additionally, as women are more prone FOMO and derive more pleasure from shopping, they may emerge as better targets.

As any study, this study has limitations. As the online survey has been distributed to consumers residing in the largest three cities of Turkey, its generalizability is low. Respondents from smaller cities and particularly rural areas can display different online shopping behavior. A broader geographical distribution and a group mirroring the gender, age and income distribution of Turkish population can increase generalizability. Additionally, as study is conducted in Turkey, its findings can be more representative of other emerging economies and less of developed economies.

Finally, the data were collected when people had lived more than a year under pandemic circumstances. Getting used to living under pandemic conditions might also have rendered the fear of pandemic less influential; the variable could have been more influential if data had been collected at an earlier stage of the pandemic.

APPENDIX A  
MULTIPLE COMPARISONS TABLE OF AGE

LSD

Dependent Variable	(I) Age	(J) Age	Mean Diff. (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Impulsive Online Shopping Behavior	18-24	25-34	.09942	.28018	.723	-.4543	.6531
		35-44	.63248*	.27879	.025	.0815	1.1835
		45 and more	.39909	.26773	.138	-.1300	.9282
	25-34	18-24	-.09942	.28018	.723	-.6531	.4543
		35-44	.53306*	.24494	.031	.0490	1.0171
		45 and more	.29968	.23228	.199	-.1594	.7587
	35-44	18-24	-.63248*	.27879	.025	-1.1835	-.0815
		25-34	-.53306*	.24494	.031	-1.0171	-.0490
		45 and more	-.23339	.23059	.313	-.6891	.2223
	45+	18-24	-.39909	.26773	.138	-.9282	.1300
		25-34	-.29968	.23228	.199	-.7587	.1594
		35-44	.23339	.23059	.313	-.2223	.6891
FOMO	18-24	25-34	-.14781	.22519	.513	-.5929	.2973
		35-44	.32372	.22407	.151	-.1191	.7666
		45 and more	.23759	.21519	.271	-.1877	.6629
	25-34	18-24	.14781	.22519	.513	-.2973	.5929
		35-44	.47152*	.19687	.018	.0824	.8606
		45 and more	.38539*	.18669	.041	.0164	.7544
	35-44	18-24	-.32372	.22407	.151	-.7666	.1191
		25-34	-.47152*	.19687	.018	-.8606	-.0824
		45 and more	-.08613	.18534	.643	-.4524	.2802
	45+	18-24	-.23759	.21519	.271	-.6629	.1877
		25-34	-.38539*	.18669	.041	-.7544	-.0164

		35-44	.08613	.18534	.643	-.2802	.4524
Fear of Missing Out	18-24	25-34	.35892	.24997	.153	-.1351	.8529
		35-44	.25321	.24872	.310	-.2384	.7448
		45 and more	.42659	.23886	.076	-.0455	.8987
	25-34	18-24	-.35892	.24997	.153	-.8529	.1351
		35-44	-.10571	.21853	.629	-.5376	.3262
		45 and more	.06767	.20723	.744	-.3419	.4772
	35-44	18-24	-.25321	.24872	.310	-.7448	.2384
		25-34	.10571	.21853	.629	-.3262	.5376
		45 and more	.17338	.20573	.401	-.2332	.5800
	45+	18-24	-.42659	.23886	.076	-.8987	.0455
		25-34	-.06767	.20723	.744	-.4772	.3419
		35-44	-.17338	.20573	.401	-.5800	.2332
Hedonic Shopping Value	18-24	25-34	-.00678	.19811	.973	-.3983	.3848
		35-44	.08683	.19712	.660	-.3028	.4764
		45 and more	.04097	.18930	.829	-.3332	.4151
	25-34	18-24	.00678	.19811	.973	-.3848	.3983
		35-44	.09361	.17319	.590	-.2487	.4359
		45 and more	.04775	.16424	.772	-.2768	.3723
	35-44	18-24	-.08683	.19712	.660	-.4764	.3028
		25-34	-.09361	.17319	.590	-.4359	.2487
		45 and more	-.04586	.16305	.779	-.3681	.2764
	45+	18-24	-.04097	.18930	.829	-.4151	.3332
		25-34	-.04775	.16424	.772	-.3723	.2768
		35-44	.04586	.16305	.779	-.2764	.3681

\*. The mean difference is significant at the 0.05 level.

APPENDIX B  
SURVEY INSTRUMENT (TURKISH)

Bu anket Boğaziçi Üniversitesi Sosyal Bilimler Enstitüsü Uluslararası Ticaret Yönetimi Yüksek Lisans Programı çerçevesinde. Prof. Dr. Nisan Gökşen danışmanlığında yürütülen tez çalışması kapsamında hazırlanmıştır.

Amaç Covid-19 Pandemi döneminde Türkiye'de gerçekleşen çevrimiçi içgüdüsel satın alma davranışlarının uyarılarını keşfetmektir. Soruların doğru veya yanlış yanıtları bulunmamaktadır. Yanıtlarınız yalnızca bilimsel amaçla kullanılacak ve üçüncü şahıslarla paylaşımı yapılmayacaktır. Çalışmanın geçerliliği, soruları ve yanıtları dikkatlice okuyup size en uygun yanıtı vermenize bağlıdır. Çok vaktinizi almayacak bu anket çalışmasını doldurarak vereceğiniz destek ve katkı için çok teşekkür ederiz.

Lütfen aşağıdaki ifadeleri size uygunluk derecelerine göre işaretleyiniz. (1: Kesinlikle Katılmıyorum. 2: Katılmıyorum. 3: Ne Katılıyorum Ne Katılmıyorum. 4: Katılıyorum. 5: Kesinlikle Katılıyorum)					
	1	2	3	4	5
Covid-19 pandemisinin üretim ve dağıtımda yaratabileceği sorunlar sebebiyle temel ihtiyaçlarımı karşılayacak ürünleri önceden satın almayı tercih ediyorum.					
Covid-19 pandemisinin üretim ve dağıtımda yarattığı sorunlarla ilgili haberler nedeniyle temel ihtiyacım olan-olmayan ürünler satın alıyorum.					
Covid-19 pandemisinin yarattığı korku nedeniyle telaşla ihtiyacım olan-olmayan birçok ürün alıyorum.					

Lütfen aşağıdaki ifadeleri size uygunluk derecelerine göre işaretleyiniz. (1: Kesinlikle Katılmıyorum. 2: Katılmıyorum. 3: Ne Katılıyorum Ne Katılmıyorum. 4: Katılıyorum. 5: Kesinlikle Katılıyorum)					
	1	2	3	4	5
Alışveriş benim için bir eğlencedir.					
Alışverişe zorunlu olduğum için değil. istediğim için devam ederim.					
Alışveriş yapmak bana günlük hayattan kaçış hissi verir.					
Alışverişe harcadığım zaman. yaptığım diğer şeylerle karşılaştırıldığında daha eğlencelidir.					
Alışveriş yaparken yeni ürünlerin neler olduğunu görmekten zevk alırım.					
Satın aldığım ürünler için değil. alışverişin kendisi için alışveriş yapmaktan zevk alırım.					
Alışveriş yaparken anlık kararlar verebildiğim için güzel zaman geçiririm.					
Alışveriş süresince sanki bir avdaymışım gibi heyecan duyarım.					
Alışveriş yaparken problemlerimi unuturum.					
Alışveriş yaparken. sanki bir maceradaymışım gibi hissedirim.					
Alışveriş benim için iyi bir boş zaman aktivitesi değildir.					
Alışveriş sırasında sadece almayı düşündüğüm şeyleri alırım. başka şeylere bakmam.					
Gerçekten ihtiyacım olan şeyleri bulamadan websitesini/uygulamayı kapattığım olur.					
Alışveriş yaparken. tam istediğim ürünleri bulabilirim.					
İhtiyacım olanları almak için ikinci websitesine/uygulamaya daha bakmak zorunda kalırsam hayal kırıklığı yaşarım.					

Lütfen aşağıdaki ifadeleri size uygunluk derecelerine göre işaretleyiniz. (1: Kesinlikle Katılmıyorum. 2:Katılmıyorum. 3:Ne Katılıyorum Ne Katılmıyorum. 4:Katılıyorum. 5:Kesinlikle Katılıyorum)					
	1	2	3	4	5
Başkalarının benimkinden daha başarılı bir alışveriş deneyimi yaşadığından korkarım.					
Arkadaşlarımın benimkinden daha başarılı bir alışveriş deneyimi yaşadığından korkarım.					
Arkadaşlarımın benim bilmediğim ürünleri satın aldığını öğrendiğimde endişelenirim.					
Arkadaşlarımın neler satın aldığını bilmediğimde kaygı hissederim.					
Arkadaşlarımın satın aldığı ürünleri ve takip ettikleri markaları bilmek benim için önemlidir.					
Bazen popüler olan ürünleri/markaları takip etmek için fazla zaman harcıyıp harcamadığımı merak ederim.					
Popüler bir ürünlerdeki fırsatı kaçırmış olmak canımı sıkar.					
İyi bir ürün satın aldığımda detaylarını online olarak paylaşmak benim için önemlidir.					
Kampanya/indirim dönemini kaçırmak canımı sıkar.					
Alışveriş yaparken arkadaşlarımın neler satın aldığına da göz atmaya devam ederim.					

Lütfen aşağıdaki ifadeleri online alışveriş deneyimlerinizi göz önünde bulundurarak size uygunluk derecelerine göre işaretleyiniz. (1: Kesinlikle Katılmıyorum. 2:Katılmıyorum. 3:Ne Katılıyorum Ne Katılmıyorum. 4:Katılıyorum. 5:Kesinlikle Katılıyorum)					
	1	2	3	4	5
Online alışveriş uygulamasına/websitesine göz attığımda alışveriş amacımdan farklı veya amacıma ek olarak ürün satın alma adına bir dürtü hissederim.					
Online alışveriş uygulamasına/websitesine göz atarken alışveriş aracıma uygun olmayan ürün satın almaya heveslenirim.					
Online alışveriş uygulamasına/websitesinde gezinirken asıl alışveriş amacımın dışında ürün satın almaya meyilliyimdir.					

Cinsiyetiniz

Kadın

Erkek

Yaşınız

18-24

25-34

35-44

45 yaş ve üzeri

Medeni durumunuz

Evli

Bekar

Eğitim durumunuz

Lütfen mezuniyetinizin olduğu eğitim seviyesini işaretleyiniz.

İlköğretim mezunu

Lise mezunu

Lisans mezunu

Lisansüstü mezunu

Meslek grubunuz

Öğrenci

Kamu sektörü çalışanı

Özel sektör çalışanı

Ev hanımı

Emekli

Çalışmıyor

Gelir durumunuz

Lütfen aylık hane gelirinizi dikkate alınız.

3000 TL ve altı

3001 TL – 6000 TL

6001 TL – 9000 TL

9001 TL – 12000 TL

12001 TL ve üstü

APPENDIX C  
SURVEY INSTRUMENT (ENGLISH)

This survey was conducted within the framework of Boğaziçi University Institute of Social Sciences International Trade Management Master's Program and prepared within the scope of the thesis study conducted under the supervision of Prof. Dr. Nisan Gökşen.

The aim is to discover the antecedents of online impulse buying behaviors that took place in Turkey during the Covid-19 Pandemic period. There are no right or wrong answers to the questions. Your answers will only be used for scientific purposes and will not be shared with third parties. The validity of the study depends on you carefully reading the questions and selecting the most appropriate answer for you. Thank you very much for your support and contribution by completing this survey. which will not take much of your time.

Please indicate what extent you agree or disagree with each statement below. (1: Totally disagree. 2: Disagree. 3: Neither agree nor disagree. 4: Agree. 5: Totally agree)					
	1	2	3	4	5
Due to the problems that the Covid-19 pandemic may cause in production and distribution. I prefer to purchase products that will meet my essential needs in advance.					
Due to news about the problems occurred because of the Covid-19 pandemic in production and distribution. I buy items that are not essential.					
Due to the fear occurred because of the Covid-19 pandemic. I rush to buy many essential and non essential products.					

Please indicate what extent you agree or disagree with each statement below. (1: Totally disagree. 2:Disagree. 3:Neither agree nor disagree. 4:Agree. 5:Totally agree)					
	1	2	3	4	5
Shopping is truly a joy for me.					
I continue to shop. not because I have to. but because I want to.					
Shopping feels like an escape for me.					
Compared to other things I can do. the time spent shopping is truly enjoyable.					
I enjoy being immersed in exciting new products.					
I enjoy shopping for its own sake. not just for the items I may have purchased.					
I have a good time because I am able to act on the "spur of the moment." during shopping.					
During the shopping. I feel the excitement of the hunt.					
While shopping. I am able to forgot my problems.					
While shopping. I feel a sense of adventure.					
This shopping is not a very nice time out for me.					
During shopping. I only check the products I consider to buy. I do not look at other products.					
Sometimes I leave the website or application without finding the products I need.					
While shopping. I find just the item(s) I was looking for.					
I feel disappointed if I have to go to another website or application to complete my shopping.					

Please indicate what extent you agree or disagree with each statement below. (1: Totally disagree. 2:Disagree. 3:Neither agree nor disagree. 4:Agree. 5:Totally agree)					
	1	2	3	4	5
I fear others have more rewarding shopping experiences than me.					
I fear my friends have more rewarding shopping experiences than me.					
I get worried when I find out my friends are buying the products that I don't know.					
I get anxious when I don't know what my friends are buying.					
It is important to know that which products my friends buy. or which brands they follow.					
Sometimes. I wonder if I spend too much time keeping up with brands.					
It bothers me when I miss an opportunity on a popular product.					
When I bought a good product. it is important for me to share the details online.					
When I miss out on a promotion/sales period. it bothers me.					
While I shop. I continue to keep checking what my friends are buying.					

Please indicate what extent you agree or disagree with each statement below. (1: Totally disagree. 2:Disagree. 3:Neither agree nor disagree. 4:Agree. 5:Totally agree)					
	1	2	3	4	5
As I browse a shopping website/application . I have the urge to purchase items other than or in addition to my specific shopping goal.					
While I browse online shopping application/website. I have a desire to buy items that did not pertain to my specific shopping goal.					
While I browse online shopping application/website. I have the inclination to purchase items outside my specific shopping goal.					

Gender

- Female
- Male

Age

- 18-24
- 25-34
- 35-44
- 45 or more than 45

Marital Status

- Married
- Single

Education Level

Please select the option that you last graduated from.

- Primary School
- High School
- Bachelor's degree
- Master/PhD Degree

Profession

- Student
- Public Sector Employee
- Private Sector Employee
- Housewife
- Retired

Unemployed

Income

Please select your monthly household income.

3000 TL and less

3001 TL – 6000 TL

6001 TL – 9000 TL

9001 TL – 12000 TL

12001 TL and more

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