

IMPULSE BUYING BEHAVIOR  
IN THE ONLINE CONTEXT

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2018

IMPULSE BUYING BEHAVIOR  
IN THE ONLINE CONTEXT

Thesis submitted to the  
Institute for Graduate Studies in Social Sciences  
in partial fulfillment of the requirements for the degree of

Master of Arts  
in  
Management Information Systems

by  
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Boğaziçi University

2018

## DECLARATION OF ORIGINALITY

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## ABSTRACT

### Impulse Buying Behavior in the Online Context

Online shopping is gaining importance every year all around the world. Many researchers, academicians, and business professionals are trying to get the highest benefit possible from online sales channels. One of the most important phenomena of shopping is impulse buying, which drives a huge amount of sales, hence is paid attention by researchers and professionals for both offline and online contexts. The main objectives of this study are to find out underlying reasons for online impulse buying behavior and understand whether online impulse buying intention changes with respect to online shopping habits as well as demographic characteristics. Theoretical model and statistical hypotheses are formulated based on S-O-R framework. Data collected from 495 online shoppers are analyzed by using descriptive, reliability, correlation, one-way ANOVA, independent samples t-test, and multiple regressions to test hypotheses and provide findings and implications. The results of analyses show that online impulse buying intention is a complicated phenomenon influenced by website and marketing stimuli including visual appeal and security of web store; economic promise, scarcity claim, and social effect by other customers, celebrity, and experts as well as organism-related factors including hedonic motives of shopping, fun seeking, and behavioral drive. The study also shows that hedonic motives, fun seeking, and behavioral drive has significant mediating effects on the relationship between each stimulus and online impulse buying intention. Findings and implications deduced from analyses as well as limitations of the study are provided for researchers, academicians, and professionals at the end of study.

## ÖZET

### İnternet Ortamında Anlık Satın Alma Davranışları

İnternet üzerinden alışverişin önemi, her geçen yıl Dünya genelinde artmaktadır. Çok sayıda araştırmacı, akademisyen ve iş insanı internet satış kanallarından en yüksek faydayı almaya çalışmaktadır. Alışverişteki en önemli konu başlıklarından biri çok büyük bir miktarda satış getiren anlık satın almalarıdır, bu nedenle hem geleneksel hem de internet üzerindeki ortamlar için araştırmacılar ve profesyonellerin dikkatini çekmiştir. Bu araştırmanın temel amaçları anlık satın alma davranışının altında yatan nedenleri bulmak ve anlık satın alma niyetinin internetten alışveriş alışkanlıklarına ve demografik özelliklere göre değişip değişmediğini anlamaktır. Araştırma modeli ve hipotezlerin oluşturulmasında SOR paradigması baz alınmıştır. 495 internet alışverişçisinden toplanan veri; tanımlayıcı, tutarlılık, korelasyon, farklılık (ANOVA ve t-testleri) ve çoklu regresyon analizleriyle hipotezleri test etmek ve bulgular sunmak için incelenmiştir. Analiz sonuçları, anlık satın alma davranışının web mağazasının görsel çekiciliği ve güvenliği; ekonomik fayda, sınırlılık söylemi ve diğer müşterilerin, ünlülerin ve uzmanların yarattığı sosyal etkiyi kapsayan web mağazası ve pazarlamayla ilgili uyarıcılarla birlikte bireyle alakalı hazcı temele dayanan alışveriş yapma amaçları, eğlenceyi arama ve davranışsal dürtü gibi faktörlerden etkilenen karmaşık bir durum olduğunu göstermiştir. Ayrıca, araştırma sonuçlarına göre hazcı amaçlar, eğlenceyi arama ve davranışsal dürtünün web mağazası ve pazarlamayla ilgili uyarıcıların anlık satın alma davranışıyla ilişkisine anlamlı bir aracılık etkilerinin olduğunu ortaya koymuştur. Çalışmanın sonunda araştırmacılar, akademisyenler ve iş dünyası için yararlı çıkarımlar ve çalışmanın kısıtlarıyla ilgili bilgiler belirtilmiştir.

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## CHAPTER 1

### INTRODUCTION

The volume of online shopping is rising since the advent of e-commerce. The World Wide Web (WWW) has enabled businesses to explore and find new markets that could not be covered through traditional channels, which has resulted in the emergence of e-commerce as an important way of doing business. The value of global retail e-commerce sales has reached \$ 2.304 trillion in 2017, from \$ 1.845 trillion in 2016. Projections estimate the value of global online shopping to rise up to 4.88 trillion dollars by 2021 (Statista, 2018). Another report indicated that an estimated 1.66 billion people worldwide purchase goods online (Statista, 2017).

Tremendous growth in online shopping is partly explained by increase in online population. The internet and related technologies have enabled companies to work more quickly, more properly, and at a larger scale (Opreana, 2013). According to Internetworldstats (2018), only 16 million people were online, which constituted 0.4% of the world population, while the figure rose to 361 million (5.8%) in December 2000, exceeded 1 billion (15.7%) by December 2005, and reached 4.157 billion constituting 54.4% of the world population. Turkstat (2017) provides data about the growth of online user population in Turkey; household access rate to the internet was 80.7% in April 2017, whereas it was 76.3% for the same period in 2016. Moreover, 24.9% of internet users aged between 16 and 74 bought goods and services online for private purposes, which was only 20.9% in 2016.

Many scholars have also attempted to explain the reasons for increase in online shopping from different perspectives such as demographic factors (Bellman, Lohse, & Johnson, 1999; Donthu & Garcia, 1999; Susskind, 2004), frequency of

internet usage (Bhatnagar, Misra, & Rao, 2000), past online shopping satisfactions (Moe & Pader, 2004), risk perception and trust (Bhatnagar et al., 2000; Liao & Cheung, 2001; Kim, Ferrin, & Rao, 2008), and so on. Moreover, online shoppers are concerned with convenience and would like to pay more to save time (Morganosky & Cude, 2000; Szymanski & Hise, 2000). In sum, why many people opt for online shopping - instead of traditional stores - nowadays can be explained by the following advantages (KPMG International, 2017):

- Ability to shop 24/7
- Ability to compare prices
- Online sale/better prices
- To save time
- Convenience of not going to shops
- Greater variety/selection
- Free shipping offers
- Convenience of everything in one place
- To locate hard to find items
- To avoid crowds
- Products are not sold in one's city/country (Product unavailability offline)
- To avoid checkout lines

The proliferation of e-commerce has also paved the way for online impulse buying. In modern terms, impulse buying can be defined as an unplanned purchase as a result of an exposure to a stimulus and is decided on the spot (Piron, 1991). This definition can be applied to both the offline and the online context. From online perspective, e-stores eliminate some constraints consumers face compared to physical stores, which increases the likelihood of impulse buying online (Chan,

Cheung, & Lee, 2017). Almost 40% of money spent on online shopping stems from online impulse buying (Liu, Li, & Hu; 2013).

According to a report on US consumers written by Kressmann (2017), most of impulse buying is still attributed to physical stores (68%), whereas the remaining 32% comes from online channels; namely, desktop/laptop (21%), smartphone/tablet (10%), other devices (1%). Hence, it is important to pay attention to offline impulse buying, its drivers, and offline consumer behavior to understand online impulse buying behavior.

The main objective of this study is to understand and explain the underlying factors leading to impulse buying in the online context by compiling various academic studies from information systems, marketing, and psychology literatures and identifying those factors through a quantitative data collection and analysis. The other objectives of the research are to determine if online impulse buying intention differs regarding demographic variables including age, gender, marital status, academic background, and income as well as regarding online shopping habits, to determine the relationship of online impulse buying with website characteristics and marketing stimuli, consumer characteristics and motives.

The study mainly consists of six chapters. Chapter 1 gives the introduction into the study, followed by Chapter 2 which provides the literature review of impulse buying; external, internal, and situational factors influencing impulse buying in a physical store; differences between online and physical stores; website, consumer characteristics, and marketing tactics and tools as well as situational factors affecting impulse buying in the online context. Chapter 3 introduces the theoretical model and formulated hypotheses based on the theoretical model, followed by Chapter 4, presenting the methodology of the study including research objectives in detail,

preparation of the questionnaire, sampling procedure, components of the questionnaire, and explanation of statistical analyses used to test the theoretical model and hypotheses. Chapter 5 explains detailed results of descriptive findings, internal consistencies of scales, correlation analyses, multiple regression analyses including PROCESS patch to test mediating effects, one-way ANOVA and independent samples t-tests. Chapter 6 covers research results, interpretations and implications of the results, research gaps, and implications for researchers and businesses.

## CHAPTER 2

### LITERATURE REVIEW

#### 2.1 Definitions of impulse buying

Impulse buying has been a long-standing phenomenon in marketing literature. Clover (1950) regarded impulse buying strictly as an unplanned purchase. Weinberg and Gottwald (1982) regarded impulse buying as an unplanned purchase and argued that impulse buying evokes more intense emotions such as joy, enthusiasm, and excitement compared to planned buying. Similarly, Phillips and Bradshaw (1993) equated impulse purchase with unplanned purchases. Other researchers also discussed impulse buying from an unplanned purchase perspective; however, they also included the importance of consumers' exposure to stimuli. (Applebaum, 1951). Stimulus – organism relationship has taken attention from other researchers. For instance, Kotler (1973) defined atmospherics of a store as the deliberate and conscious design of stores to create certain impact on customers and emphasized the importance of in-store stimuli such as product packaging, its shelf place, and salespeople, which might invoke impulse or unplanned purchases. Exposure to stimuli is also examined from a cultural perspective. For instance, Abratt and Goodey (1990) found out that impulse buying might change across cultures; however, the importance of in-store stimuli holds true for all cultures. However, the study still equated impulse purchase behavior with unplanned purchases.

Impulse buying concept was broadened by various researchers such that impulse buying behavior is not limited to unplanned purchases; however, it involves more elements. (Iyer, 1989; Piron, 1991; Rook, 1987; Rook & Hoch, 1985). Piron

(1991) insisted that a comprehensive impulse buying definition should be based on the following four dimensions:

- Unplanned
- Exposure to a stimulus
- Being “on the spot”
- Evoking emotional and/or cognitive reactions

The study conducted by Rook (1987) claimed that impulse buying occurs as a result of exposure to a sudden, often powerful and persistent urge to buy something immediately and is defined as a hedonically complex phenomenon. Another study by Dholakia (2000) approached the difference between impulse purchases and unplanned purchases from timespan of decision-making process viewpoint. According to Dholakia (2000), impulse purchases occur in a shorter time than unplanned purchases. Another approach has taken into account hedonic nature of impulse buying to define the concept. That is to say, hedonic consumption and impulse purchases are regarded as intertwined by many other researchers (Hausman, 2000; Piron, 1991). They argue that emotions take part in consumers’ impulse purchases, which makes impulse buying a more complicated phenomenon than unplanned buying. Therefore, impulse buying behavior is a complex buying process and without deliberate consideration of alternatives and information during shopping (Bayley & Nancarrow, 1998).

## 2.2 Types of impulse buying

Types of impulse buying trace back to Stern (1962)’s classification of impulse buying into four categories. Pure impulse buying occurs when a novelty or escape purchase completely breaks a normal decision-making rule. That is to say, pure

impulse buying means a pure unplanned purchase. Reminder impulse buying occurs when a consumer sees an item and then remembers that item is at low stock. In other words, a consumer is reminded of his or her need for an item although the item is not previously planned to purchase before entering the store. On the other hand, suggestion impulse buying happens when a shopper sees a product for the first time and visualizes a need for it. The fourth category is planned impulse buying that is based on price discounts, coupon offers, and so on (Stern, 1962). Therefore, pure and reminder impulse buying are more emotional and unplanned, whereas suggestion and planned impulse buying are more rational and planned purchases.

Further studies paid attention to Stern (1962)'s classification and attempted to distinguish among different types of impulse buying. For instance, Liao, Shen, and Chu (2009) found out that rational motivation, utilitarian goal, deliberate evaluation, and self-anger response are significantly higher in reminder impulse buying compared to pure impulse buying even though both types have close results in terms of hedonic goal and emotional motivation. Lee (2011) used a slightly different classification of impulse buying; namely, pure, reminder, suggestion, and stimulus impulse buying in order to categorize internet fashion consumers based on their impulse buying tendencies. However, many studies mentioned impulse buying as an unplanned and hedonic purchase; thus, did not pay attention to suggestion and planned impulse buying (Bellenger, Robertson, & Hirschman, 1978; Gültekin & Özer, 2012; Lee & Johnson, 2010).

### 2.3 Factors influencing impulse buying in the physical context

Many studies have tried to explain factors underlying impulse buying behavior. Stern (1962) found out that impulse buying behavior is influenced by nine factors that are

low price, marginal need for item, mass distribution, self-service, mass advertising, prominent store display, short product life, small size or light weight, and ease of storage. Although the study claimed that marketers should give up the idea that impulse buying cannot be influenced, factors discussed are solely product-related factors (Stern, 1962). Other research conducted in later years also paid the most attention in-store stimuli to explain the factors causing impulse buying behavior (Cox, 1964), whereas some studies attempted to examine the role of demographic characteristics and life style of consumers in impulse buying behavior (Kollat & Willett, 1967). In addition to the finding that impulse buying must be conceptualized, Rook (1987) also studied factors affecting impulse buying in more detail. According to the study, impulse buying is influenced by external factors such as the social environment (whether it is a single or group buying), purchase occasion, nature of buying (whether it is a gift or not), temporal variables, and physical environment atmosphere as well as consumers' mood states and shopping experiences. Therefore, impulse buying behavior has a complicated nature. Hence, it is affected by external and internal factors (Rook, 1987).

In general, research of impulse buying classified the factors into external and internal categories (Karbasivar & Yarahmadi, 2011). External factors are defined as marketing cues or stimuli placed and controlled by the marketer in attempt to lure consumers into purchase behavior (Youn & Faber, 2000). That is to say, external factors are specific stimuli associated with marketing related variables and shopping environment (Duarte, Raposo, & Ferraz, 2013). On the other hand, internal factors are shopper or consumer related attributes. For instance, Kwon and Armstrong (2002) mentioned that consumers' general level of shopping enjoyment, the degree to which consumers are identified with the product to be purchased, and personality

traits influence impulse buying behavior. Finally yet importantly, researchers examined situational factors such as availability of time, money (Beatty & Ferrell, 1998; Park, Iyer, & Smith, 1989; Rook & Fisher, 1995). According to Van Kenhove, De Wulf, and Van Waterschoot (1999), consumers might change their shopping habits or store choices. With regard to money availability, it is found that consumers having more available money for shopping may respond more positively to the store environment and purchase impulsively. (Jung Chang, Yan, & Eckman, 2014).

### 2.3.1 External factors influencing impulse buying in a physical setting

The first researcher who claimed that impulse buying occurs as a result of consumers' exposure to environmental stimuli was Applebaum (1951). Following this study, various researchers studied the relationship between external factors and impulse purchase behavior. Rook and Hoch (1985) claim that buying impulse starts with sensation and perception driven by external stimuli, which is followed by a sudden urge to buy it. Some researchers regard impulse buying occurrence as a result of external factors. For instance, Kollat and Willett (1967) consider that impulse buying occurs in-store without prior need to purchase. Some studies which examined the effects of external factors on impulse buying put greater importance on product-specific factors (Kacen, Hess, & Walker, 2012) or defined a product-specific impulse buying tendency (Jones, Reynolds, Weun, & Beatty, 2003). However, literature mostly consists of studies that examined the importance of in-store factors.

Karbasivar and Yarahmadi (2011) classifies external factors behind impulse buying behavior into four main categories which are store-apparent characteristics; in-store shopping environment micro variables such as music and scent; in-store

displays; and unexpected cheaper prices, discounts in-store display and sales specials.

Considering store-apparent characteristics, effects of physical characteristics and size of stores have been studied. For instance, Gupta, Heng, and Sahu (2009) found out that impulse buying behavior changes across different sizes of stores. Impulse purchases have a bigger share of sales in middle-sized stores compared to large-size stores. Product price in small stores; product display and price in large stores; and need of the hour in middle-sized stores are the main external factors influencing impulse buying (Gupta et al., 2009).

In-store shopping environment is comprised of ambient factors including lighting, scent; design factors like layout; and social factors such as the presence of salespeople (Baker, Parasuraman, Grewal, & Voss, 2002). Although many researchers found that those factors influence impulse buying, their findings regarding which factors are more influential differ. Mohan, Sivakumaran, and Sharma (2013) suggested that all these factors significantly influence impulse buying, among which layout is the most influential variable, whereas Verplanken and Herabadi (2001) found that background music along with product appearance are the most significant environmental stimuli affecting customers' impulse purchases.

Chevalier (1975) claimed that consumers tend to regard in-store displays as bargains; thus, they often buy from a product with a display which they had no previous purchase intention. Wilkinson, Mason, and Paksoy (1982) found that in-store displays are effective; however, short-lived strategies to increase sales. In-store displays are also found to affect impulse buying behavior. Abratt and Goodey (1990) suggested that point-of-purchase posters increase impulse buying in physical stores.

Heilman, Nakamoto, and Rao (2002) studied the influence of in-store surprise coupons such as electronic shelf coupons, peel-off coupons on consumers' total basket of purchases and suggested that the use of a surprise coupon will increase the size of the shopping basket and consequently the number of unplanned purchases. The impact of price discounts have usually been studied with in-store displays. For instance, Yu and Bastin (2010) suggested that on-shelf positions, price-off promotions, coupons, and use of point-of-purchase materials all affect impulse buying behavior positively in brick-and-mortar settings.

### 2.3.2 Internal factors influencing impulse buying in a physical setting

Internal factors are individual-related cues and characteristics that cause impulse buying behavior (Karbasivar & Yarahmadi, 2011). Internal factors are classified into various categories including personality traits, mood, emotions, and demographic characteristics such as age and gender (Lee & Kacen, 2000). Among all these factors, personality traits have drawn the most attention from researchers.

Rook and Hoch (1985) introduced the concept of consumer impulsivity and claimed that impulsive consumers are more likely to shop when their mood strikes, find gratification after shopping, and buy more than what is planned. Therefore, impulsivity has some features including a sudden desire to act or purchase, temporary lack of control, psychological conflict between pleasure and reality, lack of cognitive evaluation of products, and neuroticism, all of which make a customer to get engaged in impulse purchase behavior (Rook & Hoch, 1985). Rook (1987) elaborated on impulsivity concept by stating that people differ in their impulse buying tendencies and it is useful to regard impulsivity as a life style trait. In this

respect, impulsivity can be linked to general acquisitiveness, materialism, recreational shopping, variety, and sensation seeking (Rook, 1987).

Later research by Rook and Fisher (1995) extended the concept by introducing consumer impulsiveness as a trait and suggested that normative evaluations determine whether or not impulsiveness result in actual impulse buying behavior. Youn and Faber (2000) suggested a more elaborated model of personality traits by stating that impulse buying may stem from consumer traits such as impulsiveness, optimum stimulation level, lack of self-control, and shopping enjoyment. Impulsiveness has been part of various studies of impulse buying behavior (Amos, Holmes, & Keneson, 2014; Hausman, 2000; Sharma, Sivakumaran, & Marshall, 2006). Beatty and Ferrell (1998) stated that consumers differ in their impulsiveness; therefore, high impulse buying tendency increases the likelihood of a consumer to make impulse purchases.

Personality-related impulse buying research is not limited to the role of impulsiveness. Many traits have been studied. Primarily, the impact of Big Five personality traits, along with previously studied personality traits, on impulse buying behavior has been studied. For instance, Badgaiyan and Verma (2014) found out that extroversion and conscientiousness, which are two of the Big Five traits significantly, impact impulse buying behavior. On the other hand, the moderating impact of personality traits on the relationship between external stimuli and perceived impulsiveness of purchases has been found (Lee & Johnson, 2010).

Gray (1990) described more specific systems related to behavioral activation and behavioral inhibition. Behavioral inhibition systems are responsible for the experience of negative feelings such as fear, anxiety, and frustration, whereas behavioral activation systems are responsible for the experience of positive feelings

such as hope and happiness (Gray, 1990). Carver and White (1994) stated that each of these two motivational systems is related to broader affective qualities. Behavioral inhibition systems are related to negative affect and behavioral activation systems (BAS) are related to positive affect. Therefore, people with higher BAS sensitivity are prone to reward-related cues and experience positive affect in the existence of these cues, whereas people with higher sensitivity to behavioral inhibition systems are more responsive to punishment-related stimuli and experience negative affect when they are exposed to such cues.

Another factor is the affective state of consumers. Youn and Faber (2000) defined affective state as a person's emotions, mood, and self-feelings. Affect is considered an inseparable part of impulse buying studies in the sense that impulse buying is regarded as hedonic behavior rather than cognitive and functional benefits (Sharma, Sivakumaran, & Marshall, 2010). In line with this viewpoint, many researchers paid attention to hedonic motivations to explain impulse buying. Hedonic motivations are divided into six categories including adventure, gratification, role, value, social, and idea shopping (Arnold & Reynolds, 2003). Arnold and Reynolds (2003) emphasized the importance of hedonic motives in terms of impulse buying and claimed that research should pay attention to the relationship between the types and intensity of hedonic motives and impulse buying. Gültekin and Özer (2012) further analyzed the relationship between hedonic motives and impulse buying as well as the moderating role of browsing. They argued that hedonic motives in general significantly influence browsing and impulse buying as well as browsing moderates this relationship. However, only three of these six hedonic motives; namely, gratification, adventure, and idea are found to be statistically significant (Gültekin & Özer, 2012). Therefore, it is worth mentioning that browsing is an

indispensable part of affective state, emotional, and hedonic shopping studies in explaining impulse buying behavior. Early research by Beatty and Ferrell (1998) similarly found that browsing moderates the relationship between shopping pleasure and urge to buy impulsively.

Demographic factors are also studied under internal factors category. Kollat and Willett (1967) claimed that demographic variables like occupation, education are not associated with impulse buying, whereas number of people living in the household and gender are associated with impulse buying; however, do not influence the actual behavior. In other words, women make a higher number of unplanned purchases not because gender determines impulse buying, but women make more purchases in general. Dittmar, Beattie, and Friese (1996) found out that gender is influential in impulse buying inasmuch as social category membership such as gender causes self-discrepancies that can be compensated through consumption and materialism, which in turn results in impulse buying behavior. The study found out that women are more prone to impulse buying. Tifferet and Herstein (2012) suggested that women show a higher level of brand commitment, hedonic consumption, and impulse buying compared to men. However, some studies proposed different findings. For instance, Mai, Jung, Lantz, and Loeb (2003) claimed that men are more prone to impulse buying than women are. Another demographic factor, age, is found to be statistically insignificant in impulse buying behavior (Sharma et al., 2010), whereas Pentecost and Andrews (2010) found out that Generation Y shows a significantly higher level of impulse buying compared to other age cohorts.

### 2.3.3 Situational factors influencing impulse buying in a physical setting

Beatty and Ferrell (1998) argued that situational factors, which are time availability and money availability, significantly determine impulse buying in the sense that perceived availability of time and money creates positive affect, which will result in a higher level of urge to buy impulsively. Time availability especially matters when there is no predetermined buying (Beatty & Ferrell, 1998). According to Dholakia (2000), situational factors can increase or decrease consumers' tendency to experience the consumption impulse. Situational factors pertain to either environmental conditions or consumers' current mood.

In literature, time availability is considered to positively affect impulse buying behavior. In other words, the more time a consumer has, the more likely he or she is to engage in impulse buying behavior (Herrington & Capella, 1995; Iyer, 1989). Xu (2007) viewed time pressure as a moderating variable for store environment and customer impulsivity in the study for Generation Y customers. Findings about the relationship between money availability and impulse purchase behavior are similar. Beatty and Ferrell (1998) viewed money availability as a facilitator to trigger impulse buying. Similarly, Foroughi, Buang, and Sadeghi (2012) stated that money availability and time availability positively influence impulse buying.

### 2.4 Online impulse buying

Definitions of online impulse buying differs in parallel to studies for the offline context. Vonkeman, Verhagen, and van Dolen (2017) defined online impulse buying as an unplanned online purchase that is as a result of exposure to stimuli, is preceded by an urge to buy impulsively and tends to occur without thorough reflection.

Madhavaram and Laverie (2004) suggested that impulse purchasing could be broadly conceptualized by explaining the phenomenon with regard to exposure to stimuli.

In order to explain differences and similarities impulse buying in between offline and online contexts, it is important to mention differences between traditional stores and web stores. Online shopping has enabled customers to find goods and services they seek conveniently (Szymanski & Hise, 2000). Moreover, online shopping enables shoppers to save time because they can easily find products, locate retailers, and purchase them at home (Madhavaram & Laverie, 2004). Park and Kim (2003) classified differences between online shopping and offline shopping can be broadly categorized into the following dimensions:

- Merchandise
- Customer service
- Security
- Navigation and convenience

Merchandise or merchandise mix is related to product assortment. According to Park and Kim (2003), rich product assortment increases the likelihood that customer needs will be met and satisfied as well as online stores can provide more detailed information about price comparisons, product demonstrations, and product testimonials. The second dimension, customer service and promotions, focus on the quality of overall online service processes. In other words, customers surfing a website can find help for how and when to pay, when the goods will be delivered, and so on (Varley & Rafiq, 2014). Another dimension is online security. Many customers have been reluctant to purchase in online stores owing to their distrust of security in online stores as well as their concerns about privacy of their personal data (Hoffman, Novak, & Peralta, 1999). On the other hand, navigation and convenience

category is related to store layout, organizational features, and ease of use (Park & Kim, 2003). Varley and Rafiq (2014) summarized navigation and convenience as customers' ability to decrease transaction costs through an easy-to-use website instead of going to a retail store, which will minimize time and effort required to search and buy products and services.

## 2.5 Factors influencing online impulse buying

Online impulse buying research can be divided into two broad categories. Some studies have explained the impact of website-related characteristics, whereas some have applied factors investigated in traditional stores to online contexts. In general, factors influencing online impulse buying can be broadly divided into website characteristics, consumer characteristics, marketing stimuli, and situational factors that are explained from the viewpoint of various theories and frameworks (Chan et al., 2017).

### 2.5.1 Website characteristics

Research dedicated to the relationship between website or online store characteristics and impulse buying focus on different dimensions of website cues and characteristics. Adelaar, Chang, Lancendorfer, Lee, and Morimoto (2003) explored the influences of media formats including text, pictures, and music video as well as emotions and suggested that visual and verbal media formats should be integrated to elicit impulse buying behavior in the sense that combinations of media formats caused emotional responses that can explain customers' impulse buying intent. Verhagen and van Dolen (2011) classified website characteristics into two categories that are functional convenience and representational delight. Functional convenience

comprised of merchandise attractiveness and ease of use means ability to use a website easily and conveniently to complete a task, whereas representational delight comprised of enjoyment and website communication style is the enhancement of the shopping experience by the senses and making it pleasurable. It is suggested that merchandise attractiveness, enjoyment, and website communication style are positively correlated with positive affect, which in turn influences browsing and urge to buy impulsively (Verhagen & van Dolen, 2011). Parboteeah, Valacich, and Wells (2009) focused on visual appeal and information fit-to-task elements of websites leading to cognitive reactions such as usefulness and affective reactions such as enjoyment. They found that urge to buy impulsively is significantly determined by enjoyment.

Website characteristics are included in a number of academic research as a part of theoretical models. The most widely used theoretical framework in online impulse buying research is S-O-R framework (Chan et al., 2017). S-O-R framework proposed by Mehrabian and Russell (1974) proposes that the shopping environment contains stimuli including environmental cues such as color, lighting, music, scent, which affect organisms (consumers) by triggering either approach or avoidance response. The framework is the most commonly used theory inasmuch as it has been one of the pillars of consumer behavior studies. Website characteristics are one of the most commonly studied sort of stimuli in online impulse buying studies (Chan et al., 2017).

Madhavaram and Laverie (2004) conducted an exploratory study to investigate the impact of exposure to stimuli and suggested that impulse purchases occur online and there are stimuli other than products, leading to the eventual impulse purchases. Stimuli responsible for online impulse buying are found to be

virtual customization of the product, appeal of the product, advertisement on the webpage, banners, and additional discounts. Shen and Khalifa (2012) regarded website characteristics as system stimuli and explained the role of interactivity and vividness of a website over impulse buying behavior. Telepresence, the sense of being located somewhere describing an immersive experience induced by a website and social presence, which can be defined as the feeling of being together with others, meaning that the website conveys the feelings of human contact, sociability, and sensitivity were included in the study. It is suggested that stimuli of website interactivity and vividness significantly determine perceptions of social presence and telepresence, which lead to arousal and pleasure feelings, resulting in buying impulse and actual impulse buying online. Liu et al. (2013) used S-O-R framework in their study in which stimuli are perceived product availability, website ease of use, and visual appeal proposed to be significant precursors of online impulse buying; organism reactions are instant gratification, normative evaluation, and impulsiveness, which are key determinants of urge to buy impulsively as response. Floh and Madlberger (2013) regarded stimuli as atmospheric cues of a website categorized as content, navigation, and design. They suggested that design and navigation show a significant positive effect with mediating variables, shopping enjoyment and impulsiveness, on approach behavior variables; namely, impulse buying behavior and expenditure.

Another approach used to complete the big picture in explaining the impact of website characteristics in the online impulse buying context is flow theory proposed by Csikszentmihalyi (1975). Flow can be defined as holistic sensation that people feel when they act with total involvement (Csikszentmihalyi, 2000). Hoffman and Novak (1996) firstly used flow theory in the online environment because they

claimed that flow experience is an optimal experience that can be useful for online marketers by helping them create exciting experiences for consumers. Online impulse buying has also been associated with flow theory included in many studies to explain the impact of website characteristics. Wu, Chen, and Chiu (2016) stated that website use, trust belief, and flow experience show significant impact on online impulse buying and proposed that only considering website characteristics is not adequate to fully understand the nature of online impulse purchases. Another study conducted by Koufaris (2002) suggested that unless consumers pay attention to the contents of website while shopping online, they would be less likely to notice products which they might buy on impulse. Therefore, the study implied that in spite of supportive website design, impulse buying might not occur without a proper state; namely, flow.

### 2.5.2 Consumer characteristics

Research dedicated to the relationship between consumer characteristics and online impulse buying focus on different dimensions of internal cues and individual characteristics. Chan et al. (2017) summarized internal stimuli as hedonic shopping motivation and browsing, informational and normative social influence, instant gratification, and impulse buying tendency.

Koufaris (2002) suggested that consumers who enjoy shopping and exploring online are more likely to be engaged in impulse buying behavior. Since then, the importance of motives has taken attention from many researchers to investigate which motives cause consumers to buy impulsively. In literature, motives have been divided into two broad categories that are utilitarian and hedonic. Important dimensions of utilitarian value are convenience, product offerings, product

information, monetary savings, and (Childers, Carr, Peck, & Carson, 2001; Simonson, 1999; Mimouni-Chaabane & Volle, 2010; Yang, Cai, Zhou, & Zhou, 2005). Zeithaml (1988) proposed that utilitarian value is related to cognitive aspects. Arnold and Reynolds (2003) classified hedonic shopping motives into six dimensions which are adventure shopping, social shopping, gratification shopping, idea shopping, role shopping, and value shopping. Consumers visit online shopping websites for both hedonic and utilitarian motivations; however, utilitarian motives such as price savings and convenience are stronger predictors than hedonic motives (Overby & Lee, 2006).

Impulse buying behavior in the online context has been associated with hedonic motives by many scholars. Kim and Eastin (2011) found out that hedonic shopping motives are related to a series of online shopping behaviors including impulse buying. Hausman (2000) argued that hedonic motives include novelty, social interaction, variety, and fun and online impulse buying depends partly upon hedonic rewards. Ozen and Engizek (2014) regarded hedonic shopping motivation as a multidimensional construct to study their impacts on online impulse buying tendency and proposed that adventure, relaxation, and value dimensions affect online impulse buying positively, while social hedonic shopping is negatively related to online impulse buying tendency.

Online impulse buying is closely related to online browsing behavior. Bloch, Ridgway, and Sherrell (1989) discussed that a shopping activity does not merely include picking up a product; instead, it is the collection of information gathering, buying, and pleasure. Thus, consumers spend time browsing to obtain information about products (Bloch et al., 1989). Moe (2003) categorized online shopping visits into four types that are buying, browsing, searching, and knowledge-building visit

based on in-store navigational patterns including the nature of the pages visited. Online hedonic browsing is at the immediate purchase horizon and is characterized by exploratory research. Moreover, hedonic browsing includes a lot more variety of products and categories viewed (Moe, 2003). Park, Kim, Funches, and Foxx (2012) confirmed that two types of web browsing; namely, hedonic and utilitarian web browsing, occur. Park et al. (2012) has found out that online impulse buying behavior is positively influenced by hedonic browsing, while negatively influenced by utilitarian browsing. The impact of browsing behavior is also explained from the S-O-R framework viewpoint inasmuch as browsing is a mediating variable within consumers' organisms, which leads to the response of online impulse buying behavior (Floh & Madlberger, 2013).

The other consumer characteristics affecting online impulse buying are social influence, instant gratification, and consumer impulse buying tendency. Consumer social influence can be defined as the extent to which a consumer's decisions on purchasing something is influenced by others and the construct is divided into normative social influence and informational social influence. Normative social influence is an individual's need to purchase products to enhance his or her image in the eyes of important people as well as the willingness to conform to others' expectations, whereas informational social influence means seeking information about products by observing other people or obtaining information from them (Silvera, Lavack, & Kropp, 2008). Silvera et al. (2008) discussed that informational social influence is negatively related to cognitive impulse buying, whereas normative social influence is positively related to affective impulse buying.

Instant gratification can be defined as the degree of immediate gratification that an individual obtains via making an impulse purchase (Chan et al., 2017). Liu et

al. (2013) studied the impact of instant gratification within S-O-R framework and suggested that instant gratification is significantly, determined by website visual appeal, consumer normative evaluations and significantly impacts urge to buy impulsively in the online context.

Finally yet importantly, consumer impulse buying tendency is studied by scholars to explain online impulse buying behavior. It can be defined as a consumer's internal trait of responding quickly to a given stimulus without deliberating regarding action outcomes (Chan et al., 2017). As its definition implies, many researchers have found out that impulse buying tendency of a consumer has a significant impact on online impulse purchases within S-O-R framework (Dawson & Kim, 2009; Liu et al., 2013; Parboteeah, Taylor, & Barber, 2016; Xiang, Zheng, Lee, & Zhao, 2016).

### 2.5.3 Marketing stimuli

Youn and Faber (2000) defined marketing stimuli as marketer-controlled environmental and sensory factors, the purpose of which is to tempt customers into buying. Chan et al. (2017) summarized marketing stimuli as different marketing tactics and promotional campaigns such as price discounts, bonus packs, product types (whether the product is hedonic or utilitarian), and product price (whether the product is expensive or inexpensive). Marketing stimuli are considered a sort of external stimuli (Chan et al., 2017).

Xu and Juang (2014) differentiated the impacts of bonus packs and price discounts on online impulse buying behavior. Both price discounts and bonus packs significantly influence online impulse buying decisions. However, the degree of impacts differ in accordance with product category and product price attribute. In

case of hedonic products, price discounts are more influential for online impulse buying, whereas bonus packs are more influential in case of utilitarian products. Moreover, price discounts are found to be more influential for inexpensive products; however, bonus packs are more effective for expensive products (Xu & Huang, 2014). Lo, Lin, and Hsu (2016) claimed that the following nine sales promotions tools are significant factors influencing online impulse buying:

- Buy one, get one free
- Limited time sales
- Group buying promotional programs
- Limited amounts of products for sales
- Product reductions
- Bonus rewards
- Promotions for newly released and branded products
- Gifts with purchase
- Products of unfamiliar brand in the domestic market.

Lo et al. (2016) stated that the nine sales promotion stimuli listed above generated utilitarian or hedonic benefits that foster enjoyment, increasing impulses in an online transaction.

Scarcity claims are another category of promotional activities influencing online impulse buying. A scarcity claim is a marketing tactic which emphasizes limited availability of a product or event (Ku, Kuo, & Kuo, 2012). Online shopping websites can make use of scarcity claims such as “only 10 products remaining to buy!” instead of other frequent or endless promotional activities.

#### 2.5.4 Situational factors

As mentioned in the previous sections, time availability and money availability are considered situational factors affecting impulse buying behavior (Beatty & Ferrell, 1998). Those factors are not deeply investigated regarding their impacts on impulse purchasing in the online context; however, most of the studies have focused on relationship between online shopping and situational factors such as time availability or perceived time-related features of a website such as high waiting times (Childers et al., 2001; Longdong & Pangemanan, 2015; Rajamma, Paswan, & Hossain, 2009) and money availability (Longdong & Pangemanan, 2015).

Longdong and Pangemanan (2015) studied online impulse buying in Indonesia and found out that situational factors of time availability and spending power of consumers and sales promotions significantly and positively affect online impulse buying. Therefore, wide availability of time for consumers every time at any place as well as wide availability of money consumers obtain or perceive encourage them to purchase impulsively (Longdong & Pangemanan, 2015).

Other studies have investigated the relationship between situational factors and online shopping behavior, which aids to understand online impulse buying as well. Perceived waiting time is significant in the sense that when the amount of time available to consumers is limited, they will be likely to get more impatient (Davis & Vollmann, 1990). In the online context, especially for convenience seekers, perceived waiting time is significant because they would like to economize on time (Childers et al., 2001). Online transactions are also affected by website time-related performance. Rajamma et al. (2009) found out that perceived waiting time to complete a transaction is not directly related to the propensity to abandon the shopping cart; however, they argued that the perceived waiting time indirectly affects

online shopping because online shoppers are generally time conscious and they are likely to be affected by delays in page uploads. Those results can be implied to online impulse buying in the sense that longer perceived waiting times, available time and money of consumers are likely to discourage online impulse buying.

## CHAPTER 3

### THEORETICAL MODEL AND HYPOTHESES

This chapter provides the theoretical model of the study and groups of hypotheses formulated based on this model that is an application of the stimulus-organism-response framework. Figure 1 shows the model is comprised of one independent variable and two groups of stimuli and two groups of organism-related variables.

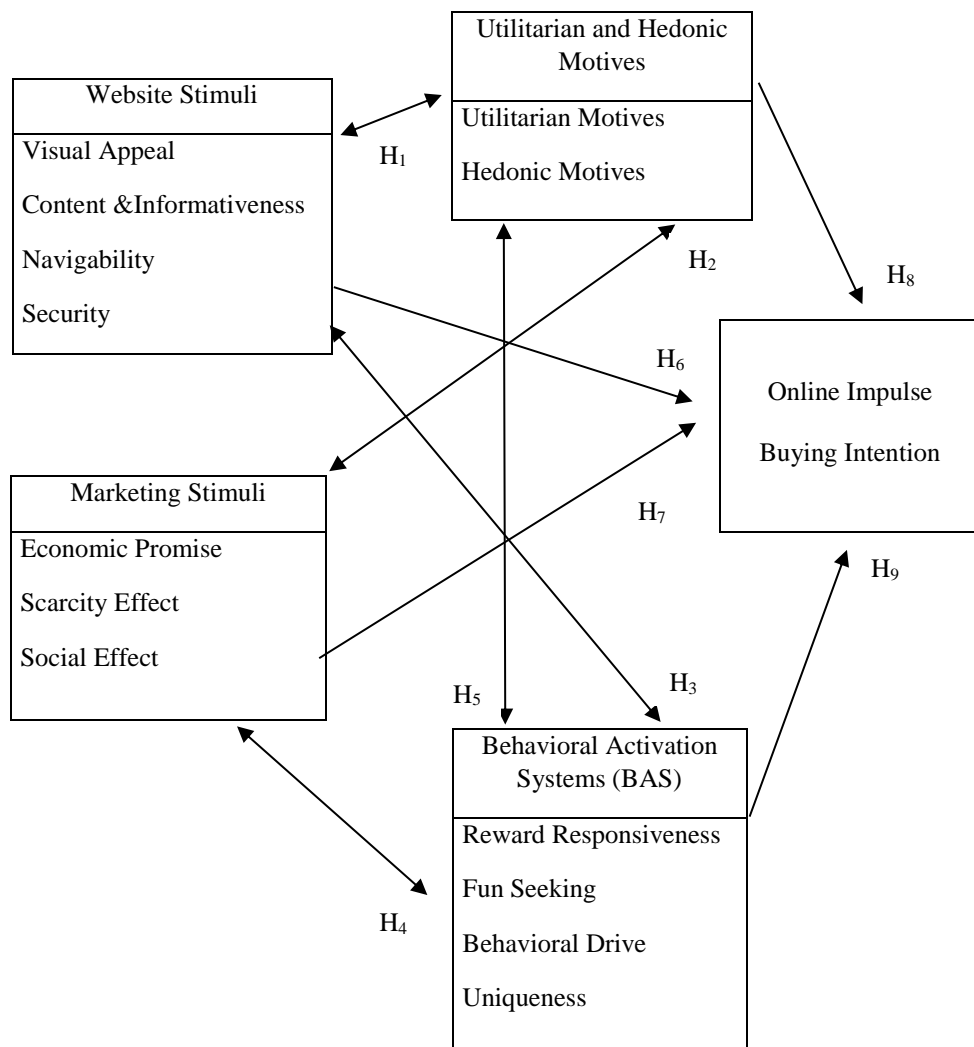


Fig. 1 Theoretical framework

### 3.1 Modules of theoretical model

In this section, the theoretical model of the study, which includes a detailed indication of variables and hypotheses are explained. The model is an application of S-O-R framework to our study.

#### 3.1.1 Website stimuli

This module includes various website characteristics that might influence online impulse buying decisions. The characteristics included in this module are the following:

1. **Visual Appeal:** One of the most commonly used characteristics in the literature is visual characteristics of the web store. This characteristic is used in order to check whether a visually pleasing web store positively influences online impulse buying intention.
2. **Content & Informativeness:** This characteristic aims to measure if the content of the web store regarding product information is adequate and if such adequate information positively affects online impulse buying intention.
3. **Navigability:** This attribute is intended to measure the functionality of web store in terms of clear menus, correct categorizations of information, ease of finding product information.
4. **Security:** The characteristic aims to measure the degree to which the web store contains security certificates, security payment options, and agreements on information security. In addition, the reliability of information available on the web store about its commercial identity is a part of this characteristic.

### 3.1.2 Marketing stimuli

This module is comprised of various marketing tactics used on web stores to trigger people to shop online. These stimuli are divided into the following three parts:

1. **Economic Promise:** One of the most commonly used online marketing tools such as credit card campaigns, price discounts, and free shipping is economic promises to make people buy more. Economic promise is included to check if it significantly causes online impulse buying intention or not.
2. **Scarcity Effect:** The impacts of time and product amount scarcity are mainly examined and this characteristic aims to explain if scarcity claims positively influence online impulse buying intention or not.
3. **Social Effect:** This characteristic is related to the review of products by other customers, celebrity, and experts. Research claims that positively influence online impulse buying intention.

### 3.1.3 Utilitarian and hedonic motives

This module includes a variety of utilitarian and hedonic motives triggering consumers to do shopping. In the literature, online impulse buying is generally attached to hedonic motives. The motives are as follows:

1. **Utilitarian Motives:** Utilitarian motives include rational objectives to be engaged in an online impulse buying such as usefulness and necessity of shopping.
2. **Hedonic Motives:** Hedonic motives include emotional objectives to be engaged in an online impulse buying such as the joyfulness of a shopping situation.

### 3.1.4 Behavioral activation systems

This module is another motivational system called behavioral activation systems that are associated with positive affect. Behavioral activation systems are divided into four parts:

1. **Reward Responsiveness:** The characteristic is related to approach motivation for activities that produce pleasure. Therefore, it is likely to influence online impulse buying intention positively.
2. **Fun Seeking:** The motivation to find new rewards or fun seeking is believed to be a positive influencer of online impulse buying intention.
3. **Behavioral Drive:** The motivation to follow one's goals called behavioral drive is included in behavioral activation systems module. Following goals like pleasure, fun seeking, or finding new products is believed to produce an online impulse buying intention.
4. **Uniqueness (DUCP):** Desire for unique consumer products is another personal motivation to find new or scarce products. Hence, it is included in the module and aims to check if uniqueness significantly affects online impulse buying intention.

### 3.1.5 Online impulse buying intention

This module reflects if respondents are willing to be engaged in online impulse purchase behavior. It is used as the dependent variable in the theoretical model and expected to be influenced by both stimuli and organism variables.

### 3.2 Hypotheses

The following 10 groups of hypotheses are formulated based on the theoretical model of this study.

Hypothesis 1a: There is a significant relationship between visual appeal and utilitarian motives.

Hypothesis 1b: There is a significant relationship between visual appeal and hedonic motives.

Hypothesis 1c: There is a significant relationship between content & informativeness and utilitarian motives.

Hypothesis 1d: There is a significant relationship between content & informativeness and hedonic motives.

Hypothesis 1e: There is a significant relationship between navigability and utilitarian motives.

Hypothesis 1f: There is a significant between navigability and hedonic motives.

Hypothesis 1g: There is a significant relationship between security and utilitarian motives.

Hypothesis 1h: There is a significant relationship between security and hedonic motives.

Hypothesis 2a: There is a significant relationship between economic promise and utilitarian motives.

Hypothesis 2b: There is a significant relationship between economic promise and hedonic motives.

Hypothesis 2c: There is a significant relationship between scarcity effect and utilitarian motives.

Hypothesis 2d: There is a significant relationship between scarcity effect and hedonic motives.

Hypothesis 2e: There is a significant relationship between social effect and utilitarian motives.

Hypothesis 2f: There is a significant relationship between social effect and hedonic motives.

Hypothesis 3a: There is a significant relationship between visual appeal and reward responsiveness.

Hypothesis 3b: There is a significant relationship between visual appeal and fun seeking.

Hypothesis 3c: There is a significant relationship between visual appeal and behavioral drive.

Hypothesis 3d: There is a significant relationship between visual appeal and uniqueness.

Hypothesis 3e: There is a significant relationship between content & informativeness and reward responsiveness.

Hypothesis 3f: There is a significant relationship between content & informativeness and fun seeking.

Hypothesis 3g: There is a significant relationship between content & informativeness and behavioral drive.

Hypothesis 3h: There is a significant relationship between content & informativeness and uniqueness.

Hypothesis 3i: There is a significant relationship between navigability and reward responsiveness.

Hypothesis 3j: There is a significant relationship between navigability and fun seeking.

Hypothesis 3k: There is a significant relationship between navigability and behavioral drive.

Hypothesis 3l: There is a significant relationship between navigability and uniqueness.

Hypothesis 3m: There is a significant relationship between security and reward responsiveness.

Hypothesis 3n: There is a significant relationship between security and fun seeking.

Hypothesis 3o: There is a significant relationship between security and behavioral drive.

Hypothesis 3p: There is a significant relationship between security and uniqueness.

Hypothesis 4a: There is a significant relationship between economic promise and reward responsiveness.

Hypothesis 4b: There is a significant relationship between economic promise and fun seeking.

Hypothesis 4c: There is a significant relationship between economic promise and behavioral drive.

Hypothesis 4d: There is a significant relationship between economic promise and uniqueness.

Hypothesis 4e: There is a significant relationship between scarcity effect and reward responsiveness.

Hypothesis 4f: There is a significant relationship between scarcity effect and fun seeking.

Hypothesis 4g: There is a significant relationship between scarcity effect and behavioral drive.

Hypothesis 4h: There is a significant relationship between scarcity effect and uniqueness.

Hypothesis 4i: There is a significant relationship between social effect and reward responsiveness.

Hypothesis 4j: There is a significant relationship between social effect and fun seeking.

Hypothesis 4k: There is a significant relationship between social effect and behavioral drive.

Hypothesis 4l: There is a significant relationship between social effect and uniqueness.

Hypothesis 5a: There is a significant relationship between utilitarian motives and reward responsiveness.

Hypothesis 5b: There is a significant relationship between utilitarian motives and fun seeking.

Hypothesis 5c: There is a significant relationship between utilitarian motives and behavioral drive.

Hypothesis 5d: There is a significant relationship between utilitarian motives and uniqueness.

Hypothesis 5e: There is a significant relationship between hedonic motives and reward responsiveness.

Hypothesis 5f: There is a significant relationship between hedonic motives and fun seeking.

Hypothesis 5g: There is a significant relationship between hedonic motives and behavioral drive.

Hypothesis 5h: There is a significant relationship between hedonic motives and uniqueness.

Hypothesis 6a: Visual appeal of web store has a significant impact on online impulse buying intention.

Hypothesis 6b: Content & informativeness of web store has a significant impact on online impulse buying intention.

Hypothesis 6c: Navigability of web store has a significant impact on online impulse buying intention.

Hypothesis 6d: Security of web store has a significant impact on online impulse buying intention.

Hypothesis 7a: The existence of economic promise on web store has a significant impact on online impulse buying intention.

Hypothesis 7b: The existence of scarcity effect on web store has a significant impact on online impulse buying intention.

Hypothesis 7c: The existence of social effect on web store has a significant impact on online impulse buying intention.

Hypothesis 8a: Utilitarian motives have a significant impact on online impulse buying intention.

Hypothesis 8b: Hedonic motives have a significant impact on online impulse buying intention.

Hypothesis 9a: Reward responsiveness has a significant impact on online impulse buying intention.

Hypothesis 9b: Fun seeking has a significant impact on online impulse buying intention.

Hypothesis 9c: Behavioral drive has a significant impact on online impulse buying intention.

Hypothesis 9d: Uniqueness has a significant impact on online impulse buying intention.

Hypothesis 10a: There is a significant difference among groups with different online shopping experience levels with respect to online impulse buying intention.

Hypothesis 10b: There is a significant difference among groups with different online shopping frequencies with respect to online impulse buying intention.

Hypothesis 10c: There is a significant difference among groups with different expenditure limits on online shopping with respect to online impulse buying intention.

Hypothesis 10d: There is a significant difference among different age groups regarding online impulse buying intention.

Hypothesis 10e: There is a significant difference between males and females regarding online impulse buying intention.

Hypothesis 10f: There is a significant difference between married people and single people regarding online impulse buying intention.

Hypothesis 10g: There is a significant difference among groups of different education levels regarding online impulse buying intention.

Hypothesis 10h: There is a significant different difference among different income groups regarding online impulse buying intention.

## CHAPTER 4

### RESEARCH METHODOLOGY

In the previous parts, online impulse buying concept and its underlying reasons have been examined in detail. This chapter provides the technical aspects of research methodology. As a quantitative method, a questionnaire is used to collect data.

The objectives of the questionnaire are in line with the research objectives which are: (1) to determine the relationship between website stimuli and online impulse buying intention; (2) to find out the relationship between marketing stimuli and online impulse buying intention; (3) to find out the relationship between behavioral activation variables which include reward responsiveness, uniqueness, fun seeking, and behavioral drive and online impulse buying intention; (4) to find out the relationship between utilitarian, hedonic motives and online impulse buying intention; (5) to find out interrelationships among stimuli and behavioral activation as well as stimuli and utilitarian and hedonic motives to check if motives and behavioral activation have a mediating impact on the relationship among stimuli and online impulse buying intention; (6) to examine whether online impulse buying intention differs regarding demographic variables including age, gender, marital status, academic background, and income; (7) to determine if shoppers who differ in general online shopping habits and experience levels including online shopping frequency, online shopping experience, and expenditure limit on online shopping also differs in online impulse buying intention or not. Therefore, the questionnaire aims to find out external and internal factors influencing online impulse buying as well as if distinct demographic and shopper groups differ in online impulse buying.

The selection of questions, components of questionnaire, sampling method, data collection procedure, and data analyses procedure are all explained in this chapter.

#### 4.1 Preparation of the questionnaire

The questionnaire is developed after the literature review. In order to prepare the questionnaire, marketing and information systems scales are deeply investigated from the literature. Moreover, both Turkish and foreign online shopping websites are examined in order to list relevant items to include in the questionnaire as well as informal questions are asked to people from different demographic groups to check if any other items can be included in the questionnaire. As a result of evaluations and taking into account opinions from professors in Boğaziçi University Management Information Systems, the questions in the survey have been prepared in English. Appendix A provides English version of the survey. Since the questionnaire aims to collect data from Turkish people, all questions and scales obtained from the literature are prepared and translated into Turkish. Appendix B provides Turkish version of the survey. Then, all questions are translated back into English for analyses. The survey is comprised of an introduction summarizing the aim, data collectors, and information about privacy of personal data; and sections each of which measures factors influencing online impulse buying. Demographic questions are asked at the end of the survey. The survey asks questions based on an imaginary online shopping situation to determine the importance and relevance of each question for the respondents. A standard survey is applied to all respondents and collected data are analyzed via SPSS 20.

#### 4.2 Choice of people for the questionnaire

Convenience sampling is used in this thesis. All respondents are required to do online shopping at least once in order to collect meaningful data for analyses. All respondents answered questions online; that is to say, paper-based data collection methods are not used. In order to collect data from different demographic groups, social media connections are kindly asked to share the survey link on their profile pages. Academic forums, Facebook and Whatsapp groups, LinkedIn posts, and Twitter are initially used to reach a wide range of respondents who are in different demographic groups and who have different shopping habits and experience levels. All data are collected online via a link; however, no e-mailing is used for data collection. Answers of respondents are collected anonymously and individually through a survey preparation provider website. After using personal network that increased the number of data who mostly live in Istanbul, a Facebook advertisement was published to send survey, through which more than 500 people clicked on the survey and more than 100 people from all regions of Turkey replied the questions. Therefore, 654 respondents have participated in survey within 3 weeks; however, only 498 of them have completed the survey. Responses with missing or incorrect data are omitted; as a result, the size of sample whose responses are analyzed is 495.

#### 4.3 Components of the questionnaire

The questionnaire consists of four pages, beginning with a one-page introduction, which explains the purpose of the questionnaire, the privacy of data, and owners of the questionnaire. The questionnaire includes 14 questions, which are all multiple choice with sub questions. The questionnaire is comprised of 7 components: (1) online shopping habits and traits of respondents; (2) the impact of website stimuli on

online impulse buying decision; (3) the impact of marketing stimuli on online impulse buying decision; (4) the impacts of utilitarian and hedonic motives on online impulse buying decision; (5) the impact of behavioral activation on online impulse buying decision; (6) online impulse buying intention; (7) demographic characteristics of respondents including gender, age, academic background, marital status, and monthly personal income.

The first component of the survey measures general online shopping traits respondents have including (1) the numbers of years of online shopping experience which has an ordinal scale and which includes 4 options “less than 2 years”, “2-4 years”, “5-7 years”, “more than 7 years”; (2) the frequency of online shopping which has an ordinal scale and which includes 2 options: “a few times a week”, “a few times a month”, “a few times a year”; (3) 12 product categories the respondents have purchased online so far including clothing, technology, food, healthcare, shoes, home appliances, white goods, books, hobby products, cosmetics, and sports; (4) the maximum amount shopping expenditure limit in online shopping which has an ordinal scale and which consists of “less than 100 TL”, “100-499 TL”, “500-999 TL”, “1000-2499 TL”, “more than 2500 TL”. This section is intended to find out both online shopping habits of respondents in general as well as whether online impulse buying behavior differs with respect to general online shopping habits and experience.

The second component of the questionnaire, which aims to determine the influence of website stimuli on an online impulse purchase decision, consists of self-constructed scales although variables are commonly used in literature. This section is comprised of four variables that are visual appeal, content & informativeness, navigability, and security of the web store. Each variable includes four to six items

respondents evaluate based on a five-point scale: (1) Not at all influential, (2) Minimally influential, (3) Neutral, (4) Influential, (5) Very Influential. In this component, questionnaire participants have evaluated 18 statements, all of which have to be answered. Table A1 (Appendix A) shows all the questions. The variables and statements are the following:

#### Visual Appeal (Four items)

- The quality of products' images
- Display of products from different angles including 3D images and different shapes
- The availability of a product demo video
- The aesthetic layout of the web store

#### Content & Informativeness (Six items)

- Clear and detailed information about products
- Updated and correct information about products
- Variety of products on web store (color, size, etc.)
- Opportunity to compare products on web store (color, size, etc.)
- Providing information about similar or alternative other products
- Providing brand information of the product

#### Navigability (Four items)

- The availability of clear menus, categories, and tabs
- Easily reaching product information
- Functioning website links directing to pages
- The availability of a well-functioning search bar

#### Security (Four items)

- The availability of a web security certificate such as SSL

- The availability of secure payment options such as 3D-Secure and BKM Express
- The availability of information security contract
- The availability of trustworthy and adequate amount of information about web store's commercial identity

The third component of the questionnaire, which aims to determine the influence of marketing stimuli on an online impulse purchase decision, consists of self-constructed scales. These scales are constructed based on deep examinations of both Turkish and international web stores and their marketing tactics to attract online shoppers. The third section is comprised of three variables, which are economic promise, scarcity effect, and social effect the web store creates. Each variable includes four to six items respondents evaluate based on a 5-point scale: (1) Not at all influential, (2) Minimally influential, (3) Neutral, (4) Influential, (5) Very Influential. In this component, questionnaire participants have evaluated 14 statements, all of which have to be answered. Table A2 (Appendix A) shows all the questions. The variables and statements are the following:

#### Economic Promise (Six items)

- Appealing price discounts
- Special promotions based on specific amount of online shopping
- Gift cards and coupons
- Availability of free shipping
- Availability of free return of products
- Credit card money point and discount campaigns

#### Scarcity Effect (Four items)

- Listing products in a scarce amount of time

- Product amount scarcity
- Selling products merely online
- Selling products only on specific web stores

#### Social Effect (Four items)

- Other customers' positive feedback on products
- Celebrity positive feedback on products
- Experts' positive feedback on products
- Web store's suggestion of product special for you

The fourth component of the questionnaire aims to determine the influence of utilitarian and hedonic motives on an online impulse purchase decision. Six items are used for each variable. The question is asked to determine which situation is likely to trigger an online impulse buying decision. Statements are evaluated based on a five-point scale: (1) Very Low, (2) Low, (3) Average, (4) High, (5) Very High. In this component, questionnaire participants have evaluated 12 statements, all of which have to be answered. Table A3 (Appendix A) shows all the questions. The variables and statements are the following:

#### Utilitarian Motives (Six items)

- Usefulness of shopping
- Being a smart way of shopping
- Necessity of shopping
- Problem-solving nature of shopping
- Novelty and increasing life quality
- Being a logical shopping opportunity

#### Hedonic Motives (Six items)

- Being a very joyful shopping opportunity

- Finding a very interesting and unique product to find somewhere else
- Being a very exciting buying situation
- Finding a shopping situation which brings color to life
- Finding a shopping situation which makes you feel special and different
- Having a meaningful and emotional shopping situation

The fifth component of the questionnaire is behavioral activation systems as a set of variables which are values related to goal orientations and planning. The scales are obtained from literature although some minor modifications are made in order to translate them into Turkish (Carver & White, 1994). Moreover, Uniqueness: Desire for Unique Customer Products (DUCP) is obtained from literature and included with some modifications in the fifth section as an organism variable in our S-O-R framework in order to measure the extent to which consumers hold as a personal goal the purchase and possession of products that few others own (Lynn and Harris, 1997). Thus, the fifth section is comprised of four variables that are reward responsiveness, fun seeking, behavioral drive as well as uniqueness. Each variable includes 4 items respondents evaluate based on a 5-point scale: (1) Very Inappropriate, (2) Inappropriate, (3) Indecisive, (4) Appropriate, (5) Very Appropriate. In this component, questionnaire participants have evaluated 16 statements, all of which have to be answered. The variables and statements are the following and Table A4 (Appendix A) shows the questions in detail:

#### Reward Responsiveness (Four items)

- It gives me pleasure to have a good shopping experience.
- I get excited to buy a product I desire.
- I like defining myself as a good online shopper.
- Finding an online shopping opportunity that others miss makes me feel good.

#### Fun Seeking (Four items)

- Online shopping is a very joyful activity for me.
- Online shopping is one of the most enjoyable ways to discover novelties.
- I may would like to shop online when I do not need it.
- Online shopping is a leisure time activity for me.

#### Behavioral Drive (Four items)

- I can bear some burden such as opening a new account and spending time to purchase products I had seen online.
- I can push my budget to purchase products I had seen online.
- I can take some risks like giving my personal information to purchase products I had seen online.
- I can justify it to purchase products I had seen online.

#### Uniqueness (Four items)

- I like buying rare products online.
- I enjoy trying products I see on the internet before others do so.
- I enjoy purchasing products online not owned by many others.
- I enjoy shopping on web stores obtaining interesting and extraordinary products

The sixth component of the questionnaire is online impulse buying intention which is used as the dependent variable and obtained from literature and some modifications are made to translate the construct into Turkish (Parboteeah et al.,2009). Five items in this component are evaluated based on a 5-point scale: (1) Very Inappropriate , (2) Inappropriate, (3) Indecisive, (4) Appropriate, (5) Very Appropriate. Table A5 (Appendix A) shows all the questions. The five statements are as follows:

- I am likely to be engaged in online impulse buying.
- I think less compared to my surroundings while shopping.
- I find myself on a web store suddenly while shopping.
- I might purchase products other than I had needed and planned before.
- I might spend more than what I had planned before.

The seventh component of the questionnaire is comprised of demographic variables including age, gender, marital status, education level, and monthly personal income. All demographics questions are required to answer aside from monthly personal income, which is an optional question. The goals of this part are to check demographic distribution of sample and to find out if online impulse buying behavior differs according to demographic characteristics of respondents.

Finally yet importantly, the questions are translated into Turkish carefully in order to ensure that the meanings of original questions have not changed. Turkish version of the survey is available at the appendix. The Turkish version is comprised of the same sections in the same order. Respectively, website stimuli (see Appendix B, Table B1), marketing stimuli (see Appendix B, Table B2), utilitarian motives and hedonic motives (see Appendix B, Table B3), behavioral activation systems (see Appendix B, Table B4), and online impulse buying intention (see Appendix B, Table B5) are asked.

#### 4.4 Statistical analyses

After 654 answers are collected via an online survey website, partially and totally incomplete responses are deleted. As a result, 495 answers are analyzed. The following analyses are made:

- Descriptive analyses are made mainly for general online shopping traits and demographic variables; however, all other variables are also included in descriptive analyses.
- Correlation analyses are made to examine relationship between website stimuli and behavioral activation; marketing stimuli and behavioral activation; website stimuli and marketing stimuli; as well as online impulse buying's correlation with website stimuli, marketing stimuli, behavioral activation, and utilitarian & hedonic values are each analyzed separately.
- Multiple regression analyses are used to check the impacts of website stimuli and marketing stimuli on online impulse buying intention, the impact of behavioral activation on online impulse buying intention, the impact of utilitarian and hedonic values on online impulse buying intention, and the impacts of all independent variables on online impulse buying intention, the last of which is made by PROCESS patch of SPSS to check the mediating effects of behavioral activation and utilitarian & hedonic motives.
- One-way Anova and t-test analyses are used in order to find out whether differences in general online shopping attributes and demographic characteristics are significant in explaining online impulse buying. One-way Anova analysis is used firstly for all these variables except gender and marital status, which only have two options. Since academic background failed test of homogeneity of variances, Kruskal-Wallis test is then conducted. After conducting one-way Anova analyses; age, academic background, monthly personal income as well as the numbers of years of online shopping experience, the frequency of online shopping, and the maximum amount of shopping expenditure limit responses are regrouped to be used in t-test.

## CHAPTER 5

### ANALYSES AND FINDINGS

In this part of study; descriptive, reliability, correlation, multiple regression, one-way ANOVA, and independent samples t-test analyses are conducted to test the hypotheses listed in Chapter 3 and to provide findings.

Descriptive findings include demographic and online shopping profiles of respondents, product categories they have purchased online, and mean values of importance attached to each scale.

Correlation analyses are conducted to test the first to the fifth group of hypotheses and provide results of the significance of relationships among website and marketing stimuli, utilitarian and hedonic motives, and behavioral activation systems variables.

Multiple regression analyses are conducted to test the sixth to the ninth group of hypotheses and provide results for the significance of each variable's impact on online impulse buying intention.

Multiple regression analyses are also conducted for mediating effects. Correlation analyses and multiple regression analyses have provided the relationships among each part separately. Multiple regression analyses through a patch of SPSS, called PROCESS are conducted to check the mediating effects of utilitarian motives, hedonic motives, and behavioral activation systems variables, which has provided overall outlook of the theoretical model.

One-way ANOVA and independent samples t-test analyses are done to test the tenth group of hypotheses and show whether online impulse buying differs in terms of online shopping characteristics and demographic variables.

## 5.1 Descriptive findings

Descriptive findings include demographic profile, online shopping profile, product categories purchased online, and mean values of each scale. Table 1 shows demographic profile of respondents in terms of age, gender, marital status, education, and income. Monthly personal income is not compulsory to answer in the questionnaire.

Table 1. Demographic Profile of the Respondents

Age	<18	18-25	26-35	36-45	46-55	>55
	25	174	192	52	41	11
	5%	35%	39%	11%	8%	2%
Gender	Female	Male				
	315	180				
	64%	36%				
Marital Status	Married	Single				
	154	341				
	31%	69%				
Education	Primary School Graduate	High School Graduate	Undergrad. Student	Bachelor's Degree	Master's/PhD Student	Master's/PhD Degree
	20	54	122	174	86	39
	4%	11%	25%	35%	17%	8%
Income	<1500 TL	1500 - 2999 TL	3000 - 4999 TL	5000 - 9000 TL	>9000 TL	
	111	92	100	69	24	
	22%	19%	20%	14%	5%	

The respondents are mainly young people, almost 80% of whom are younger than 36. Age groups of 18-25 and 26-35 are almost equal in size and constitute 75% of the sample, which corresponds to recent graduates or young working population, whereas respondents who are above 45 constitute merely 10%.

Females outnumber males in the sample. 64% of the respondents are female, whose ratio increased especially after using Facebook advertising. A quota on gender distribution has not been used, hence the number and ratio of males is 180 and 36%.

Marital status is not distributed closely or equally; 69% of the respondents are single, whereas married people only constitute 31% of the sample, which is likely to stem from the dominance of younger ages in the sample.

Education level of the sample is quite high. 70% of the sample have at least an undergraduate degree and 25% of the overall sample is either postgraduate student or has a postgraduate degree. Undergraduate students also constitute a sizeable portion with 122 respondents. The least populated category is primary school graduates, who only constitute 4% of the overall population. Therefore, having a sample with a high education level demonstrates that the sample is familiar with technology and online shopping more likely.

Monthly personal income is the fifth demographic variable. 22% of the respondents' monthly personal income is about or less than the minimum wage and this category is the most populous income group in the sample, which is likely to stem from the dominance of younger ages in the sample. The number of respondents are close in each group except >9000 TL, which only constitutes 5% of the sample.

Table 2 shows the distribution of the respondents in terms of their online shopper profile, which includes online shopping experience, frequency, and expenditure limit on online shopping.

Table 2. Online Shopping Profile

Online Shopping Experience	<2 Years	2-4 Years	5-7 Years	>7 Years	
	124	134	131	106	
	25%	27%	26%	21%	
Online Shopping Frequency	A few times per week	A few times per month	A few times per year		
	26	199	270		
	5%	40%	55%		
Online Shopping Expenditure Limit	<100 TL	100-499 TL	500-999 TL	1000-2499 TL	>2500 TL
	53	207	77	60	98
	11%	42%	16%	12%	20%

Online shopping experience measures the number of years respondents have been shopping online. As stated in the introductory part of the questionnaire, respondents must be engaged in online shopping at least once. The distribution of the respondents in terms of their online shopping experience is relatively similar; each category includes at least 20% of the respondents. The percentage of the respondents who have at least 2 years of online shopping experience is 75%. Hence, the sample is quite familiar with online shopping.

Respondents who do online shopping a few times in a month or in a year dominate the sample. Only 26 respondents, who constitute around 5% of the sample, are engaged in online shopping a few times in a week. 40% of the sample do online shopping a few times in a month, whereas more than half (55%) do online shopping a few times in a year. Therefore, the sample is comprised of frequent shoppers, not extreme shoppers.

Considering online shopping expenditure limit, the respondents who spend 100-499 TL at maximum dominate the sample; 207 respondents (42%) are in this interval. Those who can spend more than 2500 TL constitute 20% of the respondents, which is in parallel to monthly personal income level statistics. The number of other categories is similar and between 11% and 16%.

Table 3 is related to online purchases of the respondents regarding which products they have purchased online. 11 product categories are covered. Regarding product categories purchased online, the highest number belongs to clothing category; 382 respondents have purchased clothing online at least once. Books follow clothing with 352 (71%). Technology is asked in general to imply consumer electronics and gadgets, which are purchased by 291 respondents, corresponding to almost 60% of the sample size. Cosmetics products with 37% percentage are

somewhat low compared to clothing and hobby products (41%). The least purchased product categories are healthcare products and white goods, which are only bought online by 17% and 14% respectively.

Table 3. Product Categories Purchased Online

Product Category	Frequency	%
Clothing	382	77%
Books	352	71%
Technology	291	59%
Shoes	279	56%
Homecare Products	204	41%
Hobby Products	203	41%
Cosmetics	184	37%
Sports Products	155	31%
Food	145	29%
Healthcare	83	17%
White Goods	70	14%

Table 4 shows the mean values of respondents' agreement level with the importance of the items of visual appeal. The highest score belongs to the item "Displaying products from different angles", whose mean is 4.28; followed by high quality of product images with a mean of 4.04. Aesthetic design of the web store in general and availability of product demo videos have very close means that are 3.93 and 3.90 respectively. Standard deviations of items range from 0.82 to 1.00.

Table 4. Mean Values of Items in Visual Appeal Scale

Items	Mean (Over 5)	Std. Deviation
Displaying products from different angles	4.28	0.82
High quality of products' images	4.04	0.82
Aesthetic design of the web store in general	3.93	0.91
Availability of product demo videos	3.90	1.00

Therefore, the results indicate that respondents think of displaying products from different angles and high quality of products' images important in making a decision to buy impulsively in a web store, whereas they think of aesthetic design of the web store and availability of product demo videos somewhat important. However, standard deviations are quite high for each item, indicating that respondents differ and many of them are far to the mean.

Table 5 below shows the mean values of respondents' agreement level with the importance of the items of content & informativeness scale. The items "updated and correct information about the products" and "clear and detailed information about the products" are considered very influential by the respondents with means of 4.63 and 4.62 respectively. "Variety of products follows these items" with a mean of 4.07, which is considered somewhat influential. According to their means, the rest of the items are sorted as opportunity to compare products on web store, providing information about brand of products, and providing information about similar or alternative products whose means are 3.89, 3.82, and 3.67, which indicate that these items are not attached a special importance in online impulse buying decision. Standard deviations of the first two items in the table are lower, compared to the rest of the items. Thus, respondents are closer to the mean compared to the other items.

Table 5. Mean Values of Items in Content and Informativeness Scale

Items	Mean (Over 5)	Std. Deviation
Updated and correct information about products	4.63	0.65
Clear and detailed information about products	4.62	0.65
Variety of products on web store (color, size etc.)	4.07	0.83
Opportunity to compare products on web store (color, size etc.)	3.89	0.98
Providing information about brand of products	3.82	0.96
Providing information about similar or alternative products	3.67	0.99

Table 6 below shows the mean values of respondents' agreement level with the importance of the items of navigability scale. All the items have scores above 4.00, indicating that navigability is considered influential in an online impulse buying decision situation. The highest score, which is 4.44, belongs to "ease of finding information about products"; followed by "correctly functioning links on web store" whose score is 4.38. The rest of the items "availability of a well-functioning search bar" and "availability of clearly designed menu, categories, and tabs" have means of 4.28 and 4.21 respectively. However, standard deviations are somewhat high for each item ranging from 0.67 to 0.84; the lowest belongs to "ease of finding information about products" and the highest belongs to "availability of a well-functioning search bar". Thus, the results show that respondents differ and are somewhat far to the mean.

Table 6. Mean Values of Items in Navigability Scale

Items	Mean (Over 5)	Std. Deviation
Ease of finding information about products	4.44	0.67
Correctly functioning links on web store	4.38	0.78
Availability of a well-functioning search bar	4.28	0.84
Availability of clearly designed menu, categories, and tabs	4.21	0.80

Table 7 below shows the mean values of respondents' agreement level with the importance of the items of security scale. Security has the highest mean scores in website stimuli. Respondents consider "availability of secure payment options" very influential, hence its score is 4.59. "Availability of trustworthy and adequate information about commercial identity of web store" is also considered very influential with a mean of 4.48. The rest of items "availability of security certificates" and "availability of information security contract" are also considered

quite influential with means 4.37 and 4.24 respectively. However, standard deviations are quite high and around 0.8 and 0.9, indicating that respondents are far to the mean and differ in their attached importance to security in an online impulse buying decision.

Table 7. Mean Values of Items in Security Scale

Items	Mean (Over 5)	Std. Deviation
Availability of secure payment options (such as BKM Express, 3D-Secure)	4.59	0.77
Availability of trustworthy and adequate information about commercial identity of web store	4.48	0.75
Availability of security certificates (such as SSL)	4.37	0.94
Availability of information security contract	4.24	0.94

Table 8 below shows the mean values of respondents' agreement level with the importance of the items of economic promise scale. "Availability of free return of products" and "appealing price discounts" are considered quite influential in an online impulse buying decision with means of 4.44 and 4.38 respectively. "Availability of free shipping" is somewhat influential with a mean of 4.11. Each of the rest of the items have scores quite lower than one another's ranging from 3.20 to 3.76. Therefore, the results indicated that special promotions after spending a certain amount, credit card campaigns, and gift cards & coupons are attached no importance in online impulse buying decision. Standard deviations are quite high, especially for the items "credit card money point and discount campaigns" and "gift cards and coupons to be used later" with 1.16 and 1.15, showing that respondents are very far to the mean.

Table 8. Mean Values of Items in Economic Promise Scale

Items	Mean (Over 5)	Std. Deviation
Availability of free return of products	4.44	0.86
Appealing price discounts	4.38	0.75
Availability of free shipping	4.11	0.98
Special promotions after spending a certain amount	3.76	1.03
Credit card money point and discount campaigns	3.54	1.16
Gift cards and coupons to be used later	3.20	1.15

Table 9 below shows the mean values of respondents' agreement level with the importance of the items of scarcity effect scale. Scarcity effect is considered neither influential nor unimportant by the respondents in general with means ranging from 2.95 to 3.16. "Product amount scarcity" is regarded as the least important with a mean of 2.95, whereas "product is only sold online" has the highest mean; 3.16 over 5. Standard deviations are very high, all of which are above 1. Thus, responses are scattered quite far to the mean.

Table 9. Mean Values of Items in Scarcity Effect Scale

Items	Mean (Over 5)	Std. Deviation
Product is only sold online	3.16	1.19
Time scarcity	3.13	1.07
Product is only sold on special web stores	3.08	1.15
Product amount scarcity	2.95	1.13

Table 10 shows the mean values of respondents' agreement level with the importance of the items of social effect scale. Each item has a quite different mean than one another; the highest score belongs to "positive customer feedback" with 4.16, indicating that it is considered impactful; whereas the lowest score, which is 2.40, belongs to "positive celebrity feedback", showing that celebrity feedback is not considered important in online impulse buying decisions. Standard deviations are

very high; they are above 1.00 except “positive customer feedback” whose standard deviation is 0.88. Thus, respondents attach different important levels to each item and differ to a high extent in their responses to social effect.

Table 10. Mean Values of Social Effect

Items	Mean (Over 5)	Std. Deviation
Positive customer feedback	4.16	0.88
Positive expert feedback	3.57	1.07
Personalized feedback for products offered by web store	2.91	1.12
Positive celebrity feedback	2.40	1.16

Table 11 below shows the mean values of respondents’ agreement level with the importance of utilitarian motives.

Table 11. Mean Values of Utilitarian Motives Items

Items	Mean (Over 5)	Std. Deviation
Necessity of online shopping	4.10	0.95
Problem solving nature of online shopping	4.08	0.80
Being in a very smart way for online shopping	4.00	0.84
Usefulness of online shopping	3.98	0.83
Having a very logical online shopping opportunity	3.87	0.97
Novelty and providing contribution to quality of life	3.82	0.94

Table 12 below shows the mean values of respondents’ agreement level with the importance of utilitarian and hedonic motives through which online impulse buying might occur. Respondents score higher in utilitarian aspects that range from 3.82 to 4.10, compared to hedonic aspects which vary from 2.71 to 3.56, meaning that in average, respondents think of utilitarian issues are more likely to produce an online impulse buying situation. The highest score belongs to “necessity of shopping” with a mean of 4.10, followed by “problem solving nature of online

shopping” (4.08), and “being in a very smart way for online shopping” (4.00). The last two items in hedonic aspects, which are “having an online shopping situation which brings color to life” and “having a very joyful online shopping opportunity”, are considered unlikely to cause an online impulse buying decision with means 2.82 and 2.71 respectively. Standard deviations are quite higher in hedonic aspects, varying from 1.11 to 1.25, compared to utilitarian aspects whose standard deviations are below 1.00.

Table 12. Mean Values of Hedonic Motives Items

Items	Mean (Over 5)	Std. Deviation
Seeing very interesting and scarce products to find them anywhere else	3.56	1.11
Being in a very exciting online buying situation	3.15	1.18
Being in a meaningful and emotional online shopping situation	3.09	1.25
Being in an online shopping situation which makes me feel special and distinguished	3.03	1.23
Having an online shopping situation which brings color to life	2.82	1.24
Having a very joyful online shopping opportunity	2.71	1.11

Table 13 below shows the mean values of respondents’ agreement level with the importance of the items of reward responsiveness scale. “I get excited to buy products I desire” has the highest score with a mean of 3.91, followed by “having a good shopping experience gives me pleasure” whose mean is 3.79. The rest of the items have much lower means that are 3.09 and 2.96 respectively.

Table 13. Mean Values of Reward Responsiveness Items

Items	Mean (Over 5)	Std. Deviation
I get excited to buy products I desire.	3.91	0.91
Having a good shopping experience gives me pleasure.	3.79	0.92
Finding an online shopping opportunity others miss makes me feel good.	3.09	1.26
I like defining myself as a "good online shopper."	2.96	1.21

Standard deviations are very high in this scale, varying from 0.91 to 1.26. In average, respondents' view towards reward responsiveness is indecisive.

Table 14 below shows the mean values of respondents' agreement level with the importance of the items of fun seeking scale. The first item about discovering novelties in online shopping is the only item whose mean is barely above 3.00, meaning that respondents are undecided about it. The remaining items have mean scores varying from 2.34 to 2.96, indicating that respondents, in general, do not agree with these statements. Standard deviations are very high in this scale, varying from 1.12 to 1.32; hence, respondents' answers are quite at the extremes and far to the mean.

Table 14. Mean Values of Fun Seeking Items

Items	Mean (Over 5)	Std. Deviation
Online shopping is one of the most enjoyable ways to discover novelties.	3.03	1.12
Online shopping is a very joyful activity for me.	2.96	1.14
I may would like to shop online when I do not need it necessarily.	2.55	1.32
Online shopping is a leisure time activity for me.	2.34	1.25

Table 15 below shows the mean values of respondents' agreement level with the importance of the items of behavioral drive scale. The first item about discovering novelties in online shopping is the only item whose mean is exactly 3.00, meaning that respondents are indecisive. The remaining items have mean scores varying from 2.48 to 2.88, indicating that respondents regard them as unsuitable. Standard deviations are very high in this scale, varying from 1.14 to 1.23. Therefore, respondents' answers are quite at the extremes and far to the mean.

Table 15. Mean Values of Behavioral Drive Items

Items	Mean (Over 5)	Std. Deviation
I can bear some burden to purchase products I saw online such as opening a new account and spending time.	3.00	1.23
I can justify that I should purchase products I saw online.	2.88	1.14
I can take some risks like sharing my personal information in order to purchase products I saw online.	2.72	1.22
I can push my budget to purchase products I saw online.	2.48	1.16

Table 16 below shows the mean values of respondents' agreement level with the importance of the items of uniqueness scale. The means of "I like buying rarely found products online" and "I enjoy shopping on web stores which contain interesting and extraordinary products." are 3.19 and 3.14, so participants are undecided about these statements. On the other hand, the remaining statements with the scores 2.79 and 2.63 are regarded as inappropriate. Standard deviations are very high in this scale, varying from 1.17 to 1.28. Thus, respondents' answers are quite at the extremes and far to the mean.

Table 16. Mean Values of Uniqueness Items

Items	Mean (Over 5)	Std. Deviation
I like buying rarely found products online.	3.19	1.17
I enjoy shopping on web stores containing interesting and extraordinary products.	3.14	1.18
I enjoy purchasing products not owned by many others online.	2.79	1.28
I enjoy trying products I see online before others try.	2.63	1.23

Table 17 below shows the mean values of respondents' agreement level with the importance of the items belonging to online impulse buying intention scale. All the items are below 3.00, showing that respondents do not agree with the statements, hence it can be claimed that they are not online impulse buyers in average. However,

very high standard deviations, all of which are above 1.20, show that responses differ very much and are at the extremes.

Table 17. Mean Values of Online Impulse Buying Intention Items

Items	Mean (Over 5)	Std. Deviation
I suddenly find myself on a web store while shopping.	2.82	1.28
I am likely to get engaged in online impulse buying	2.81	1.20
I might spend online more than what I planned before.	2.69	1.28
I might purchase products other than I needed and planned.	2.62	1.23
While shopping, I think less compared to my surroundings.	2.48	1.25

Table 18 below shows the mean values of respondents' evaluations of all scales. Website stimuli scales; namely, security, navigability, content & informativeness have the highest scores, all of which are above 4.00, whereas online impulse buying intention has the lowest mean which is 2.68. Most scales have high standard means, especially online impulse buying with 1.25.

Table 18. Mean Values of All Scales

Scales	Mean (Over 5)	Std. Deviation
Security	4.42	0.85
Navigability	4.33	0.77
Content & Informativeness	4.12	0.84
Visual Appeal	4.04	0.89
Utilitarian Motives	3.98	0.89
Economic Promise	3.91	0.99
Reward Responsiveness	3.44	1.08
Social Effect	3.26	1.06
Scarcity Effect	3.08	1.14
Hedonic Motives	3.06	1.19
Uniqueness	2.94	1.22
Behavioral Drive	2.77	1.19
Fun Seeking	2.72	1.21
Online Impulse Buying Intention	2.68	1.25

## 5.2 Internal consistency of scales

This part includes the consistency of the respondents' answers to all of the items in each scale. Cronbach's alpha is used to test the reliability of scales. 0.70 is taken as a threshold for internal consistency.

Table 19 shows inter-item consistency values for each scale in website stimuli section. All scales are found to be reliable in the sense that their Cronbach's alpha values are greater than 0.70.

Table 19. Reliability of Website Stimuli Scales

Scales	Number of Items	Cronbach's Alpha
Security	4	0.826
Navigability	4	0.819
Content & Informativeness	6	0.747
Visual Appeal	4	0.715

Table 20 below shows inter-item consistency for three scales in marketing stimuli section. All scales but social effect have Cronbach's alpha values of 0.844 and 0.783 which are higher than 0.70, hence they are acceptable. However, Cronbach's alpha value of social effect scale is 0.676.

Table 20. Reliability of Marketing Stimuli Scales

Scales	Number of Items	Cronbach's Alpha
Scarcity Effect	4	0.844
Economic Promise	6	0.783
Social Effect	4	0.676

In order to improve the reliability, the item "positive customer feedback" is deleted, which has increased Cronbach's alpha to 0.685 with three items. Since Cronbach's alpha is above 0.60, the scale is acceptable even though it is not

considered good (Bhatnagar, Kim, & Many, 2014). Therefore, social effect scale is incorporated in the model and used in all analyses with three items, excluding the item “positive customer feedback”.

Table 21 shows inter-item consistency for two scales in utilitarian and hedonic motives section. Scales are reliable and Cronbach’s alpha values for both scales are very high since they are over 0.885 and 0.855 respectively.

Table 21. Reliability of Utilitarian and Hedonic Motives Scales

Scales	Number of Items	Cronbach's Alpha
Hedonic Motives	6	0.885
Utilitarian Motives	6	0.855

Table 22 shows shows inter-item consistency for four scales in behavioral activation section. All scales are reliable because each has Cronbach’s alpha values greater than 0.70. However, reliability scores of fun seeking and uniqueness scales are good since they are 0.851 and 0.840, respectively.

Table 22. Reliability of Behavioral Activation Systems Scales

Scales	Number of Items	Cronbach's Alpha
Fun Seeking	4	0.851
Uniqueness (DUCP)	4	0.840
Behavioral Drive	4	0.793
Reward Responsiveness	4	0.767

Table 23 shows the internal consistency score of online impulse buying intention. The scale is accepted since it is above 0.70 and considered good since it is over 0.80.

Table 23. Reliability of Online Impulse Buying Intention Scale

Scale	Number of Items	Cronbach's Alpha
Online Impulse Buying Intention	5	0.846

### 5.3 Correlation analyses

Correlation analyses are conducted in order to find out the significance of relationships among each website and marketing stimulus, utilitarian & hedonic motives and behavioral activation systems variables as well as among utilitarian & hedonic motives and behavioral activation systems variables. Separate correlation analyses are done for website stimuli, marketing stimuli, utilitarian and hedonic motives, and behavioral activation systems scales.

Table 24 shows the results of correlations between website stimuli and utilitarian motives. All website stimuli are found to have a significant and positive correlation with utilitarian motives.

Table 24. Correlation between Website Stimuli and Utilitarian Motives

Scales	Pearson Correlation	Significance (2-tailed)
Visual Appeal	0.343**	0.000
Content & Informativeness	0.317**	0.000
Navigability	0.346**	0.000
Security	0.295**	0.000

\*\*Correlation is significant at the 0.01 level (2-tailed).

Table 25 shows the results of correlations between website stimuli and hedonic motives. All website stimuli are found to have a significant and positive correlation with hedonic motives. However, R-values are higher for correlations with utilitarian motives, indicating that the relationships of each website stimuli with utilitarian motives are stronger than those with hedonic motives.

Table 25. Correlation between Website Stimuli and Hedonic Motives

Scales	Pearson Correlation	Significance (2-tailed)
Visual Appeal	0.235**	0.000
Content & Informativeness	0.181**	0.000
Navigability	0.180**	0.000
Security	0.100*	0.026

\*\*Correlation is significant at the 0.01 level (2-tailed).

\*Correlation is significant at the 0.05 level (2-tailed).

Table 26 shows the results of the first group of hypotheses. Since the results of correlation analyses show that all relationships are significant; all of the first group of hypotheses that claim a significant relationship between each website stimuli and each motive are supported. Moreover, all relationships are in positive direction.

Table 26. Testing Results of the First Group of Hypotheses

No	Hypotheses	Result
1a	There is a significant relationship between visual appeal and utilitarian motives.	Supported
1b	There is a significant relationship between visual appeal and hedonic motives.	Supported
1c	There is a significant relationship between content & informativeness and utilitarian motives.	Supported
1d	There is a significant relationship between content & informativeness and hedonic motives.	Supported
1e	There is a significant relationship between navigability and utilitarian motives.	Supported
1f	There is a significant relationship between navigability and hedonic motives.	Supported
1g	There is a significant relationship between security and utilitarian motives.	Supported
1h	There is a significant relationship between security and hedonic motives.	Supported

Table 27 below shows the results of correlations between marketing stimuli and utilitarian motives. All marketing stimuli scales are found to be in a positive relationship with utilitarian motives.

Table 27. Correlation between Marketing Stimuli and Utilitarian Motives

Scales	Pearson Correlation	Significance (2-tailed)
Economic Promise	0.340**	0.000
Scarcity Effect	0.194**	0.000
Social Effect	0.147**	0.001

\*\*Correlation is significant at the 0.01 level.

Tables 28 below shows the results of correlations between marketing stimuli and utilitarian motives and between website stimuli and hedonic motives. All marketing stimuli scales are found to be in a positive relationship with hedonic motives.

Table 28. Correlation between Marketing Stimuli and Hedonic Motives

Scales	Pearson Correlation	Significance (2-tailed)
Economic Promise	0.304**	0.000
Scarcity Effect	0.305**	0.000
Social Effect	0.325**	0.000

\*\*Correlation is significant at the 0.01 level.

R-values for correlations of economic promise with utilitarian and hedonic motives are close, which are 0.340 and 0.304, hence their strengths are close. However, R-values are higher for correlations of scarcity effect and social effect with hedonic motives, which are 0.305 and 0.325 compared to those with utilitarian motives, which are 0.194 and 0.147, respectively. Hence, the relationships of scarcity effect and social effect with hedonic motives are stronger than those with utilitarian motives.

Table 29 shows the results of the second group of hypotheses. Since correlations results show that all relationships are significant; all hypotheses 2a, 2b, 2c, 2d, 2e, and 2f are supported. All of these relationships are positively correlated.

Table 29. Testing Results of the Second Group of Hypotheses

No	Hypotheses	Result
2a	There is a significant relationship between economic promise and utilitarian motives.	Supported
2b	There is a significant relationship between economic promise and hedonic motives.	Supported
2c	There is a significant relationship between scarcity effect and utilitarian motives.	Supported
2d	There is a significant relationship between scarcity effect and hedonic motives.	Supported
2e	There is a significant relationship between social effect and utilitarian motives.	Supported
2f	There is a significant relationship between social effect and hedonic motives.	Supported

Table 30 below shows the results of correlations between website stimuli and behavioral activation systems, which are used to test the third group of hypotheses.

Table 30. Correlation between Website Stimuli and Behavioral Activation Systems

Scales		Reward Responsiveness	Fun Seeking	Behavioral Drive	Uniqueness
Visual Appeal	Pearson Correlation	0.293**	0.147**	0.152**	0.176**
	Significance (2-tail)	0.000	0.001	0.001	0.000
Content & Informativeness	Pearson Correlation	0.223**	0.071	0.073	0.158**
	Significance (2-tail)	0.000	0.113	0.106	0.000
Navigability	Pearson Correlation	0.150**	0.032	0.012	0.094*
	Significance (2-tail)	0.001	0.481	0.796	0.037
Security	Pearson Correlation	0.115*	-0.052	-0.063	0.058
	Significance (2-tail)	0.010	0.248	0.164	0.196

\*\*Correlation is significant at the 0.01 level (2-tailed).

\*Correlation is significant at the 0.05 level (2-tailed).

The results show that visual appeal is found to be in a positive relationship with all behavioral activation system scales such that the strength of relationship is the highest for the correlation with reward responsiveness whose R-values is 0.293, whereas the rest of correlations indicate a weakly positive correlation. Content & informativeness is found to be positively correlated with reward responsiveness and uniqueness; nonetheless, no significant correlation is found between content &

informativeness and fun seeking as well as between content & informativeness and behavioral drive, showing that a web store with a richer level of content and information is not significantly related to fun seeking behavior and drive. Correlation results for navigability and behavioral activation systems scales are similar to those for content & informativeness in that only reward responsiveness and behavioral drive have a positive relationship with navigability. However, R-values are lower, hence the relationship is weaker. Security has the weakest relationship with behavioral activation systems such that the only significant and positive relationship is with reward responsiveness with an R-value 0.115. The correlation results for security with the other behavioral activation systems scales are found to be statistically insignificant.

Table 31 shows the results of the third group of hypotheses. Because visual appeal is correlated with all BAS variables, hypotheses 3a, 3b, 3c, and 3d are supported. Content & informativeness and navigability are correlated with reward responsiveness and uniqueness; therefore, hypotheses 3e, 3h, 3i, and 3l are supported. Security is merely correlated with reward responsiveness, while the other correlations are insignificant; hence, hypothesis 3m are supported. Since the remaining correlations are insignificant, hypotheses 3f, 3g, 3j, 3k, 3n, 3o, and 3p are rejected. In sum, the third group of hypotheses are partially supported.

Table 31. Testing Results of the Third Group of Hypotheses

No	Hypotheses	Result
3a	There is a significant relationship between visual appeal and reward responsiveness.	Supported
3b	There is a significant relationship between visual appeal and fun seeking.	Supported
3c	There is a significant relationship between visual appeal and behavioral drive.	Supported
3d	There is a significant relationship between visual appeal and uniqueness.	Supported
3e	There is a significant relationship between content & informativeness and reward responsiveness.	Supported
3f	There is a significant relationship between content & informativeness and fun seeking.	Rejected
3g	There is a significant relationship between content & informativeness and behavioral drive.	Rejected
3h	There is a significant relationship between content & informativeness and uniqueness.	Supported
3i	There is a significant relationship between navigability and reward responsiveness.	Supported
3j	There is a significant relationship between navigability and fun seeking.	Rejected
3k	There is a significant relationship between navigability and behavioral drive.	Rejected
3l	There is a significant relationship between navigability and uniqueness.	Supported
3m	There is a significant relationship between security and reward responsiveness.	Supported
3n	There is a significant relationship between security and fun seeking.	Rejected
3o	There is a significant relationship between security and behavioral drive.	Rejected
3p	There is a significant relationship between security and uniqueness.	Rejected

Table 32 below shows the results of correlations between marketing stimuli and behavioral activation systems, which are used to test the fourth group of hypotheses. The results show that all of marketing stimuli scales have a significant and positive correlation results with all of behavioral activation systems variables. However, the strength of those relationships are not the same. Economic promise has

a moderately strong correlation with reward responsiveness, whereas its relationships with other behavioral activation systems scales are weaker. The correlation results for scarcity effect show that uniqueness unsurprisingly has the strongest relationship. Social effect also has the highest R-values for its correlation with uniqueness compared to the other scales. Moreover, it is worth to mention that marketing stimuli scales, in general, are found to be in a stronger relationship with behavioral activation systems scales aside from the correlation between visual appeal and reward responsiveness whose R-value 0.292 is higher than for those of scarcity effect and social effect that are 0.232 and 0.278.

Table 32. Correlation between Marketing Stimuli and Behavioral Activation Systems

Scales		Reward Responsiveness	Fun Seeking	Behavioral Drive	Uniqueness
Economic Promise	Pearson Correlation	0.413**	0.283**	0.209**	0.285**
	Significance (2-tail)	0.000	0.000	0.000	0.000
Scarcity Effect	Pearson Correlation	0.232**	0.187**	0.191**	0.392**
	Significance (2-tail)	0.000	0.000	0.000	0.000
Social Effect	Pearson Correlation	0.278**	0.285**	0.200**	0.337**
	Significance (2-tail)	0.000	0.000	0.000	0.000

\*\*Correlation is significant at the 0.01 level (2-tailed).

Table 33 below shows the results of the fourth group of hypotheses formulated to test the significance of relationships between each marketing stimuli variable and each behavioral activation systems variable. Correlation results are significant for all relationships; therefore, all hypotheses are supported. Moreover, all relationships are in positive direction.

Table 33. Testing Results of the Fourth Group of Hypotheses

No	Hypotheses	Result
4a	There is a significant relationship between economic promise and reward responsiveness.	Supported
4b	There is a significant relationship between economic promise and fun seeking.	Supported
4c	There is a significant relationship between economic promise and behavioral drive.	Supported
4d	There is a significant relationship between economic promise and uniqueness.	Supported
4e	There is a significant relationship between scarcity effect and reward responsiveness.	Supported
4f	There is a significant relationship between scarcity effect and fun seeking.	Supported
4g	There is a significant relationship between scarcity effect and behavioral drive.	Supported
4h	There is a significant relationship between scarcity effect and uniqueness.	Supported
4i	There is a significant relationship between social effect and reward responsiveness.	Supported
4j	There is a significant relationship between social effect and fun seeking.	Supported
4k	There is a significant relationship between social effect and behavioral drive.	Supported
4l	There is a significant relationship between social effect and uniqueness.	Supported

Table 34 shows the results of correlations between utilitarian & hedonic motives and behavioral activation systems, which are used to test the fifth group of hypotheses.

Table 34. Correlation between Utilitarian and Hedonic Motives and Behavioral Activation Systems

Scales		Reward Responsiveness	Fun Seeking	Behavioral Drive	Uniqueness
Utilitarian Motives	Pearson Correlation	0.328**	0.164**	0.173**	0.224**
	Significance (2-tail)	0.000	0.000	0.000	0.000
Hedonic Motives	Pearson Correlation	0.468**	0.482**	0.394**	0.546**
	Significance (2-tail)	0.000	0.000	0.000	0.000

\*\*Correlation is significant at the 0.01 level (2-tailed).

The results show that correlations between both utilitarian motives and behavioral activation systems and between hedonic motives and behavioral activation systems are statistically significant and positive. However, the strength of relationship between hedonic motives and each of behavioral activation systems scales is higher than that of utilitarian motives. In addition, utilitarian motives have the strongest correlation with reward responsiveness whose R-value is 0.328, while hedonic motives have the strongest correlation with uniqueness whose R-value is quite high: 0.546.

Table 35 shows the results of the fifth group of hypotheses. Because their correlations results show significant relationships, all of the fifth group of hypotheses are supported. It is worth mentioning that all of these significant correlation results are positive, hence the relationships are positive.

Table 35. Testing Results of the Fifth Group of Hypotheses

No	Hypotheses	Result
5a	There is a significant relationship between utilitarian motives and reward responsiveness.	Supported
5b	There is a significant relationship between utilitarian motives and fun seeking.	Supported
5c	There is a significant relationship between utilitarian motives and behavioral drive.	Supported
5d	There is a significant relationship between utilitarian motives and uniqueness.	Supported
5e	There is a significant relationship between hedonic motives and reward responsiveness.	Supported
5f	There is a significant relationship between hedonic motives and fun seeking.	Supported
5g	There is a significant relationship between hedonic motives and behavioral drive.	Supported
5h	There is a significant relationship between hedonic motives and uniqueness.	Supported

## 5.4 Multiple regression analyses

Multiple regression analyses are conducted in order to find out the impacts of each variable such that how much of the variance in online impulse buying intention is caused by these variables. Separate multiple regression analyses for website stimuli, marketing stimuli, utilitarian and hedonic motives, and behavioral activation systems scales are done in order to find out their influences on online impulse buying intention separately. Then, the mediating impacts of utilitarian and hedonic motives as well as behavioral activation systems on the relationship between each website and marketing stimulus and online impulse buying intention are examined through PROCESS patch of SPSS (Hayes, 2012).

### 5.4.1 Multiple regression for website stimuli scales and online impulse buying intention

Table 36 summarizes the regression model for website stimuli variables. R-value is 0.201 and R square value is 0.040, indicating that the result of regression is satisfying.

Table 36. Model Summary<sup>b</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.201 <sup>a</sup>	0.040	0.033	0.96501

a. Predictors: (Constant), Visual Appeal, Content & Informativeness, Navigability, Security

b. Dependent Variable: Online Impulse Buying Intention

Table 37 shows that the predictive level by the dependent variable is high. According to ANOVA results with an F value of 5.168 and a significance level of 0.000, F is statistically significant. Therefore, it can be claimed that online impulse buying intention can be predicted by website stimuli.

Table 37. ANOVA<sup>b</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	19.252	4	4.813	5.168	0.000 <sup>a</sup>
	Residual	456.310	490	0.931		
	Total	475.562	494			

a. Predictors: (Constant), Visual Appeal, Content & Informativeness, Navigability, Security

b. Dependent Variable: Online Impulse Buying Intention

Table 38 below includes coefficients and significance levels for each website stimuli. According to the results, visual appeal and security are statistically significant with significance levels of 0.000 and 0.003 and B values 0.285 and -0.218 respectively. Thus, visual appeal is a positive predictor of online impulse buying intention, while security is a negative predictor of online impulse buying intention. Significance levels of content & informativeness and navigability are 0.797 and 0.790 with B values 0.025 and -0.024 respectively; hence, they are not significant predictors of online impulse buying intention.

Table 38. Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.500	0.383		6.535	0.000
	Visual Appeal	0.285	0.080	0.189	3.542	0.000
	Content & Informativeness	0.025	0.098	0.015	0.257	0.797
	Navigability	-0.024	0.091	-0.015	-0.267	0.790
	Security	-0.218	0.072	0.154	-3.038	0.003

a. Dependent Variable: Online Impulse Buying Intention

Table 39 shows the results of the sixth group of hypotheses. Since the regression is significant with a positive B value, hypotheses 6a and 6d are supported. However, regression results for content & informativeness and navigability are insignificant; hence, hypotheses 6b and 6c are rejected.

Table 39. Testing Results of the Sixth Group of Hypotheses

No	Hypotheses	Result
6a	Visual appeal of web store has a significant impact on online impulse buying intention.	Supported
6b	Content & informativeness of web store has a significant impact on online impulse buying intention.	Rejected
6c	Navigability of web store has a significant impact on online impulse buying intention.	Rejected
6d	Security of web store has a significant impact on online impulse buying intention.	Supported

#### 5.4.2 Multiple regression for marketing stimuli scales and online impulse buying intention

Table 40 below summarizes the regression model for marketing stimuli variables. R-value is 0.301 and R square value is 0.091, indicating that the result of regression is very satisfying.

Table 40. Model Summary<sup>b</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.301 <sup>a</sup>	0.091	0.085	0.93836

- a. Predictors: (Constant), Economic Promise, Scarcity Effect, Social Effect  
 b. Dependent Variable: Online Impulse Buying Intention

Table 41 shows that the predictive level by the dependent variable is high. F is statistically significant with a value of 16.364. Therefore, it can be claimed that online impulse buying intention can be predicted by marketing stimuli.

Table 41. ANOVA<sup>b</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	43.227	3	14.409	16.364	0.000 <sup>a</sup>
	Residual	432.335	491	0.881		
	Total	475.562	494			

- a. Predictors: (Constant), Economic Promise, Scarcity Effect, Social Effect  
 b. Dependent Variable: Online Impulse Buying Intention

Table 42 includes coefficients and significance levels for each marketing stimuli. According to the results; regression for economic promise, scarcity effect, and social effect are statistically significant and positive with significance levels of 0.003, 0.001, and 0.009 and B values of 0.198, 0.159, and 0.141, respectively. Hence, economic promise, scarcity effect, and social effect are significant and positive predictors of online impulse buying intention.

Table 42. Coefficients<sup>a</sup>

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.006	0.263		3.828	0.000
Economic Promise	0.198	0.065	0.139	3.023	0.003
Scarcity Effect	0.159	0.048	0.151	3.321	0.001
Social Effect	0.141	0.054	0.126	2.639	0.009

a. Dependent Variable: Online Impulse Buying Intention

Table 43 shows the results of the seventh group of hypotheses. Since all of the regression results are significant, hypotheses 7a, 7b, and 7c are all supported. Furthermore, all these variables have a positive relationship.

Table 43. Testing Results of the Seventh Group of Hypotheses

No	Hypotheses	Result
7a	The existence of economic promise on web store has a significant impact on online impulse buying intention.	Supported
7b	The existence of scarcity effect on web store has a significant impact on online impulse buying intention.	Supported
7c	The existence of social effect on web store has a significant impact on online impulse buying intention.	Supported

5.4.3 Multiple regression for utilitarian and hedonic motives and online impulse buying intention

Table 44 summarizes the regression model for utilitarian and hedonic motives. R-value is 0.432 and R square value is 0.187, showing that the result of regression is very satisfying.

Table 44. Model Summary<sup>b</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.432 <sup>a</sup>	0.187	0.184	0.88654

- a. Predictors: (Constant), Utilitarian Motives, Hedonic Motives  
 b. Dependent Variable: Online Impulse Buying Intention

Table 45 below shows that the predictive level by the dependent variable is quite high. According to ANOVA results with a significance level of 0.000, F is statistically significant and quite high; 56.536. Therefore, it can be claimed that online impulse buying intention can be predicted by utilitarian and hedonic motives.

Table 45. ANOVA<sup>b</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	88.870	2	44.435	56.536	0.000 <sup>a</sup>
	Residual	386.692	492	0.786		
	Total	475.562	494			

- a. Predictors: (Constant), Utilitarian Motives, Hedonic Motives  
 b. Dependent Variable: Online Impulse Buying Intention

Table 46 summarizes coefficients and significance levels for both utilitarian and hedonic motives. According to the results, online impulse buying intention is not predicted by utilitarian motives inasmuch as regression result for utilitarian motives is insignificant with a significance level of 0.233. Moreover, regression result for hedonic motives is significant and in positive direction with a significance level of

0.000 and B value of 0.466. Therefore, online impulse buying intention is predicted only by hedonic motives, not utilitarian ones.

Table 46. Coefficients<sup>a</sup>

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.561	0.241		6.470	0.000
Utilitarian Motives	-0.076	0.064	-0.053	-1.194	0.233
Hedonic Motives	0.466	0.046	0.450	10.221	0.000

a. Dependent Variable: Online Impulse Buying Intention

Table 47 shows the results of the eighth group of hypotheses. Since regression for utilitarian motives is insignificant and is significant and positive for hedonic motives, hypothesis 8b is supported, whereas hypothesis 8a is rejected.

Table 47. Testing Results of the Eighth Group of Hypotheses

No	Hypotheses	Result
8a	Utilitarian motives have a significant impact on online impulse buying intention.	Rejected
8b	Hedonic motives have a significant impact on online impulse buying intention.	Supported

#### 5.4.4 Multiple regression for behavioral activation systems scales and online impulse buying intention

Table 48 summarizes the regression model for behavioral activation systems variables. R-value is 0.723 and R square value is 0.523, which are considered very high and which indicates that the result of regression is very satisfying. Therefore, behavioral activation systems scales explain 52.3% of the variability of the response data around its mean.

Table 48. Model Summary<sup>b</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.723 <sup>a</sup>	0.523	0.519	0.68015

a. Predictors: (Constant), Reward Responsiveness, Fun Seeking, Behavioral Drive, Uniqueness

b. Dependent Variable: Online Impulse Buying Intention

Table 49 shows that the predictive level by the dependent variable is quite high. According to ANOVA results with a significance level of 0.000, F is statistically significant and very high; which is 134.500. Therefore, it can be claimed that online impulse buying intention can be predicted by behavioral activation systems.

Table 49. ANOVA<sup>b</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	248.883	4	62.221	134.500	0.000 <sup>a</sup>
	Residual	226.679	490	0.463		
	Total	475.562	494			

a. Predictors: (Constant), Reward Responsiveness, Fun Seeking, Behavioral Drive, Uniqueness

b. Dependent Variable: Online Impulse Buying Intention

Table 50 summarizes coefficients and significance levels for variables of behavioral activation systems. According to the results; online impulse buying intention is not predicted by reward responsiveness and uniqueness inasmuch as regression results for them are insignificant with significance levels of 0.073 and 0.200, which are higher than 0.05. On the other hand, regressions for fun seeking and behavioral drive are statistically significant with 0.000 significance levels and positive with B values of 0.538 and 0.267, respectively. Therefore, fun seeking and behavioral drive are predictors of online impulse buying intention, while reward responsiveness and uniqueness are not.

Table 50. Coefficients<sup>a</sup>

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	0.648	0.135		4.820	0.000
Reward Responsiveness	-0.094	0.052	-0.079	-1.796	0.073
Fun Seeking	0.538	0.047	0.552	11.403	0.000
Behavioral Drive	0.267	0.045	0.254	5.961	0.000
Uniqueness	0.053	0.042	0.054	1.283	0.200

a. Dependent Variable: Online Impulse Buying Intention

Table 51 shows the results of the ninth group of hypotheses. Since regression results for reward responsiveness and uniqueness are statistically insignificant, hypotheses 9a and 9d are rejected, while hypotheses 9b and 9c are supported due to significant regression results.

Table 51. Testing Results of the Ninth Group of Hypotheses

No	Hypotheses	Result
9a	Reward responsiveness has a significant impact on online impulse buying intention.	Rejected
9b	Fun seeking has a significant impact on online impulse buying intention.	Supported
9c	Behavioral drive has a significant impact on online impulse buying intention.	Supported
9d	Uniqueness has a significant impact on online impulse buying intention.	Rejected

### 5.5 Multiple regression analyses for mediating effects

Correlations and multiple regressions to find out whether each of website and marketing stimulus as well as each of motives and behavioral activation systems scales are correlated and whether each of website and marketing stimuli along with each of motives and behavioral activation systems scales can predict online impulse buying intention. Such analyses have provided the results for hypotheses listed in Chapter 3; however, they have only provided analyses for S-O, O-R, and S-R

relationships in S-O-R framework based theoretical model of this study. Thus, more detailed analyses to find out mediating effects in theoretical model are conducted through PROCESS patch of SPSS, using multiple regression for each of stimuli with multiple mediators including utilitarian motives, hedonic motives motives and behavioral activation systems variables. Multiple regressions for each website and marketing stimulus are done with 2 sets of mediators which are utilitarian and hedonic motives as well as behavioral activation systems variables in order to find out if any mediating effects exist and if so to check whether such mediating effects are full, partial, or inconsistent.

#### 5.5.1 Mediating effects of utilitarian motives and hedonic motives for visual appeal

Table 52 below shows the effect of visual appeal on utilitarian motives and hedonic motives that are the mediating variable candidates. Results indicate that visual appeal is a significant predictor of both utilitarian motives with  $b= 0.356$ ,  $t= 8.115$   $p= 0.000$  and hedonic motives with  $b= 0.341$ ,  $t= 5.370$ ,  $p= 0.000$ .

Table 52. Effect of Visual Appeal on Utilitarian Motives and Hedonic Motives

Ind. Var.	Med. Var.	Coefficient	SE	t	P
Visual Appeal	Utilitarian Mtv.	0.3563	0.0439	8.1148	0.000
Visual Appeal	Hedonic Mtv.	0.3410	0.0635	5.3703	0.000

Table 53 summarizes the effects of utilitarian motives and hedonic motives on online impulse buying intention that is the dependent variable. Only the impact of hedonic motives is significant. Results indicate that hedonic motives is a significant predictor of online impulse buying intention with  $b=0.459$ ,  $t= 9.996$ ,  $p=0.000$  while utilitarian motives is insignificant with  $b= -0.101$ ,  $t= -1.522$ ,  $p=0.129$ , supporting mediation for hedonic motives.

Table 53. Effect of Utilitarian Motives and Hedonic Motives on Online Impulse Buying Intention

Med. Var.	Dep. Var.	Coefficient	SE	t	P
Utilitarian Mtv.	Onl. Imp. BI	-0.1010	0.0664	-1.5218	0.129
Hedonic Mtv.	Onl. Imp. BI	0.4586	0.0459	9.9959	0.000

Table 54 shows the total, direct, and indirect effects of visual appeal on online impulse buying intention. Visual appeal is no longer a significant predictor of online impulse buying intention after controlling for utilitarian motives and hedonic motives, with  $b= 0.087$ ,  $t= 1.239$ ,  $p= 0.185$ , hence hedonic motives fully mediates the relationship between visual appeal and online impulse buying intention.

Table 54. Total, Direct, and Indirect Effects of Visual Appeal on Online Impulse Buying Intention

Total Effect	Effect	SE	t	p
	0.2074	0.0670	3.0938	0.002
Direct Effect	Effect	SE	t	p
	0.0870	0.0655	1.3289	0.185
Indirect Effect	Effect	BootSE	Boot LLCI	Boot ULCI
	0.1204	0.0431	0.0477	0.2182

Table 55 summarizes the results pointing out that indirect coefficient of hedonic motives is statistically significant with LLCI= 0.090, ULCI= 0.235, showing that online impulse buying intention associated with visual appeal is 0.16 points higher as mediated with hedonic motives.

Table 55. Indirect Effects through Utilitarian Motives and Hedonic Motives

Med. Var.	Effect	BootSE	Boot LLCI	Boot ULCI
Utilitarian Mtv.	-0.0360	0.0269	-0.0872	0.0157
Hedonic Mtv.	0.1564	0.0369	0.0904	0.2348

5.5.2 Mediating effects of utilitarian motives and hedonic motives for content and informativeness

Table 56 shows the effect of content & informativeness on utilitarian motives and hedonic motives. Results indicate that content & informativeness is a significant predictor of utilitarian motives with  $b= 0.377$ ,  $t= 7.412$ ,  $p= 0.000$  and hedonic motives with  $b= 0.302$ ,  $t= 4.095$ ,  $p= 0.000$ .

Table 56. Effect of Content and Informativeness on Utilitarian Motives and Hedonic Motives

Ind. Var.	Med. Var.	Coefficient	SE	t	p
Cont. & Inf.	Utilitarian Mtv.	0.3770	0.0509	7.4115	0.000
Cont. & Inf.	Hedonic Mtv.	0.3018	0.0737	4.0948	0.000

Table 57 summarizes the effects of utilitarian motives and hedonic motives on online impulse buying intention. Results show that hedonic motives significantly predict online impulse buying intention with  $b= 0.468$ ,  $t= 10.239$ ,  $p= 0.000$ , while regression for utilitarian motives is insignificant with  $p = 0.338$ , which is greater than 0.05, which shows the likelihood of hedonic motives to be a mediator.

Table 57. Effects of Utilitarian Motives and Hedonic Motives on Online Impulse Buying Intention

Med. Var.	Dep. Var.	Coefficient	SE	t	p
Utilitarian Mtv.	Onl. Imp. BI	-0.0636	0.0662	-0.9593	0.338
Hedonic Mtv.	Onl. Imp. BI	0.4681	0.0457	10.2389	0.000

Table 58 shows the total, direct, and indirect effects of content & informativeness on online impulse buying intention. It is visible that in spite of a significant indirect effect implying a mediation, total effect is still insignificant with  $b= 0.066$ ,  $t= 0.847$ ,  $p= 0.398$ . According to Baron and Kenny (1986), since total effect (path c) is insignificant, causal steps are not met, hence there is no mediation.

However, Preacher and Hayes (2004, 2008) proposed new SPSS and SAP macros for computing bootstrap distribution of mediated effects and insisted that the only requirement is a significant indirect effect by a Sobel test or by a more superior Bootstrap test. Since indirect effect of hedonic motives is significant, hedonic motives mediate the relationship between content & informativeness and online impulse buying intention. The type of this mediation is called inconsistent mediation since direct effect (c' path) and indirect (a x b path) have opposite signs (MacKinnon, Fairchild, & Fritz, 2007).

Table 58. Total, Direct, and Indirect Effects of Content and Informativeness on Online Impulse Buying Intention

Total Effect	Effect	SE	t	p
	0.0657	0.0776	0.8469	0.398
Direct Effect	Effect	SE	t	p
	-0.0516	0.0741	-0.6962	0.487
Indirect Effect	Effect	BootSE	BootLLCI	BootULCI
	0.1173	0.0504	0.0284	0.2185

Table 59 shows indirect effects of utilitarian motives and hedonic motives separately. The bootstrap results prove that indirect coefficient of hedonic motives is statistically significant with LLCI= 0.064, ULCI= 0.226.

Table 59. Indirect Effects through Utilitarian Motives and Hedonic Motives

Med. Var.	Effect	BootSE	BootLLCI	BootULCI
Utilitarian Mtv.	-0.0240	0.0306	-0.0835	0.0407
Hedonic Mtv.	0.1413	0.0420	0.0638	0.2261

### 5.5.3 Mediating effects of utilitarian motives and hedonic motives for navigability

Table 60 shows the effect of navigability on utilitarian motives and hedonic motives. Results indicate that navigability is a significant predictor of utilitarian motives with  $b = 0.377$ ,  $t = 8.190$ ,  $p = 0.000$  and hedonic motives with  $b = 0.274$ ,  $t = 4.059$ ,  $p = 0.000$ .

Table 60. Effect of Navigability on Utilitarian Motives and Hedonic Motives

Ind. Var.	Med. Var.	Coefficient	SE	t	p
Navigability	Utilitarian Mtv.	0.3770	0.0460	8.1904	0.000
Navigability	Hedonic Mtv.	0.2738	0.0674	4.0591	0.000

Table 61 below summarizes the effects of utilitarian motives and hedonic motives on online impulse buying intention. It is obvious that hedonic motives significantly predict online impulse buying intention with  $b= 0.469$ ,  $t= 10.274$ ,  $p= 0.000$ , while regression for utilitarian motives is insignificant.

Table 61. Effects of Utilitarian Motives and Hedonic Motives on Online Impulse Buying Intention

Med. Var.	Dep. Var.	Coefficient	SE	t	p
Utilitarian Mtv.	Onl. Imp. BI	-0.0519	0.0669	-0.7761	0.438
Hedonic Mtv.	Onl. Imp. BI	0.4689	0.0456	10.2744	0.000

Table 62 shows the total, direct, and indirect effects of navigability on online impulse buying intention. Results point out that in spite of a significant indirect effect implying a mediation, total effect is still insignificant with  $b= 0.028$ ,  $t= 0.389$ ,  $p= 0.697$ . Therefore, this type of mediation is inconsistent mediation.

Table 62. Total, Direct, and Indirect Effects of Navigability on Online Impulse Buying Intention

Total Effect	Effect	SE	t	p
	0.0276	0.0710	0.3891	0.697
Direct Effect	Effect	SE	t	p
	-0.0812	0.0684	-1.1860	0.236
Indirect Effect	Effect	BootSE	BootLLCI	BootULCI
	0.1088	0.0434	0.0246	0.1922

Table 63 shows indirect effects of utilitarian motives and hedonic motives separately. The bootstrap results prove that indirect coefficient of hedonic motives is statistically significant with  $LLCI= 0.069$ ,  $ULCI= 0.195$ .

Table 63. Indirect Effects through Utilitarian Motives and Hedonic Motives

Med. Var.	Effect	BootSE	BootLLCI	BootULCI
Utilitarian Mtv.	-0.0196	0.0303	-0.0819	0.0383
Hedonic Mtv.	0.1284	0.0325	0.0691	0.1950

#### 5.5.4 Mediating effects of utilitarian motives and hedonic motives for security

Table 64 shows the effect of security on utilitarian motives and hedonic motives.

Results indicate that security is a significant predictor of utilitarian motives with  $b=0.289$ ,  $t=6.848$ ,  $p=0.000$  and hedonic motives with  $b=0.137$ ,  $t=2.237$ ,  $p=0.026$ .

Table 64. Effect of Security on Utilitarian Motives and Hedonic Motives

Ind. Var.	Med. Var.	Coefficient	SE	t	p
Security	Utilitarian Mtv.	0.2886	0.0421	6.8482	0.000
Security	Hedonic Mtv.	0.1372	0.0613	2.2366	0.026

Table 65 below summarizes the effects of utilitarian motives and hedonic motives on online impulse buying intention. It is obvious that hedonic motives significantly predict online impulse buying intention with  $b=0.464$ ,  $t=10.267$ ,  $p=0.000$ , while regression for utilitarian motives is insignificant.

Table 65. Effects of Utilitarian Motives and Hedonic Motives on Online Impulse Buying Intention

Med. Var.	Dep. Var.	Coefficient	SE	t	p
Utilitarian Mtv.	Onl. Imp. BI	-0.0184	0.0658	-0.2803	0.779
Hedonic Mtv.	Onl. Imp. BI	0.4639	0.0452	10.2672	0.000

Table 66 shows the total, direct, and indirect effects of security on online impulse buying intention. The direct effect of security on online impulse buying intention is significant and stronger, more negative, while controlling utilitarian motives and hedonic motives, with  $b=-0.188$ ,  $t=-3.145$ ,  $p=0.002$ , whereas total effect is significant, weaker, and still negative with  $b=-0.130$ ,  $t=-2.040$ ,  $p=0.042$ .

The sum of indirect effects is insignificant with LLCI = -0.019, ULCI= 0.133. This type of mediation is also inconsistent mediation.

Table 66. Total, Direct, and Indirect Effects of Security on Online Impulse Buying Intention

Total Effect	Effect	SE	t	p
	-0.1298	0.0636	-2.0401	0.042
Direct Effect	Effect	SE	t	p
	-0.1881	0.0598	-3.1449	0.002
Indirect Effect	Effect	BootSE	BootLLCI	BootULCI
	0.0583	0.0387	-0.0191	0.1327

Table 67 shows indirect effects of utilitarian motives and hedonic motives separately. The bootstrap results prove that indirect coefficient of hedonic motives is statistically significant with LLCI= 0.007, ULCI= 0.123. Therefore, only hedonic motives mediate the relationship between security and online impulse buying intention.

Table 67. Indirect Effects through Utilitarian Motives and Hedonic Motives

Med. Var.	Effect	BootSE	BootLLCI	BootULCI
Utilitarian Mtv.	-0.0053	0.0231	-0.0491	0.0434
Hedonic Mtv.	0.0636	0.0303	0.0065	0.1230

### 5.5.5 Mediating effects of utilitarian motives and hedonic motives for economic promise

Table 68 shows the effect of economic promise on utilitarian motives and hedonic motives. Results indicate that economic promise is a significant predictor of both utilitarian motives with  $b= 0.333$ ,  $t= 8.024$ ,  $p= 0.000$  and hedonic motives with  $b= 0.416$ ,  $t= 7.083$ ,  $p= 0.000$ .

Table 68. Effect of Economic Promise on Utilitarian Motives and Hedonic Motives

Ind. Var.	Med. Var.	Coefficient	SE	t	p
Econ. Promise	Utilitarian Mtv.	0.3328	0.0415	8.0237	0.000
Econ. Promise	Hedonic Mtv.	0.4160	0.0587	7.0834	0.000

Table 69 below summarizes the effects of utilitarian motives and hedonic motives on online impulse buying intention. Results show that hedonic motives is a significant predictor of online impulse buying intention with  $b= 0.443$ ,  $t= 9.563$ ,  $p=0.000$ , whereas utilitarian motives is an insignificant predictor with  $b= -0.118$ ,  $t= -1.802$ ,  $p=0.072$ .

Table 69. Effects of Utilitarian Motives and Hedonic Motives on Online Impulse Buying Intention

Med. Var.	Dep. Var.	Coefficient	SE	t	p
Utilitarian Mtv.	Onl. Imp. BI	-0.1180	0.0655	-1.8017	0.072
Hedonic Mtv.	Onl. Imp. BI	0.4426	0.0463	9.5633	0.000

Table 70 shows the total, direct, and indirect effects of economic promise on online impulse buying intention. Economic promise is still a significant predictor of online impulse buying intention after controlling for utilitarian motives and hedonic motives, meaning a direct effect with  $b= 0.157$ ,  $t= 2.520$ ,  $p= 0.012$ , while the total effect is stronger with  $b= 0.302$ ,  $t= 4.833$ ,  $p= 0.000$ . Hence, there is a partial mediation.

Table 70. Total, Direct, and Indirect Effects of Economic Promise on Online Impulse Buying Intention

Total Effect	Effect	SE	t	p
	0.3016	0.0624	4.8326	0.000
Direct Effect	Effect	SE	t	p
	0.1568	0.0622	2.5195	0.012
Indirect Effect	Effect	BootSE	BootLLCI	BootULCI
	0.1448	0.0388	0.0705	0.2251

Table 71 below shows the bootstrapping test results for indirect effects, pointing out that indirect coefficient of hedonic motives is statistically significant with LLCI= 0.119, ULCI= 0.255. Online impulse buying intention associated with economic promise is 0.18 points higher as mediated with hedonic motives.

Table 71. Indirect Effects through Utilitarian Motives and Hedonic Motives

Med. Var.	Effect	BootSE	BootLLCI	BootULCI
Utilitarian Mtv.	-0.0393	0.0280	-0.0962	0.0158
Hedonic Mtv.	0.1841	0.0346	0.1193	0.2547

#### 5.5.6 Mediating effects of utilitarian motives and hedonic motives for scarcity effect

Table 72 shows the impact of scarcity effect on utilitarian motives and hedonic motives. Scarcity effect is a significant predictor of utilitarian motives with  $b= 0.140$ ,  $t= 4.387$ ,  $p= 0.000$  as well as hedonic motives with  $b= 0.308$ ,  $t= 7.112$ ,  $p= 0.000$ .

Table 72. Effect of Scarcity Effect on Utilitarian Motives and Hedonic Motives

Ind. Var.	Med. Var.	Coefficient	SE	t	p
Scarcity Eff.	Utilitarian Mtv.	0.1402	0.0320	4.3871	0.000
Scarcity Eff.	Hedonic Mtv.	0.3083	0.0434	7.1115	0.000

Table 73 below summarizes the effects of utilitarian motives and hedonic motives on online impulse buying intention. Results show that hedonic motives is a significant predictor of online impulse buying intention with  $b= 0.437$ ,  $t= 9.322$ ,  $p=0.000$ , whereas the prediction of utilitarian motives is insignificant.

Table 73. Effects of Utilitarian Motives and Hedonic Motives on Online Impulse Buying Intention

Med. Var.	Dep. Var.	Coefficient	SE	t	p
Utilitarian Mtv.	Onl. Imp. BI	-0.0894	0.0637	-1.4050	0.161
Hedonic Mtv.	Onl. Imp. BI	0.4374	0.0469	9.3224	0.000

Table 74 shows the total, direct, and indirect effects of scarcity effect on online impulse buying intention. Scarcity effect is still a significant predictor of online impulse buying intention after controlling for utilitarian motives and hedonic motives, meaning a direct effect with  $b= 0.107$ ,  $t= 2.387$ ,  $p= 0.017$ , while the total effect is stronger with  $b= 0.229$ ,  $t= 4.973$ ,  $p= 0.000$ . Thus, there is a partial mediation.

**Table 74. Total, Direct, and Indirect Effects of Scarcity Effect on Online Impulse Buying Intention**

Total Effect	Effect	SE	t	p
	0.2289	0.0460	4.9734	0.000
Direct Effect	Effect	SE	t	p
	0.1066	0.0447	2.3867	0.017
Indirect Effect	Effect	BootSE	BootLLCI	BootULCI
	0.1223	0.0253	0.0786	0.1752

Table 75 shows the bootstrapping test results for indirect effects. The indirect coefficient of hedonic motives is statistically significant with  $LLCI= 0.088$ ,  $ULCI= 0.188$ , showing that online impulse buying intention associated with scarcity effect is 0.13 points higher with the partial mediation of hedonic motives.

**Table 75. Indirect Effects through Utilitarian Motives and Hedonic Motives**

Med. Var.	Effect	BootSE	BootLLCI	BootULCI
Utilitarian Mtv.	-0.0125	0.0111	-0.0372	0.0081
Hedonic Mtv.	0.1349	0.0261	0.0881	0.1875

#### 5.5.7 Mediating effects of utilitarian motives and hedonic motives for social effect

Table 76 shows the impact of social effect on utilitarian motives and hedonic motives. Results indicate that social effect is a significant predictor of utilitarian motives with  $b= 0.114$ ,  $t= 3.296$ ,  $p= 0.001$  and hedonic motives with  $b= 0.352$ ,  $t= 7.641$ ,  $p= 0.000$ .

**Table 76. Effect of Social Effect on Utilitarian Motives and Hedonic Motives**

Ind. Var.	Med. Var.	Coefficient	SE	t	p
Social Effect	Utilitarian Mtv.	0.1137	0.0345	3.2959	0.001
Social Effect	Hedonic Mtv.	0.3523	0.0461	7.6414	0.000

Table 77 summarizes the effects of utilitarian motives and hedonic motives on online impulse buying intention. Hedonic motives is a significant predictor of online impulse buying intention with  $b= 0.435$ ,  $t= 9.154$ ,  $p=0.000$ , contrary to utilitarian motives whose prediction is insignificant.

**Table 77. Effects of Utilitarian Motives and Hedonic Motives on Online Impulse Buying Intention**

Med. Var.	Dep. Var.	Coefficient	SE	t	p
Utilitarian Mtv.	Onl. Imp. BI	-0.0797	0.0635	-1.2556	0.210
Hedonic Mtv.	Onl. Imp. BI	0.4350	0.0475	9.1539	0.000

Table 78 shows the total, direct, and indirect effects of social effect on online impulse buying intention. Social effect is still a significant predictor of online impulse buying intention after controlling for utilitarian motives and hedonic motives, meaning a direct effect with  $b= 0.106$ ,  $t= 2.212$ ,  $p= 0.028$ , while the total effect is stronger with  $b= 0.251$ ,  $t= 5.085$ ,  $p= 0.000$ . Therefore, there is a partial mediation.

**Table 78. Total, Direct, and Indirect Effects of Social Effect on Online Impulse Buying Intention**

Total Effect	Effect	SE	t	p
	0.2505	0.0493	5.0854	0.000
Direct Effect	Effect	SE	t	p
	0.1063	0.0481	2.2115	0.028
Indirect Effect	Effect	BootSE	BootLLCI	BootULCI
	0.1442	0.0279	0.0917	0.1991

Table 79 below summarizes the indirect effects of utilitarian motives and hedonic motives. The bootstrapping test results for indirect effects point out that indirect coefficient of hedonic motives is statistically significant with LLCI= 0.098, ULCI= 0.211, showing that online impulse buying intention associated with social effect is 0.15 points higher as mediated with hedonic motives.

**Table 79. Indirect Effects through Utilitarian Motives and Hedonic Motives**

Med. Var.	Effect	BootSE	BootLLCI	BootULCI
Utilitarian Mtv.	-0.0091	0.0090	-0.0280	0.0084
Hedonic Mtv.	0.1532	0.0288	0.0977	0.2108

#### 5.5.8 Mediating effects of behavioral activation systems variables for visual appeal

Table 80 shows the effect of visual appeal on behavioral activation systems variables that are the mediating variable candidates. Results show that visual appeal significantly predicts all the variables.

**Table 80. Effect of Visual Appeal on Behavioral Activation Systems Variables**

Ind. Var.	Med. Var.	Coefficient	SE	t	p
Visual Appeal	Reward Resp.	0.3741	0.0549	6.8132	0.000
Visual Appeal	Fun Seeking	0.2259	0.0687	3.2898	0.001
Visual Appeal	Beh. Drive	0.2172	0.0637	3.4123	0.001
Visual Appeal	Uniqueness	0.2696	0.0678	3.9765	0.000

Table 81 summarizes the effects of behavioral activation systems variables on online impulse buying intention. Fun seeking and behavioral drive are significant predictors of online impulse buying intention, contrary to reward responsiveness and uniqueness whose predictions are not significant.

Table 81. Effects of Behavioral Activation System Variables on Online Impulse Buying Intention

Med. Var.	Dep. Var.	Coefficient	SE	t	p
Reward Resp.	Onl. Imp. BI	-0.1077	0.0537	-2.0061	0.045
Fun Seeking	Onl. Imp. BI	0.5424	0.0473	11.4555	0.000
Beh. Drive	Onl. Imp. BI	0.2663	0.0448	5.9500	0.000
Uniqueness	Onl. Imp. BI	0.0515	0.0415	1.2408	0.215

Table 82 shows the total, direct, and indirect effects of visual appeal on online impulse buying intention. Visual appeal is not a significant predictor of online impulse buying intention after controlling for behavioral activation systems variables, with  $b= 0.053$ ,  $t= 1.086$ ,  $p= 0.278$ , which shows a full mediation.

Table 82. Total, Direct, and Indirect Effects of Visual Appeal on Online Impulse Buying Intention

Total Effect	Effect	SE	t	p
	0.2074	0.0670	3.0938	0.002
Direct Effect	Effect	SE	t	p
	0.0534	0.0492	1.0859	0.278
Indirect Effect	Effect	BootSE	BootLLCI	BootULCI
	0.1540	0.0569	0.0425	0.2687

Table 83 shows the bootstrapping test results for indirect effects of behavioral activation systems variables separately. Fun seeking has a significant indirect effect with LLCI= 0.041 and ULCI= 0.201 and behavioral drive has a significant indirect effect with LLCI= 0.020 and ULCI= 0.106. Therefore, both variables fully mediate the relationship between visual appeal and online impulse buying intention.

Table 83. Indirect Effects through Behavioral Activation Systems Variables

Med. Var.	Effect	BootSE	BootLLCI	BootULCI
Reward Resp.	-0.0403	0.0208	-0.0815	0.0013
Fun Seeking	0.1225	0.0404	0.0415	0.2007
Beh. Drive	0.0578	0.0214	0.0201	0.1055
Uniqueness	0.0139	0.0134	-0.0106	0.0447

5.5.9 Mediating effects of behavioral activation systems variables for content and informativeness

Table 84 shows the effect of content & informativeness on behavioral activation systems variables that are the mediating variable candidates. Results show that content & informativeness significantly predicts reward responsiveness and uniqueness.

Table 84. Effect of Content and Informativeness on Behavioral Activation Systems Variables

Ind. Var.	Med. Var.	Coefficient	SE	t	p
Cont. & Inf.	Reward Resp.	0.3257	0.0642	5.0710	0.000
Cont. & Inf.	Fun Seeking	0.1263	0.0794	1.5894	0.113
Cont. & Inf.	Beh. Drive	0.1193	0.0737	1.6183	0.106
Cont. & Inf.	Uniqueness	0.2770	0.0780	3.5505	0.000

Table 85 summarizes the effects of behavioral activation systems variables on online impulse buying intention. Fun seeking and behavioral drive are significant predictors of online impulse buying intention, contrary to reward responsiveness and uniqueness whose predictions are not significant.

Table 85. Effects of Behavioral Activation Systems Variables on Online Impulse Buying Intention

Med. Var.	Dep. Var.	Coefficient	SE	t	p
Reward Resp.	Onl. Imp. BI	-0.0896	0.0533	-1.6805	0.094
Fun Seeking	Onl. Imp. BI	0.5364	0.0475	11.2818	0.000
Beh. Drive	Onl. Imp. BI	0.2662	0.0448	5.9380	0.000
Uniqueness	Onl. Imp. BI	0.0546	0.0417	1.3088	0.191

Table 86 shows the total, direct, and indirect effects of content & informativeness on online impulse buying intention. Total, direct, and indirect effects are all insignificant. Therefore, no mediating effect exists.

Table 86. Total, Direct, and Indirect Effects of Content and Informativeness on Online Impulse Buying Intention

Total Effect	Effect	SE	t	p
	0.0657	0.0776	0.8469	0.398
Direct Effect	Effect	SE	t	p
	-0.0197	0.0558	-0.3532	0.724
Indirect Effect	Effect	BootSE	BootLLCI	BootULCI
	0.0854	0.0596	-0.0373	0.2013

Table 87 shows indirect effects of behavioral activation systems variables separately. The bootstrapping results also prove that none of the variables have a significant mediating effect.

Table 87. Indirect Effects through Behavioral Activation Systems Variables

Med. Var.	Effect	BootSE	BootLLCI	BootULCI
Reward Resp.	-0.0292	0.0179	-0.0658	0.0055
Fun Seeking	0.0677	0.0443	-0.0239	0.1548
Beh. Drive	0.0317	0.0215	-0.0096	0.0764
Uniqueness	0.0151	0.0152	-0.0117	0.0486

#### 5.5.10 Mediating effects of behavioral activation systems variables for navigability

Table 88 shows the effect of navigability on behavioral activation systems variables. Results show that navigability significantly predicts reward responsiveness and uniqueness.

Table 88. Effect of Navigability on Behavioral Activation Systems Variables

Ind. Var.	Med. Var.	Coefficient	SE	t	p
Navigability	Reward Resp.	0.2002	0.0596	3.3593	0.001
Navigability	Fun Seeking	0.0514	0.0728	0.7055	0.481
Navigability	Beh. Drive	0.0175	0.0676	0.2591	0.796
Navigability	Uniqueness	0.1508	0.0720	2.0959	0.037

Table 89 summarizes the effects of behavioral activation systems variables on online impulse buying intention. Fun seeking and behavioral drive are significant

predictors of online impulse buying intention, contrary to reward responsiveness and uniqueness whose predictions are not significant.

Table 89. Effects of Behavioral Activation Systems Variables on Online Impulse Buying Intention

Med. Var.	Dep. Var.	Coefficient	SE	t	p
Reward Resp.	Onl. Imp. BI	-0.0946	0.0528	-1.7909	0.074
Fun Seeking	Onl. Imp. BI	0.5387	0.0474	11.3670	0.000
Beh. Drive	Onl. Imp. BI	0.2671	0.0449	5.9508	0.000
Uniqueness	Onl. Imp. BI	0.0529	0.0416	1.2708	0.204

Table 90 shows the total, direct, and indirect effects of navigability on online impulse buying intention. Total, direct, and indirect effects are all insignificant. Therefore, no mediating effect exists.

Table 90. Total, Direct, and Indirect Effects of Navigability on Online Impulse Buying Intention

Total Effect	Effect	SE	t	p
	0.0276	0.0710	0.3891	0.697
Direct Effect	Effect	SE	t	p
	0.0062	0.0502	0.1245	0.901
Indirect Effect	Effect	BootSE	BootLLCI	BootULCI
	0.0214	0.0515	-0.0835	0.1201

Table 91 shows indirect effects of behavioral activation systems variables separately. The bootstrapping results also prove that none of the variables have a significant mediating effect.

Table 91. Indirect Effects through Behavioral Activation Systems Variables

Med. Var.	Effect	BootSE	BootLLCI	BootULCI
Reward Resp.	-0.0189	0.0121	-0.0458	0.0013
Fun Seeking	0.0277	0.0388	-0.0546	0.1046
Beh. Drive	0.0047	0.0181	-0.0304	0.0406
Uniqueness	0.0080	0.0089	-0.0063	0.0288

### 5.5.11 Mediating effects of behavioral activation systems variables for security

Table 92 shows the effect of security on behavioral activation systems variables.

Results show that security significantly predicts merely reward responsiveness.

Table 92. Effect of Security on Behavioral Activation Systems Variables

Ind. Var.	Med. Var.	Coefficient	SE	t	p
Security	Reward Resp.	0.1384	0.0538	2.5716	0.010
Security	Fun Seeking	-0.0756	0.0654	-1.1559	0.248
Security	Beh. Drive	-0.0845	0.0607	-1.3924	0.164
Security	Uniqueness	0.0840	0.0649	1.2946	0.196

Table 93 summarizes the effects of behavioral activation systems variables on online impulse buying intention. Fun seeking and behavioral drive are significant predictors of online impulse buying intention, contrary to reward responsiveness and uniqueness whose predictions are not significant.

Table 93. Effects of BAS Variables on Online Impulse Buying Intention

Med. Var.	Dep. Var.	Coefficient	SE	t	p
Reward Resp.	Onl. Imp. BI	-0.0797	0.0530	-1.5024	0.134
Fun Seeking	Onl. Imp. BI	0.5291	0.0476	11.1066	0.000
Beh. Drive	Onl. Imp. BI	0.2605	0.0450	5.7937	0.000
Uniqueness	Onl. Imp. BI	0.0581	0.0416	1.3951	0.164

Table 94 shows that the direct effect of security is insignificant while controlling for behavioral activation systems variables and total effect becomes significant. The results also show that the indirect effect is insignificant. Therefore, it can be concluded that no mediation effect exists for the relationship between security and online impulse buying intention despite the insignificant direct effect turns out to be a significant total effect.

Table 94. Total, Direct, and Indirect Effects of Security on Online Impulse Buying Intention

Total Effect	Effect	SE	t	p
	-0.1298	0.0636	-2.0401	0.042
Direct Effect	Effect	SE	t	p
	-0.0616	0.0455	-1.3528	0.177
Indirect Effect	Effect	BootSE	BootLLCI	BootULCI
	-0.0682	0.0426	-0.1509	0.0136

Table 95 below shows the bootstrapping results for each variable separately. These results also prove that none of the variables mediate the relationship between security and online impulse buying intention.

Table 95. Indirect Effects through Behavioral Activation Systems Variables

Med. Var.	Effect	BootSE	BootLLCI	BootULCI
Reward Resp.	-0.0110	0.0089	-0.0314	0.0029
Fun Seeking	-0.0400	0.0322	-0.1049	0.0232
Beh. Drive	-0.0220	0.0147	-0.0525	0.0056
Uniqueness	0.0049	0.0061	-0.0055	0.0186

#### 5.5.12 Mediating effects of behavioral activation systems variables for economic promise

Table 96 shows the effect of economic promise on behavioral activation systems variables. Results show that economic promise significantly predicts all the variables.

Table 96. Effect of Economic Promise on Behavioral Activation Systems Variables

Ind. Var.	Med. Var.	Coefficient	SE	t	p
Econ. Promise	Reward Resp.	0.4971	0.0494	10.0716	0.000
Econ. Promise	Fun Seeking	0.4114	0.0628	6.5465	0.000
Econ. Promise	Beh. Drive	0.2814	0.0594	4.7346	0.000
Econ. Promise	Uniqueness	0.4107	0.0623	6.5925	0.000

Table 97 summarizes the effects of behavioral activation systems variables on online impulse buying intention. Fun seeking and behavioral drive are significant predictors of online impulse buying intention, contrary to reward responsiveness and uniqueness whose predictions are not significant.

**Table 97. Effects of Behavioral Activation Systems Variables on Online Impulse Buying Intention**

Med. Var.	Dep. Var.	Coefficient	SE	t	p
Reward Resp.	Onl. Imp. BI	-0.1053	0.0545	-1.9334	0.054
Fun Seeking	Onl. Imp. BI	0.5382	0.0472	11.3977	0.000
Beh. Drive	Onl. Imp. BI	0.2684	0.0448	5.9875	0.000
Uniqueness	Onl. Imp. BI	0.0509	0.0416	1.2216	0.223

Table 98 shows total, direct, and indirect effects of economic promise on online impulse buying intention. Economic promise is no longer a significant predictor of online impulse buying intention after controlling for behavioral activation systems variables, which shows a full mediation.

**Table 98. Total, Direct, and Indirect Effects of Economic Promise on Online Impulse Buying Intention**

Total Effect	Effect	SE	t	p
	0.3016	0.0624	4.8326	0.000
Direct Effect	Effect	SE	t	p
	0.0361	0.0488	0.7404	0.459
Indirect Effect	Effect	BootSE	BootLLCI	BootULCI
	0.2655	0.0515	0.1662	0.3669

Table 99 shows the bootstrapping results for indirect effects of each behavioral activation systems variable separately. Fun seeking has a significant indirect effect with LLCI= 0.149 and ULCI= 0.302 and behavioral drive has a significant indirect effect with LLCI= 0.038 and ULCI= 0.120. Therefore, both

variables fully mediate the relationship between economic promise and online impulse buying intention.

**Table 99. Indirect Effects through Behavioral Activation Systems Variables**

Med. Var.	Effect	BootSE	BootLLCI	BootULCI
Reward Resp.	-0.0524	0.0276	-0.1064	0.0004
Fun Seeking	0.2214	0.0395	0.1487	0.3021
Beh. Drive	0.0755	0.0206	0.0382	0.1201
Uniqueness	0.0209	0.0197	-0.0192	0.0583

### 5.5.13 Mediating effects of behavioral activation systems variables for scarcity effect

Table 100 shows the impact of scarcity effect on behavioral activation systems variables. Results show that scarcity effect significantly predicts all the variables.

**Table 100. Effect of Scarcity Effect on Behavioral Activation Systems Variables**

Ind. Var.	Med. Var.	Coefficient	SE	t	p
Scarcity Eff.	Reward Resp.	0.2058	0.0389	5.2854	0.000
Scarcity Eff.	Fun Seeking	0.2006	0.0475	4.2212	0.000
Scarcity Eff.	Beh. Drive	0.1903	0.0441	4.3183	0.000
Scarcity Eff.	Uniqueness	0.4177	0.0442	9.4599	0.000

Table 101 summarizes the effects of behavioral activation systems variables on online impulse buying intention. Fun seeking and behavioral drive are significant predictors of online impulse buying intention.

**Table 101. Effects of Behavioral Activation Systems Variables on Online Impulse Buying Intention**

Med. Var.	Dep. Var.	Coefficient	SE	t	p
Reward Resp.	Onl. Imp. BI	-0.1001	0.0520	-1.9269	0.055
Fun Seeking	Onl. Imp. BI	0.5471	0.0472	11.5979	0.000
Beh. Drive	Onl. Imp. BI	0.2680	0.0446	6.0126	0.000
Uniqueness	Onl. Imp. BI	0.0208	0.0438	0.4754	0.635

Table 102 shows total, direct, and indirect effects of scarcity effect on online impulse buying intention. Scarcity effect is still a significant predictor of online impulse buying intention after controlling for behavioral activation systems variables; however, the total effect is stronger. Therefore, there is a partial mediation.

**Table 102. Total, Direct, and Indirect Effects of Scarcity Effect on Online Impulse Buying Intention**

Total Effect	Effect	SE	t	p
	0.2289	0.0460	4.9734	0.000
Direct Effect	Effect	SE	t	p
	0.0801	0.0355	2.2548	0.025
Indirect Effect	Effect	BootSE	BootLLCI	BootULCI
	0.1488	0.0385	0.0103	0.1499

Table 103 shows the bootstrapping results for indirect effects of each behavioral activation systems variable separately. Indirect coefficients of reward responsiveness, fun seeking and behavioral drive are statistically significant with LLCI= -0.048, ULCI= -0.0003 for reward responsiveness that mediates the relationship in negative direction; LLCI= 0.050, ULCI= 0.174 for fun seeking; and LLCI= 0.022, ULCI= 0.086 for behavioral drive. These results show that the strength online impulse buying intention associated with scarcity effect is around 0.14 points higher as mediated with reward responsiveness, fun seeking and behavioral drive.

**Table 103. Indirect Effects through Behavioral Activation Systems Variables**

Med. Var.	Effect	BootSE	BootLLCI	BootULCI
Reward Resp.	-0.0206	0.0119	-0.0471	-0.0003
Fun Seeking	0.1098	0.0320	0.0496	0.1744
Beh. Drive	0.0510	0.0161	0.0217	0.0859
Uniqueness	0.0087	0.0203	-0.0278	0.0497

5.5.14 Mediating effects of behavioral activation systems variables for social effect

Table 104 shows the impact of social effect on behavioral activation systems variables. Results show that social effect significantly predicts all the variables.

Table 104. Effect of Social Effect on Behavioral Activation Systems Variables

Ind. Var.	Med. Var.	Coefficient	SE	t	p
Social Effect	Reward Resp.	0.2646	0.0412	6.4250	0.000
Social Effect	Fun Seeking	0.3278	0.0497	6.5987	0.000
Social Effect	Beh. Drive	0.2130	0.0471	4.5207	0.000
Social Effect	Uniqueness	0.3850	0.0484	7.9548	0.000

Table 105 summarizes the effects of behavioral activation systems variables on online impulse buying intention. Fun seeking and behavioral drive are significant predictors of online impulse buying intention.

Table 105. Effects of Behavioral Activation Systems Variables on Online Impulse Buying Intention

Med. Var.	Dep. Var.	Coefficient	SE	t	p
Reward Resp.	Onl. Imp. BI	-0.0961	0.0523	-1.8394	0.067
Fun Seeking	Onl. Imp. BI	0.5361	0.0473	11.3222	0.000
Beh. Drive	Onl. Imp. BI	0.2682	0.0448	5.9822	0.000
Uniqueness	Onl. Imp. BI	0.0478	0.0423	1.1288	0.260

Table 106 shows total, direct, and indirect effects of social effect on online impulse buying intention. The direct effect is insignificant, whereas total effect is significant. In other words, social effect is no longer a significant predictor of online impulse buying intention after controlling for behavioral activation systems variables, which shows a full mediation.

Table 106. Total, Direct, and Indirect Effects of Social Effect on Online Impulse Buying Intention

Total Effect	Effect	SE	t	p
	0.2505	0.0493	5.0854	0.000
Direct Effect	Effect	SE	t	p
	0.0246	0.0375	0.6568	0.512
Indirect Effect	Effect	BootSE	BootLLCI	BootULCI
	0.2258	0.0429	0.1433	0.3120

Table 107 shows the bootstrapping results for indirect effects of each behavioral activation systems variable separately. Fun seeking has a significant indirect effect with LLCI= 0.106 and ULCI= 0.249 and behavioral drive has a significant indirect effect with LLCI= 0.028 and ULCI= 0.095.

Table 107. Indirect Effects through Behavioral Activation Systems Variables

Med. Var.	Effect	BootSE	BootLLCI	BootULCI
Reward Resp.	-0.0254	0.0147	-0.0533	0.0012
Fun Seeking	0.1757	0.0364	0.1056	0.2493
Beh. Drive	0.0571	0.0171	0.0279	0.0947
Uniqueness	0.0184	0.0180	-0.0157	0.0544

Table 108 shows significant mediating effects of hedonic motives. Hedonic motives mediate all the relationships. Only the relationship between visual appeal and online impulse buying intention is fully mediated by hedonic motives.

Table 108. Mediating Effects of Hedonic Motives

Ind. Var.	Med. Var.	Dep. Var.	Type of Mediation
Visual Appeal	Hedonic Mtv.	Onl. Imp. BI	Full Mediation
Cont. & Inf.	Hedonic Mtv.	Onl. Imp. BI	Inconsistent Mediation
Navigability	Hedonic Mtv.	Onl. Imp. BI	Inconsistent Mediation
Security	Hedonic Mtv.	Onl. Imp. BI	Inconsistent Mediation
Econ. Promise	Hedonic Mtv.	Onl. Imp. BI	Partial Mediation
Scarcity Eff.	Hedonic Mtv.	Onl. Imp. BI	Partial Mediation
Social Effect	Hedonic Mtv.	Onl. Imp. BI	Partial Mediation

Table 109 shows significant mediating effects of reward responsiveness, fun seeking, and behavioral drive. Only the relationship between scarcity effect and online impulse buying intention is partially mediated by the variables.

Table 109. Mediating Effects of Reward Responsiveness, Fun Seeking, and Behavioral Drive

Ind. Var.	Med. Var.	Dep. Var.	Type of Mediation
Scarcity Eff.	Reward Resp.	Onl. Imp. BI	Partial Mediation
Visual Appeal	Fun Seeking	Onl. Imp. BI	Full Mediation
Econ. Promise	Fun Seeking	Onl. Imp. BI	Full Mediation
Scarcity Eff.	Fun Seeking	Onl. Imp. BI	Partial Mediation
Social Effect	Fun Seeking	Onl. Imp. BI	Full Mediation
Visual Appeal	Beh. Drive	Onl. Imp. BI	Full Mediation
Econ. Promise	Beh. Drive	Onl. Imp. BI	Full Mediation
Scarcity Eff.	Beh. Drive	Onl. Imp. BI	Partial Mediation
Social Effect	Beh. Drive	Onl. Imp. BI	Full Mediation

## 5.6 Anova and t-test analyses

The aim of conducting ANOVA and t-test analyses is to find out whether there are significant differences among demographic groups as well as among those who have different general online shopping habits and experience levels regarding online impulse buying intention. These tests are used to check the tenth group of hypotheses.

Table 110 shows the results of one-way ANOVA analysis to test difference in online impulse buying intention among respondents who have different years of online shopping experience. Levene's test for equality of variances shows that groups do not significantly differ in variances; hence, one-way ANOVA test can be applied. One-way ANOVA results with an F value 7.873 and significance level 0.000 indicate that the differences in the means of years of online shopping experience are statistically significant. Mean values provide that as the number of years of online

shopping experience increases, the means of online impulse buying intention is relatively higher. Respondents with an online shopping experience less than 2 years score 2.41, 2 to 4 years score 2.61, 5 to 7 years score 2.76, and those with more than 7 years of online shopping experience score 3.01 in online impulse buying intention. Therefore, according to the results of one-way ANOVA analysis, online impulse buying intention is relatively higher for those who have more online shopping experience.

Table 110. ANOVA Test for Years of Online Shopping Experience

Years of Online Shopping Experience	n	Mean (over 5)	Levene's Test for Equality of Variances		ANOVA	
			Levene's Statistic	Sig.	F	Sig.
Less than 2 Years	124	2.41	1.501	0.213	7.873	0.000
2 - 4 Years	134	2.61				
5 - 7 Years	131	2.76				
More than 7 Years	106	3.01				

As a rule of thumb to conduct ANOVA analysis, at least 30 participants per cell are needed to maintain about a minimum of 80% suggested power for an ordinary study (Cohen, 1988). Since the number of respondents who have answered “once a week” for frequency of online shopping is 26, an independent sample t-test is applied for differences in the means of online shopping intention for those with different frequency of online shopping by regrouping “once a week” and “a few times per month” into “a few times or more per month” through SPSS 20.

Table 111 shows the results of independent samples t-test analysis to test difference in online impulse buying intention between respondents with less and more frequent online shopping. Since the item “a few times per week” has a sample size smaller than 30, it has been regrouped with “a few times more month” into “a few times or more per month”. Levene’s test for equality of variances shows that

groups do not significantly differ in variances; hence, the independent samples t-test can be applied.

Table 111. Independent Samples t-test for Frequency of Online Shopping Regarding Online Impulse Buying Intention

Frequency of Online Shopping	n	Mean (over 5)	Levene's Test for Equality of Variances		t-test for Equality of Means	
			F	Sig.	t	Sig.
A few times or more per month	225	3.02	0.479	0.489	7.275	0.000
A few times per year	270	2.41				

The results with t value 7.275 and significance level 0.000 indicate that the difference in the means of frequency of online shopping experience is statistically significant. Mean values indicate that the more frequent online shopping respondents do, the higher mean in online impulse buying intention they have; those who do online shopping a few times or more per month have a mean of 3.02, whereas those with a few times per year only have a mean of 2.41 in online impulse buying intention. Therefore, according to the results of independent samples t-test, online impulse buying intention is relatively higher for those with higher frequency of online shopping.

Table 112 shows the results of one-way ANOVA analysis to test difference in online impulse buying intention among groups with different expenditure limits on online shopping. Levene's test for equality of variances shows that groups do not significantly differ in variances; hence, one-way ANOVA test can be applied. One-way ANOVA results indicate that the differences in the means of expenditure limit on online shopping experience are statistically insignificant with an F value 2.077 and significance level 0.083 in the sense that significance level is 0.083 which is

slightly above 0.05. Arithmetically, mean values of online shopping experience fluctuates as expenditure limit increases.

Table 112. ANOVA for Expenditure Limit on Online Shopping Regarding Online Impulse Buying Intention

Expenditure Limit on Online Shopping	n	Mean (over 5)	Levene's Test for Equality of Variances		ANOVA	
			Levene's Statistic	Sig.	F	Sig.
Less than 100 TL	53	2.62	1.303	0.268	2.077	0.083
100-499 TL	207	2.63				
500-999 TL	77	2.79				
1000-2499 TL	60	2.49				
More than 2500 TL	98	2.89				

According to one-way ANOVA results, there is no significant difference in online impulse buying intention among respondents regarding their expenditure limit on online shopping.

Table 113 shows the results of one-way ANOVA analysis to test difference in online impulse buying intention among age groups. Since the sample size of some age groups are smaller than 30, original age groups are regrouped for one-way ANOVA analysis. Levene's test for equality of variances shows that age groups do not significantly differ in variances. Thus, one-way ANOVA test can be applied.

Table 113. ANOVA for Age Regarding Online Impulse Buying Intention

Age	n	Mean (over 5)	Levene's Test for Equality of Variances		ANOVA	
			Levene's Statistic	Sig.	F	Sig.
<26	199	2.63	0.935	0.393	0.800	0.450
26-35	192	2.75				
>35	104	2.66				

One-way ANOVA results with F value 1.482 and significance level 0.194 indicate that the difference in the means of online impulse buying intention according to age is not statistically significant. Hence, according to one-way

ANOVA results, there is no significant difference among different age groups regarding online impulse buying intention.

Table 114 shows the results of independent samples t-test analysis to test difference in online impulse buying intention between males and females. Levene's test for equality of variances shows that groups do not significantly differ in variances. Therefore, the independent samples t-test can be applied.

Table 114. Independent Samples t-test for Gender Regarding Online Impulse Buying Intention

Gender	n	Mean (over 5)	Levene's Test for Equality of Variances		t-test for Equality of Means	
			F	Sig.	t	Sig.
Female	315	2.65	0.034	0.854	-1.091	0.276
Male	180	2.75				

The results with t value -1.091 and significance level 0.276 point out that there is no statistically significant difference in the means of online impulse buying intention between females and males. The mean of online impulse buying intention is 2.65 for females, whereas it is 2.75 for males. Hence, according to independent samples t-test results, there is no significant difference between females and males regarding online impulse buying intention.

Table 115 shows the results of independent samples t-test analysis to test difference in online impulse buying intention between married and single respondents.

Table 115. Independent Samples t-test for Marital Status Regarding Online Impulse Buying Intention

Marital Status	n	Mean (over 5)	Levene's Test for Equality of Variances		t-test for Equality of Means	
			F	Sig.	t	Sig.
Married	154	2.68	0.047	0.828	-0.033	0.974
Single	341	2.69				

Levene’s test for equality of variances shows that groups do not significantly differ in variances; hence, the independent samples t-test can be applied. The results with t value -0.033 and significance level 0.974 point out that there is no statistically significant difference in the means of online impulse buying intention between married and single respondents. Hence, according to independent samples t-test results, there is no significant difference between married and single respondents regarding online impulse buying intention.

To check mean differences in online impulse buying intention according to education levels, one-way ANOVA is applied; however, since the number of respondents who has answered “Primary School Degree” is merely 20, it has been regrouped with “High School Degree” as “Primary or High School Degree”. Table 116 indicates the results of one-way ANOVA analysis to test difference in online impulse buying intention among age groups. However, Levene’s test for equality of variances shows that groups significantly differ in variances, meaning that one-way ANOVA cannot be applied for this test.

Table 116. ANOVA for Education Level Regarding Online Impulse Buying Intention

Education Level	n	Mean (over 5)	Levene's Test for Equality of Variances		ANOVA	
			Levene's Statistic	Sig.	F	Sig.
Primary or High School Degree	74	2.71	2.767	0.027	1.555	0.185
Undergraduate Student	122	2.62				
Undergraduate Degree	174	2.60				
Master's or PhD Student	86	2.82				
Master's or PhD Degree	39	2.94				

Kruskal-Wallis Test, which is a nonparametric statistical test checking differences among more than two independently sample groups on a single, non-normally distributed continuous variable (Vargha & Delaney, 1998). Therefore,

Kruskal-Wallis test is conducted to analyze if there is a significant difference in online impulse buying intention among respondents who have different education levels.

Table 117 shows test results of Kruskal-Wallis analysis. Chi-square value of the test is 5.529 and asymp. sig. value 0.237, so there is no statistically significant difference among groups of respondents with different education levels.

Table 117. Kruskal-Wallis Test for Education Level Regarding Online Impulse Buying Intention

Chi-Square	5.529
df	4
Asymp. Sig.	0.237

To check mean differences in online impulse buying intention according to monthly personal income, one-way ANOVA is applied; however, since the number of respondents who has answered “>9000 TL” is merely 20, it has been regrouped with “5000 – 9000 TL” as “>5000 TL”. Table 118 shows the results of one-way ANOVA analysis to test difference in online impulse buying intention among income groups. Levene’s test for equality of variances points out that income groups do not significantly differ in variances; hence, One-way ANOVA test can be applied. One-way ANOVA results with F value 2.696 and significance level 0.046 indicate that there is a significant difference in online impulse buying intention among respondents of different monthly personal income levels. Mean values of online impulse buying intention increases as monthly personal income increases; the mean value for those with <1500 TL monthly personal income is 2.58, while it is 2.67, 2.79, and 2.95 for 1500-2999 TL, 3000-4999 TL, and >5000 TL, respectively. Therefore, according to one-way ANOVA results, it can be claimed that online impulse buying intention is higher for those with higher monthly personal income.

Table 118. ANOVA for Monthly Personal Income Regarding Online Impulse Buying Intention

Monthly Personal Income	n	Mean (over 5)	Levene's Test for Equality of Variances		ANOVA	
			Levene's Statistic	Sig.	F	Sig.
<1500 TL	111	2.58	1.387	0.246	2.696	0.046
1500 - 2999 TL	92	2.67				
3000 - 4999 TL	100	2.79				
>5000 TL	93	2.95				

Table 119 yields the results of the tenth group of hypotheses. Hypotheses 10a, 10b, and 10h are supported, while the remaining hypotheses are rejected based on one-way ANOVA and t-test analyses results.

Table 119. Testing Results of the Tenth Group of Hypotheses

No	Hypotheses	Result
10a	There is a significant difference among groups with different online shopping experience levels with respect to online impulse buying intention.	Supported
10b	There is a significant difference among groups with different online shopping frequencies with respect to online impulse buying intention.	Supported
10c	There is a significant difference among groups with different expenditure limits on online shopping with respect to online impulse buying intention.	Rejected
10d	There is a significant difference among different age groups regarding online impulse buying intention.	Rejected
10e	There is a significant difference between males and females regarding online impulse buying intention.	Rejected
10f	There is a significant difference between married people and single people regarding online impulse buying intention.	Rejected
10g	There is a significant difference among groups of different education levels regarding online impulse buying intention.	Rejected
10h	There is a significant different difference among different income groups regarding online impulse buying intention.	Supported

## CHAPTER 6

### CONCLUSION AND IMPLICATIONS

This study provides a comprehensive list of underlying reasons for impulse buying in the online context. The main objective of this study is to find out and explain factors leading to impulse buying in an online shopping context.

An intensive literature survey of impulse purchase behavior in physical and online settings has been conducted, in which definition and types of impulse buying; factors influencing impulse buying divided into external, internal, and situational factors; differences between physical stores and online stores; factors influencing online impulse buying divided into website stimuli, marketing stimuli, consumer characteristics, and situational factors.

Following the literature review, theoretical model based on S-O-R framework and hypotheses are formulated. Since quantitative data analysis is required, a survey as a quantitative data collection method is adopted. Many social networks are made use of and responses collected through such networks are used in quantitative analyses including descriptive, correlation, multiple regression, one-way ANOVA, and t-test analyses through SPSS 20.

Descriptive findings suggest that the majority of respondents are at ages between 18 and 35. Moreover, most of the respondents are female and single. The majority of their income is between 1500 and 5000 Turkish Liras and only a very small portion's monthly personal income is higher than 9000 Turkish Liras. Majority of respondents hold at least a bachelor's degree. In terms of online shopping habits and user profiles, descriptive findings point out that respondents are almost equally distributed according to their online shopping experience level. Besides, more than

half of respondents do online shopping only a few times a year. Findings also show that clothing is the mostly purchased item online. Books, technology products, shoes, homecare products, hobby products, cosmetics, sports products, food, healthcare products, and white goods follow clothing respectively. Therefore, descriptive findings suggest that clothing and books are the most commonly sold purchased items in the online context, which is consistent with the fact that most online shopping studies mainly focus on clothing. Descriptive findings also suggest that the highest mean value attached to each scale belongs to security followed by navigability, content & informativeness, and visual appeal, utilitarian motives, economic promise, reward responsiveness, social effect, scarcity effect, hedonic motives, uniqueness, behavioral drive, fun seeking, and online impulse buying intention. Thus, the highest scores belong to website stimuli, followed by marketing stimuli. Utilitarian motives have quite a higher mean than of hedonic motives. Except reward responsiveness, the other behavioral activation systems have quite low means. Finally yet importantly, the mean of online impulse buying intention is the lowest, whereas the standard deviation is very high, showing that online impulse buying intention among all respondents is low; however, the sample is quite dispersed in terms of their online impulse buying intention showed by a very high standard deviation.

Correlation analyses' results claim that all website stimuli and all marketing stimuli are positively correlated with both utilitarian and hedonic motives. However, in general, website stimuli has a stronger relationship with utilitarian motives than hedonic motives. Unlike website stimuli, in general, marketing stimuli has a stronger relationship with hedonic motives than utilitarian motives, apart from economic promise whose correlations are almost equal. Within website stimuli, navigability

and visual appeal, whose results are very close, have the strongest relationship with utilitarian motives; visual appeal has the strongest relationship with hedonic motives by landslide, whereas within marketing stimuli, economic promise has the strongest relationship with utilitarian motives and all marketing stimuli has strong relationship with hedonic motives. Correlation results also show that reward responsiveness, fun seeking, behavioral drive, and uniqueness have positive relationships with all marketing stimuli, whereas only visual appeal has a significant, positive relationship with all. Content & informativeness and navigability has a relationship with reward responsiveness and uniqueness, whereas security only has a relationship with reward responsiveness, which is also the weakest correlation. Unsurprisingly, the strongest correlations are between economic promise and reward responsiveness, followed by scarcity effect and uniqueness, which are inherently correlated. Therefore, it is expected that marketing stimuli can be much more influential when combined especially with all of behavioral activation systems together and hedonic motives, whereas website stimuli can be much more influential when combined with utilitarian motives, reward responsiveness, and uniqueness. All correlations among utilitarian motives, hedonic motives and reward responsiveness, fun seeking, behavioral drive, and uniqueness are positive; however, hedonic motives has a much stronger relationship with each BAS variable compared to utilitarian motives. Thus, the correlation results also show that hedonic motives combined with behavioral activation systems are much more influential than utilitarian motives combined with them.

Multiple regression analyses suggest for website stimuli that visual appeal and security predict online impulse buying intention, whereas content & informativeness and navigability of web store are not influential on online impulse

buying intention. The impacts of visual appeal and security are close; nonetheless, security of web store negatively influences online impulse buying intention. Unlike website stimuli, all marketing stimuli positively predicts online impulse buying intention, the strongest of which is scarcity effect. In terms of motives, hedonic motives positively influence online impulse buying intention, whereas utilitarian motives do not have an effect. Finally, regarding behavioral activation systems, fun seeking and behavioral drive positively influence online impulse buying intention, while reward responsiveness and behavioral drive do not. The impact of fun seeking is much stronger than behavioral drive.

Multiple regression analyses through Model 4 in PROCESS macro yield the mediating impacts of motives and behavioral activation systems on relationships among stimuli and online impulse buying intention. Thus, these results provide the opportunity to check if consumers with different motives and different levels of BAS have an intent to buy impulsively when they are exposed to website and marketing stimuli. The results propose that utilitarian motives do not have a mediating effect on any of the relationships. Hedonic motives fully mediate the relationship of visual appeal with online impulse buying intention, whereas partially mediate each of the relationships of economic promise, scarcity effect, and social effect with online impulse buying intention, meaning that visual appeal of a web store does not lead to online impulse buying intention for those who do not have hedonic motives to shop. However, the existence of economic promise, scarcity effect, and social effect are still but less influential to lead to online impulse buying intention although shoppers do not have hedonic motives. Regarding the mediating impacts of behavioral activation systems, uniqueness do not have a mediating impact on any of the relationships. Reward responsiveness only and partially mediate the impact of

scarcity effect on online impulse buying intention although its stand-alone impact on online impulse buying intention is insignificant. Fun seeking and behavioral drive fully mediate the impacts of visual appeal, economic promise, and social effect, whereas partially mediate the impact of scarcity effect on online impulse buying intention. These results point out that scarcity effect leads to online impulse buying intention although shoppers do not have fun seeking and behavioral drive for online shopping, whereas the existence of visual appeal on web store as well as the existence of economic promise and social effect cause online impulse buying intention only when shoppers seek fun and have behavioral drive.

One-way ANOVA and independent samples t-test results show that online impulse buying intention differs regarding online shopping experience and online shopping frequency. Those with more experience of online shopping and those who do online shopping more frequently are likely to have higher intention to purchase online impulsively. However, online impulse buying intention does not significantly differ according to maximum expenditure limit on online shopping. Regarding demographics, online impulse buying intention does not significantly differ regarding age, gender, marital status, and education level. Nonetheless, respondents with higher levels of monthly personal income have relatively stronger online impulse buying intention.

Many useful implications can be derived from this study. First, online impulse buying intention is influenced by many factors from web store characteristics to shopper traits. Therefore, it is a complicated behavior that requires any researcher or business professional to analyze. Analyzing those underlying factors deeply, in general, marketing stimuli are found to be more influential than stimuli provided by web store; therefore, marketing stimuli should be definitely

mingled with website stimuli to lead to online impulse buying more effectively. Regarding website stimuli, visual appeal and security are found to be influential factors on online impulse buying; however, this does not imply that content & informativeness and navigability of web store is insignificant. On the contrary, these two variables have high mean scores; hence, they should be paid attention in designing web stores. An interesting result is that security negatively influences online impulse buying intention, which can be explained by the fact that components of security such as 3-D secure payments make online shopping experience much longer; hence, those with urge to buy impulsively avoid completing all steps. Regarding marketing stimuli, all tactics are found to be influential, whose effects are close. In addition, it is suggested that hedonic motives play a significant role in online impulse buying; therefore, researchers, business people, and website designers should pay attention to cues, which can trigger hedonic motives in order to lead to online impulse buying intention. Fun seeking is found to be very important factor influencing online impulse buying intention; thus, website design should not be boring; marketing stimuli should trigger cues related to fun to trigger more online impulse buying. Behavioral drive is also found to be influential. Therefore, potential customers can be exposed to some challenges to trigger more online impulse buying after a deep customer insight. The results of mediating effect tests show the importance of providing the appropriate combination website stimuli and marketing stimuli to those who are inclined to hedonic motivations to do shopping and those who seek fun and are willing to take some challenges to do shopping. Visual appeal, economic promise, and social effect becomes inadequate to trigger online impulse buying intention in the absence of hedonic motives and/or fun seeking and behavioral drive. Thus, these factors should be used for the customer segments with

hedonic motives and higher BAS. The only factor, which is influential without hedonic motives and BAS, is scarcity effect; however, it becomes less influential in the absence of hedonic motives, fun seeking, and behavioral drive. Therefore, a web store should always contain scarcity claims in order to create online impulse buying; however, customers with higher levels of hedonic motives, fun seeking, and behavioral drive can be trigger to do online impulse shopping with less effort, whereas the others need more. Hence, the results of mediating effect analyses imply that researchers pay attention to organism-related factors – in S-O-R framework – much more, and marketers and website designers should segment their customers carefully to trigger higher online impulse buying, which can positively affect their revenues and profits.

The study has some limitations. First, data are collected only from Turkish respondents; hence, the impact of underlying factors has not been studied for other cultures and countries. Therefore, the degree of impacts may change regarding the context. Secondly, although data are collected from a variety of demographic groups, gender and education level may not be representative. A convenience sampling method is used in this study; thus, a statistical sampling method can increase the representativeness of the sample. Thirdly, answers to questions of the survey does not guarantee that an actual online impulse buying behavior occurs, meaning that answers only imply “intention, not “action”.

Further research should focus on investigating online impulse buying behavior in other cultural contexts. In order to conduct cross-cultural studies, samples can be chosen from different countries and cultures and their online impulse buying behavior on global e-commerce giants used worldwide can be investigated. Moreover, the literature review shows that many studies have only studied the

phenomenon with samples comprised of college students or females. Instead, researchers should select samples from various socioeconomic and demographic groups. Another suggestion is that researchers should conduct other research methods than surveys such as experiments, focus groups, neurophysiological approaches and mixture of all to test the impacts of investigated factors on actual behavior rather than intention. Finally, many studies have focused on a few product categories such as clothing, cosmetics, and shoes. Other product categories like high-tech products and services should be incorporated into impulse buying studies in the online context.

APPENDIX A  
QUESTIONNAIRE (ENGLISH)

Dear Participant,

The questionnaire is intended to collect data for the master's thesis in "Impulse Purchase Behavior in the Online Context" by Barış Öker, who is a graduate student in Management Information Systems Department at Boğaziçi University under the advisory of Assoc. Prof. Dr. Hande Türker.

In order to answer the survey questions, you must have experienced online shopping.

Information about your identity and communication will not be asked and your answers will be kept private in the questionnaire. Your participation and answers to all questions are very important for the success of study. We thank you for your valuable time and support.

You may contact Barış Öker ([brsoker@gmail.com](mailto:brsoker@gmail.com)) and Hande Türker ([hande.turker@boun.edu.tr](mailto:hande.turker@boun.edu.tr)) for your questions and opinions on the questionnaire.

Yours respectfully.

All rights are reserved. Without the consent of researchers, questions cannot be fully or partially used.

1. For how many years have you been doing online shopping?

< 2 years \_\_\_\_\_ 5-7 years \_\_\_\_\_

2-4 years \_\_\_\_\_ > 7 years \_\_\_\_\_

2. How frequent do you do online shopping?

Once a week \_\_\_\_\_

A few times a month \_\_\_\_\_

A few times a year \_\_\_\_\_

3. Which of the following product categories have you purchased online? (you may choose multiple answers.)

Clothing \_\_\_\_\_

White Goods \_\_\_\_\_

Technology \_\_\_\_\_

Books \_\_\_\_\_

Food \_\_\_\_\_

Hobby Products \_\_\_\_\_

Healthcare \_\_\_\_\_

Cosmetics \_\_\_\_\_

Shoes \_\_\_\_\_

Sports Products \_\_\_\_\_

Home Appliances \_\_\_\_\_

4. What is the highest amount you spend on online shopping?

< 100 TL \_\_\_\_\_

1000 – 2499 TL \_\_\_\_\_

100 – 499 TL \_\_\_\_\_

> 2500 TL \_\_\_\_\_

500 – 999 TL \_\_\_\_\_

5. Please suppose that you are about to make a sudden purchase decision on the internet. Please state the strength of effect of the following qualities of web store you are about to do such a shopping on your decision-making.

Table A1. Website Stimuli Questions

Website Stimuli	Not at all influential	Minimally influential	Neutral	Influential	Very influential
High quality of products' images					
Display of products from different angles (Three dimensional, different color and usages etc.)					
The presence of product demo videos					
The appealing view of web store in general					
The presence of detailed and clear information about products					
The presence of updated and correct information about products					
The variety of products on web store (brand, color, size etc.)					
The presence of an app to compare different products					
The provision of similar or alternative products' information					
The provision of detailed information about the brand of products' manufacturers					
The understandability of menus and categories on website					
The ease of finding all relevant information about products					
The presence of well-functioning links on website					
The presence of a well-functioning search bar on website					
The presence of security certificate on website					
The presence of a variety of secure payment options on website (3D Secure, BKM Express)					
The presence of an information security agreement on website					
The adequacy and trustworthiness of information about web store's commercial identity					

6. Please suppose that you are about to make a sudden purchase decision on the internet. Please state the strength of effect of the following marketing tools provided on web store you are about to such a shopping on your decision-making.

Table A2. Marketing Stimuli Questions

Marketing Stimuli	Not at all influential	Minimally influential	Neutral	Influential	Very influential
Appealing price discounts					
The provision of special promotions based on purchases after a certain amount					
Coupons and gift cards provided to be used at a later time					
The presence of free shipping opportunities					
The presence of opportunity of free return of products					
The presence of credit card money point and discount campaigns					
That the product has been offered for a limited period					
That the product has been manufactured at a limited amount					
That the product is only sold online					
That the product is available only on a specific web store					
That the product has been received many positive comments from other customers					
The suggestion of products by celebrity or social media phenomena					
The suggestion of products by experts					
That the product is proposed by web store special for you					

7. Please point out the probability of your impulse purchase in shopping motives below.

Table A3. Utilitarian Motives and Hedonic Motives Questions

Utilitarian Motives and Hedonic Motives	Very Low	Low	Average	High	Very High
This shopping is beneficial and useful for me.					
This opportunity is a very smart of shopping.					
This shopping is very necessary.					
The shopping is very functional and solves my problems.					
The shopping is novel and contributes to my life.					
A very logical purchase situation has emerged.					
The shopping is very joyful.					
A product which I cannot find anywhere has appeared.					
A very exciting shopping opportunity has emerged.					
This shopping brings color to my life.					
This shopping makes me feel special.					
This shopping is meaningful and has an emotional aspect.					

8. Please state how appropriate each of below statement is for you.

Table A4. Behavioral Activation Systems Questions

Behavioral Activation Systems	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
It gives me pleasure to have a nice shopping experience.					
I get excited to buy a product I desire.					
I like defining myself a "good online shopper".					
Finding an online shopping opportunity others miss makes me feel good.					
Online shopping is a very joyful activity for me.					
Online shopping is one of the most enjoyable ways to discover					
I may would like to shop online when I do not need it.					
Online shopping is a leisure time activity for me.					
I can bear some burden such as opening a new account and spending time to purchase the product I had seen online.					
I can push my budget to purchase the product I had seen online.					
I can take some risks like giving my personal information to purchase the product I had seen online.					
I can justify it to purchase the product I had seen online.					
I like buying rarely available products online.					
I enjoy trying products I encounter on the internet before others do so.					
I enjoy purchasing products not owned by others online.					
I enjoy shopping on web stores obtaining interesting and extraordinary products.					

9. Please state how appropriate the below statements about online impulse buying are for you.

Table A5. Online Impulse Buying Intention Questions

Online Impulse Buying Intention	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I am usually likely to get engaged in online impulse buying.					
I think less compared to my surroundings while shopping.					
I find myself on a web store suddenly while shopping.					
I might purchase products other than I had needed and planned before.					
I might spend more than what I planned before.					

10. Your gender

Female \_\_\_\_\_

Male \_\_\_\_\_

11. Your age

<18	_____	36 – 45	_____
18 – 25	_____	46 – 55	_____
26 – 35	_____	>55	_____

12. Your marital status

Married	_____	Single	_____
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13. Your education level

Primary School Graduate	_____
High School Graduate	_____
Undergraduate Student	_____
Master's/PhD Student	_____
Master's/PhD Graduate	_____

14. Your monthly personal income (Answer is not compulsory.)

<1500 TL	_____	5000 - 9000 TL	_____
1500 - 2999 TL	_____	>9000 TL	_____
3000 - 4999 TL	_____		

APPENDIX B  
QUESTIONNAIRE (TURKISH)

Değerli Katılımcı,

Bu araştırma tüketicilerin internet üzerinden önceden planlamadan yaptıkları anlık alışverişlerin nedenlerini incelemek amacıyla yapılmaktadır. Çalışma akademik bir araştırma olup Boğaziçi Üniversitesi Yönetim Bilişim Sistemleri Bölümü Yüksek Lisans Programı öğrencisi Barış Öker'in Doç.Dr. Hande Türker danışmanlığında yürüttüğü tezi kapsamında gerçekleştirilmektedir.

Anketi yanıtlamak için internetten alışveriş deneyimi yaşamış olmanız gerekmektedir.

Ankette kimlik ve iletişim bilgileriniz istenmeyecek ve yanıtlarınız gizli tutulacaktır. Araştırmanın başarısı açısından katılımınız ve tüm soruları cevaplamanız çok önemlidir. Değerli zamanınız ve desteğiniz için çok teşekkür ederiz.

Anketle ilgili soru ve görüşleriniz için Barış Öker (brsoker@gmail.com) ve Hande Türker (hande.turker@boun.edu.tr) ile iletişime geçebilirsiniz.

Saygılarımızla.

Bu anketin her hakkı saklıdır. Araştırmacıların izni olmadan tamamı veya bir kısmı kullanılamaz.

1. İnternette kaç yıldır alışveriş yapıyorsunuz?

<2 yıl \_\_\_\_\_ 5-7 yıl \_\_\_\_\_

2-4 yıl \_\_\_\_\_ >7 yıl \_\_\_\_\_

2. İnternette ortalama alışveriş yapma sıklığınız nedir?

Haftada birkaç defa \_\_\_\_\_

Ayda birkaç defa \_\_\_\_\_

Yılda birkaç defa \_\_\_\_\_

3. İnternette bugüne kadar aşağıdaki ürün kategorilerinden hangilerini satın aldınız? (Birden fazla seçenek işaretleyebilirsiniz.)

Giyim \_\_\_\_\_

Beyaz Eşya \_\_\_\_\_

Teknoloji \_\_\_\_\_

Kitap \_\_\_\_\_

Gıda \_\_\_\_\_

Hobi Ürünleri \_\_\_\_\_

Sağlık \_\_\_\_\_

Kozmetik \_\_\_\_\_

Ayakkabı \_\_\_\_\_

Spor Eşyası \_\_\_\_\_

Ev Eşyası \_\_\_\_\_

4. İnternette yapmayı düşündüğünüz en üst alışveriş limiti?

<100 TL \_\_\_\_\_

1000 – 2499 TL \_\_\_\_\_

100 – 499 TL \_\_\_\_\_

>2500 TL \_\_\_\_\_

500 – 999 TL \_\_\_\_\_

5. İnternette önceden planlamadığınız ani bir satın alma kararı vermekte olduğunuzu düşününüz. Böyle bir alışverişi gerçekleştirmek üzere olduğunuz web mağazasının aşağıdaki özelliklerinin karar vermenizde ne derece etkili olacağını belirtiniz.

Table B1. Website Stimuli Questions in Turkish

Web Mağazası Özellikleri	Hiç Etkili Değil	Etkili Değil	Kararsızım	Etkili	Çok Etkili
Ürün görsellerinin yüksek kalitede olması					
Ürünün çeşitli açılardan gösterilmesi (3 boyutlu, farklı renk seçenekleri, kullanım şekilleri, vb.)					
Ürün tanıtım videosunun olması					
Sitenin genel olarak göze hitap eden, estetik bir tasarımının olması					
Ürünler ile ilgili bilginin anlaşılır ve detaylı olması					
Ürünler ile ilgili bilginin doğru ve güncel olması					
Sitedeki ürün çeşitliliği (marka, renk, beden, vb.)					
Sitede ürünler arası karşılaştırma uygulamasının olması					
Seçilen ürüne benzer ya da alternatif ürün bilgisi verilmesi					
Ürünün üretici markası ile ilgili detaylı bilgi verilmesi					
Sitedeki menü ve kategorilerin anlaşılır olması					
Ürün ile ilgili gerekli tüm bilginin kolaylıkla bulunabilmesi					
Sitedeki linklerin doğru çalışması					
İyi çalışan bir site içi arama uygulamasının olması					
Sitenin güvenlik sertifikasının olması					
Çeşitli güvenli ödeme seçeneklerinin olması (3D Secure, BKM Express)					
Bilgi güvenliği sözleşmesinin olması					
Sitenin ticari kimliği ile ilgili güven verici ve yeterli bilgi olması					

6. İnternette önceden planlamadığınız ani bir satın alma kararı vermenizde aşağıdaki önerilerin ne derece etkili olabileceğinizi belirtiniz.

Table B2. Marketing Stimuli Questions in Turkish

Pazarlama Promosyonları	Hiç Etkili Değil	Etkili Değil	Kararsızım	Etkili	Çok Etkili
Cazip bir fiyat indirimi					
Belirli miktardaki alışverişlere sağlanan özel promosyonlar					
İleride kullanılmak üzere verilen hediye çekleri/kuponlar					
Ücretsiz kargo					
Koşulsuz iade/değişim imkanı					
Kredi kartı parapuan ya da indirim kampanyaları					
Kısıtlı bir süre için sunulan bir ürün olması					
Kısıtlı sayıda üretilmiş bir ürün olması					
Sadece internette satılan bir ürün olması					
Sadece belirli bir web mağazasında satılan bir ürün olması					
Ürünün başka müşteriler tarafından çok sayıda olumlu değerlendirme almış olması					
Ürünün ünlü kişiler ya da fenomenler tarafından önerilmesi					
Ürünün uzmanlar tarafından önerilmesi					
Ürünün site tarafından özellikle sizin için önerilmesi					

7. Aşağıdaki durumlardan her birinde internette önceden planlamadığınız ani bir satın alma kararını verme olasılığınızın derecesini belirtiniz.

Table B3. Utilitarian Motives and Hedonic Motives Questions in Turkish

Faydacı ve Hızlı Amaçlar	Çok Düşük	Düşük	Orta	Yüksek	Çok Yüksek
Kullanışlı ve işime yarayacak bir ürün olması					
Çok akıllıca bir alışveriş olması					
Çok gerekli ve elzem bir alışveriş olması					
Çok işlevsel ve bana önemli bir çözüm sunan bir alışveriş olması					
Yenilikçi ve hayatıma katkıda bulunacak bir alışveriş olması					
Karşıma çok mantıklı bir satın alma durumunun ortaya çıkmış olması					
Çok eğlenceli bir alışveriş olması					
Karşıma çok ilginç ve başka bir yerde bulamayacağım bir ürünün çıkmış olması					
Karşıma çok heyecan verici bir satın alma durumunun ortaya çıkmış olması					
Bu alışverişini yapmanın hayatıma renk katacak olması					
Bana kendimi özel ve farklı hissettirecek bir alışveriş olması					
Anlamlı, duygusal yönü olan bir alışveriş olması					

8. İnternette alışveriş yaparken aşağıdaki durumların size ne derece uyduğunu belirtiniz.

Table B4. Behavioral Activation Systems Questions in Turkish

Davranışsal Aktivasyon Sistemi	Hük Uygun Değil	Uygun Değil	Kararsızım	Uygun	Çok Uygun
İnternette iyi bir alışveriş fırsatı yakaladığımı düşünmek bana keyif verir.					
İnternette görüp çok istediğim bir ürüne sahip olmaktan heyecan duyarım.					
Kendimi "iyi bir internet alışverişçisi" olarak tanımlamak hoşuma gider.					
İnternette başkalarının kaçırduğu bir alışveriş fırsatını yakalamak bana kendimi iyi hissettirir.					
İnternet üzerinden alışveriş yapmak benim için büyük bir keyif ve eğlencedir.					
İnternet üzerinden alışveriş yapmak benim için yenilikleri keşfetmenin en zevkli yollarından biridir.					
Belirgin bir ihtiyacım yokken internet üzerinden alışveriş yapmak isteyebilirim.					
İnternet alışverişini boş zamanlarımı değerlendirme yollarından biri olabilir.					
İnternette beğendiğim bir ürüne sahip olmak için gereken zahmete katlanabilirim (yeni bir web mağazası hesabı açmak, alışveriş için zaman ayırmak, vb).					
İnternette beğendiğim bir ürüne sahip olmak için maddi şartlarımı zorlayabilirim.					
İnternette beğendiğim bir ürüne sahip olmak için kişisel bilgilerimi vermek ya da bir web mağazasından ilk kez satın almak gibi bazı riskler alabilirim.					
İnternette beğendiğim bir ürüne sahip olmak için bunun gerekliliği konusunda kendime doğrulayıcı sebepler yaratabilirim.					
İnternet alışverişini boş zamanlarımı değerlendirme yollarından biri olabilir.					
Nadir bulunan ürünleri internette satın almaktan hoşlanırım.					
İnternette gördüğüm yeni ürün ve hizmetleri başkalarından önce denemekten hoşlanırım.					
İnternette gördüğüm ve başkalarında olmayan şeyleri satın almaktan keyif duyarım.					

9. İnternet alışverişlerinizde anlık satın alma davranış niyetiyle ilgili aşağıdaki ifadelerin size ne derece uyduğunu belirtiniz.

Table B5. Online Impulse Buying Intention Questions in Turkish

Anlık Satın Alma Niyeti	Hiz Uygun Değil	Uygun Değil	Kararsızım	Uygun	Çok Uygun
İnternette anlık alışveriş yapma olasılığım yüksektir.					
İnternette bir ürün satın alırken çevremdekilere kıyasla daha az düşünüp taşınırım.					
İnternette gezinirken kendimi birden bir web mağazasında bulduğum olur.					
İnternette alışveriş yaptığım esnada karşıma çıkan ve alışveriş amacımın dışında olan başka ürünleri de alabilirim.					
Bazen İnternette planladığımdan daha fazla para harcayabiliyorum.					

10. Cinsiyetiniz

Kadın \_\_\_\_\_

Erkek \_\_\_\_\_

11. Yaşınız

<18 \_\_\_\_\_

36 – 45 \_\_\_\_\_

18 – 25 \_\_\_\_\_

46 – 55 \_\_\_\_\_

26 – 35 \_\_\_\_\_

>55 \_\_\_\_\_

12. Medeni durumunuz

Evli \_\_\_\_\_

Bekar \_\_\_\_\_

13. Eğitim durumunuz

İlköğretim Mezunu \_\_\_\_\_

Üniversite Mezunu \_\_\_\_\_

Lise Mezunu \_\_\_\_\_

Y. Lisans / Doktora Öğrenci \_\_\_\_\_

Üniversite Öğrencisi \_\_\_\_\_

Y. Lisans / Doktora Mezunu \_\_\_\_\_

14. Aylık kişisel geliriniz (Yanıtlanması zorunlu değildir.)

<1500 TL	_____	5000 – 9000 TL	_____
1500 – 2999 TL	_____	>9000 TL	_____
3000 – 4999 TL	_____		

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