



**AN EXPERIMENTAL STUDY FOR UNDERSTANDING ONLINE IMPULSE  
BUYING BEHAVIOUR AND THE URGE TO PURCHASE IMPULSIVELY  
USING S-O-R FRAMEWORK**

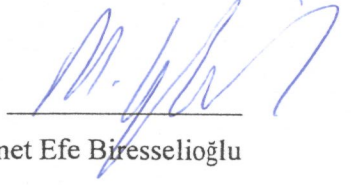
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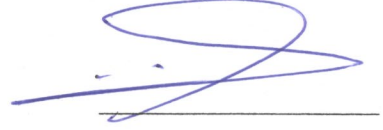
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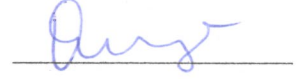
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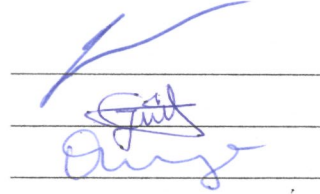
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## **ABSTRACT**

### **AN EXPERIMENTAL STUDY FOR UNDERSTANDING ONLINE IMPULSE BUYING BEHAVIOUR AND THE URGE TO PURCHASE IMPULSIVELY USING S-O-R FRAMEWORK**

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Impulse buying is a phenomenon that has generated significant interest in the retailing industry and has been frequently observed in an offline retail setting. There is convincing evidence that this behaviour occurs uncontrollably in an online setting. With the expansion of online shopping, there is a growing need and possibility to investigate impulse buying in a online setting. This research examines the concept of online impulse buying and the urge to purchase impulsively.

Impulse buying takes place when consumers can't resist the urge to buy a specific item, without contemplating the reasons why they should buy that item. The urge is impossible to resist, and impulse buyers may find their behaviour temporarily out of control and thus pay much less attention to the potential outcomes of their behaviour.

An experimental design was established to examine external and internal factors, 2\*2\*2 between subjects experimental design conducted, and the variables were selected from previous S-O-R framework studies. A Stimulus – Organism – Response (S-O-R) framework will form the basis of the model, which includes the variables connected to consumers' impulsive buying decision. Variables are adapted from existing literature.

The research investigates the impact of environmental and cognitive effects on consumers' impulse buying behaviors. This research tests the effects of product types, moods, and level of discount on online impulse buying behavior and urge to purchase impulsively. The thesis applies moderating variable (perceived control) to establish a model linked to S-O-R framework.

Usage of vignette-based between-subject experiments illustrated the elements of consumers' impulse buying behavior through, moods, product type and level of discount. The results indicates that positive mood has a significant effect on both the urge to purchase and online impulse buying, additionally perceived control has a positive moderation effect while consumers have a positive mood in terms of the urge to purchase. The findings of this thesis are in line with literature in that an encounter with a hedonic product increases the urge to purchase impulsively and stimulates online impulse buying behavior. Furthermore, a high level of urge to purchase impulsively leads to online impulse buying. The research will shed light on marketing practitioners and researchers, bringing together a comprehensive understanding of the consumer's online impulsiveness.

**Keywords:** Online impulse buying, S-O-R framework, experimental design, Urge to purchase impulsively, Retailing

## ÖZET

UYARICI-ORGANİZMA-TEPKİ [U-O-T] PARADİGMASINI KULLANARAK  
ÇEVİRİMİÇİ PLANSIZ SATIN ALMA VE PLANSIZ SATIN ALMA DÜRTÜSÜNÜ  
ANLAMAK İÇİN DENEYSEL BİR ÇALIŞMA

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Plansız satın alma, perakendecilik literatüründe öne çıkan bir konudur ve çevrimdışı olarak perakende sektöründe geniş çaplı olarak yer almıştır. Bu davranışın çevrimiçi ortamda kontrol edilemediğine dair araştırmalar mevcuttur. Çevrimiçi alışverişin yaygınlaşmasıyla, web tabanlı bir ortamda plansız satın alma davranışının araştırılması için literatürde ihtiyaç bulunmaktadır. Bu araştırma, çevrimiçi plansız satın alma ve plansız satın alma dürtüsünü incelemektedir.

Plansız satın alma davranışı, müşteriler bir ürüne yönelik satın alma dürtüsü yaşadıklarında, bu dürtünün nedenlerini mantıklı bir şekilde sorgulamadan meydana gelen davranıştır. Plansız satın alma dürtüsü bazen karşı konulamaz hale gelir ve tüketiciler bu nedenle kendilerini geçici olarak kontrol dışı hissedebilirler ve davranışlarının sonuçlarına daha az dikkat gösterirler.

Tüketicileri etkileyen dış ve iç faktörleri incelemek için deneysel bir tasarım uygulanmış olup, 2\*2\*2 senaryo tabanlı deneysel tasarım gerçekleştirilmiştir, bu çalışma için

kullanılan bütün deęişkenler daha önceden literatürde yer alan Uyarıcı- Organizma - Tepki (U-O-T) model arařtırmalarından yararlanılarak oluşturulmuřtur. Uyarıcı - Organizma-Tepki (U-O-T) modeli tüketicilerin plansız satın alma kararlarını etkileyen deęişkenler için bir temel model oluşturacaktır.

Arařtırma, tüketicilerin plansız satın alma davranıřları üzerindeki çevresel ve biliřsel unsurların etkisini incelemektedir. Çalışma, ürün türlerinin, ruh hallerinin ve indirim düzeyinin çevrimiçi plansız satın alma davranıřı üzerindeki ve plansız satın alma dürtüsün üzerindeki etkisini test edecektir. Bu arařtırma, Uyarıcı-Organizma-Tepki (U-O-T) temeline baęlanan bir model oluşturmak için algılanan kontrol moderatör konumu ile modele dahil edilmiřtir. Çalışma, pazarlama profesyonelleri ve arařtırmacıları için tüketicilerin çevrimiçi plansız satın alma davranıřlarına kapsamlı bir řekilde anlatarak ışık tutacaktır.

Arařtırma sonuçları gösterimiřtir ki, olumlu ruh halinin hem plansız satın alma dürtüsüne hem de çevrimiçi plansız satın alma davranıřına pozitif etkileri bulunmaktadır, ayrıca algılanan kontrolün tüketicilerin plansız satın alma dürtüsü ağıısından pozitif düzenleyici etkisine sahiptir. Bu çalışmanın bulguları, hedonik ürünler ile karřılařmanın, plansız satın alma dürtüsünü ve çevrimiçi plansız satın alma davranıřını artırdığını göstermektedir, bununla birlikte yüksek indirim düzeyi, tüketicilerin plansız satın alma davranıřlarını artırmaktadır.

**Anahtar Kelimeler:** Çevrimiçi plansız satın alma, Plansız satın alma dürtüsü, Uyarıcı-Organizma-Tepki (U-O-T) model, deneysel tasarım, Parekendecilik



**To My Family**

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I dedicate this thesis to my parents. I would like to thank my family, Murat and Döndü Özkan, and my elder brother Fatih Özkan for their support and inspiration throughout my education life. I would like to extend special thanks to my greatest supporter, my sister Hatice Özkan, for her patience during this difficult process.

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İbrahim Cem Özkan

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## **LIST OF ABBREVIATIONS**

AGFI: Adjusted Goodness-of-Fit Index
CFA: Confirmatory Factor Analysis
CFI: Comparative Fit Index
DF: Degrees of Freedom
GFI: Goodness-of-Fit Index
EVM: Experimental Vignette Methodology
IFI: Incremental Fit Index
IBT: Impulse Buying Tendency
NFI: Normed Fit Index
OIB: Online Impulse Buying
PC: Perceived Control
RMSEA: Root Mean Square Error of Approximation
UPI: Urge to Purchase Impulsively

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## **CHAPTER–1 INTRODUCTION**

### **1.1. Problem Discussion**

The level of purchasing and the amount of money spent at online shops have increased tremendously in recent years. Especially between the year 1999 and 2000, online purchase amounted to around \$ 45 billion. The reason for this increase results from the fact that online shopping fully satisfies the requirements of consumers. Hence, the more consumers' requirements are fulfilled, the more likely they are to spend their money. (Wolfenbarger et al., 2001).

Online shopping has a potential to grow significantly in the following years. E-commerce emerged two decades ago and is still growing. Bricks and mortar stores have started switching to e-commerce and establishing multi-channel strategies.

Dholakia, (2000) suggested that bricks and mortar retailers realize the potential of impulse buying, and through store design, product design and in-store promotions, retailers have encouraged consumers to be impulsive in stores.

After the early 2000s, innovations in information technology have significantly changed the nature of consumers' purchase behaviour. The availability of e-commerce provides 7/24 retailing through the Internet and this increase in online shopping has a direct effect upon consumers' buying behaviour and leads to an increase in impulse buying (Eroglu et al. 2001).

In fact, online shoppers are more likely than traditional shoppers to be impulsive. Online impulse purchase behavior has been analyzed in previous studies. They indicated a common ground for future research to understand the online impulse buying behavior. For instance, Koufaris (2002) indicated a need for future research to "*understand how online environment can be best designed to increase impulse purchase*" (p.131).

### **1.2. Thesis Subject and Scope of the Study**

This thesis is conducted to find and interpret the effect of environmental and emotional stimuli on online impulse buying and the urge to purchase impulsively. In literature, there are a great number of studies about impulse buying; however, e-impulse buying or online impulse buying is still an unknown area for researchers.

Consumers who use websites for shopping are exposed to many stimuli (internal and external) and these factors or cues have the potential to affect consumers' thoughts and emotions. This study explores and tries to understand the relationship between product types, level of discount and moods in the context of e-impulse buying.

In prior studies, only one side of the stimuli was examined and this study handles a between-subject experiment design, which includes between-subject and single-factor features. This research endeavours to establish a logical link between given independent variables (product types, level of discount, moods) and dependent variables (the urge to buy impulsively and online impulse buying) and perceived control as moderator. Cognitive and environmental aspects will also be tested to find the relationship between subjects (Verhagen and Dolen, 2011; Wells et al., 2011; Shen and Khalifa, 2012).

### **1.3. Originality**

Impulse and online impulse buying have been the subject of many different studies. Over the years, cognitive and environmental stimuli were defined and examined. However, studies were limited in terms of the correlative effect between subjects. In this study, an experimental design was conducted to manipulate the aspects of e-impulse buying and the urge to purchase impulsively in an effort to estimate how consumers make their decisions (Stern, 1962; Beatty and Ferrell, 1998; Dawson and Kim, 2009; Floh and Madlberger, 2013;).

In the last decade, online retailing has been extensively studied across disciplines. However, little effort has been made to explore and examine online impulse buying and the urge to purchase impulsively with experimental design. To address this research gap, this study tries to examine and explore the consumers' online impulse buying and urge to purchase impulsively by using vignette-based between-subject experimental design (Parboteeah, 2005).

Prior studies used website attributes as their independent variable in their study design. However, in this thesis website attributes are not included due to the nature of this thesis. No website was used; scenario-based experimental design was conducted. Additionally, rapid change in website designs and layouts were another reason for not using an actual

website. Negative and positive moods will be measured by conducting scenarios and the relationship between emotional states and the urge to buy will be examined. Effects of discount levels (low and high) will be examined through scenario-based experimental design will be tested according to manipulation checks and existing literature. Additionally, a moderator will be used to understand the role of perceived control over stimuli and responses.

#### **1.4. Research Aim and Objectives**

The study will examine the relationship between the subjects and determine a research model which contains links between cognitive and environmental cues. In this study, S-O-R framework and between subjects experimental design are used to interpret the result of the urge to purchase impulsively and online impulse buying. Applying S-O-R framework stimulus to the between-subject experimental design aims to determine which stimuli affect consumers' buying behavior. Experiments conducted with different scenarios are performed to examine whether they have an effect on the consumers' buying behaviour.

In order to ensure that the sample is a representative, a group of people between 18 and 60 years of age was selected. Convenience sample was used; participants were selected according to one criterion: individuals who have made online purchase at least once.

#### **1.5. Research Questions**

The thesis investigates consumers' online impulse buying, the urge to purchase impulsively and the effects of product type, mood type and level of discount on these. The proposed research endeavour is intended to get responses to the following eleven research questions:

RQ1: Do the urge to purchase impulsively differ according to product types?

RQ2: Do the urge to purchase impulsively differ according to mood types?

RQ3: Do the urge to purchase impulsively differ according to level of discount?

RQ4: Do the consumers' online impulse buying behavior vary according to product types?

RQ5; Do the consumers' online impulse buying behavior vary according to mood types?

RQ6; Do the consumers' online impulse buying behavior vary according to the level of discount?

RQ7: What happens to the reactions when mood types and product types are considered together?

RQ8: What happens to the reactions when mood types and level of discount are considered together?

RQ9: What happens to the reactions when product types and level of discount are considered together?

RQ10; To what extent can S-O-R framework be used to examine the urge to purchase impulsively and online impulsive buying?

RQ11; Do the perceived control moderate the relationship between stimuli and responses?

## **1.6. Structure of the study**

The thesis includes six sequential chapters that are titled as Introduction, literature review, methodology, preliminary research, analyses and results, discussion and conclusion. This thesis also includes several appendices, which contain the measurement instruments of the urge to purchase impulsively, online impulse buying and perceived control as well as experimental, background questionnaire and the manipulation check scripts. In the next paragraphs, an introduction of each chapter and appendix are provided.

Chapter 1, Introduction, contains an introduction of the thesis where the main points of the study are comprehensively explained. Thesis topic along with the gap in the literature reasons for this study and seven specific research questions are provided. The importance and originality of the study are also discussed.

Chapter 2, Literature Review, consists of the relevant studies from different research disciplines, including retailing, marketing, information technology, consumer behavior and psychology. The literature review is integrated in order to examine and anticipate the urge to purchase impulsively, online impulse buying and perceived control.

Chapter 3, Methodology, includes the proposed research model which is relevant to theoretical framework. It also contains experiment which are based on literature, such as consumer behaviour and environmental psychology. The hypotheses that have been carefully developed to test the proposed research model are presented along with the literature support.

Chapter 4, Research Approach and Preliminary Research, provides a comprehensive description of the manipulation checks and includes validity and reality checks. Furthermore, it provides the model fit index for the proposed research model.

Chapter 5, Analysis and Results, includes a detailed description of the data analysis techniques which are used to test the hypotheses and results. This chapter provides results of the hypothesis testing.

Chapter 6, Discussion and Conclusion, includes the discoveries, limitations, managerial implications and future work that extends the current study. The first part of the chapter presents a detailed explanation of the test results. The limitations and future work of the conducted research are presented. Finally, the conclusions of the research and limitations, further research are presented.

## CHAPTER-2 LITERATURE REVIEW

### 2.1. Impulse Buying

Amos et al. (2014) anticipated that the definition of impulse buying evolved over time and little effort was made to combine the findings of pioneering studies on impulse buying. Researchers have investigated a wide variety of situational and demographic elements from social effects and individuals' characteristics, to the impact of gender and age on impulse buying.

As a re-conceptualized term, "*impulse buying*" has a more limited but distinctive description than "*unplanned purchasing*". In addition, it emphasizes a cognitively selective type of behavior which is significantly different from planned consumer behavior. Rook (1985) suggested that impulse buying occurs when a consumer is overwhelmed by a sudden and strong desire to purchase something. Impulse buying is hedonically complex and can cause an emotional conflict. In addition, impulse buying tends to emerge suddenly without a simple thought being given to its consequences.

Beatty and Ferrell (1998) adopted the existing definition given by Rook (1987) "*a consumer encounters a sudden, irresistible and constant urge to purchase something on the spot*" and they extended its definition with a new perception. Beatty and Ferrell (1998) offered a new definition: "*Impulse buying is the act of purchasing a product instantaneously without setting a prior objective to buy a particular product or to satisfy a particular requirement*". The behavior takes place after an encounter with an urge to purchase and it tends to occur on the spur of the moment and without detailed consideration. According to Beatty and Ferrell (1998) impulse buying does not refer to the purchase of a simple reminder product or a product that is out of stock.

Some of the recent studies have defined impulse buying as a spontaneous, hedonically-driven buying behavior in which the nature of the impulse purchase prevents any thoughtful, deliberate evaluation of consequences or possible future influences (Sharma et al., 2010, Amos et al., 2014).

This new definition is an updated version of the ones offered in the previous studies concerning impulse buying. Impulse buying takes place when a consumer is overpowered

by a sudden urge to purchase something impulsively and they buy it quickly, without giving any consideration for the purchase or its outcome (Rook, 1987; Lucas and Koff, 2017).

Impulse purchasing is a quick incidence, not a carefully-planned one. It's more similar to grabbing a product than selecting one. Impulsive conduct is more spontaneous than planned behavior. An impulse purchasing tends to break the consumer's standard buying schedule, whereas an organized purchase is probably be a part of one's standard purchasing schedule. Impulse purchasing is more passionate than coherent. Consumers are more likely to feel that impulse purchasing is beyond their control.

Muruganathami and Bhakat (2013) conducted a literature review and discovered the nature of impulse buying behavior. They also managed to gather various definitions of impulse buying that have been offered in a vast number of studies.

According to Laurent and Kapferer, (1985) impulse buying is an action that takes place without any pre-shopping considerations, or any buying intention before entering the store (Muruganathami and Bhakat, 2013).

Bayley and Nancarrow (1998) described impulse buying as an unconstrained, resolute purchasing conduct that is hedonic in nature in which an impulse buying preference is established with no counteractive action and deliberate thought of additional information and assessment of elective decisions. Hedonic behavior is associated with delight as opposed to the utilitarian behavior where consumers look for useful advantages and financial returns from the shopping experience (Adelaar et al., 2003; Muruganathami and Bhakat, 2013).

Kacen and Lee (2002) expressed that impulse buying behaviour is more provoking and overwhelming but less intentional when compared to an arranged buying behaviour. (Muruganathami and Bhakat, 2013).

The term "impulse buying" is traditionally regarded as synonymous with "unplanned buying" where the consumer is depicted as having made any kind of purchase without ever entertaining a prior thought about the purchase. Impulse buying behavior is influenced by various stimuli such as economic situation, personality, time, location, and

even cultural traits. Findings indicate that a specific product is purchased not only by an assortment of different consumers but also by the same consumers, though circumstances under which the product is purchased may vary (Stern, 1962).

### **2.1.1 Types of Impulse Purchase**

In previous studies, different types of impulse buying definitions created a mix of classifications and led to four categories; pure impulse buying, reminder impulse buying, suggestion impulse buying and planned impulse buying.

Pure impulse buying is the most easily noticed impulse buying category. This is entirely an impulsive buying behavior, breaking normal purchasing patterns and making an escape purchase (Stern, 1962).

Reminder impulse buying takes place when a consumer notices a product whose household stocks may be depleted or reduced, additionally consumers remember a promotion or other piece of information related to the product and a past purchasing experience about the product (Stern, 1962).

Suggestion impulse buying takes place when an individual sees a product for the first time and recalls a need for it, even though he or she has no information about the product (Stern, 1962). The distinction between reminder impulse buying and suggestion impulse buying is the previous information that the consumer holds about the product; suggested impulse buying refers to no prior experience.

Planned impulse buying, however strange the term may appear, is precise. Planned impulse buying happens when an individual enters the retail store with the intention of purchasing something, yet his or her opportunities and purposes to make different purchases rely on fiscal conditions, for example, value citations, coupon offers, and the most vital component is simply creating utilization of the store itself as a venue on the individual shopping list (Stern, 1962).

According to Verhagen and Dolen (2011) impulse buying behaviour can be identified as unplanned purchases but not all unplanned purchases can be characterized as impulse buying behavior. This difference in definition points to the fact that an unplanned purchase can occur when a consumer needs a product but fails to put it on a shopping list.

Unplanned purchases may not be accompanied by an overwhelming desire or solid positive emotions essentially related with impulse buying behaviour (Amos et al., 2014).

Three distinct features of impulse buying behaviour stand out: First, the activity is spontaneous and it is usually accompanied with a positive passionate weight. Second, the consumer who makes an impulse purchase show restrictions respect to any expenses or results. Third, the activity generally comes with a hedonic interest for sudden self-gratification through utilization (Wood, 1998; Dholakia, 2000; Coley and Burgess, 2003; Sharma et al. 2010; Verhagenand van Dolen, 2011; Babin and Harris, 2013;; Amos et al., 2014;).

### **2.1.2 Factors Influencing Impulse Buying**

External stimuli is related to the store and marketing environment. External stimuli or factors refer to marketing efforts which are controlled and created by the marketer himself to entice consumers to buy. External factors or shopping environment factors include the store location, design, music, smell and formats. On the other hand, marketing factors are related to promotions and advertising activities.

Impulse buying behaviour is associated with the ease of the buying process. The purchasing of a product involves the disbursement of some resources: money for the product itself and for any expenses incurred for the trip from the mortar and brick store to the point of origin; time spent for the shopping trip; physical effort made for the shopping trip such as walking or driving to the venue; and finally, mental preparation for the shopping trip (Stern, 1962).

Furthermore, mass advertising helps to increase product awareness and this leads to exposure and eventually impulse buying occurs. Small size or lightweight is also a factor that affects consumers' buying decision. Ease of storage and short product life cycle are effective in consumers' buying decisions.

In today's shopping environment, impulse buying behaviour is considered to become ordinary as a result of aggressive sales promotions, creative messages and exclusive utilization of innovations in the retail locations (Schiffman, 2010; Muruganathami and Bhakat, 2013).

In a store environment, a large number of stimuli influence customers' purchase behaviour; even the store itself influences consumers' purchase behaviour either directly or indirectly. Applebaum (1951) mentions that impulse buying originates from the contact with the store and its stimuli. The store environment is packed with numerous features such as lighting, format, presentation of products, colors, sounds, odors, and attire and behaviour of sales and service personnel (Muruganatham and Bhakat, 2013). Dholakia (2000) suggests that consumers experience a sudden urge to buy when exposed to a visual influence such as promotional incentives.

The use and development of technology have brought about innovative ways such as smart display screens in public areas to induce consumers to make impulse purchases. Furthermore, credit cards and virtual payment methods increase the opportunity for consumers to engage in impulse buying more frequently.

Findings by Adelaar et al. (2003) discuss that impulse buying occurs due to an encounter with an external influence such as marketing stimuli and it can be enhanced by situational stimuli such as mood or environmental and other stimuli which vary from person to person. Several other studies achieved similar results: when someone makes an impulse purchase, they are most likely to surrender to their desires to purchase something on the spot (Beatty and Ferrell, 1998; Dholakia, 2000; Baumeister, 2002; Sharma et al., 2010).

Amos et al. (2014) performed a meta-analysis to constitute a model that distinguishes and classifies independent impulse buying factors into three separate groups: dispositional, situational and socio demographic.

Dispositional factors are unique in that every individual has a distinct personality that distinguishes one person from another and they are generally relevant in all situations (Beatty and Ferrell, 1998; Rook and Fisher, 1995; Verplanken and Herabadi, 2001; Steenkamp, 2003; Sharma et al., 2010). Dispositional qualities encompass mental situations such as an impulse buying tendency, readiness, inclination to look for variety, vulnerability to external influences, shopping pleasure, prestige and openness (Steenkamp and Gielens, 2003; Amos et al., 2014;).

Situational factors are external cues or stimuli that put the individuals in a position where they cannot stop themselves from buying something with an irresistible impulsive urge (Beatty and Ferrell, 1998; Dholakia, 2000; Chang et al., 2014). For example, stimuli that trigger senses, a person's feelings at the time of shopping, or the existence of others in the shopping environment can be regarded as situational factors. Situational variables are generally not under the immediate supervision of people but rather they affect the probability of impulse buying behaviour. Common situational factors have been thoroughly examined in literature regarding impulse buying and results indicate several conditions that play a role in impulse buying behaviour such as people's mood, promotional factors, retail conditions, hedonic and utilitarian practices, time and money accessibility, and social factors (Dholakia, 2000; Youn and Faber, 2000; Steenkamp and Gielens, 2003; Sharma et al., 2010; Amos et al., 2014;)

Socio-demographic factors refer to demographic and socio-economic characteristics that are beyond the control of promoting exercises. Elements defined in the literature are demonstrated by age, gender, fiscal conditions and ethnicity (Wood, 1998; Dholakia, 2000; Hausman, 2000; Steenkamp and Gielens, 2003; Zhou and Wong, 2004; Kacen et al., 2012; Sharma et al., 2010; Amos et al., 2014).

A large portion of the past studies have concentrated on impulse buying behavior in conventional retail locations and other shopping channels (Verplanken and Herabadi, 2001; Park and Lennon, 2004). Dawson and Kim (2009) have suggested that as a result of the rapid development of online shopping, consumers are more likely to be involved in online impulse buying (Weun et al. 1998; Muruganathami and Bhakat, 2013).

### **2.1.3 Psychological Aspects of Impulsive Behaviour**

Most of individuals' actions are motivated by urges that are psychologically and internally stimulated. Neurophysiological factors cause constant alterations in the human mind and they stimulate a particular mental reaction. Psychologically stimulated and supported behaviours are the result of both conscious and unconscious processes.

Psychological impulse buying can be described as "*a strong, sometimes irresistible urge; a sudden inclination to act without deliberation*" (Goldenson, 1984, p. 37). An impulse cannot be intentionally planned, but emerge spontaneously upon encounter with a specific

stimulus (Wolman, 1973). Psychological impulsive behavior occurs immediately and spontaneously without warning. Once stimulated, the impulse turns into a sudden action, and the existing urge may be too strong to resist. The urge is sometimes irresistible, however, this behaviour is not basically impulsive owing to the fact that it appears all of a sudden, without any warning. Familiar motor behaviors such as walking or swimming are relatively self-regulating but not entirely impulsive. Furthermore, in emergencies, human beings act immediately, but this action is not an impulsive but an instinctive response (Rook, 1987).

Comprehensive studies on impulse buying started in the mid-1950s and great strides have since been made to research those purchasing decisions that occur after the individual enters a retail location (Rook and Hoch, 1985).

As impulse buying was studied more broadly as a subject, two significant issues rose to the surface as the direct result of the discoveries of prior investigations. To start with, the initial approach that sorted products into impulse and non-impulse classes fails to realize the fact that nearly anything can be obtained on impulse (Stern, 1962).

A second issue with impulse buying studies was the absence of an appropriate theoretical framework to build an experimental work. Nesbitt (1959), suggested that one's shopping behaviour that is portrayed as spontaneous or unplanned or impulse buying may actually originate from an in-store planning that a consumer utilizes to complete purchasing intentions.

Some researchers claim that "arranging" is a disputable term in case of purchasing choices; shoppers' intents can be adjusted and changed by ecological factors. Stern (1962), and Kollat and Willett (1969) both criticized the term "unplanned purchase" in that it is excessively unspecific and contains an excessive number of various sorts of conduct.

In spite of this criticism, impulse purchasing is still to a great extent distinguished as an "unplanned" purchase behaviour (Bellenger et al., 1978; Blackwell, and Kollat 1978; Cobb and Hoyer 1986; Engel et al., 2010). Nevertheless, there have been some endeavors to re-research the impulse buying idea (Weinberg and Gottwald, 1982; Kroeber and Riel 1984).

After decades of research and criticism, the term “*impulse buying*” has gained a definition: impulse buying takes place when a consumer encounters a sudden, frequently intense and constant urge to buy something on the spot (Rook and Hoch 1985).

Rook and Fisher (1995) devised a scale to quantify impulse buying practices. Essentially, this scale endeavors to quantify the lack of caution associated with the buying and utilization of the product (Weun et al., 1998; Dholakia, 2000; Hausman, 2000 Kacen et al., 2012). Rook and Fisher (1995), described impulse buying behavior as a one-dimensional structure that triggers a person's inclination to purchase precipitously, unreflectively, instantly and actively (Rook and Fisher, 1995; Amos et al., 2014).

Impulse buying is associated with a different number of mental components, including attribute impulsivity ( Lucas and Koff, 2014; 2017) mood, or passionate state (Rook and Gardner, 1993), self-character and mental self portrait (Dittmar,et al., 1995; 1996), and perspectives of five-factor personality model (Verplanken and Herabadi, 2001), as well as demographic characteristics such as gender.

Several studies have come to the conclusion that females are more likely to practise impulse purchase, especially for obtaining garment-related products, and it has been reported that self-directed and mood-related purposes underlie impulse purchases (Dittmar et al., 1995; 1996; Kwon and Armstrong, 2002; Coley and Burgess, 2003; Muraganantham and Bhakat, 2013).

Mood and emotional state have been found to be in connection with impulse purchase. Inspected by Rook (1987), impulse buying involves hedonic thought processes. According to Beatty and Ferrell (1998) there is a relationship between positive state of mind and impulse purchase. Another study reveals that delightful mood conditions as well as excitement and negative temperament states like sadness are all associated with impulse buying (Rook and Gardner 1993;). Xu (2007) state that store conditions impact buyers' emotional state, which may additionally trigger impulse buying inside the store (Rook and Gardner, 1993; Verplanken et al., 2005).

## **2.2. Online Impulse Buying**

Most of the studies conducted on impulse buying concentrated on actual shopping consequences within the concept of designed shopping tasks (Kollat, 1967). Apart from pure consumer intention to shop, there are emotional factors. In some studies, environmental factors are emphasized; exposure to the environmental factors may lead to online impulse buying behaviour (Madhavaram and Laverie, 2004; Wells et al., 2011).

Recent studies have described online impulse buying behaviour as a procedure accompanied by the individual's mental approach that develops when a shopper unexpectedly experiences a sudden and steady urge to buy something instantly. Online impulse buying has hedonic aspects and can give rise to intellectual conflicts (Rook, 1987; Chan et al., 2017).

In the early 2000s, when online shopping was introduced to consumers, it started as an information and comparison tool for real time shopping due to the fact that many of the retail stores did not have sufficient infrastructure for websites or were unaware of this channel. Rowley (2002) suggests that the first step of online shopping is web browsing, a function that many consumers use before shopping for information skimming.

Most consumers attach great significance to perusing and amassing related information while utilizing web-based shopping sites (Smith and Sivakumar, 2004; Choi et al., 2005; Park et al., 2012). Browsing is the essential component of web-based shopping and it is viewed as a component which impacts online shopping. In the greater part of this situation, browsing process includes a connection with the stream rule that enable buyers to get the essential information while disposing of the dangers pertinent to shopping activity.

In the literature, browsing is defined as a factor that affects online impulse purchasing choices. Several studies have sorted perusing into two particular classes; utilitarian and hedonic. Utilitarian browsing is aimed at obtaining the items using heuristics, objective arranged conduct, systems that eliminate dangers, and achieve the goal of information gathering. On the other hand, hedonic browsing centers around fun and amusement; it is a pleasant part of shopping regardless of whether the buying action occurs or not (Babin et al. 1994; Moe, 2003; Park et al., 2012).

Traditional impulse buying is defined as a sudden, unplanned act involving hedonic aspects which lead to impulse buying behaviour without consideration. On the other hand, although online transactions provide ease of use, this element causes spending problems for consumers because of the fact that consumers engaged in remote processing may not always grasp the weight of money spending.

Thanks to advancements in information technology and the enormous development of online retailing, online impulse buying has turned into a trend. It is estimated that about 40 percent of all online consumer expenses is made as a result of online impulse buying (Madhavaram and Laverie, 2004; Bruwer and Wood, 2005; Liu et al., 2013). Researchers have suggested that shopping websites create an environment that encourages more impulse buying behavior than traditional retail stores. Shopping websites offer consumers convenience which is free from restrictions such as inconvenient store locations, limitations in operation hours and product availability that consumers may encounter while practising physical shopping activities ( Verhagen and Dolen, 2011).

With the increase of e-commerce, online impulse buying actions became ordinary for consumers. Participating in online shopping activities allows consumers to break their purchase routine, which increases the likelihood of impulse buying.

Research on this field began in the early 2000s and has grown rapidly over the years. Chan et al. (2017) conducted a comprehensive literature review on online impulse buying behavior and its reasons. Thanks to their work, data collection became available from online impulse buying studies which were published in the period between 2009 and 2014.

Online impulse buying studies follow two main ways in the literature. The first way is to identify and discover the impacts of website stimulus in an online setting. Kaufaris (2002) initiated a study that investigated the effect of a search mechanism in which added value and Technology Acceptance Model (TAM) are set as theoretical background.

Other researchers have investigated and emphasized the role of website components (design, content, layout navigations and media formats) as the precursors of online impulse buying behavior (Adellar et al., 2003; Flavian et al., 2006; Parboteeah, et al.,

2009). Floh and Madlberger (2013) explored the main factors of online impulse buying through using an intermediary, emotional perception and shopping enjoyment.

The second way is in connection with the offline impulse buying factors, used to analyze and understand the impulse buying behaviors in an online setting. For instance, the role of hedonic consumption needs, emotional stimuli and impulse buying tendency have been considered to examine the connection between offline influences and online impulse buying decision (Verhagen and Dolen, 2011; Chih et al., 2012; Chan et al., 2017).

### **2.2.1. Online Impulse Buying Stimulus**

A stimulus is a trigger that stimulates the individual. There are two types of stimuli that exist in the literature: external and internal stimuli. Chan et al. (2017) proposed that marketing-related and situational stimuli are regarded as external stimuli while consumer impulsive tendencies are viewed as internal stimuli in their study.

Over the last two decades, external stimuli associated with online impulse buying behavior have changed. Websites are developing ways to improve their structures to attract more consumers and make more sales. At the beginning of the 2000s, websites had a simpler and more limited feature set, however websites have developed and their stimuli have become more complex. For instance, media formats (still images and videos), visual appeals, search options and security display have become more complex over the past 20 years (Adelaar et al., 2003).

In the prior literature, website stimuli-related studies have had two main flaws; researchers focus on the effects of specific website features on online impulse purchase. These researchers have explored the impacts of website features such as media formats, colors, ease of use, navigation, visual appeal, efficiency of search mechanism and website triggers (vividness and interactivity). Secondly, researchers focus on aspects or prejudices about websites and their features. These researchers have examined how the aspects of websites affect online impulse buying by applying perceptual scales such as perceived website quality (Kim and Dawson, 2010).

Marketing-retailing stimuli refer to factors or cues which are applied by marketers to lure consumers into engaging in online impulse purchase. In the literature, researchers have

discovered the effects of various marketing mixes such as limited offers, discounts on offer and manipulating time and money availability to affect consumers' buying decisions.

Situational stimuli refer to environmental and communal elements which are related to specific consumption situations that affect individuals' purchase decisions. Situational stimuli can both increase and decrease online impulse buying. Availability of product is the only stimulus relevant to situational stimulus.

### **2.2.2. Online Impulse Buying Organism**

In online impulse buying studies which were conceptualized with S-O-R framework, two types of organisms are taken into account: cognitive and affective stimuli. Cognitive factors are connected to individuals' mental processes that take place when one encounters a stimulus, and cognitive factors occur when an individual realizes the restrictions during online impulse purchase. Cognitive reactions can be positive and negative; positive reactions encourage the online impulse purchase decisions whereas negative reactions restrain online impulse buying decisions.

Affective factors are relevant to the emotional state of consumers. When they are exposed to environmental stimuli, affective reactions arise. The literature suggests that positive affective reactions, like pleasure and arousal, lead to an increase in consumers' online impulse buying responses.

Alternatively, intellectual perspectives may incorporate an *"overwhelming inclination to purchase, positive purchasing propensities, and emotional management"* (Coley and Burgess, 2003, p. 283). When an individual encounters an intolerable urge to purchase, he or she feels obligated to make an online impulse purchase.

Rook (1987), Dholakia (2000) and Youn and Faber (2000) discuss that consumers who are vulnerable to enthusiastic responses and unaffected by their subjective responses are found to have an irresistible desire to buy and are more inclined to perform an online impulsive buying behavior.

### **2.2.3. Online Impulse Buying Response**

The response is the last part of S-O-R framework and it is the shoppers' final reaction to online impulse buying for example, stimulus and organism. The urge to purchase impulsively and online impulse buying are the most generally aspects of reaction. Moreover, purchase expectations and revisit intentions are also emphasized by different studies (Zhang et al., 2007; 2008).

The moment when a customer is confronted with an influence on a website, he or she is influenced immediately or in a roundabout way regarding internal assessments and they encounter sudden and irresistible urge to purchase impulsively. Increment in rash urges are more likely to trigger online motivation purchasing behaviour.

Verhagen and Dolen (2011) and Khalifa and Shen (2012) discovered a positive and meaningful connection between the urge to buy impulsively and online impulse buying behaviour.

### **2.2.4. Online Impulse Studies**

Parboteeah et al. (2005) revealed that website functions have an impact on online buying practices. Their investigation showed that a majority of participants have the urge to buy impulsively indiscreetly, paying little respect to the functions of the website. This behavior is probably related to goal and emotion based factors. Goal-based factors include such functions as navigability that assists the online buyer's shopping goals.

Joo et al. (2006) and Park et al. (2008) discuss that the most common categories of online impulse buying product are clothing items. Lim and Hong (2004) proposed that hedonic shopping patterns have influence on online clothing purchases and are more likely to support hedonic aspects of online clothing purchases. Park et al. (2008) claimed that impulse buying tendencies have dominant effect on online purchases of sensory products (attire, ornaments, jewelry and cosmetics).

Dholakia (2000) stressed in their study that market cues and situational cues are considered to be influential in affecting consumers' buying decisions. Additionally, cognitive assessment explored the moderation effects between cues and organisms; mood

states take into consideration emotional reactions and finally online impulse buying is cited as a response to cues and organisms.

Koufaris et al. (2001) analyzed the effects of consumers' past experience on their intention to return and online impulse buying. They discovered how specific consumer and website features affect online impulse buying. Their research findings illustrate that perceived control and shopping enjoyment have positive effects on intention to return to website but this finding is only valid for new web consumers whereas the regular web consumers have no intention to return. Furthermore, neither perceived control nor shopping enjoyment has any significant effect on online impulse purchase.

Adelaar et al. (2003) explored the direct effects of media formats such as text and video and cognitive reactions of consumers' intention to buy music CDs impulsively. Their results emphasize a strong moderation effect on emotions about online impulse buying; however, no significant relation was found between media format and online impulse buying intention.

Shopping online gives consumers an opportunity to buy freely without time and place restrictions. Consumers can buy various items without leaving their comfort zones. In this paper, the focus is on the effects of moods and product attributes on online impulse buying. In this study, positive and negative moods and hedonic and utilitarian needs will be tested and results will show the relationship between attributes and actual buying.

Also, nine-item impulse buying scale was selected and adopted for online setting. Adopted scale includes a statement "while visiting this website" that converts impulse buying scale to online impulse buying scale. Nine-item scale was adopted from Rook and Fisher, (1995) one of the most reliable measurements in impulse buying studies. Verhagen and Dolen (2011) adopted and cited the same impulse buying measurement to test online impulse buying responses (see Appendix for the survey items).

### **2.3 Urge to Purchase Impulsively**

Beatty and Ferrell (1998 p.172) defined the urge to purchase impulsively as "*the state of desire that is experienced upon encountering an object in the environment*". In online impulse buying literature, individuals' behaviors can be divided into two steps.

In the first step, regardless of consumers' tendencies or environmental stimuli, one can encounter an immediate and spontaneous urge to purchase something. In the next step, the consumer decides whether or not to act according to urges.

Therefore, Rook (1987) stated that impulse purchase takes place only after consumers encounter and are exposed to the urge to purchase impulsively. Several studies have demonstrated that the more urges an individual experiences, the more likely it is that an impulse buying will take place (Beatty and Ferrell, 1998). In a conventional shopping condition, people who show high scores on the impulsiveness scale have been found to probably feel expanded urges to purchase impulsively (Beatty and Ferrell, 1998; Thomas et al., 2010).

Estimating the genuine impulse buying behavior is challenging because of impacts of social norms; people tend to hide their actual reactions. Due to existing issues about the estimation of impulse buying behavior, the greater part of the studies have conceptualized the urge to purchase impulsively to quantify pertinent elements which may influence actual impulse buying practices. Beatty and Ferrell (1998) stated that the scale to measure the urge to purchase impulsively is a more dependable means of estimation of impulse buying behavior (Rook and Hoch, 1985)

Liu et al. (2013) claimed that consumers are more likely to encounter an urge to purchase impulsively if the buyers profited from the shopping condition in terms of excitement and joy. Moreover, conceptualized estimation for the urge to purchase impulsively as the precursor of online impulse buying behavior suggests that consumers' impulsive tendencies and site quality have a critical impact on the urge to purchase impulsively.

Verhagen and Dolen (2011) revealed that impulse buying takes place when consumers are exposed to an urge to purchase a product, without further thought why and for what reason they need that item. The urge is usually sudden and consumers may therefore find themselves temporarily out of control and they become insensitive to the consequences of their actions.

Wells et al. (2011) examined the relationship between consumers' impulsiveness to purchase and website quality. In their study, website quality is stated as an environment

stimulus which directly affects the likelihood of a consumer's chance to purchase something resulting from an urge.

In this study, scale to measure the urge to purchase impulsively was adopted from Beatty and Ferrell (1998). A five-item-scale was modified for online impulse buying study, a statement "during a trip to this website" was added to make sure the participants' answers were relevant. This scale was selected in terms of reliability and ease of modifications (see Appendix for the survey items).

## **2.4 Perceived Control**

Perceived control has been mentioned in various theoretical backgrounds under modified versions such as perceived locus of control (Koufaris, 2002). In motivation theory, it was used under the variation of perceived control in achievement (Atkinson, 1964); Ajzen (1991), conducted a study with variation of perceived control, perceived behavioral control in the theory of planned behavior (TPB).

Ajzen (1991) claims that perceived control has been characterized as the level of a person's control over the nature, circumstances and that person's activities. Furthermore, perceived control is important in one-of-a-kind occasions and it can change depending on occasions, situational factors and activities.

Ghani (1991) defines perceived control as the ability to foresee the consequences of specific actions. Perceived control should be directly influenced by the degree of an individual's control power while performing the tasks. When the degree of control power is high, the individual should feel a greater sense of control. On the other hand, when the degree of control power is low, individual should feel an insufficient sense of control and much frustration.

Mehrabian and Russell (1974) claim that perceived control bears resemblance to emotional reactions of dominance from environmental psychology, defined as an experience which is free to exist in many ways and changeable according to situations and environment.

In this study, we evaluated perceived control by using a four-item scale which is adapted from Ghani et al. (1991) and Koufaris (2002). We had to modify the scale because for

individuals using web to purchase items, shopping experience would be different from the ones in physical stores. A statement “during the trip to this website” was added to modify perceived control scale. (See Appendix for the survey items).

## **2.5. Theoretical Framework**

### **2.5.1. S-O-R Framework**

S\_O\_R framework provides evidence for the social sciences, particularly psychology, and consumer behavior models began emerging around four decades ago (Peng et al., 2014). With the significance of evidence, internal individual variables are no longer disprovable, the shortsighted I- O (Input-output) models have offered an approach to more advanced stimulus-organism-response (S-O-R) models (Peng et al., 2014).

In contrast to the earlier I+O models, latest models attach significantly more importance to internal organismic (O) variables than both stimulus-and-input and output-and-response factors (Jacoby, 2002). In fact, as represented, one extremely perceptual model goes so far as to center completely on the internal procedures of the organism, paying no attention to either stimulus or response variables which are illustrated as internal variables that are likely to be a reaction to the excrescence exposure (Bettman, 1979).

S-O-R model suggests that environmental cues create (S- stimulus) which has the capacity to affect consumer behaviours or moods (O- organism) that lead to behavioural response (R-response). Baker (1992); Goi (2014) suggest that S-O-R framework requires environmental cues, a set of independent variables whose function is to trigger a certain behaviour, and it encompasses behavioral or cognitive response to these variables.

The S–O–R framework expresses that the environment includes stimuli (S) that trigger alterations in consumers’ internal and organismic states (O), which in turn creates an impact that promotes approach or avoidance responses (R) (Mehrabian and Russell, 1974).

Utilizing the traditional S-O-R framework as its foundation to environmental principle attempts to give an explanation for cognitive reactions that take place due to encounter with the stimuli of specific conditions (Mehrabian and Russell, 1974; Donovan and Rossiter, 1982; Vieira, 2013).

In the literature, S-O-R framework studies are divided into two. The first one is the current subject, studies related to online shopping trends and behaviours of consumers, which emerged right before the millennium. The second one is about the past studies on the effects and impacts of brick-and-mortar store environment on the cognitive state of consumers.

S-O-R framework describes the connection between the stimulus, organism - consumers' internal states - and response - which is the final reaction to a stimulus. A stimulus affects consumers' state of mind or internal state, which will lead to change in their behaviours.

Numerous researchers have studied online impulse buying and they have proposed different theories and frameworks. However, S-O-R model has remained the most applied theoretical approach to impulse buying behavior and online shopping motivation (Peng et al. 2014). Some studies tried to examine the impulse buying motive with different theoretical approaches such as flow theory (Koufaris, 2002; Wu et al., 2008; Chang et al., 2012). Flow theory declares that consumers will deeply involve themselves in an activity which has greater importance than others.

Aside from flow theory, cognitive emotion principle was implemented in studies to investigate impulse buying (Verhagen and Dolen; 2011). Cognitive emotion principle states that emotions are the consequences of exposure to stimuli. TAM, on the other hand, focuses on how an individual accepts and utilizes technology. This model is enhanced by two elements: perceived usefulness and perceived ease of use (Koufaris, 2002; Zhang et al., 2007; Zhang et al., 2008; Kim and Eastin, 2011; Liu, et al., 2013).

Eroglu, et al. (2001, 2003) state that the S-O-R framework provides the conceptual foundations for online retailing, and it encourages an empirical baseline for the significant effects of website atmosphere on individuals' attitudes, satisfaction levels and a variety of approach and avoidance behaviours.

#### **2.5.1.1. Bricks and Mortar Store Stimulus**

The stimulus-organism-response (SOR) model has been broadly utilized to examine the connection between the retailing conditions and consumers' buying behaviour (Eroglu et al., 2001; 2012; Pantano and Viassone, 2015; Zhang et al., 2018).

Researchers have used the S-O-R framework with various different types of stimuli for instance, environmental, market-related and product-related factors like store layout and store atmosphere are taken as stimuli. Pantano and Viassone (2015) examined the effect of new stores in multi-channel retailing and they utilized channel accessibility, which is one of the service qualifications in the literature, as well as the environmental stimuli.

Influencers in an offline setting are the most commonly cited items of the S-O-R model (Robert and John, 1982; Slama and Tashchian 1987; Buckley, 1991; Lunsford and Burnett 1992; Spangenberg et al., 1996; Sherman et al., 1997; Sautter et al., 2004).

Regardless of their adopted theoretical frameworks, existing literature on online impulse buying studies have always followed the same pattern, explored the connections between environmental stimuli, consumers' intellectual and emotional responses to these stimuli, which can be associated with the S-O-R model (Chan et al., 2017).

#### **2.5.1.2. Online Retailing – Online Shopping Stimulus**

The S-O-R model is one of the most commonly utilized conceptual foundations for online impulse buying studies, conceivably in light of the fact that this model has customarily given the conceptual foundational support to conduct consumer studies. Furthermore, many studies on online impulse buying have investigated the role of external stimuli in online impulse buying behavior (Shen and Khalifa, 2012; Chan et al., 2017).

The S-O-R model was derived from stimulus-response (S-R) model. The framework was a set of three main factors to classify variables: Stimulus (S) an internal or external trigger that affects consumers' buying behavior, Organism (O) referring to internal states of consumers and Response(R) the final consequence of consumers' responses toward the stimulus and their internal assessments.

In online impulse buying studies, the S-O-R model has been employed by vast number of researchers such as (Adelaar et al., 2003; Khalifa and Shen, 2007; Parboteeah et al., 2009; Lee and Johnson, 2010; Shen and Khalifa, 2012; Floh and Madlberger, 2013; Liu et al. 2013). Moreover, Eroglu et al., (2001) state that the online retail environment is devoid of certain dimensions (temperature, odour, textures) that are defined by existing literature as environmental stimuli.

In an online setting, various environmental conditions are limited to existing technology; especially, visual and auditory stimuli are now available. Even though odour transfer can be achieved (Caulfield, 2000), this is not always available to most online shopping users.

Vividness is the richness of environmental information offered to human senses (Steuer, 1992; Shih, 1998). Although vividness is an attractive feature of online stores, excessive emphasis on vividness has been found to be overwhelming individuals (Steenkamp and Baumgartner, 1992). In retailing, significant effects of vivid environmental information demonstrates an inverted U-shaped curve (Keller and Block, 1997). Online reactions are similar; online consumers take the function of vividness as total and evaluate sales on a variety of rich and sensory stimuli.

In S-O-R studies, navigation on a website is one of the most commonly cited stimuli while investigating the online retailing. Integration of the symbols and indicators improve websites' function and design. In an online setting, the indicators effectively ensure navigation, which is often essential for successful website experiences. Symbols and indicators that are intended to help navigational simplicity can be applied to establish website credibility and eliminate sponsor notoriety. These and other common website specifications can be used in understanding web-based retailing atmospherics (Sautter et al., 2004; Mazaheri and Laroche, 2011)

Social factors in retail stores include congestion of consumers and retail store employees (Baker et al. 1994; Mattila and Wirtz, 2008). Although there is no visible presence of other shoppers and employees in an online setting, (Eroglu et al., 2001), online retailers provide other representations of interpersonal interaction: shopping agents and online communities on their websites.

### **2.5.2. Stimulus**

In a consumers' judgment process, stimuli can be conceptualized as those remote components related with influencing the choice. Bagozzi (1986) suggested that when consumer is line with a stimulus–organism–response model, the stimuli are apparent to the individual and comprise both retailing mix variables and other environmental sources.

In the established S-O-R framework, the stimulus is what influences the internal cognitive conditions of the consumers.

Baker (1992) presented an arrangement of the components which are relevant to store conditions into three classes: social stimuli, design stimuli, and ambient stimuli. Social stimuli has something to do with other individuals present in the store condition. Sales representatives are the most critical factor in stores, as components of the promotion mix, a retailer has a significant control over their number, sort, and conduct. Ambient stimuli are related with components of a store's situation (scent, lighting, odour and so forth). Design stimuli, on the other hand, are visual factors in the store (format, shading, colour, tidiness, mess, space, and so on). Finally, all these stimuli affect the general store perception and they have also been shown to have an influence on consumers' purchase behaviour (store decision and revisit intention).

A stimulus refers to a trigger that excites a consumer. In the current literature, two different types of stimuli can be found: external and internal. Chan et al. (2017) revealed and conceptualized the external and internal stimuli into distinct categories such as website stimuli, market stimuli, situational stimuli as external and impulsive individual characteristics as internal stimuli. These categories are mainly related with the online impulse buying.

Chan et al. (2017) point out that experiments and surveys are the most commonly used research methods in the investigation of online impulse buying. When researchers design their experiment based on online impulse buying, various number of website stimuli are considered such as media format (Adelaar et al., 2003), payment features (Dutta et al. 2003) website features and website triggers (Wood, 1998; Vaughan, 2004; Parboteeah et al., 2009; Shen and Khalifa, 2012). Aside from these website stimuli, researchers also use ease of use, navigation, store content, search engine mechanism and visual appeal (Davis, 1989; Bressolles et al., 2007; Khalifa and Shen, 2007; Parboteeah, 2009; Floh and Madlberger, 2013; Liu et al., 2013; Ltifi, 2013). Furthermore, Kim and Dawson (2010) investigated the online impulse buying triggers by conducting interviews with consumers and examined their feedback to explore which types of marketing activities have impact on online buying tendency.

### **2.5.3 Organism**

In a S-O-R model, organism represents the internal evaluation and triggers an effect between external stimuli and consumers' final reactions. It is important to note that the emotional state is composed of perceptual and physiological moods and cognitive activities (Bagozzi, 1986).

In studies which have used S-O-R framework, organism refers to consumers' internal evaluations and emotions through internal and external stimuli. According to Parboteeah et al. (2009) internal reactions are mental operations that take place when consumer is faced with external or internal stimuli and these lead to consumers' internal assessment throughout the online impulse buying process. Positive and negative internal reactions or moods determine consumers' buying response.

The impact of the store atmosphere on consumers' behaviours is mediated by consumers' internal state. Individuals' internal state is governed by three concepts: pleasure, arousal and dominance (Mehrabian and Russell, 1974).

Consumers are eager to perform an online impulse buy when they encounter positive responses, for example, pleasure, arousal and positive mood state. Several researchers have established that pleasure, arousal and positive mood motivate impulse buying. Additionally, enjoyment and impulsiveness are the most commonly used affective reactions in online impulse buying behavior studies (Floh and; Rook and Gardner, 1993; Beatty and Ferrell, 1998; Adellar et al., 2003; Madlberger, 2013; Wu et al., 2016).

Chan et al (2016) identified and categorized the organism stimuli which are cited in impulse buying and online impulse buying studies. Hedonic consumption needs, hedonic shopping motivation, impulse buying tendency, instant gratification and normative social influences are the variables which are used to discover impulsive consumer characteristics (Dawson and Kim, 2009; Kim and Eastin, 2011; Chih et al. 2012; Liu et al., 2013; Gwee and Chang, 2013).

Furthermore, cognitive and emotional reactions are examined and cited in impulse buying and online impulse buying studies. Normative evaluations are the most commonly used and researched variables in impulse buying literature (Chan et al., 2017).

Apart from these, perceived control is cited in Larose and Eastin's (2002) research. Perceived ease of use and perceived usefulness are commonly applied in online impulse buying studies (Zhang et al., 2007; Parboteeah et al., 2009; Hostler et al., 2011).

Preacher et al. (2007) suggest that the resilience of the relationship between two variables should be supported by another variable: the third variable known as moderator and it supports the structures of the model; the moderator interacts with a variable and strengthens its effects of this variable over another variable.

Baron and Kenny (1986), analyzed the moderator in order to establish whether or not there is a connection between the two variables and they illustrated a variance in direction or significance across research model.

Moderator effect tests whether or not the relation between X and Y (variables) has changed as a function of a third variable (Aiken and West, 1991). In this research, perceived control is selected as organism, which is used to moderate the relationship between independent variables (stimuli) and dependent variables (responses). This research attempts to determine whether or not perceived control strengthens the relationship between the responses.

#### **2.5.4 Response**

Bagozzi (1986), defines response as the final reaction of consumers, which includes cognitive responses, for example, attitudes and behavioral responses. According to Chan et al. (2017) the final component of S-O-R model is response, which refers to a reaction to stimulus and organism. In previous studies, the urge to buy impulsively and online impulse buying were most commonly examined two response variables.

Clearly, various variables can be adopted as the response construct in online shopping; typically these variables are related to measuring time and money spent at a store, enjoyment, and evaluations of quality of a store (Sautter, 2004).

Rook and Fisher's (1995) research suggests that capturing the true impulse buying behavior is regarded as a challenging task because participants' behaviours during self-reported surveys or an experiment tend to vary according to social manners and they hide their true feelings or opinions about the subject.

Purchase intention and urge to buy impulsively are most commonly cited response variables in impulse buying studies. However, as the Internet has become a part of our lives, other variables have emerged such as decision on online impulse buying. According to the findings of previous studies, impulse buying and urge to buy impulsively are most sought-after variables and in numerous investigations they have been studied together (Wells et al., 2011; Chan et al., 2017).

Current studies on online impulse buying constantly explore the association between environmental stimuli, consumers' cognitive and emotional reactions and the response behaviour that can comply with S-O-R framework (Sherman et al. 1997; Chan et al., 2017).

Research by Chan et al. (2017) has shown that impulsiveness has a direct influence on the urge to buy impulsively. Apart from this, hedonic consumption behaviours and hedonic shopping motivations have significant effects on buying impulsively.

The S-O-R model investigates the environmental cues (colour, lighting, layout, website design, smell, product attributes and fragrance) and their impacts on consumers' emotional and cognitive states and their response to these environmental stimuli.

Eroğlu et al. (2001) performed the S-O-R model to explore atmospheric properties of online retailing, coming to the conclusion that consumers' level of involvement and atmospheric response mediate the relationship between stimuli and responses (site revisit, money and time availability).

Zhang et al. (2018) investigated the responses of individuals toward omni-channel retailing. The S-O-R model has been implemented to examine the connection between channel integration and consumer fortification. Consumers' trust, satisfaction and their revisit intentions were used as stimulus and response. Their research has shown that consumer fortification has an important mediating effect upon consumers' positive response to channel integration.

Chan et al. (2017) contributed to online impulse buying literature by conducting an analytical examination of studies into online impulse buying and their findings identified and classified the factors that have impact on online impulse buying.

Koo and Ju (2010) explored the effect of online website stimuli upon consumers' emotions and their intentions toward online shopping. In another study, a meaningful relationship was found between web-aesthetic, online shoppers, perceived service quality and satisfaction; the research used the S-O-R framework to connect stimulus and response (Wang et al., 2010).

The S-O-R framework was used by numerous studies and different stimuli were present such as product assortment, value of merchandise, salesperson service, facilities, atmosphere and store location (Yoo et al., 1998; Mummalaneni, 2005; Chang et al., 2014). Depending on the industry, stimuli may show variations. For example, a study by Walsh et al. (2011) focused on coffee shops and they used in-store aroma, in-store music, service and merchandise quality as stimuli. In another study by Lam et al. (2011) who carried out their work in a casino, seating comfort, ambience, cleanliness and interior decor were selected as stimuli.

The S-O-R framework is frequently used in investigating impulse buying. The environmental design specifications of a retail location impact purchasers' certain favorable reactions, which influence impulse buying. This effect is driven by hedonic inspiration (Chang et al., 2011, Floh et al., 2013).

In this research, application of the S-O-R model was aimed at creating logical links between variables that may affect consumers' online impulse buying behavior. Based on the S-O-R framework, we investigate the relationships between product type, moods and level of discount and moderator effect of perceived control on stimulus and organism.

Product types (hedonic and utilitarian) are regarded as environmental stimuli. Level of discount rate (low and high) is seen as a stimulus to create a sense that the product is in short supply and it is used to test how consumers will react under pressure when they face a special discount.

Moods (negative-positive) are set as stimuli in the S-O-R model. The variables are adopted from previous studies. Veira (2013) and Goi (2014), indicate that research findings are related to the external stimuli which are insufficient to support a particular understanding of the effects of atmospheric stimuli on consumers' impulse buying behavior.

S-O-R model helps to establish a significant relationship with independent variables and dependent variables that contribute to consumer's response. For the response part, this research contains dependent variables as follows: online impulse purchase and the urge to buy impulsively.

Based on literature review and theoretical framework in previous chapters, the next chapter illustrates the research model which was developed to examine the responses. Hypothesis are developed to test the proposed model.

## **CHAPTER–3 METHODOLOGY**

### **3.1 Research Design**

#### **3.1.1 Sample**

Due to the nature of our research, we had to add constraints to enhance validity. Therefore, the age of participants should be within the legal limits of online shopping (age 18). Furthermore, all the participants were asked if they had experienced online shopping at least once. If the participant's answer was negative, survey was dropped. Three different provinces in İZMİR were selected for acquiring balanced data regarding the demographic characteristics of participants. A total of 400 respondents (50 respondents for each scenario group) were randomly assigned to the experimental conditions. Of the total 400 participants who responded to the questionnaires, 46.5% (n=186) were females, 53.5 % (n= 214) were males. 1.0% (n=4) were secondary school graduates and 11.3% (n=45) were high school graduates. 35.8% (n= 143) were university graduates, 48.8 % (n=195) were university students and 3.3 % (n= 13) had post-graduate degrees (master's and PhD degrees).

The age mean was 25,45 (SD=5.78157). While 61,2% (n=244) were 25 and below (the youngest respondent was aged 18), 126 of the respondents (31.7%) were between the ages of 26-34; 28 of them (7.2 %) were in the 35-45 age range. A total of only 2 respondents (0.6 %) were above 46. 49.3% (n=197) of the respondents reported their income levels per month to be between 0-1700 TL. 23.8% (n= 95) were in the 1701-3000 TL income level range while 16.5% (n=66) were between the range of 3001-4300 TL. 6.8% (n=27) had an income between 4301-5600 TL; 3.8% (n=15) earned 5601 TL and above.

Table 1. Demographic Characteristics of Sample

		N= 400	%
Gender	Female	186	46.5
	Male	214	53.5
Education	Secondary school	4	1.0
	High school	45	11.3
	University student	195	48.8
	Undergraduate	143	35.8
	Graduate	13	3.3
Age	26 and below	244	61.2
	26-34	126	31.7
	35-45	28	7.2
	45 and above	2	0.6
Income (Monthly)	0-1700	197	49.3
	1701-3000	95	23.8
	3001-4300	66	16.5
	4301-5600	27	6.8
	5600 and above	15	3.8

### 3.1.2 Experimental Design

Due to nature of independent variables and consumers' perceptions, an experimental design based on scenarios was preferred. This study method allows for better manipulation opportunity over the independent variables. In true experimental designs, controlled course of action and control of the conditions should be provided. Randomization is another basic feature of true experiments representing the arbitrary task of treatments to the sampling units (Rosenthal and Rosnow, 1991; Oflaç, et al., 2012)

Aguinis and Bradley (2014) suggest that EVM (experimental vignette methodology) studies observe participants in practical situations to test dependent variables such as intentions, dispositions and practices. They also allow specialists to have control over autonomous factors, a good factor for the authenticity of the test.

Experimental design takes additional time and endeavour to perform an experiment, including the creation and improvement of exploratory materials, to find the subjects who will take part in the analysis, to administer and observe the test studies and references. All these present difficulties in conducting this type of experiment by contrast with utilizing primary data or an online survey (Erlebacher, 1977).

In addition, there are concerns related to the structure of experimental designs; in the experiment, external validity is said to violate the internal validity. For instance, an experimental study design often considers students to be participants or individuals who are away from their normal environment. Therefore, researchers face with a dilemma where experimental design focuses on enhancing the internal validity but is challenged by difficulties regarding external validity.

In the literature, there exist a vast number of definitions related to vignette and most recent definition is as follows: *“a brief, carefully organized description of a person, object, or situation, symbolizing a systematic integration of characteristics”* Atzmüller and Steiner (2010). EVM can be performed in other formats rather than written format such as images, videos and other media types.

Scenario-based analyses contribute to the internal validity and help to functionalize costly or troublesome controls effortlessly by giving control over generally ungovernable factors (Lane and Keaveney, 2005; Oflaç, et al., 2012).

Vignettes have been portrayed as short guidelines of a person or a gathering that incorporate exact representations of sentiments that are thought to be the most vital components in the judgment making activities of people (Alexander and Backer 1978; Wason et al., 2002; Rungtusanatham et al., 2011).

Simulated online shopping in the form of scenarios allows participants to imagine themselves in the scene or situation to fulfill their needs from online sites and acquire realistic outcomes such as perception over online shopping or purchase habits in a hypothetical way.

Vignette-based experiment allows researchers to create scenarios and the use of this manipulated reality eliminates the challenges of observation and obstacles related with real-time field research (Leung and Su, 2004).

Oflaç et al. (2012), suggested that performing scenarios eliminates the risks such as time spent on field, ethical thoughts, undesirable events which intentionally patronize participants and unpleasant implications of real time observations. Experimental design also decreases biases and prejudices from memory lapses, rationalization of tendencies and consistency of realism.

Experimental between-subjects design is necessary to conceptualize for this study which measures and explores consumers' online impulse purchase behaviours and urge to purchase impulsively. Therefore, vignette-based scenarios have been developed to simulate the online setting (external stimulus) and manipulate the consumers' internal stimuli.

Scenarios were placed in questionnaires and participants were requested to envision themselves in the circumstances portrayed at that point to fulfill following questions which are related to impulse purchase and the urge to purchase.

To measure the effect of independent variables, a between-subject experimental design, fixed effects 2x2x2 factorial method was conducted (positive mood versus negative mood x hedonic product versus utilitarian product x low level of discount versus high level of discount). Factorial design was preferred to explore the main attributes and effects of independent variables and to investigate all the possible combinations of the independent variables to explore the effects of stimuli.

### **3.1.3 Operationalization of Independent Variables**

#### **3.1.3.1. Moods**

In the literature, researchers tend to explore and improve the understanding of online impulse purchase in terms of how positive and negative effects influence purchasing decisions. Éthier et al. (2008) addresses the issue of the limited amount of scientific research on emotion states in online buying circumstances. The literature presents very little knowledge about the emotion situations that are likely to occur on online shopping trips, the circumstances leading to their formation, and their influence on behaviors.

Cognitive perception or mood states not only produce many distinct emotions but also indicate the specific conditions for their existence such as hope, joy, relief, pride or liking versus fear, sadness, disgust and anger.

Rook and Gardner (1993), investigated the effects of mood states on impulse buying. Their findings suggest that each of the three basic emotion proportions - pleasure, arousal and dominance - are related to a core theme that supports or deter consumers' impulsive purchasing behaviour. Therefore, Rook and Gardner (1993) suggest that pleasure is related to the motivation of consumer, arousal has influence on stimulation and dominance is related to ability.

Furthermore, Rook and Gardener (1993) state that emotional situations are enough to regulate consumers behaviour about consumption. They are motivated by a process of action, or they are empowered by a subjective ability to do so, which increases the likelihood of establishing a psychological relationship. Positive and negative emotions can motivate or reduce consumers' purchasing decisions.

Online browsing or surfing may influence the mood states of consumers while they are online. Previous studies suggest that browsing has a positive effect on consumers' mood. Research findings indicate that respondents who show a positive temperament will be more prone to impulse buying than the ones with a negative state of mind. On the other hand, impacts of negative emotional state on buyers behaviour is still unclear.

Positive and negative influencers are considered to be two independent essential feelings that are worldwide in gender and age groups and can be found in all societies (Verhagen and Dolen, 2011). Definition of positive mood can be considered as to joy, excitement and inspiration. Negative mood definition involves feelings such as personal stress, anger and discomfort.

Merchandise attractiveness, hedonic motivation, interesting offers and product range have influences on consumers' emotional state, furthermore, the literature supports the fact that special offers in an online setting are linked to positive moods such as excitement. Furthermore, good product selection will lead to a reduction of negative emotions such as irritation (Verhagen and Dolen, 2011).

Nicolai et al. (2016) suggest that consumers' impulse purchase mechanism helps to cope with negative effects. Therefore, when mood is negative this feeling may lead to generation of extreme buying.

Prior studies have already explored the relationship between mood and emotional states in the context of impulse buying. For instance, Rook (1987) explains that impulse purchase is incorporated with hedonic complex. Beatty and Ferrell (1998) claim that positive mood eases impulse buying decision.

Furthermore, Rook and Gardner (1993) have revealed that positive emotional states such as energy and negative emotional states like misery are related and have an impact on impulse buying. As Verplanken (2005) described, there is a connection between impulse buying and negative emotional states in this manner; impulse buying may serve as an escape component from negative.

According to psychological studies, the possibility of a consumer to display "approach behavior" rather than "avoidance behavior" is designated according to consumers' current mood state. People who are in a good or positive mood has more chance to give themselves higher rewards. Rewarding themselves is a mechanism to maintain or keep up their positive mood (Murray et al., 2010)

Rook and Gardner (1993) found that 85% of their participants find positive mood to be more conducive to impulsive buying as opposed to negative mood. Research also shows that participants who are in a positive mood are more willing to reward themselves as they feel more free and energetic.

Positive mood is likely to trigger a snowball effect of impulse buying. People experiencing positive emotions have a greater chance to engage in impulsive buying and are more likely to feel a greater urge to purchase. Therefore, this relationship between mood and buying decision acts as a domino effect; when the consumer is in a good mood he or she will perform impulse buying and the effect of impulsive buying will create good mood, which will eventually lead to an increase in impulse buying.

Beatty and Ferrell (1998), report that depression may play a pivotal role in impulse buying. Moreover, if depression is at an advanced stage, it may lead to more impulse buying as escape mechanism.

Palmer et al. (2001) suggest that impulse buying always occur in an effort either to momentarily rehabilitate or to boost one's current emotional state. Therefore, people will purchase impulsively when they are depressed to give themselves a temporary boost or self-reward. Their findings report that people who experience a positive as well as negative mood will be eager to boost or increase their emotional state by buying on impulse.

Individuals buy self-gifts when they are in a negative mood or have unpleasant emotions with a view towards altering their disposition or escaping from it (Mick and Demoss 1990). Rook and Gardner (1993) describe that their probability to purchase something impulsively would be high when they look with a negative temperament.

One of most recent studies has found that doing shopping diminishes the feelings of pity and sadness which have negative effects (Rick et al. 2014). Furthermore, according to Impulse buying is performed as an escape mechanism from negative emotions. Therefore, impulse buying practices ought to be more typical among buyers who constantly harbour negative feelings (Lucas and Koff, 2017).

Impulse buying, considered to be fun and trendy to elevate mood, may be directly related with a positive effect. However, some researchers such as Verplanken et al. (2005) claim otherwise and suggest that negative mood or states are the driving factors for chronic impulse buying rather than positive aspects. Taking everything into account, impulse buying is an escape instrument from negative mental states; negative influences ought to be connected with permanent impulse buying practice.

Researchers suggest that unhappy individuals will probably be more inclined or willing to engage in impulsive buying activity. Assumptions like this are supported by research findings which indicate that impulse buying can work as an instrument that helps to escape from negative mental states (Verplanken et al., 2005; Vohs and Faber, 2007; Silvera et al., 2008).

Sneath et al. (2009) suggest that individuals under negative circumstances are inclined to make procurements that are seen as a self-gift or reward. In this way, impulse buying could be a sane reaction of individuals endeavouring to diminish the negative impacts of melancholy connected with unpleasant occasions.

Sadness, more than any other emotional state, is related with an inadequacy in personal control over one's mental state (Baumeister, 2002). People who are sad especially likely to view results as directed by situational forces and possibility, rather than their own actions (Rick et al., 2014). Shopping may restore the perceived control of an individual and therefore, minimize the effects of perceived sadness.

In the measurement of moods, various kinds of techniques have been used. However, due to lack of studies on scenario-based mood types, we could not modify an existing scenario. Therefore, we carefully analyzed normal life situations to create a replica of the moods: positive and negative. Apart from modeling and scripts of scenarios, mood manipulations were extracted from studies in the literature (Hill and Ward, 1989; Éthier et al., 2008).

Ethier et al. (2008) subcategorized the moods and claimed that a variation in the way a situation is appraised will lead to a change in the ensuing emotion(s). While viewing between-subjects experiments in terms of moods, we used joy and excitement as positive mood states; on the other hand, negative mood state involved distress and frustrations. Due to validity issues, mood scenarios were conducted on the basis of daily life experiences and expectations.

The moods manipulations used in this study are as follows:

***Positive Mood***

*After a busy week, you start your day with breakfast on a sunny Sunday with your close friends. After breakfast, you go to the cinema with your friends and watch a comedy film, and then you go back home.*

***Negative Mood***

*You could not wake up early on a Monday morning and you failed to attend an important meeting because the weather was rainy. After work, you got caught in traffic on a busy road.*

**3.1.3.2 Product type**

In their daily life, consumers have to make trade-offs when they decide to purchase an item or service, which leads them to make a choice between utilitarian and hedonic products. Lu et al. (2016) suggest that consumers feel more guilt when they commit impulsive hedonic consumption than utilitarian consumption. There is a dilemma for

every consumer's selection between necessities and luxuries or selection between high-end and low-end products.

Boone and Kurtz (1999) state that items can be divided into four distinct categories: specialty items (luxury items), unsought items (life insurance), convenient items (impulsive items) and shopping items (branded items). Additionally, according to Boone and Kurtz (1999) impulse products encompass products that are bought on the spot suddenly and without consideration; of the other item divisions, they are the shopping items that best fit the description of impulse products.

May and Irmak (2014) suggest that utilitarian and hedonic products have distinct features which are considered to have utilitarian attributes that provide instrumental, functional or practical benefits. On the other hand, hedonic items are distinguished by sensations or experiences from using the products. For instance, there are several ways to entertain a person such as obtaining knowledge by watching a documentary or having fun by watching a comedy movie. In this example, the documentary has utilitarian motives whereas the comedy movie has hedonic motives.

Preference inducements are unstable while making a choice between a utilitarian and hedonic product. Consumers will get either hedonic or utilitarian benefit from the product which they prefer. Voss et al. (2003) define utilitarian products as effective, helpful, functional, necessary and practical; on the other hand, hedonic products refer to fun, excitement, thrill and enjoyment.

Past studies illustrated that the hedonic-utilitarian separation does not only apply to products. Some product lines have both utilitarian and hedonic attributes. For example, according to Chernev (2004) a pair of sport shoes has utilitarian attributes in terms of its functions, thereby enhancing the performance.

Furthermore, this item also has hedonic attributes; using famous brand-named shoes provides excitement and joy. Additionally, whether an item is utilitarian or hedonic is determined by its distinct features.

Kivetz and Simonson (2002) find that utilitarian consumption habits are considered to arise from necessity, whereas hedonic consumption habits are associated with luxury. Therefore, benefits of utilitarian products are more functional and practical than hedonic

ones. Additionally, researchers state that getting involved in or even considering hedonic consumption triggers more guilt than committing or considering utilitarian consumption. Lu et al. (2016) conduct a study where utilitarian and hedonic products were manipulated either through product attributes of similar products or via those of different products. They conducted two separate studies to explore these hypotheses. Their first study was designed to examine whether consumers purchasing or picking products for others were more likely to perform hedonic consumption than the ones purchasing or picking for themselves. The study conduct by four pairs of products with hedonic and utilitarian attributes. Each item had inferior and superior features in terms of hedonic and utilitarian attributes. Their findings indicated that expected guilt influenced by hedonic consumption was less for consumers who purchased or picked the item for others than for those who purchased or picked it for themselves. Furthermore, considerations for utilitarian and hedonic products depended on decision targets.

Yu and Bastin (2010) suggest that the majority of studies focus on utilitarian aspects or utilitarian products during the last several decades. Previous works have described utilitarian products or aspects as task-oriented and choices of rational consumers. Purchasing utilitarian products denotes efficient and perfunctory manners. In contrast, hedonic products have more personal, subjective and experiential nature. Researchers have found that hedonic products or attributes lead individuals to commit impulse purchase.

Park et al. (2006) suggest that there is an association between hedonic products and impulse buying behaviour. Customers most probably perform impulse purchase when they are propelled by hedonic products or by non-financial reasons, for example, fun, dream, and social or passionate satisfaction. Their findings demonstrate that hedonic product utilization has an direct impact on impulse buying practice. Hence, fashion oriented consumers can be said to be joy and satisfaction seekers.

Consumers measure shopping experiences with two dimensions which represent how valuable the time spent during shopping is. Utilitarian attributes or values refer to instrumental benefits of shopping such as purchasing necessities whereas hedonic attributes or values refer to more experiential benefits which originate from shopping itself such as fun and joy. Their research suggests that consumers who have task orientation are

more likely to be related positively to utilitarian products; however, consumers who have pleasure orientation are more likely to be related to hedonic products (Babin and Darden 1995).

Babin et al. (1994) suggest that distinction between utilitarian and hedonic values is orientation, performing an act to get something rather than doing it because you love it. Consumers can obtain rewards while performing shopping such as monetary awards, discounts from utilitarian shopping, but they can also obtain personal rewards such as emotional satisfaction, joy and relief from stress by performing hedonic shopping.

Kempf (1999) conducted an experiment that examined the relationship between affective and cognitive aspects in product trials. Stimuli were selected according to the nature of products, computer games (hedonic) and grammar-checking software (utilitarian). The associated level and effects of affective and cognitive aspects on a product trial illustrated significant difference depending on the product type. Furthermore, arousal effects were greater for the hedonic products than the utilitarian products.

Hedonic aspects are the primary elements that influence impulse buying in online bookstores. Additionally, consumers' purchasing decisions are not only affected by monetary values of products but also by other factors such as amusement and surprise (Muruganatham and Bhakat 2013).

Dhar and Wertenbroch (2000) suggest that consumers' choice while they are exposed to hedonic and utilitarian products is influenced by the decision making process. Individuals' purchase decisions are influenced by utilitarian and hedonic aspects. For instance, while purchasing a new vehicle, consumers may consider the utilitarian values like fuel efficiency as well as the hedonic values like stylish design. Another example would be a consumer who is choosing between two apartments. One of the apartment has a great view, but the other one is at a shorter travel distance to work. Apartment view is selected as a hedonic item and short distance to work is selected as a utilitarian product.

Dhar and Wertenbroch (2000) conceptualized several experiment designs in their research paper. The stimulus in the first experiment was a gift card worth of 7\$, which can be used for two items: an audio tape or a 10-pack brand-name computer disk. In the second experiment, selected items were M&M chocolate candies and a UHU glue stick. Furthermore, each item's price was the same or close to each other to deter bias and

favorable situations. Finally, in the third experiment, items were apartments (distance to work versus great view), coworkers (reliable versus arrogant), college lunch plans (walk distance to cafeteria versus restaurant with dessert) and shampoos (cleansing efficacy versus softness of hair).

In between-subjects experimental design dental care set used as utilitarian product where perfume used as hedonic product. Due to validity issues, product types were selected on the basis of daily life experiences and expectations.

The product type manipulations used in this study are as follows:

#### **Utilitarian Product**

*The Diamond dental care kit provides a comprehensive care for dental and oral health. Dental care set is composed of a toothpaste, a toothbrush, a mouthwash, a mouth care spray and a dental floss.*

#### **Hedonic Product**

*A luxurious and a very special fragrance, Summer Spirit is a perfume blended with pleasant aromas that make you feel safe all day long.*

#### **3.1.3.3 Level of discount**

In previous studies, price discounts and bonus packs were the most extensively used sale promotion tactics which can be modified for both online and offline research (Dawson and Kim, 2009). Price discounts represent the price-based sales tactics where consumers pay less for the offered product whereas bonus packs refers to quantity-based promotion tactics where consumers acquire more of the offered products for the same price (Mishra and Mishra, 2011).

Diamond (1992) discovered that consumers evaluate bonus packs more favorably than they do price discounts in an offline setting. Additionally, consumers approach more positively to bonus packs because their way of thinking views bonus packs as a profit whereas price discount is seen as a loss. When marketers offer a bonus pack, customers tend to believe that they obtain some product “free” for the same offered price.

Xu and Huang (2014) investigated the effects of two kinds of sales promotion - price discount and bonus packs on online impulse buying. Previous studies suggest that bonus packs have greater influence than price discounts on brick and mortar store shopping. Thus research findings indicate that price discount has a greater effect on online impulse

buying intention than bonus packs when the item is hedonic and bonus pack is more effective when the item is utilitarian.

Xu and Huang (2014) state that advantages that exist in an offline setting for bonus pack would decrease and even become a less desirable feature in an online setting. Therefore, consumers who engage in online shopping are more price-sensitive in terms of availability of low search cost and features to compare various prices in ease. Second, application of bonus pack in an online setting is more challenging than offering price discount; discount pack offers are more difficult and time consuming for the website consumers.

Mishra and Mishra (2011) suggest that if consumers accept the risks of online shopping transactions, they become suspicious more of bonus pack benefits than of price discounts because the monetary benefits relevant to bonus pack is uncertain.

Previous studies stated that influence of sales promotions on online impulse buying is related with product value, whether it is inexpensive or expensive. Additionally, website shoppers assume that inexpensive products offer fewer cost savings whereas expensive ones provide greater cost savings (Muruganatham, and Bhakat, 2013).

Online shoppers may struggle because of money limitations, thus being unable to purchase products on impulse. They are more likely to favour price discount offers to bonus pack ones, paying less for the same product rather than the same price for more of the product. Monroe and Suri (2003) state that any price lower than the original price is perceived as low or cheap, and the prices higher than the original price are considered to be high or expensive. Therefore, reference or the original price has essential consequences for purchase consideration.

Rao and Monroe (1989) show reveal that there is a positive relationship between product quality and product perception: consumers' assume that there is a relationship between the product price and its quality; bonus pack offers decrease the perceived product quality of the product which has a discounted price.

Tversky and Kahneman (1981) conducted an experiment on the effects of mental accounts and their possibility to make the purchase, utilizing the following experimental situations; *Scenario A: Imagine that you are going to make a purchase for a jacket which costs \$125 and a calculator for \$15. The salesperson warns you that the calculator you consider purchasing is on sale for \$10 at the other branch of the store, which is located a 20-minute*

*drive away. Would you make the trip to the other store to purchase the calculator? (Yes; 68%)*

*Scenario B: Imagine that you are going to make a purchase for a jacket which costs \$125 and a calculator for \$15. The salesperson warns you that the jacket you consider purchasing is on sale for \$120 at the other branch of the store, which is located a 20-minute drive away.*

*Would you make the trip to the other store to purchase the jacket? (Yes; 68%)*

In these two scenarios, the alternative is whether to drive to the other branch of the store to reduce the cost by 5\$ on a total purchase of 140\$. Tversky and Kahneman (1981) conceptualized the results of the experiment by the development of mental accounts: the respondents in each setting established a mental account that contains the price of the calculator and the potential saving of \$5. Because of the descending sensitivity in the value function, the respondents consider the \$5 saving more over a \$15 calculator than over a \$125 jacket.

Sheng et al. (2009) conducted an experiment that investigates the influence of price discounts on consumer assessment of the discounted product in a bundle, using the following experimental scenarios;

They conducted a 2 (low and high price discount) x 2 (product complementarity low versus high) between-subject experimental design. Low price discount was assigned as 10 percent off the sum of the original price, whereas high price discount was assigned as 30 percent.

*A washing machine (\$400) and a dryer (\$400) include the high-complementarity bundle, whereas a grill (\$90) and a task chair (\$60) include the low-complementarity bundle. The manipulated version is: "Buy the washing machine at \$400 and the dryer at \$320 as a bundle." The grill-task chair bundle was manipulated as: "Buy the grill at \$90 and the task chair at \$45 as a bundle." For high level of price discount, the prices of the dryer and the task chair were discounted at \$160 and \$15, respectively.*

Consumers seem to answer more to perceived variations than to the absolute values. Thus, consumers considered gains or losses associated with reference values (Sheng et al., 2009).

In between-subjects experimental design, we used 10% as low level of discount; on the other hand, 30% used as high level of discount. Due to validity issues, level of discount were selected on the basis of daily life experiences and expectations.

The levels of discount manipulations used in this study are as follows:

#### **Low Level of Discount**

*While you are browsing the Internet, discount notifications of a website which you already use for shopping attract your attention. When you enter the website to find out the details to earn a shopping discount of 10%, you learn that you need to spend 100TL to earn the discount.*

#### **High Level of Discount**

*While you are browsing the Internet, discount notifications of a website which you already use for shopping has attracted your attention. When you enter the website to find out the details to earn a shopping discount of 30%, you learn that you need to spend 100TL to earn the discount.*

#### **3.1.4 Stimulus Materials**

Hedonic and utilitarian product types were selected as stimuli; these product lines attract the attention of consumers. Perfume was selected as a hedonic product due its unisex nature; both men and women may purchase this item. Dental care set was chosen to support utilitarian purchase behaviours. Due to the price range in dental care products, we added 5 items to roll up the price up to perfume's. It was assumed that each item was 100 TLs.

Since we need to manipulate individuals' cognitive state for this reason, we selected the mood states: negative state and positive state. These states were manipulated by ordinary life situations. We were concerned about ethical issues. For this reasons traffic jam, monday syndrome and trouble at work were used for negative moods and comedy movie, barbeque with friends and sunday vibes were used for positive moods.

The last stimulus was the level of discount; low level and high level of discount were selected because we tried to examine the effects of two levels of discount. 10% was assigned as a low level of discount and 30% was assigned as a high level of discount.

### **3.1.4.1 Scenarios**

#### **Scenario 1**

##### **Utilitarian – Low level of Discount – Positive Mood**

*After a busy working week, you start your day with breakfast on a sunny Sunday with your close friends. After breakfast, you go to the cinema with your friends and watch a comedy film and then you go back home.*

*While you are browsing the Internet, discount notifications of a website which you already use for shopping attract your attention. When you enter the website to find out the details to earn a shopping discount of 10%, you learn that you need to spend 100TL to earn the discount.*

*The Diamond dental care kit provides a comprehensive care with basic care for dental and oral health. Dental care set is composed of a toothpaste, a toothbrush, a mouthwash, a mouth care spray and a dental floss.*

#### **Scenario 2**

##### **Utilitarian – High level of Discount – Negative Mood**

*You could not wake up early on a Monday morning and you failed to attend an important meeting because the weather was rainy. After work, you got caught in traffic on a busy road.*

*While you are browsing the Internet, discount notifications of a website which you already use for shopping has attracted your attention. When you enter the website to find out the details to earn a shopping discount of 30%, you learn that you need to spend 100TL to earn the discount.*

*The Diamond dental care kit provides a comprehensive care for dental and oral health. Dental care set is composed of a toothpaste, a toothbrush, a mouthwash, a mouth care spray and a dental floss.*

#### **Scenario 3**

##### **Utilitarian-High level of Discount –Negative Mood**

*You could not wake up early on a Monday morning and you failed to attend an important meeting because the weather was rainy. After work, you got caught in traffic on a busy road.*

*While you are browsing the Internet, discount notifications of a website which you already use for shopping has attracted your attention. When you enter the website to find out the details to earn a shopping discount of 30%, you learn that you need to spend 100TL to earn the discount.*

*The Diamond dental care kit provides a comprehensive care for dental and oral health. Dental care set is composed of a toothpaste, a toothbrush, a mouthwash, a mouth care spray and a dental floss.*

#### **Scenario 4**

##### **Hedonic-Low level of Discount- Negative Mood**

*You could not wake up early on a monday morning and you failed to attend an important meeting because the weather was rainy. After work, you got caught in traffic on a busy road.*

*While you are browsing the Internet, discount notifications of a website which you already use for shopping attract your attention. When you enter the website to find out the details to earn a shopping discount of 10%, you learn that you need to spend 100TL to earn the discount.*

*A luxurious and a very special fragrance, Summer Spirit is a perfume blended with pleasant aromas that make you feel safe all day long.*

#### **Scenario 5**

##### **Hedonic-Low level of Discount – Positive Mood**

*After a busy working week, you start your day with breakfast on a sunny sunday with your close friends. After breakfast, you go to the cinema with your friends and watch a comedy film and then you go back home.*

*While you are browsing the Internet, discount notifications of a website which you already use for shopping attract your attention. When you enter the website to find out the details to earn a shopping discount of 10%, you learn that you need to spend 100TL to earn the discount.*

*A luxurious and a very special fragrance, Summer Spirit is a perfume blended with pleasant aromas that make you feel safe all day long.*

## **Scenario 6**

### **Hedonic-High level of Discount –Negative Mood**

*You could not wake up early on a monday morning and you failed to attend an important meeting because the weather was rainy. After work, you got caught in traffic on a busy road.*

*While you are browsing the Internet, discount notifications of a website which you already use for shopping has attracted your attention. When you enter the website to find out the details to earn a shopping discount of 30%, you learn that you need to spend 100TL to earn the discount.*

*A luxurious and a very special fragrance, Summer Spirit is a perfume blended with pleasant aromas that make you feel safe all day long.*

## **Scenario 7**

### **Utilitarian-High level of Discount –Positive Mood**

*After a busy working week, you start your day with breakfast on a sunny sunday with your close friends. After breakfast, you go to the cinema with your friends and watch a comedy film and then you go back home.*

*While you are browsing the Internet, discount notifications of a website which you already use for shopping has attracted your attention. When you enter the website to find out the details to earn a shopping discount of 30%, you learn that you need to spend 100TL to earn the discount.*

*The Diamond dental care kit provides a comprehensive care for dental and oral health. Dental care set is composed of a toothpaste, a toothbrush, a mouthwash, a mouth care spray and a dental floss.*

## **Scenario 8**

### **Hedonic – High level of Discount – Positive Mood**

*After a busy working week, you start your day with breakfast on a sunny sunday with your close friends. After breakfast, you go to the cinema with your friends and watch a comedy film and then you go back home.*

*While you are browsing the Internet, discount notifications of a website which you already use for shopping has attracted your attention. When you enter the website to find out the*

*details to earn a shopping discount of 30%, you learn that you need to spend 100TL to earn the discount.*

*A luxurious and a very special fragrance, Summer Spirit is a perfume blended with pleasant aromas that make you feel safe all day long.*

### **3.1.5 Procedures**

400 participants (50x8) for the main study and 40 individuals for the pilot test voluntarily completed the questionnaires. Convenience sampling was used due to its nature and advantages. Convenience sampling is a non-random sampling where the participants of a target population fulfill certain criteria such as easy accessibility, geographical advantage, and availability at a given time, or the willingness to participate (Etikan, et al. 2016). Before conducting the pilot test and main tests, proficient sentiments were taken and a pre-test was directed in gatherings of 10 participants for translating and checking for legitimacy and authenticity.

Due to the nature of the between-subjects experimental design, each participant took only one scenario set out of 8 distinct scenarios; this procedure was the same for the main test, pre-test and manipulation checks.

Between-subjects experimental design was conducted for its capacity to manipulate internal validity and maintain external validity. Therefore, the pre-test conducted for the between-subjects experimental design with a sample size of 40 (5 set for each scenario group) include the same participant group of the main test. Participants were selected randomly and assigned to the groups. Manipulation checks for independent variables (mood, product type and level of discount) were conducted separately from the main test group to avoid bias and wrongful manipulation. Manipulation test was conducted to validate the realism of independent variables and written scripts.

The experiment was conducted in 2x2x2 (utilitarian versus hedonic x low level of discount versus high level of discount x positive mood versus negative mood) between subjects design. At the beginning of the test, participants were asked to imagine themselves in the given situations and they were asked to participate in the questionnaires after they read the scripts. Each independent variable script was separated according to their content and each participant faced only one level of variable such as negative mood or low level of discount. 16 distinct groups were created to avoid bias and in total 180 participants were

involved in the manipulation check. This way, the across-measure correlational systematic error level was reduced.

### 3.2 Research Model and Hypotheses

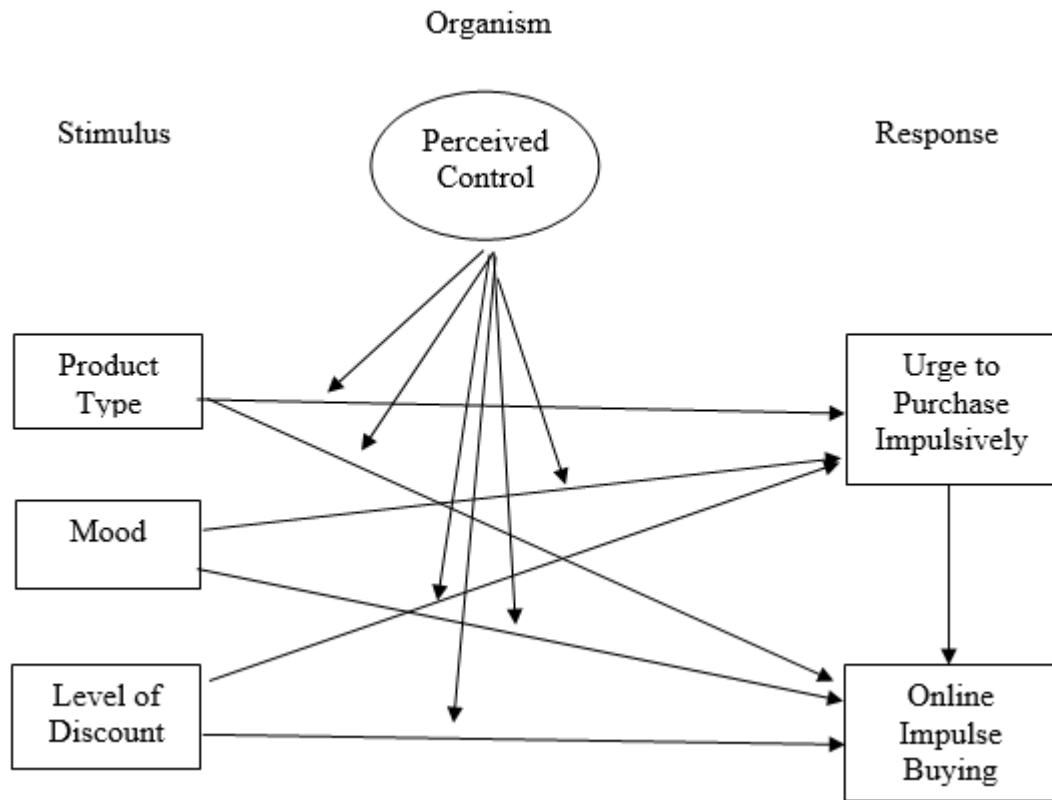


Figure 1. Research Model

As the model illustrates, product types, mood and level of discount might have an effect on the urge to purchase impulsively and online impulse buying. The model suggests that perceived control is likely to moderate the relationship between independent variables and dependent. Based on research questions, hypotheses are tested. The theoretical backgrounds and the hypothesis development processes were explained in the previous chapters.

Hypotheses are explained and summarized as follows;

.....In an online setting,

**H1:** The urge to purchase impulsively is likely to be higher among consumers who are exposed to hedonic products compared to those exposed to utilitarian products.

**H2:** Online impulse buying is likely to be higher among consumers who are exposed to hedonic products compared to those exposed to utilitarian products.

**H3:** The urge to buy impulsively is likely to be higher among consumers who are exposed to high levels of discount compared to those exposed to low levels of discount.

**H4:** Online impulse buying is likely to be higher among consumers who are exposed to high levels of discount compared to those exposed to low levels of discount.

**H5:** The urge to purchase impulsively is likely to be higher among consumers with positive moods compared to those with negative moods.

**H6:** Online impulse buying is likely to be higher among consumers with positive moods compared to those with negative moods.

**H7:** In a positive mood state, consumers exposed to hedonic products should have more urge to purchase impulsively compared to those exposed to utilitarian products.

**H8:** In a positive mood state, consumers exposed to hedonic products should perform more online impulse buying compared to those exposed to utilitarian products.

**H9:** In a positive mood state, consumers who are offered high levels of discount should have more urge to purchase impulsively compared to those offered low levels of discount.

**H10:** In a positive mood state, consumers who are offered high levels of discount should perform more online impulse buying compared to those offered low levels of discount.

**H11:** In a situation where there is a high level of discount, consumers exposed to utilitarian products should have more urge to purchase impulsively compared to those exposed to hedonic products.

**H12:** In a situation where there is a high level of discount, consumers exposed to utilitarian products should perform more online impulse buying compared to those exposed to hedonic products.

**H13.** Perceived control moderates the effects of utilitarian products on the urge to purchase impulsively.

**H14.** Perceived control moderates the effects of utilitarian products on online impulse buying.

**H15.** Perceived control moderates the effects of positive mood on the urge to purchase impulsively.

**H16.** Perceived control moderates the effects of positive mood on online impulse buying.

**H17.** Perceived control moderates the effects of high levels of discount on the urge to purchase impulsively.

**H18.** Perceived control moderates the effects of high levels of discount on online impulse buying.

**H19:** The urge to purchase impulsively has a positive impact on online impulse buying.

### **3.3. Manipulation Checks and Preliminary Research**

Before testing the hypotheses, the primary assignment to check the manipulations of the independent variables in the scripts was successful. Product-related factors were manipulated through the features of the items which were selected to represent hedonic and utilitarian nature. Furthermore, discount relevant cues were manipulated through the distinct levels of discount which were selected to embody two levels of discount (10% and 30%). Finally, mood related cues were manipulated through the pictured scene on the scripts.

The subjects were exposed to one of the six scripts: the first two contained one of the mood cues such as negative mood or positive mood; the third and fourth included one of the discount levels such as low level of discount or high level of discount and finally, the last two contained one of the product cues such as hedonic or utilitarian.

Conducting manipulation checks in an experimental design allows researchers to take precautions against validity violations. In order to secure validity, it is vital to obtain the categorical independent variables which can be indirectly measured by manipulating some parts of the participants' environment.

Achieving substantial realism makes the main test meaningful and demonstrate that scripts were carefully conducted in terms of meaning and wording. In table 2, the manipulation checks for independent variables are shown (product type, moods and level of discount).

Table 2. Manipulation Levels

Levels	Mood Manipulations
<b>Positive Mood</b>	After a busy working week, you start your day with breakfast on a sunny <u>sunday</u> with your close friends. After breakfast, you go to the cinema with your friends and watch a comedy film and then you go back home.
<b>Negative Mood</b>	You could not wake up early on a <u>monday</u> morning and you failed to attend an important meeting because the weather was rainy. After work, you got caught in traffic on a busy road.
	<b>Product Type Manipulations</b>
<b>Utilitarian Product</b>	<i>The Diamond</i> dental care kit provides a comprehensive care for dental and oral health. Dental care set is composed of a toothpaste, a toothbrush, a mouthwash, a mouth care spray and a dental floss.
<b>Hedonic Product</b>	A luxurious and a very special fragrance, <i>Summer Spirit</i> is a perfume blended with pleasant aromas that make you feel safe all day long.

	<b>Discount Rate Manipulations</b>
<b>Low Discount Level</b>	While you are browsing the Internet, discount notifications of a website which you already use for shopping attract your attention. When you enter the website to find out the details to earn a shopping discount of 10%, you learn that you need to spend 100TL to earn the discount.
<b>High Discount Level</b>	While you are browsing the Internet, discount notifications of a website which you already use for shopping has attracted your attention. When you enter the website to find out the details to earn a shopping discount of 30%, you learn that you need to spend 100TL to earn the discount.

### **3.3.1. Manipulation Checks for Moods and Realism**

Manipulation checks were the first step of our experimental design; during manipulation checks, significant differences were inspected. We examined whether there were significant differences between participants faced mood-related scenarios.

Participants were exposed to scenarios where they were supposed to give a response to our mood-related independent variables. “I feel that the person in this situation will be in a positive mood”. This premise was used for both mood states and mood-related scenarios were tested on 60 participants (30 participants for each mood state)

Moreover, due to validation of realism, each scenario was tested with an item and evaluated by the same participants who were exposed to mood state scenarios “I believe that such things can happen in real life”. All the test items were rated by 5 point Likert scale.

Table 3. Descriptive Statistics for Mood Manipulation

	One-Sample t test	N	Mean	Std	Significance test
I feel that the person in this situation will be in a positive mood.	PM	30	4.66	.479	p=.000
	NM	30	1.68	.909	P=.000
	Total	60	1.65	.161	P=.000

Two distinct scenarios were given to participants where each person was exposed to one mood-related scenario. Mood related scenarios were created by considering the daily life problems and we manipulated an ordinary stage for every participant. Based on the result, (M= 4.66) the majority of the participants believed that the scenario they were exposed to stressed positive state. For the negative mood, a same scenario was developed and participants were exposed to a daily life problem and then the test validity with the same item was secured with (M= 1.68).

Table 4. Descriptive Statistics for Reality

	One- Sample t test	N	Mean	Std.	Significance Test
I believe that such things can happen in real life.	PM	30	4.46	.885	P=.000
	NM	30	4.07	.944	P=.000

Reality check for the scenarios were evaluated by participants to rate the likelihood that a familiar situation would occur to someone in real life; 5-point Likert scale was applied (1=completely disagree to 5= completely agree) Participants perceived the realism of the scenarios (M= 4.46 and 4.07, N= 60, P >0.05) as highly realistic, ensuring ecological and social validity. Furthermore no significant difference for realism check was found. Test results were in 95% confident zone. In view of these outcomes, it is thought that the realism process for this investigation was substantial as there was no dramatic contrast between these six distinct experimental groups.

### 3.3.2 Manipulation Checks for Level of Discount and Realism

To test the level of discount manipulation checks, “I believe the amount of discount is low” statement was rated with 5-point Likert scale. The same item was asked and conducted for low level of discount and high level of discount to convert the outcome into a single format.

These scenarios were tested for between-subjects on 60 respondents (30 respondents for each independent variable). In this check, the main idea was to decide whether the discount levels were accurate. The low level of discount was represented with 10% discount and the high level of discount was represented with 30% discount, which were adopted from Sheng, et al. (2009).

Table 5. Descriptive Statistics for Level of Discount Manipulation

	One-Sample t test	N	Mean	Std.	Significance Test
I believe the amount of discount is low.	LD	30	4.43	.504	P=.000
	HD	30	1.43	.626	P=.000
	Total	60	2.86	.747	P=.000

Results shows that there was no significant difference between the scenarios. 10% was defined as a low discount rate and the participants were evaluated (M= 4.43 SD .504, p=.000). Since the significance of this test validates the relationship between discount was acceptable as low discount study was valid. 30% was assigned as a high discount and results were (M= 1.43 SD .626 , p=.000).

30 participants faced the high discount rate scenario and responded to the following statement: “I believe the amount of discount is low.” To secure the validity of the research, the same questions were used to collect data. The 5-point Likert scale used in this case proved that 30% discount rate was not low. The significance of this test validates the fact that the discount was acceptable as a high discount.

Table 6. Descriptive Statistics for Reality

	One-Sample t	N	Mean	Std.	Significance Test
I believe that such things can happen in real life	HD	30	4.33	.711	P=.000
	LD	30	4.40	.156	P=.000

Reality check for the scenarios were evaluated by participants to rate the likelihood that a familiar situation would occur to someone in real life. 5-point Likert scale was applied (1=completely disagree to 5= completely agree). The participants perceived the scenarios (M= 4.33 and 4.40, N= 60, P >0.05) as highly realistic, ensuring ecological and social validity. Furthermore no significant difference for realism check was found and the test results were in 95% confident interval.

### 3.3.3. Manipulation Checks for Product Types

To conduct the product type manipulation checks, “I believe this product is a hedonic product” and “I believe this product is a utilitarian product” statements were used. The

participants were provided with a brief definition of the terms; hedonic and utilitarian at the beginning of the questionnaires.

These scenarios were tested for between-subjects on 60 respondents (30 respondents for each item). The perfume was selected as a hedonic item and the dental care set was selected as a utilitarian item.

Table 7. Descriptive Statistics for Hedonic item Manipulation

	Paired Sample Test	N	Mean	Std	Significance test
I believe this product is a hedonic product	H	30	4.40	.498	P=.000
I believe this product is a utilitarian product	U	30	1.86	.819	P=.000

As a result, the majority (M= 4.40) of the participants believed that perfume is a hedonic item. Based on these results, it is concluded that the discount rates were valid as there was no significant difference between these experiment groups (Hedonic-Utilitarian). The participants validated the fact that the perfume is a hedonic item.

Table 8. Descriptive Statistics for Utilitarian item Manipulation

	Paired Sample Test	N	Mean	Std	Significance test
I believe this product is a hedonic product	H	30	1.83	.874	P=.000
I believe this product is an utilitarian product	U	30	4.37	.765	P=.000

The validity of the utilitarian item evaluated by the participants showed the likelihood that an item falls into utilitarian category. Dental care kit was selected as a utilitarian product. Participants were tested who took part in a scenario-based experiment (M= 4.37 SD .765). No significant difference was found and the validity of the utilitarian product showed conformity.

The findings of the preliminary data analysis were promising. The outcomes additionally support the discoveries from the manipulation checks. From the discoveries, independent variables were approved in terms of interaction and realism. In the following chapter, the strategies utilized for the data examination are discussed.

### 3.4 Confirmatory Factor Analysis

To assess the model, the auxiliary advances were utilized (Segars, 1997). Exact estimation of fundamentally complex constructs provides a conceivably capable means for empirical investigation of connections between information technology and individuals, organizational, and industrial wonders (Segars, 1997).

Nunnally (1978) suggests that items within a measure are useful only to the extent that they share a common core attribute which is to be measured, the items that correlate most highly with total scores are the best items for a general-purpose test. Although such

measures are considered mostly for the internal validity of scale items, they fail to consider for external validity.

AMOS 22 was utilized as the measurable package for each of these steps. As showed above, AMOS 22 underpins the covariance-based CFA, suggesting the utilization of maximum likelihood estimation to create the parameter estimates.

### 3.4.1 Model Fit Statistics

Researchers are able to define the variables which are used in the research model and assign observed data which is related to each variable. In the proposed thesis model, the evaluation model involves two independent variables and a moderator variable, which are the urge to purchase impulsively, online impulse buying and perceived control, respectively.

There are several methods to assess the model fit such as the Comparative Fit Index (CFI) index and Normed Fit Index (NFI). In the literature, RMSEA (the root mean square error of approximation) is the most commonly used statistic fit. There are three categories of fitness such as parsimonious fit, incremental fit and absolute fit. Table 9 illustrates the goodness of fit statistics adopted from the literature. The model fit statistics of the measurement model are presented in Table 10-11-12.

**Table 9. Goodness of Fit Statistics**

- *Comparative fit index (CFI)* - CFI > 0.9 means satisfactory fit .
- *Normed Fit Index (NFI)* - values of 0.90 or higher are acceptable
- *Root Mean Square Error of Approximation (RMSEA)* - values under 0.08 suggests a good fit.
- *Incremental fit index (IFI)* - IFI values close to 1 indicate a very good fit.
- *The Tucker-Lewis coefficient (TLI)*- TLI values close to 1 indicate a very good fit.
- $\chi^2/df$  (*CMIN/DF*) – ratios of 3:1 or less are acceptable

Source: Cheung, and Rensvold, (2002).

Table 10. Fit Statistics for the Urge to Purchase Impulsively

<b>Fit Indices</b>	<b>Observed Value</b>
<b>CFI</b>	.990
<b>NFI</b>	.987
<b>RMSEA</b>	.081
<b>IFI</b>	.990
<b>TLI</b>	.980
<b><math>\chi^2/df</math></b>	3.629

Table 11. Fit Statistics for Online Impulse Buying

<b>Fit Indices</b>	<b>Observed Value</b>
<b>CFI</b>	.949
<b>NFI</b>	.934
<b>RMSEA</b>	.089
<b>IFI</b>	.949
<b>TLI</b>	.932
<b><math>\chi^2/df</math></b>	4.139

Table 12. Fit Statistics for Perceived Control

<b>Fit Indices</b>	<b>Observed Value</b>
<b>CFI</b>	.999
<b>NFI</b>	.996
<b>RMSEA</b>	.036
<b>IFI</b>	.999
<b>TLI</b>	.996
<b><math>\chi^2/df</math></b>	1.523

An investigation of the fit-insights demonstrates that the model has adequate fit (see Table 11 and 12). The cmin/df proportion was not fit into prescribed 3:1 (Carmines and McIver, 1981). A few analysts have proposed the utilization of this proportion as an estimation of fit. The proportion ought to be close to one for correct models. The problem is that it isn't clear how far away from one you should give the proportion a chance to get before presuming that a model is inadmissible. Byrne (1989) suggests that  $\chi^2/df$  ratio  $> 2.00$  refers to an inadequate fit. Estimations of 0.90 or higher for the CFI were considered to be worthy (Bentler, 1990). In the estimation demonstration, the NFI was higher than 0.90, showing an alluring fit. The IFI and TLI were considered to be satisfactory (Bollen, 1989; Bentler and Bonett 1980). Out of the six proposed fit indices, just two of them were considered to be a bad fit which shows that the results are acceptable in that they fit the hypothesized model (Jarvenpaa, et al 2000).

### **3.4.2 Examining Factor Loadings**

The initial check for eliminating indelicate observed factors is an investigation of the factor loadings. For concurrent validity, the factor loadings ought to be higher than 0.5 (Fornell and Larcker, 1981). Therefore, any dependent variable item which is less than 0.5 decreases the convergent validity of the model, and they need to be dropped. The factor loadings in table 14, 15 and 16 were examined to define any irregularities or misfit observed variables. Moreover, the factor loadings were in the tolerable limits of all of the items successfully to pass 0.5 and there is no need to remove items to ensure convergent validity.

Table 13. Factor Loadings for Online Impulse Buying

	Loadings
Online Impulse Buying 1	.668
Online Impulse Buying 2	.748
Online Impulse Buying 3	.753
Online Impulse Buying 4	.760
Online Impulse Buying 5	.747
Online Impulse Buying 6	.779
Online Impulse Buying 7	.655
Online Impulse Buying 8	.647
Online Impulse Buying 9	.537

Table 14. Factor Loadings for Urge to Purchase Impulsively

	Loadings
Urge to Purchase Impulsively 1	.842
Urge to Purchase Impulsively 2	.798
Urge to Purchase Impulsively 3	.834
Urge to Purchase Impulsively 4	.825
Urge to Purchase Impulsively 5	.849

Table 15. Factor Loadings for Perceived Control

	Loadings
Perceived Control 1	.787
Perceived Control 2	.854
Perceived Control 3	.754
Perceived Control 4	.769

These factor loadings refer to the way coefficients form the observed dependent. Latent factors should be over 0.5 for convergent validity (Segars, 1997). The considered loadings the re-specified model ranged from 0.537 to 0.854, illustrating convergent validity.

### **3.5 Validity and Reliability of the Research**

#### **3.5.1 Validity**

During the design of this research several distinct concerns were taken into consideration in terms of validity. Subject sample was selected to support and strengthen the construct of the study. Due to the nature of between-subjects design, potential problems to construct validity such as hypothesis-guessing and the interaction of different treatments were avoided.

Manipulation checks were conducted to establish a strong construct validity. Internal validity is a main concern in terms of establishing causal relationships in an experimental research design. Participants were randomly assigned to the scenario groups. This assignment method prevents the threads of selection. Sophisticated brand names were used in scenario-based experiments; increasing the control over variables contributed to neutralize the history effect of participants.

Additionally, statistical conclusion validity was also considered in this research. In order to have an adequate statistical power, sample size was arranged as 400 (50 participants for each of the 8 scenarios).

The measurement items used for the experiment have satisfactory reliability levels. Also the manipulations utilized were adopted from the previous studies. Reliability check of the independent variables scenarios was also included in the pre-test. Furthermore, by adding control variables such as age, education, income and gender, the effect of random heterogeneity of participants were checked. Heterogeneous sampling method by focusing on representativeness as well as confounding factors improved the external validity.

#### **3.5.2 Average Variance Extracted**

Chin (1998) described AVE as a measure of the quantity of variance captured by a construct with respect to the quantity of variance due to measurement error.

AVE can be defined or expressed as the square root of the average variance extracted by a variable from its observed variables. Furthermore, Chin (1998) suggests that AVE value

ought to be greater than 0.50, which implies that 50% or more variance of the indicators is considered.

Table 16. The Factor Loadings

Latent Variable	Average variance extracted	Composite Reliability
Online Impulse Buying	0.494	0.897
Urge to Purchase Impulsively	0.688	0.917
Perceived Control	0.638	0.875

Extracted (AVE) is higher than 0.50 but we can accept 0.40. Fornell and Larcker suggest that if AVE is under 0.50, but composite reliability is higher than 0.60, the convergent validity of the model is as yet satisfactory. (Fornell and Larcker, 1981).

Average variance extracted values are 0.49 – 0.68 and 0.63, which are acceptable according to threshold of .50 except the online impulse buying (0.494). Fornell and Larcker (1981), suggest that 0.4 is acceptable in case composite reliability is higher than 0.6. Furthermore, since composite reliability of online impulse buying is higher than 0.6, (0.89) we can support average variance extracted value at 0.49.

### 3.5.3 Reliability

Internal reliability refers to the homogeneity of items that constitute a scale (Boyle, 1991). To be internally coherent, the items must have correlation with all the other items in the scale so that they can be measured with the same latent variable. Internal consistency is calculated with Cronbach’s alpha corresponding to the ratio of variance in a scale that is attributable to the measured score of the variable items.

Gefen et al. (2000) suggest the use of the internal consistency coefficient or inward consistency unwavering reliability. The degree of alpha value expresses the items’ ability to seize the construct. The value of the coefficient alpha can be a value in the range of 0 and 1, and a value of 0.6 and can illustrate inadequate internal consistency reliability (Malhotra, 2004; Straub et al. 2004).

The Cronbach's alpha was calculated for each variable, which are above .500 factor loadings, four items out of four for perceived control, nine items out of nine for online impulse buying and five items out of five for the urge to purchase impulsively. An analysis of the values in Table 17-18 and 19 illustrates that the variables used in the research model achieved have reliability. The Cronbach's alpha values and item numbers are displayed below.

Table 17. Reliability Estimates for the Urge to Purchase

Cronbach's Alpha	N of Items
.916	5

Cronbach's alpha value is 0.91 and George and Mallery (2003) suggest that above 0.8 < 0.9 is a good Cronbach's alpha value. We decided to keep all the-urge-to-purchase items due to their loadings far above .500 and we continued our research with 5 items, since we achieve a .91 alpha value, there is no need to delete further items.

Table 18. Reliability Estimates for the Perceived Control

Cronbach's Alpha	N of Items
.870	4

Cronbach's alpha value is 0.87 and George and Mallery (2003) suggest that above 0.7 < 0.8 is an acceptable Cronbach's alpha value; however since we achieve a .87 alpha value, there is no need to delete further items.

Table 19. Reliability Estimates for the Online Impulse Buying

Cronbach's Alpha	N of Items
.895	9

Cronbach's alpha value is 0.89 and George and Mallery (2003) suggest that above 0.8 <0.9 is a good Cronbach's alpha value, alpha can improve; however, the current value is enough to say that we achieve reliability.

Table 20. Reliability Estimates for the Latent Variables

<b>Construct</b>	<b>Cronbach's Alpha</b>
Urge to Purchase Impulsively	0.916
Perceived Control	0.870
Online Impulse Buying	0.895

The following chapter provides analyses and results of the research which used to test the proposed model. The chapter also contains the sample, hypothesis testing and control variables.

## CHAPTER-4 Analyses and Results

### 4.1. Sample Matching

#### Chi-Square

Randomization helps to give equal chances to participants for being allocated to the treatment but does not guarantee to balance the characteristics of participants in different groups (Rosenthal and Rosnow, 1991). In order to test the balance of participant characteristics in eight groups, chi-square analyses were conducted for income, gender, education and age differences. Findings revealed that the groups were identical with regard to these factors.

Table 21. Sample Matching Test Results

<b>Pearson Chi-Square</b>	<b>Chi-value</b>	<b>df</b>	<b>Asymp. Sig. (2-sided)</b>
Sets*Gender	8.160	7	.319
Sets*Age	193.206	189	.402
Sets*Education	36.845	28	.159
Sets*Income	35.365	28	.053
Sets*Shopping Rate	18.776	21	.600
Sets*Internet Usage Rate	26.164	21	.200
Set*Opinion About Internet Shopping	35.669	28	.151

There is no significant difference between sets at  $\alpha=0.05$ .

## 4.2. Hypotheses Testing

### Hypothesis 1

**H1:** “The urge to purchase impulsively is likely to be higher among consumers who are exposed to hedonic products compared to those exposed to utilitarian products.”

Hypothesis 1 predicted that the urge to purchase impulsively is likely to be higher among consumers who are exposed to hedonic products compared to those exposed to utilitarian products. To test this hypothesis, a one-way between-subjects ANOVA test was conducted to compare the effect of the product type (Hedonic and Utilitarian) on the urge to purchase impulsively.

According to the results of the Levene's Test of Homogeneity of Variance, variances are not significantly different from each other ( $p = .689$ ). Consumers who are exposed to hedonic products (perfume) ( $M_H: 3.42, SD = .92416$ ) display a higher urge to purchase potential than consumers exposed to utilitarian products (dental care set) ( $M_U: 2.77, SD = .90787$ ). ANOVA results for H1 reveal a significant difference in group means at the  $p < .05$  level in the urge to purchase scores for two levels of product type [ $F(1, 398) = 50.543, p = .000$ ] Calculated Eta squared was .113, indicating a large effect. There are several kinds of tests to calculate the effect size for instance  $r^2$ , adjusted  $R^2$ , Cohen's  $d$ , Kendall's  $W$  and Eta. Of these tests, this research utilizes Eta effect size calculation. According to Cohen (1988) 0.01 is a very small effect; 0.06 is a moderate effect and 0.14 is a very large effect. These results suggest that consumers who are exposed to hedonic products have a higher chance to have urge to purchase impulsively and hedonic products have more positive effects than utilitarian products. Thus, H1 was accepted. Table 22, 23, 24 and Figure 2 show related test results.

Table 22. Descriptive Statistics for Effects of Product Types on the Urge To Purchase Impulsively

					95% Confidence Interval for Mean				Between Component Variance
	N	Mean	Std.Deviation	Std. Error	L.Bound	U.Bound	Min	Max	
Positive Mood	200	2.7743	.90787	.06420	2.6477	2.9008	1.00	5.00	
Negative Mood	200	3.4255	.92416	.06535	3.2966	3.5544	1.20	5.00	
Total	400	3.0999	.97126	.04856	3.0044	3.1953	1.00	5.00	
Model	Fixed Effects		.91605	.04580	3.0098	3.1899			
	Random Effects			.32563	-1.0376	7.2373			.20787

Table 23. Homogeneity of Variances Test Result for H1

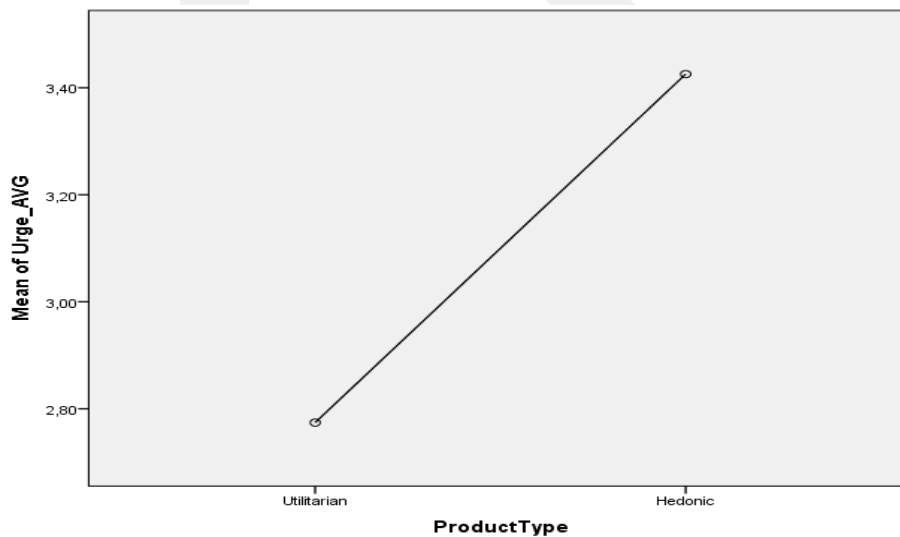
Levene Statistic	df1	df2	Sig.
.160	1	398	.689

Table 24. ANOVA Statistics for the Effects of Product Types on the Urge to Purchase Impulsively

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	42.413	1	42.413	50.543	.000
Within Groups	333.980	398	.839		
Total	376.392	399			

As the mean plot (Figure 2) shows, ratings on the urge to purchase are higher for the consumers who are exposed to hedonic products when compared to those exposed to utilitarian products.

Figure 2. Mean Plot for Product Type on Urge to Purchase Impulsively



## Hypothesis 2

**H2:** “Online impulse buying is likely to be higher among consumers who are exposed to hedonic products compared to those exposed to utilitarian products”.

Hypothesis 2 is on the relationship between product types and online impulse buying. It is predicted that online impulse buying is likely to be higher among consumers who are exposed to hedonic products compared to those exposed to utilitarian products. In order to test H2, a one-way between-subjects ANOVA test was conducted. Levene’s Test for Equal Variances proved that the homogeneity of variances assumption was not violated ( $p=.778$ ) Consumers exposed to hedonic products (perfume) ( $M_H: 2.97$ ,  $SD = .71925$ ) displayed a higher online impulse buying potential than consumers exposed to utilitarian products (Dental care set) ( $M_U:2.68$  ,  $SD= .72794$ ). ( $M_H: 2.97$  versus  $M_U: 2.68$ )

ANOVA results for H2 suggest that there is a significant difference between the two product types at the  $p < .05$  level [ $F(1, 398) = 16.502$ ,  $p = .000$ ].  $\eta^2 = .40$ , which indicates a very large effect. Therefore H2 was accepted. Table 25,26,27 and Figure 3 show related test results.

As a result, these findings illustrate that consumers exposed to hedonic products are more willing to buy impulsively in an online setting than those exposed to utilitarian products. This relationship is illustrated in the mean plot (Figure 3).

Table 25. Homogeneity of Variances Test Result for H2

Levene Statistic	df1	df2	Sig.
.080	1	398	.778

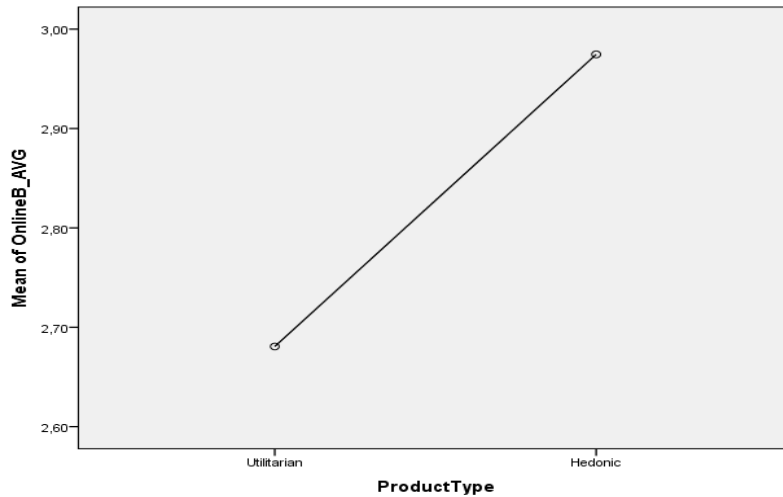
Table 26. ANOVA Statistics for Product Types on Online Impulse Buying

					95% Confidence Interval for Mean				Between Component Variance
	N	Mean	Std.Deviation	Std. Error	L.Bound	U.Bound	Min	Max	
Positive Mood	200	2.6807	.72794	.05147	2.5792	2.7822	1.11	4.89	
Negative Mood	200	2.9746	.71925	.05086	3.8743	3.0749	1.11	4.67	
Total	400	2.8276	.73753	.03688	2.7551	2.9001	1.11	4.89	
Model	Fixed Effects		.72361	.03618	2.7565	2.8988			
	Random Effects			.14697	.9602	4.6951			.04058

Table 27. Descriptive Statistics for Product Types on Online Impulse Buying

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	8.640	1	8.640	16.502	.000
Within Groups	208.395	398	.524		
Total	217.036	399			

Figure 3. Mean Plot for Product Types on Online Impulse Buying



### Hypothesis 3

**H3:** “The urge to buy impulsively is likely to be higher among consumers who are exposed to high levels of discount compared to those exposed to low levels of discount”.

H3 suggests that in an online setting, the urge to buy impulsively is likely to be higher among consumers who are exposed to high levels of discount compared to those exposed to low levels of discount. With the Levene’s Test of Homogeneity of Variance, equality of variances assumption was proved ( $p=.701$ ). The outcome of one-way between-subjects ANOVA demonstrated that there was a significant difference between the two levels of discount on the urge to buy impulsively. ( $M_H: 3.51$   $SD = .90488$  versus  $M_L: 2.68$   $SD = .85145$ ) at the  $p < .05$  level [ $F(1, 398) = 89.625$ ,  $p = .000$ ].  $\eta^2 = .184$ , which indicates a very large effect. Therefore, H3 was accepted. Table 28, 29, 30 and Figure 4 show related test results.

Table 28. Homogeneity of Variances Test Result for H3

Levene Statistic	df1	df2	Sig.
.148	1	398	.701

Table 29. Descriptive Statistics for Level of Discount on the Urge to Buy Impulsively

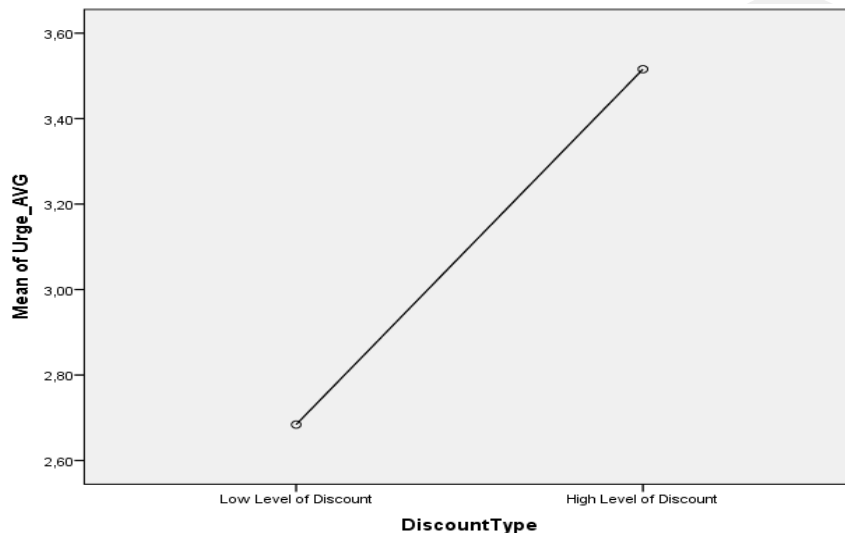
					95% Confidence Interval for Mean				Between Component Variance
	N	Mean	Std.Deviation	Std. Error	L.Bound	U.Bound	Min	Max	
Positive Mood	200	2.6840	.85145	.06021	2.5653	2.8027	1.20	5.00	
Negative Mood	200	3.5158	.90488	.06398	3.3896	3.6419	1.00	5.00	
Total	400	3.0999	.97126	.04856	3.0044	3.1953	1.00	5.00	
Model	Fixed Effects		.87857	.04393	3.0135	3.1862			
	Random Effects			.41588	-2.1843	8.3841			.34204

Table 30. ANOVA Statistics for Level of Discount on the Urge to Buy Impulsively

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	69.181	1	69.181	89.625	.000
Within Groups	307.212	398	.772		
Total	376.392	399			

As it is obvious from the results, consumers who are exposed to high levels of discount are more likely to be involved with impulsive buying compared to those exposed to low levels of discount. This effect can also be observed from the mean plot (Figure 4).

Figure 4. Mean Plot for the Level of Discount on the Urge to Purchase Impulsively



#### Hypothesis 4

**H4:** “Online impulse buying is likely to be higher among consumers who are exposed to high levels of discount compared to those exposed to low levels of discount”.

Hypothesis 4 states that online impulse buying is likely to be higher among consumers who are exposed to high levels of discount compared to those exposed to low levels of discount. The variance homogeneity assumption was provided as ( $p = .097$ ). According to the result of one-way between-subjects ANOVA, there was a significant difference between high levels of discount and low levels of discount in terms of online impulse buying [ $F(1, 398) = 16.136, p = .001$ ].

As also obvious from the mean plot (Figure 5), consumers exposed to high levels of discount were more inclined to purchase impulsively online. (MHD= 2.97, SD=.76399 versus MLD=2.68, SD=.68151). Calculated  $\eta^2 = .39$  value indicates a big effect size. Thus, H4 was accepted. Table 31,32,33 and Figure 5 show the related test results.

Table 31. Homogeneity of Variances Test Result for H4

Levene Statistic	df1	df2	Sig.
2.760	1	398	.097

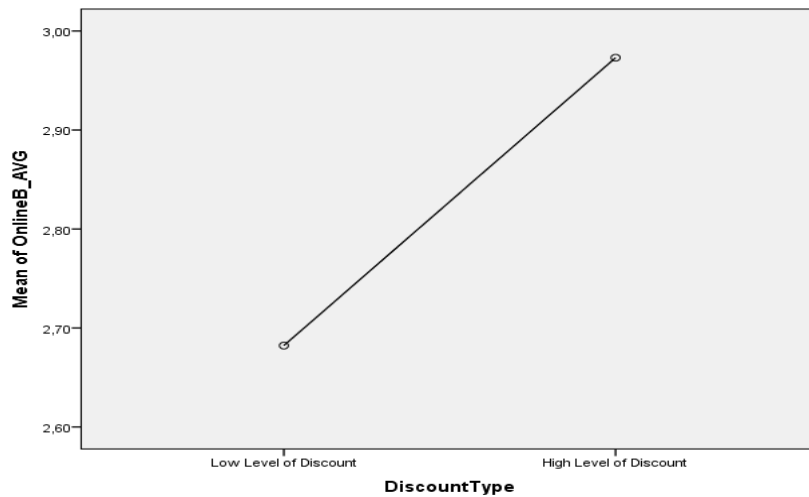
Table 32. Descriptive Statistics for the Level of Discount on Online Impulse Buying

					95% Confidence Interval for Mean				Between Component Variance
	N	Mean	Std.Deviation	Std. Error	L.Bound	U.Bound	Min	Max	
Positive Mood	200	2.6822	.68151	.04819	2.5872	2.7773	1.11	4.89	
Negative Mood	200	2.9730	.76399	.05402	2.8665	3.0796	1.11	4.67	
Total	400	2.8276	.73753	.03688	2.7551	2.9001	1.11	4.89	
Model	Fixed Effects		.72393	.03620	2.7565	2.8988			
	Random Effects			.14540	.9802	4.6751			.03966

Table 33. ANOVA Statistics Level of Discount on Online Impulse Buying

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	8.456	1	8.456	16.136	.000
Within Groups	208.579	398	.524		
Total	217.036	399			

Figure 5. Mean Plot for Level of Discount on Online Impulse Buying



### Hypothesis 5

**H5:** “The urge to purchase impulsively is likely to be higher among consumers with positive moods compared to those with negative moods”.

According to hypothesis 5, during an online purchase, the urge to purchase impulsively is likely to be higher among consumers with positive moods compared to those with negative moods. The variance homogeneity assumption was provided as. ( $p = .351$ ).

According to the result of one-way between-subjects ANOVA, there was a significant difference between positive mood and negative mood situations in terms of the urge to buy impulsively [ $F(1,398) = 103.911, p = .000$ ].

Furthermore, observed data in the mean plot (Figure 6) indicates that consumers in positive mood state were more eager to make a purchase from websites. (MPM= 3.54, SD=.92199 versus MNM=2.65, SD=.80609). Calculated  $\eta^2 = .207$  value indicates a big effect size. Thus, H5 was accepted. Table 34,35,36 and Figure 6 show related test results.

Table 34. Homogeneity of Variances Test Result for H5

Levene Statistic	df1	df2	Sig.
4.613	1	398	.351

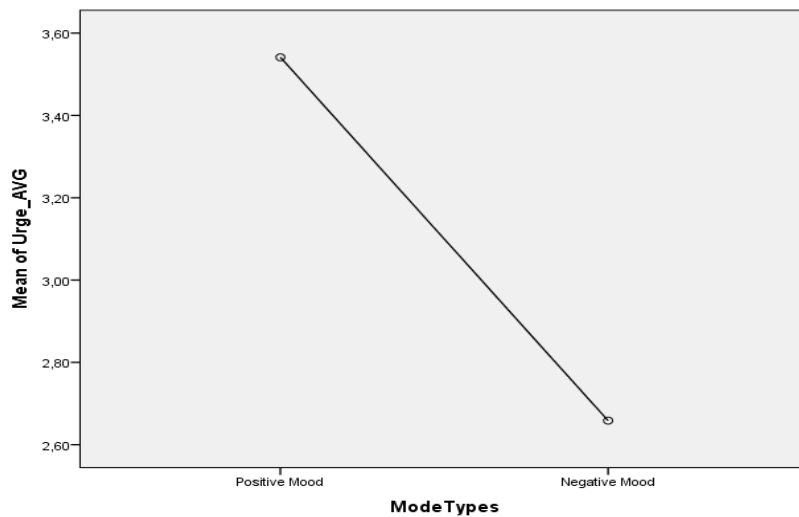
Table 35. Descriptive Statistics for Mood States on the Urge to Purchase Impulsively

					95% Confidence Interval for Mean				Between Component Variance
	N	Mean	Std.Deviation	Std. Error	L.Bound	U.Bound	Min	Max	
Positive Mood	200	3.5413	.92199	.06519	3.4127	3.6698	1.00	5.00	
Negative Mood	200	2.6585	.80609	.05700	2.5461	2.7709	1.00	4.40	
Total	400	3.0999	.97126	.04856	3.0044	3.1953	1.00	5.00	
Model	Fixed Effects		.86598	.04330	3.0148	3.1850			
	Random Effects			.44138	-2.5083	8.7081			.38587

Table 36. ANOVA Statistics Mood State on the Urge to Purchase Impulsively

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	77.925	1	77.925	103.911	.000
Within Groups	298.468	398	.750		
Total	376.392	399			

Figure 6. Mean Plot for Mood State on the Urge to Purchase Impulsively



### Hypothesis 6

**H6:** “Online impulse buying is likely to be higher among consumers with positive moods compared to those with negative moods”.

Hypothesis 6 states that online impulse buying is likely to be higher among consumers with positive moods compared to those with negative moods. The variance homogeneity assumption was provided as ( $p = .008$ ). According to the result of one-way between-subjects ANOVA, there was a significant difference ( $p < .05$ ) between positive mood and negative mood states in terms of online impulse buying [ $F(1, 398) = 57.103, p = .000$ ].

As it can be observed from the mean plot (Figure 7), consumers in a positive mood state were more willing to make online purchases. ( $M_{PM} = 3.08, SD = .79693$  versus  $M_{NM} = 2.56, SD = .56453$ ). Calculated  $\eta^2 = .0125$  value indicates a moderate effect size. Thus, H6 was accepted. Table 37,38,39 and Figure 7 show related test results.

Table 37. Homogeneity of Variances Test Result for H6

Levene Statistic	df1	df2	Sig.
23.882	1	398	.008

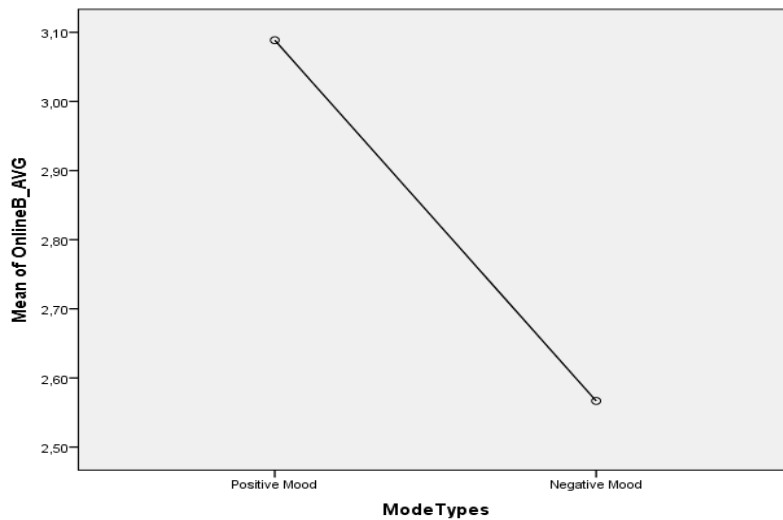
Table 38. Descriptive Statistics for Mood States on Online Impulse Buying

					95% Confidence Interval for Mean				Between Component Variance
	N	Mean	Std.Deviation	Std. Error	L.Bound	U.Bound	Min	Max	
Positive Mood	200	3.0886	.79693	.05635	2.9774	3.1997	1.11	4.89	
Negative Mood	200	2.5667	.56453	.03992	2.4880	2.6454	1.33	4.11	
Total	400	2.8276	.73753	.03688	2.7551	2.9001	1.11	4.89	
Model	Fixed Effects		.69057	.03453	2.7598	2.8955			
	Random Effects			.26092	-.4877	6.1430			.13378

Table 39. ANOVA Statistics Mood State on Online Impulse Buying

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	27.232	1	27.232	57.103	.000
Within Groups	189.804	398	.477		
Total	217.036	399			

Figure 7. Mean Plot for Mood State on Online Impulse Buying



### Hypothesis 7

**H7:** “In a positive mood state, consumers exposed to hedonic products should have more urge to purchase impulsively compared to those exposed to utilitarian products”.

In hypothesis 7, it is stated that in a positive mood state, consumers exposed to hedonic products should have more urge to purchase impulsively compared to those exposed to utilitarian products. A two-way between-groups ANOVA was conducted to investigate the impact of mood and product types on the urge to buy impulsively.

According to Levene’s Test of Homogeneity of Error Variances, equality of variances assumption was insignificant ( $p=.000$ ). The interaction effect between mood and product type on the urge to purchase impulsively was not statistically significant at  $p < .05$  level [ $F(1, 396) = 8.524$ ,  $p=.003$ ,  $\text{partial } \eta^2 = .023$ ]. As it can also be observed from the profile plot (Figure 8), H7 was rejected. Table 40,41,42,43 and Figure 8 show the related results.

Table 40. Descriptive Statistics for the Interaction Effect on Urge to Purchase Impulse

Mood Types	Product Type	Mean	Std. Deviation	N
Positive Mood	Utilitarian	3.1025	.93107	100
	Hedonic	3.9940	.62309	100
	Total	3.5483	.90780	200
Negative Mood	Utilitarian	2.4460	.75644	100
	Hedonic	2.8570	.82195	100
	Total	2.6515	.81438	200
Total	Utilitarian	2.7743	.90787	100
	Hedonic	3.4255	.92416	100
	Total	3.0999	.97126	200

Table 41. Levene's Test of Equality of Error Variances for H7

Levene Statistic	df1	df2	Sig.
8.524	1	398	.000

Table 42. Test of Between-Subjects for the Interaction Effect on the Urge to Purchase Impulsively

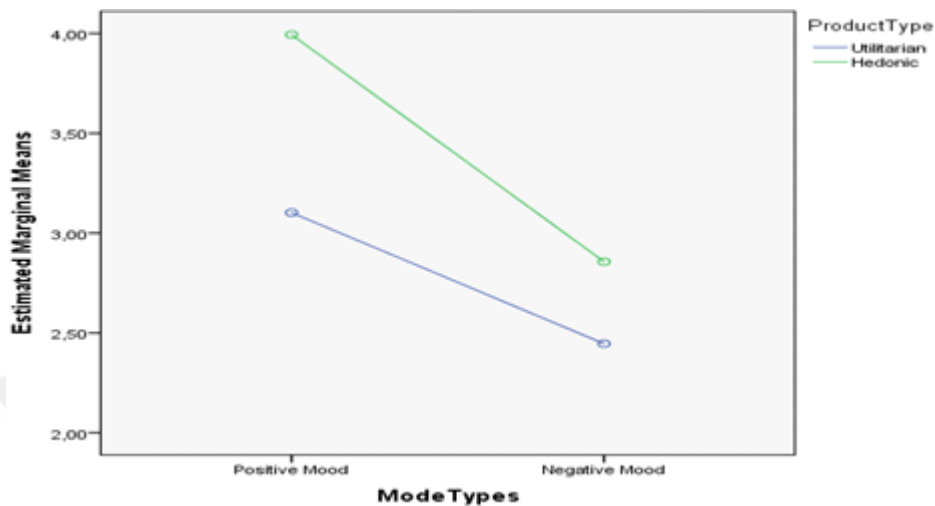
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	128.601 <sup>a</sup>	3	42.867	68.506	.000	.342
Intercept	3843.690	1	3843.690	6142.662	.000	.939
Mode Types	80.416	1	80.416	128.514	.000	.245
Product Type	42.413	1	42.413	67.780	.000	.146
Mode Types * Product Type	5.772	1	5.772	9.224	.003	.023
Error	247.792	396	.626			
Total	4220.082	400				
Corrected Total	376.392	399				

a. R Squared = .342 (Adjusted R Squared = .337)

Table 43. Paired Relation Effects for the Interaction Effect on the Urge to Purchase Impulsively

Mode Types	Product Type	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Positive Mood	Utilitarian	3.103	.079	2.947	3.258
	Hedonic	3.994	.079	3.838	4.150
Negative Mood	Utilitarian	2.446	.079	2.290	2.602
	Hedonic	2.857	.079	2.701	3.013

Figure 8. Profile Plots for the Interaction Effect on the Urge to Purchase



### Hypothesis 8

**H8:** “In a positive mood state, consumers exposed to hedonic products should perform more online impulse buying compared to those exposed to utilitarian products”.

In hypothesis 8, it is stated that in a positive mood state, consumers exposed to hedonic products should perform more online impulse buying compared to those exposed to utilitarian products. A two-way between-groups ANOVA was conducted to investigate the impact of mood and product types on online impulse buying.

According to Levene’s Test of Homogeneity of Error Variances, equality of variances assumption was provided ( $p=.221$ ). The interaction effect between mood and product type on the urge to purchase impulsively was not statistically significant at  $p < .05$  level [ $F(1, 396) = 1.339, p=.248, \text{partial } \eta^2 = .003$ ]. As it can also be observed from the profile plot (Figure 9), H8 was rejected. Table 44,45,46,47 and Figure 9 show the related test results.

Table 44. Levene's Test of Equality of Error Variances for H8

Levene Statistic	df1	df2	Sig.
11.672	1	398	.000

Table 45. Descriptive Statistics for the Interaction Effect on Online Impulse Buying

Mode Types	Product Type	Mean	Std. Deviation	N
Positive Mood	Utilitarian	2.9845	.81579	100
	Hedonic	3.2005	.75812	100
	Total	3.0925	.79293	200
Negative Mood	Utilitarian	2.3769	.46172	100
	Hedonic	2.7488	.60173	100
	Total	2.5628	.56651	200
Total	Utilitarian	2.6807	.72794	200
	Hedonic	2.9746	.71925	200
	Total	2.8276	.73753	400

Table 46. Tests of Between-Subjects Effects for the Interaction Effect on Online Impulse Buying

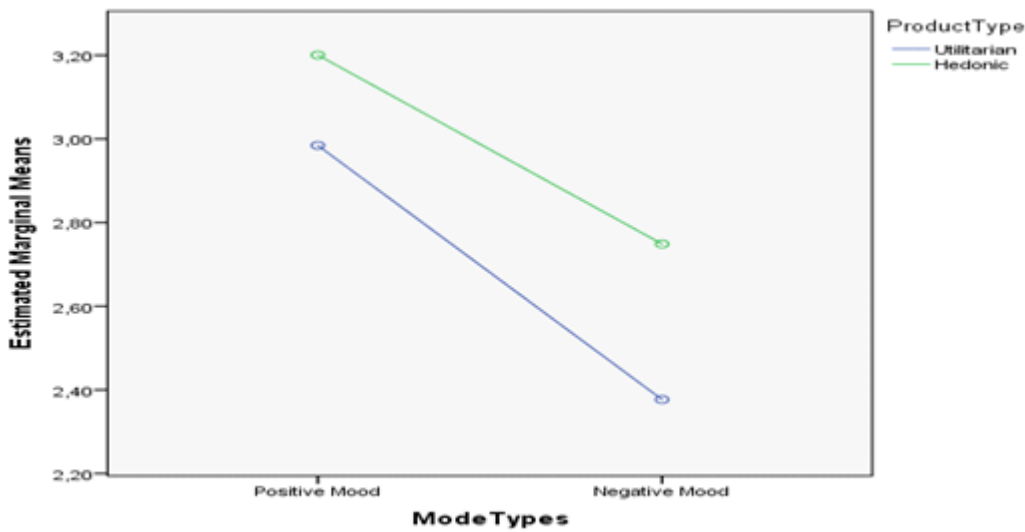
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	37.298 <sup>a</sup>	3	12.433	27.392	.000	.172
Intercept	3198.229	1	3198.229	7046.365	.000	.947
Mode Types	28.050	1	28.050	61.800	.000	.135
Product Type	8.640	1	8.640	19.036	.000	.046
Mode Types * Product Type	.608	1	.608	1.339	.248	.003
Error	179.738	396	.454			
Total	3415.265	400				
Corrected Total	217.036	399				

R Squared = .172 (Adjusted R Squared = .166)

Table 47. Paired Relation Effects for the Interaction Effect on Online Impulse Buying

Mode Types	Product Type	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Positive Mood	Utilitarian	2.984	.067	2.852	3.117
	Hedonic	3.200	.067	3.068	3.333
Negative Mood	Utilitarian	2.377	.067	2.244	2.509
	Hedonic	2.749	.067	2.616	2.881

Figure 9. Profile Plots for the Interaction Effect on Online Impulse Buying



### Hypothesis 9

**H9:** “In a positive mood state, consumers who are offered high levels of discount should have more urge to purchase impulsively compared to those offered low levels of discount”.

In hypothesis 9, it is stated that in a positive mood state, consumers who are offered high levels of discount should have more urge to purchase impulsively compared to those offered low levels of discount.

In order to examine the influence of positive mood and discount level on the urge to purchase impulsively, a two-way between-groups ANOVA was conducted. Levene’s Test for the Homogeneity of Error Variances was conducted and homogeneity was insignificant:  $p < 0.50$  ( $p = .030$ ). Detailed scores can also be seen from the mean plot; (Figure 10) the interaction effect between mood and discount level on the urge to purchase was not statistically significant at  $p < .05$  level [ $F(1, 396) = 16.810$ ,  $p = .038$ , partial  $\eta^2 = .011$ ]. H9 was rejected. Table 48, 49, 50, 51 and Figure 10 show the related test results.

Table 48. Descriptive Statistics for the Interaction Effect on the Urge to Purchase Impulsively

Mode Types	Discount Type	Mean	Std. Deviation	N
Positive Mood	Low Level of Discount	3.0540	.92282	100
	High Level of Discount	4.0425	.55806	100
	Total	3.5483	.90780	200
Negative Mood	Low Level of Discount	2.3140	.57367	100
	High Level of Discount	2.9890	.87973	100
	Total	2.6515	.81438	200
Total	Low Level of Discount	2.6840	.85145	200
	High Level of Discount	3.5158	.90488	200
	Total	3.0999	.97126	400

Table 49. Levene's Test of Equality of Error Variances for H9

Levene Statistic	df1	df2	Sig.
16.810	1	398	.000

Table 50. Tests of Between-Subjects Effects for the Interaction Effect on the Urge to Purchase Impulsively

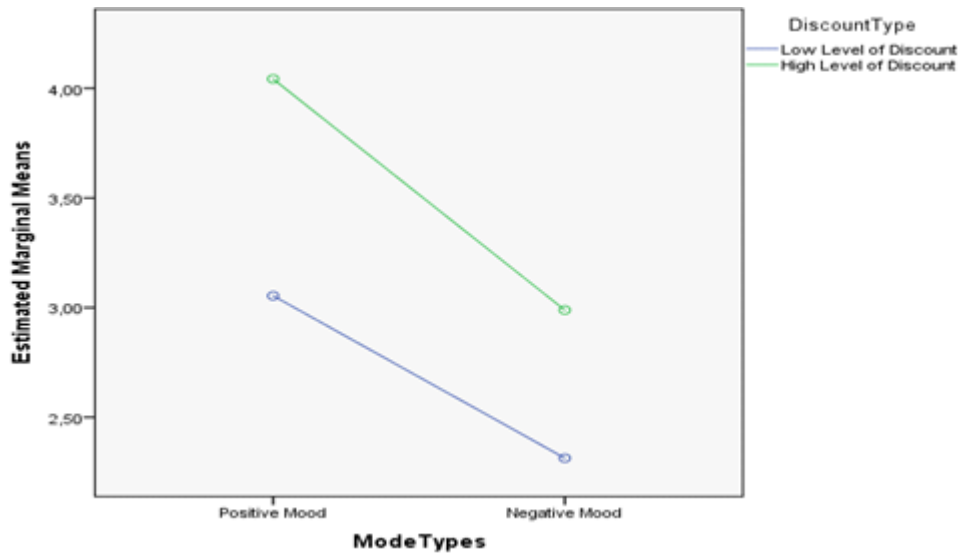
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	152.054 <sup>a</sup>	3	50.685	89.468	.000	.404
Intercept	3843.690	1	3843.690	6784.840	.000	.945
Mode Types	80.416	1	80.416	141.950	.000	.264
Discount Type	69.181	1	69.181	122.117	.000	.236
Mode Types * Discount Type	2.457	1	2.457	4.337	.038	.011
Error	224.339	396	.567			
Total	4220.082	400				
Corrected Total	376.392	399				

a. R Squared = .404 (Adjusted R Squared = .399)

Table 51. Paired Relation Effects for the Interaction Effect on the Urge to Purchase Impulsively

Discount Type	Mode Types	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low Level of Discount	Positive Mood	3.054	.075	2.906	3.202
	Negative Mood	2.314	.075	2.166	2.462
High Level of Discount	Positive Mood	4.043	.075	3.895	4.190
	Negative Mood	2.989	.075	2.841	3.137

Figure 10. Profile Plots for the Interaction Effect on the Urge to Purchase Impulsively



### Hypothesis 10

**H10:** “In a positive mood state, consumers who are offered high levels of discount should perform more online impulse buying compared to those offered low levels of discount”.

In hypothesis 10 it is anticipated that in a positive mood state, consumers who are offered high levels of discount should perform more online impulse buying compared to those offered low levels of discount.

In order to examine the influence of positive mood and discount level on online impulse buying, a two-way between-groups ANOVA was conducted. Levene’s Test for the Homogeneity of Error Variances was conducted and homogeneity was not proved ( $p=.000$ ). Detailed scores can also be seen from the mean plot (Figure 11;); the interaction effect between mood and discount level on online impulse buying was not statistically significant at  $p < .05$  level [ $F(1, 396) = 6.495, p=.009, \text{partial } \eta^2=.017$ ]. H10 was rejected. Table 52,53,54,55 and Figure 11 show the related test results.

Table 52. Descriptive Statistics for the Interaction Effect on Online Impulse Buying

Mode Types	Discount Type	Mean	Std. Deviation	N
Positive Mood	Low Level of Discount	2.8593	.74821	100
	High Level of Discount	3.3256	.77084	100
	Total	3.0925	.79293	200
Negative Mood	Low Level of Discount	2.5052	.55716	100
	High Level of Discount	2.6205	.57269	100
	Total	2.5628	.56651	200
Total	Low Level of Discount	2.6822	.68151	200
	High Level of Discount	2.9730	.76399	200
	Total	2.8276	.73753	400

Table 53. Levene's Test of Equality of Error Variances for H10

Levene Statistic	df1	df2	Sig.
6.495	3	396	.000

Table 54. Tests of Between-Subjects Effects for the Interaction Effect on Online Impulse Buying

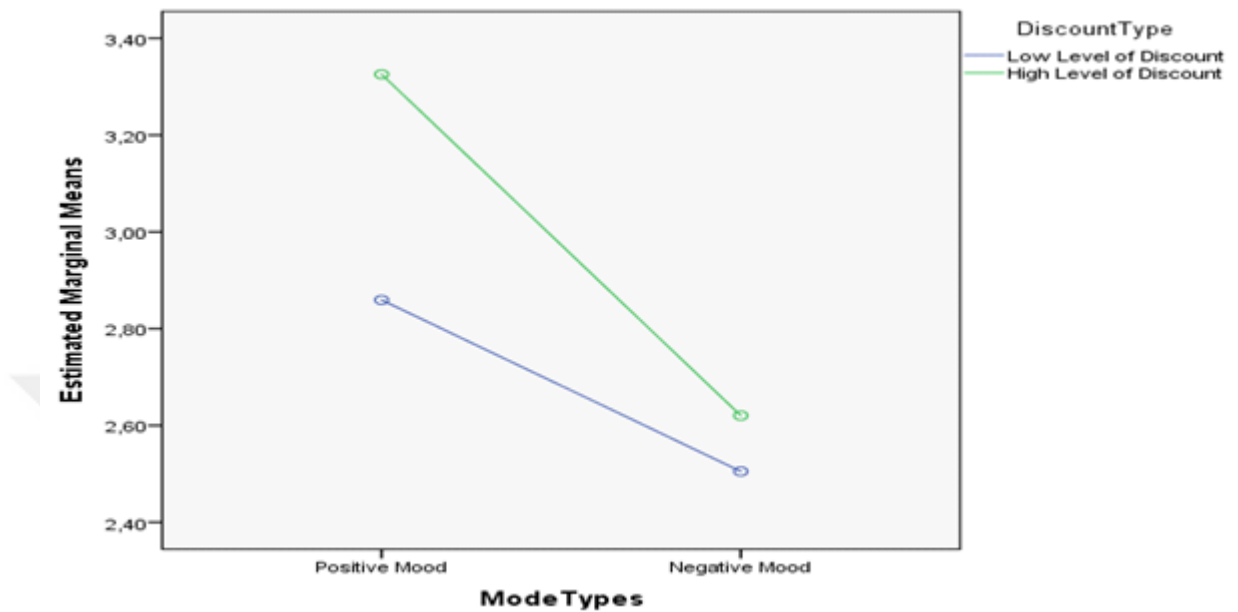
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	39.586 <sup>a</sup>	3	13.195	29.447	.000	.182
Intercept	3198.229	1	3198.229	7137.229	.000	.947
Mode Types	28.050	1	28.050	62.597	.000	.136
Discount Type	8.456	1	8.456	18.872	.000	.045
Mode Types * Discount Type	3.080	1	3.080	6.873	.009	.017
Error	177.450	396	.448			
Total	3415.265	400				
Corrected Total	217.036	399				

a. R Squared = .182 (Adjusted R Squared = .176)

Table 55. Paired Relation Effects for the Interaction Effect on Online Impulse Buying

Discount Type	Mode Types	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low Level of Discount	Positive Mood	2.859	.067	2.728	2.991
	Negative Mood	2.505	.067	2.374	2.637
High Level of Discount	Positive Mood	3.326	.067	3.194	3.457
	Negative Mood	2.620	.067	2.489	2.752

Figure 11. Profile Plots for the Interaction Effect on Online Impulse Buying



### Hypothesis 11

**H11:** “In a situation where there is a high level of discount, consumers exposed to utilitarian products should have more urge to purchase impulsively compared to those exposed to hedonic products”.

In hypothesis 11, it is anticipated that in a situation where there is a high level of discount, consumers exposed to utilitarian products should have more urge to purchase impulsively compared to those exposed to hedonic products.

In order to examine the influence of high level of discount and the product type on the urge to purchase impulsively, a two-way between-groups ANOVA was conducted. Levene’s Test for the Homogeneity of Error Variances was conducted and homogeneity was not significant:  $p < 0.50$  ( $p = .000$ ). Detailed scores can also be seen from the mean plot (Figure 12). The interaction effect between discount level and product types on the urge to purchase impulsively was not statistically significant:  $p < .05$  level [ $F(1, 396) = .001$ ,  $p = .973$ , partial  $\eta^2 = .000$ ]. H11 was rejected. Table 56, 57, 58, 59 and Figure 12 show the related test results.

Table 56. Descriptive Statistics for the Interaction Effect on the Urge to Purchase Impulsively

Discount Type	Product Type	Mean	Std. Deviation	N
Low Level of Discount	Utilitarian	2.3570	.57792	100
	Hedonic	3.0110	.95250	100
	Total	2.6840	.85145	200
High Level of Discount	Utilitarian	3.1915	.98543	100
	Hedonic	3.8400	.68002	100
	Total	3.5158	.90488	200
Total	Utilitarian	2.7743	.90787	200
	Hedonic	3.4255	.92416	200
	Total	3.0999	.97126	400

Table 57. Levene's Test of Equality of Error Variances for H11

Levene Statistic	df1	df2	Sig.
13.767	3	396	.000

Table 58. Tests of Between-Subjects Effects for the Interaction Effect on the Urge to Purchase Impulsively

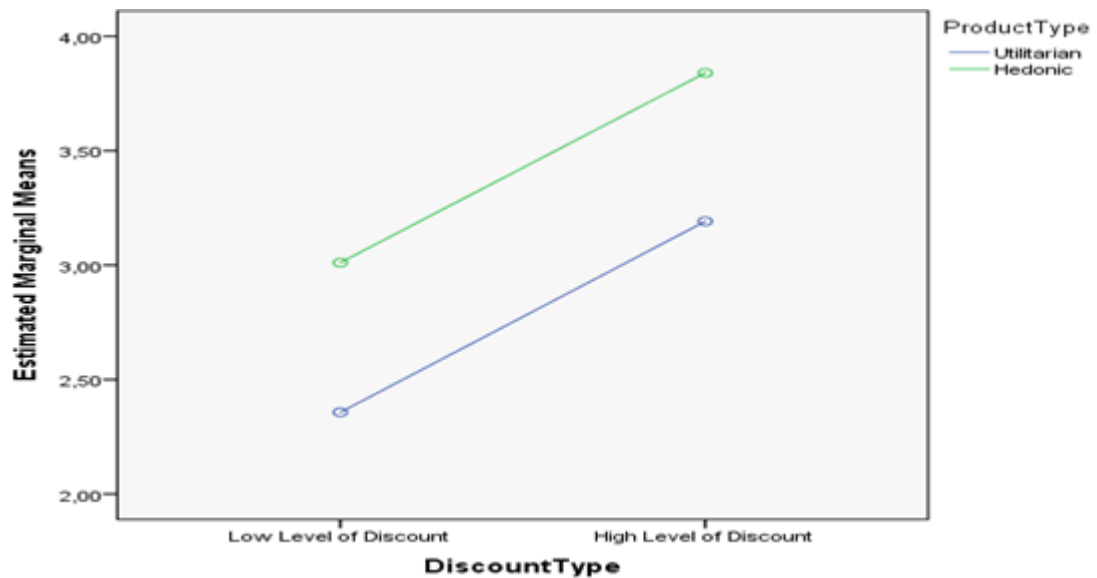
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	111.594 <sup>a</sup>	3	37.198	55.629	.000	.296
Intercept	3843.690	1	3843.690	5748.154	.000	.936
Discount Type	69.181	1	69.181	103.458	.000	.207
Product Type	42.413	1	42.413	63.427	.000	.138
Discount Type * Product Type	.001	1	.001	.001	.973	.000
Error	264.798	396	.669			
Total	4220.082	400				
Corrected Total	376.392	399				

a. R Squared = .296 (Adjusted R Squared = .291)

Table 59. Paired Relation Effects for the Interaction Effect on the Urge to Purchase Impulsively

Discount Type	Product Type	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low Level of Discount	Utilitarian	2.357	.082	2.196	2.518
	Hedonic	3.011	.082	2.850	3.172
High Level of Discount	Utilitarian	3.192	.082	3.031	3.352
	Hedonic	3.840	.082	3.679	4.001

Figure 12. Profile Plots for the Interaction Effect on the Urge to Purchase Impulsively



### Hypothesis 12

**H12:** “In a situation where there is a high level of discount, consumers exposed to utilitarian products should perform more online impulse buying compared to those exposed to hedonic products”.

In hypothesis 12, it is anticipated that in a situation where there is a high level of discount, consumers exposed to utilitarian products should perform more online impulse buying compared to those exposed to hedonic products.

In order to examine the influence of positive mood and discount level on online impulse buying, a two-way between-groups ANOVA was conducted. Levene’s Test for the Homogeneity of Error Variances was conducted and homogeneity was proved ( $p=.023$ ). Detailed scores can also be seen from the mean plot (Figure 13). The interaction effect between discount level and product types on online impulse buying was statistically significant:  $p < .05$  level [ $F(1, 396) = 2.969$   $p=.086$ , partial  $\eta^2=.007$ ]. H12 was rejected. Table 60,61,62,63 and Figure 13 show the related test results.

Table 60. Descriptive Statistics for the Interaction Effect on Online Impulse Buying

Discount Type	Product Type	Mean	Std. Deviation	N
Low Level of Discount	Utilitarian	2.4743	.60721	100
	Hedonic	2.8902	.69102	100
	Total	2.6822	.68151	200
High Level of Discount	Utilitarian	2.8871	.78126	100
	Hedonic	3.0590	.74025	100
	Total	2.9730	.76399	200
Total	Utilitarian	2.6807	.72794	200
	Hedonic	2.9746	.71925	200
	Total	2.8276	.73753	400

Table 61. Levene's Test of Equality of Error Variances for H12

Levene Statistic	df1	df2	Sig.
3.206	3	396	.023

Table 62. Tests of Between-Subjects Effects for the Interaction Effect on the Urge to Purchase Impulsively

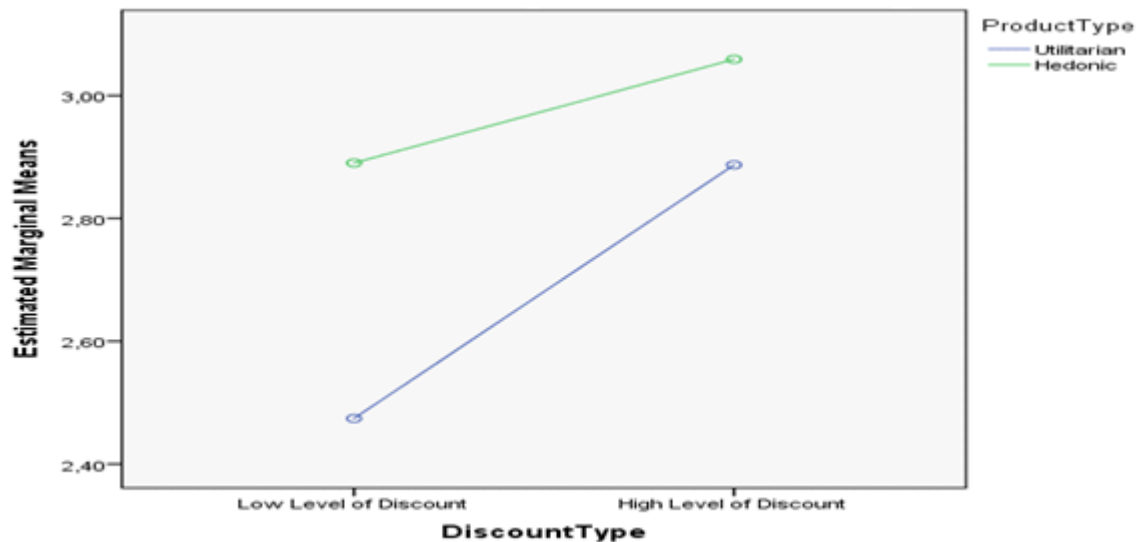
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	18.585 <sup>a</sup>	3	6.195	12.362	.000	.086
Intercept	3198.229	1	3198.229	6381.928	.000	.942
Discount Type	8.456	1	8.456	16.875	.000	.041
Product Type	8.640	1	8.640	17.241	.000	.042
Discount Type * Product Type	1.488	1	1.488	2.969	.086	.007
Error	198.451	396	.501			
Total	3415.265	400				
Corrected Total	217.036	399				

- R Squared = .086 (Adjusted R Squared = .079)

Table 63. Paired Relation Effects for the Interaction Effect on Online Impulse Buying

Discount Type	Product Type	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low Level of Discount	Utilitarian	2.474	.071	2.335	2.613
	Hedonic	2.890	.071	2.751	3.029
High Level of Discount	Utilitarian	2.887	.071	2.748	3.026
	Hedonic	3.059	.071	2.920	3.198

Figure 13. Profile Plots for the Interaction Effect on the Urge to Purchase Impulsively



### Hypothesis 13

**H13.** “Perceived control moderates the effects of utilitarian products on the urge to purchase impulsively”. H13 is proposed as perceived control moderates the effects of utilitarian products on the urge to purchase impulsively. It is suggested that perceived control should affect consumers’ buying decisions and influence the urge to purchase. Perceived control is used as a moderator between independent variables and dependent variables.

In order to examine the influence of perceived control on the urge to purchase, linear regression was conducted. The interaction effect between perceived control and utilitarian product on the urge to purchase was statistically significant:  $p < .05$  level. Three models were developed. Model 1 represents the relationship between the dummy (hedonic item) and the urge to purchase impulsively. Model 2 represents the relation between centered perceived control and the urge to purchase impulsively. The final model (model 3) refers to perceived control \* dummy and its relation with the dependent variable, which is the urge to purchase impulsively. F change illustrated p value ( $p=0.023$ ) was significant enough to support our hypothesis. H13 was supported. Table 64 and 65 show the related test results.

Table 64. Descriptive Statistics for the Moderation Effect on the Urge to Purchase

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	Change Statistics			Sig. F Change	Durbin-Watson
						F Change	df1	df2		
1	.336	.113	.110	.91605	.113	50.543	1	398	.000	
2	.541	.293	.290	.81862	.180	101.377	1	397	.000	
3	.550	.302	.297	.81432	.009	5.199	1	396	.023	.933

Table 65. ANOVA Statistics for the Moderation Effect on the Urge to Purchase

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	42.413	1	42.413	50.543	.000 <sup>b</sup>
	Residual	333.980	398	.839		
	Total	376.392	399			
2	Regression	110.349	2	55.175	82.334	.000 <sup>c</sup>
	Residual	266.043	397	.670		
	Total	376.392	399			
3	Regression	113.797	3	37.932	57.203	.000 <sup>d</sup>
	Residual	262.596	396	.663		
	Total	376.392	399			

### Hypothesis 14

**H14.** “Perceived control moderates the effects of utilitarian products on online impulse buying”. In hypothesis 14, perceived control moderates the effects of utilitarian products on online impulse buying. It is suggested that perceived control should affect consumers’ buying decisions and influence online impulse buying. Perceived control is used as a moderator between independent variables and dependent variables.

In order to examine the influence of perceived control on online impulse buying, linear regression was conducted. The interaction effect between perceived control and utilitarian product on online impulse buying was not statistically significant:  $p < .05$  level. Three models were developed. Model 1 represents the relationship between the dummy (hedonic item) and the urge to purchase. Model 2 represents the relation between centered perceived control and online impulse buying. The final model (model 3) refers to perceived control \* dummy and its relation with the dependent variable, which is online impulse buying. F change illustrated that p value ( $p = .682$ ) was not significant enough to support our hypothesis.

All three models were insignificant. The Durbin-Watson statistic, which ranges from 0 to 4, demonstrates that a value toward 4 indicates a negative autocorrelation and our hypothesis has achieved 1.392, which indicates a positive autocorrelation. However since p value was  $>0.05$ , H14 was rejected. Table 66 and 67 show the related test results.

Table 66. Descriptive Statistics for the Moderation Effect on Online Impulse Buying

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	Change Statistics			Sig. F Change	Durbin-Watson
						F Change	df1	df2		
1	.200	.040	.037	.72361	.040	16.502	1	398	.000	
2	.351	.123	.119	.69224	.084	37.888	1	397	.000	
3	.352	.124	.117	.69296	.000	.168	1	396	.682	1.392

Table 67. ANOVA table for the Moderation Effect on Online Impulse Buying

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8.640	1	8.640	16.502	.000 <sup>b</sup>
	Residual	208.395	398	.524		
	Total	217.036	399			
2	Regression	26.796	2	13.398	27.959	.000 <sup>c</sup>
	Residual	190.240	397	.479		
	Total	217.036	399			
3	Regression	26.876	3	8.959	18.656	.000 <sup>d</sup>
	Residual	190.159	396	.480		
	Total	217.036	399			

### Hypothesis 15

**H15.** “Perceived control moderates the effects of positive mood on the urge to purchase impulsively”. In an online setting; perceived control moderates the effects of positive mood on the urge to purchase impulsively. It is suggested that perceived control should affect consumers’ buying decisions and influence the urge to purchase impulsively. Perceived control is used as a moderator between independent variables and dependent variables.

In order to examine the influence of perceived control on the urge to purchase impulsively, linear regression was conducted. The interaction effect between perceived control and positive mood on the urge to purchase impulsively was statistically significant:  $p < .05$  level. Three models were developed. Model 1 represents the relationship between the dummy (negative mood) and the urge to purchase. Model 2 represents the relation between centered perceived control and the urge to purchase impulsively. The final model (model 3) refers to perceived control \* dummy and its relation with the dependent variable, which is the urge to purchase. F change illustrated that p value ( $p = .039$ ) was significant enough to support our hypothesis.

All three models were insignificant. The Durbin-Watson statistic, which ranges from 0 to 4, demonstrates that a value toward 4 indicates a negative autocorrelation and our hypothesis has achieved .817, which indicates a positive autocorrelation. However since  $p > 0.05$ , H15 was accepted. Table 68 and 69 show the related test results.

Table 68. Tests of Between-Subjects Effects for the Moderation Effect on the Urge to Purchase Impulsively

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	Change Statistics			Sig. F Change	Durbin-Watson
						F Change	df1	df2		
1	.462	.214	.212	.86236	.214	108.136	1	398	.000	
2	.528	.278	.275	.82712	.065	35.634	1	397	.000	
3	.535	.286	.281	.82374	.008	4.269	1	396	.039	.817

Table 69. ANOVA table for the Moderation Effect on the Urge to Purchase Impulsively

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	80.416	1	80.416	108.136	.000 <sup>b</sup>
	Residual	295.976	398	.744		
	Total	376.392	399			
2	Regression	104.794	2	52.397	76.590	.000 <sup>c</sup>
	Residual	271.599	397	.684		
	Total	376.392	399			
3	Regression	107.691	3	35.897	52.903	.000 <sup>d</sup>
	Residual	268.702	396	.679		
	Total	376.392	399			

### Hypothesis 16

**H16.** “Perceived control moderates the effects of positive mood on online impulse buying.” In an online setting, perceived control moderates the effects of positive mood on online impulse buying. It is suggested that perceived control should affect consumers’ buying decisions and influence online impulse buying. Perceived control is used as a moderator between independent variables and dependent variables.

In order to examine the influence of perceived control on online impulse buying, linear regression was conducted. The interaction effect between perceived control and positive mood on online impulse buying was not statistically significant:  $p < .05$  level. Three models were developed. Model 1 represents the relationship between moods and online impulse buying. Model 2 represents the relation between centered perceived control and online impulse buying. The final model (model 3) refers to perceived control \* dummy and its relation with the dependent variable, which is online impulse buying. F change illustrated that p value ( $p=.087$ ) was not significant enough to support our hypothesis.

All three models were insignificant. The Durbin-Watson statistic, which ranges from 0 to 4, demonstrates that a value toward 4 indicates a negative autocorrelation and our hypothesis has achieved 1.301, which indicates a positive autocorrelation. However since  $p > .05$  ( $p= .388$ ), H16 was rejected. Table 70 and 71 show the related test results.

Table 70. Tests of Between-Subjects Effects for the Moderation Effect on Online Impulse Buying

Mode	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	Change Statistics			Sig. F Change	Durbin-Watson
						F Change	df1	df2		
1	.360	.129	.127	.68909	.129	59.073	1	398	.000	
2	.397	.158	.154	.67849	.029	13.528	1	397	.000	
3	.399	.160	.153	.67871	.002	.747	1	396	.388	1.387

Table 71. ANOVA table for the Moderation Effect on Online Impulse Buying

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	28.050	1	28.050	59.073	.000 <sup>b</sup>
	Residual	188.986	398	.475		
	Total	217.036	399			
2	Regression	34.278	2	17.139	37.230	.000 <sup>c</sup>
	Residual	182.758	397	.460		
	Total	217.036	399			
3	Regression	34.622	3	11.541	25.053	.000 <sup>d</sup>
	Residual	182.414	396	.461		
	Total	217.036	399			

### Hypothesis 17

**H17.** “Perceived control moderates the effects of high levels of discount on the urge to purchase impulsively”. During an online purchase, perceived control moderates the effects of high levels of discount on the urge to purchase impulsively. It is suggested that perceived control should affect consumers’ buying decisions and influence the urge to purchase. Perceived control acts as a moderator between independent variables and dependent variables.

In order to examine the influence of perceived control on the urge to purchase impulsively, linear regression was conducted. The interaction effect between perceived control and discount levels on the urge to purchase impulsively was not statistically significant:  $p < .05$  level. Three models were developed. Model 1 represents the relationship between high level of discount and the urge to purchase impulsively. Model 2 represents the relation between centered perceived control and the urge to purchase impulsively.

The final model (model 3) refers to perceived control \* dummy (low level of discount) and its relation with the dependent variable, which is the urge to purchase impulsively. F change illustrated that p value (.839) was not significant enough to support our hypothesis. Therefore, H17 was rejected. Table 72 and 73 show the related test results.

Table 72. Descriptive Statistics for the Moderation Effect on the Urge to Purchase Impulsively

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	Change Statistics			Sig. F Change	Durbin-Watson
						F Change	df1	df2		
1	.429	.184	.182	.87857	.184	89.625	1	398	.000	
2	.509	.260	.256	.83788	.076	40.596	1	397	.000	
3	.510	.260	.254	.83889	.000	.041	1	396	.839	.813

Table 73. ANOVA table for the Moderation Effect on the Urge to Purchase Impulsively

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	69.181	1	69.181	89.625	.000 <sup>b</sup>
	Residual	307.212	398	.772		
	Total	376.392	399			
2	Regression	97.681	2	48.841	69.569	.000 <sup>c</sup>
	Residual	278.711	397	.702		
	Total	376.392	399			
3	Regression	97.710	3	32.570	46.281	.000 <sup>d</sup>
	Residual	278.682	396	.704		
	Total	376.392	399			

### Hypothesis 18

**H18.** “Perceived control moderates the effects of high levels of discount on online impulse buying”. In an online purchase, perceived control moderates the effects of high levels of discount on online impulse buying. It is suggested that perceived control should affect consumers’ buying decisions and influence online impulse buying. Perceived control is used as a moderator between independent variables and dependent variables.

In order to examine the influence of perceived control on the urge to purchase, linear regression was conducted. The interaction effect between perceived control and high level of discount on online impulse buying was not statistically significant:  $p < .05$  level. Three models were developed. Model 1 represents the relationship between high level of discount and online impulse buying. Model 2 represents the relation between centered perceived control and online impulse buying. The final model (model 3) refers to perceived control \* dummy (low level of discount) and its relation with the dependent variable, which is online impulse buying. F change illustrated that p value (.811) was not significant enough to support our hypothesis. H18 was rejected. Table 74 and 75 show the related test results.

Table 74. Descriptive Statistics for the Moderation Effect on Online Impulse Buying

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	Change Statistics			Sig. F Change	Durbin-Watson
						F Change	df1	df2		
1	.197	.039	.037	.72393	.039	16.136	1	398	.000	
2	.301	.090	.086	.70517	.051	22.452	1	397	.000	
3	.301	.091	.084	.70601	.000	.057	1	396	.811	1.308

Table 75. ANOVA table for the Moderation Effect on Online Impulse Buying

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8.456	1	8.456	16.136	.000 <sup>b</sup>
	Residual	208.579	398	.524		
	Total	217.036	399			
2	Regression	19.621	2	9.811	19.729	.000 <sup>c</sup>
	Residual	197.415	397	.497		
	Total	217.036	399			
3	Regression	19.650	3	6.550	13.141	.000 <sup>d</sup>
	Residual	197.386	396	.498		
	Total	217.036	399			

### Hypothesis 19

According to Hypothesis 19, the urge to purchase impulsively has a positive impact on online impulse buying. In order to examine the relationship between these two dependent variables, a linear regression test was conducted. The results of regression tests at  $p < .05$  level indicated that there were significant differences between the urge to purchase and online impulse buying.

The outcome of linear regression test demonstrated that there was a significant difference between the monthly income and online impulse buying.  $[F(1, 398) = 137.541, p = .000]$ . All three models were insignificant. The Durbin-Watson statistic, which ranges from 0 to 4, demonstrates that a value toward 4 indicates a negative autocorrelation and our hypothesis has achieved 1.480, which indicates a positive autocorrelation. The results revealed that the urge to purchase impulsively has a positive relationship with online impulse buying. H19 was supported. Table 76 show the related test results.

Table 76. ANOVA Statistics for the Effects of Monthly Income on Online Impulse Buying

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	55.740	1	55.740	137.541	.000 <sup>b</sup>
	Residual	161.295	398	.405		
	Total	217.036	399			
a. Dependent Variable: Online Impulse Buying						
b. Predictors: (Constant), Urge to Purchase Impulsively						

Table 77. Summary of Hypotheses

H1.	In an online setting, the urge to purchase impulsively is likely to be higher among consumers who are exposed to hedonic products compared to those exposed to utilitarian products.	<b>Accepted</b>
H2.	In an online setting, impulse buying is likely to be higher among consumers who are exposed to hedonic products compared to those exposed to utilitarian products.	<b>Accepted</b>
H3.	In an online setting, the urge to buy impulsively is likely to be higher among consumers who are exposed to high levels of discount compared to those exposed to low levels of discount.	<b>Accepted</b>
H4.	In an online setting, impulse buying is likely to be higher among consumers who are exposed to high levels of discount compared to those exposed to low levels of discount.	<b>Accepted</b>
H5.	In an online setting, the urge to purchase impulsively is likely to be higher among consumers with positive moods compared to those with negative moods.	<b>Accepted</b>
H6.	In an online setting, impulse buying is likely to be higher among consumers with positive moods compared to those with negative moods.	<b>Accepted</b>
H7.	In an online setting, In a positive mood state, consumers exposed to hedonic products should have more urge to purchase impulsively compared to those exposed to utilitarian products.	<b>Rejected</b>

H8.	In an online setting, in a positive mood state, consumers exposed to hedonic products should perform more online impulse buying compared to those exposed to utilitarian products.	<b>Rejected</b>
H9.	In an online setting, in a positive mood state, consumers who are offered high levels of discount should have more urge to purchase impulsively compared to those offered low levels of discount.	<b>Rejected</b>
H10.	In an online setting, in a positive mood state, consumers who are offered high levels of discount should perform more online impulse buying compared to those offered low levels of discount.	<b>Rejected</b>
H11.	In an online setting, in a situation where there is a high level of discount, consumers exposed to utilitarian products should have more urge to purchase impulsively compared to those exposed to hedonic products.	<b>Rejected</b>
H12.	In an online setting, in a situation where there is a high level of discount, consumers exposed to utilitarian products should perform more online impulse buying compared to those exposed to hedonic products.	<b>Rejected</b>
H13.	In an online setting, perceived control moderates the effects of utilitarian products on the urge to purchase impulsively.	<b>Accepted</b>
H14.	In an online setting, perceived control moderates the effects of utilitarian products on online impulse buying.	<b>Rejected</b>

H15.	In an online setting, perceived control moderates the effects of positive mood on the urge to purchase impulsively.	<b>Accepted</b>
H16.	In an online setting, perceived control moderates the effects of positive mood on online impulse buying.	<b>Rejected</b>
H17.	In an online setting, perceived control moderates the effects of high levels of discount on the urge to purchase impulsively.	<b>Rejected</b>
H18.	In an online setting, perceived control moderates the effects of high levels of discount on online impulse buying.	<b>Rejected</b>
H19.	The urge to purchase impulsively has a positive impact on online impulse buying.	<b>Accepted</b>

### 4.3 Control Variables

The role of gender in online impulse buying has been studied (Coley and Burgess, 2003; Verhagen and Dolen, 2011). Females are more likely than males to encounter an urge to purchase something. They added that females are more likely than males to buy the actual product which they really liked. One of the early studies suggested that females were likely to feel a greater urge to purchase. Therefore, females tend to be more overwhelmed by the urge to purchase (Coley and Burgess, 2003).

According to previous studies, the perception of online impulse buying may differ among females and males in terms of their reactions to online impulse purchase. Apart from these, variation in education, income and age levels may also affect the perception on online impulse buying and they may affect the final outcome of the shopping experience (Kollat and Willett, 1967).

## Gender

In order to discover the effects of gender on the urge to purchase impulsively and online impulse buying, a one-way ANOVA was conducted. Test result of Levene's homogeneity of variance predictions was proved for dependent variables and the moderation variable. The result of one-way between-subjects ANOVA illustrated that, at the  $p < .05$  level, there was no significant difference between males and females on the urge to purchase impulsively [ $F(1,398) = .635, p = .426$ ] and on online impulse buying [ $F(1,398) = 2.856, p = .092$ ].

According to the outcome of Welch Robustness Test, there was no significant difference between genders in terms of the urge to purchase impulsively [ $F(1,384) = .630, p = .428$ ] and online impulse buying [ $F(1,389) = 2.850, p = 0.92$ ] finally perceived control (moderator variable) [ $F(1,380) = .060, p = .807$ ].

As previous studies show, females experience a greater urge than males.

Males: ( $M_M = 3.06, SD = .94621$ )

Females ( $M_F = 3.14, SD = 1.0002$ )

Males: ( $M_M = 2.76, SD = .73074$ )

Females ( $M_F = 2.89, SD = .74163$ )

Table 78. Test of Homogeneity of Variances for Gender

	Levene Statistic	df1	df2	Sig.
Urge to Purchase Impulsively	1,170	1	398	,280
Perceived Control	2,932	1	398	,088
Online Impulse Buying	,027	1	398	,870

Table 79. ANOVA Statistics for Gender

		Sum of Squares	df	Mean Square	F	Sig.
Urge to Purchase Impulsively	Between Groups	.599	1	.599	.635	.426
	Within Groups	375.793	398	.944		
	Total	376.392	399			
Perceived Control	Between Groups	.034	1	.034	.060	.806
	Within Groups	224.260	398	.563		
	Total	224.294	399			
Online Impulse Buying	Between Groups	1.546	1	1.546	2.856	.092
	Within Groups	215.490	398	.541		
	Total	217.036	399			

Table 80. Robustness Tests of Equality of Means for Gender

		Statistic <sup>a</sup>	df1	df2	Sig.
Urge_AVG	Welch	.630	1	383.300	.428
	Brown-Forsythe	.630	1	383.300	.428
Perceived_AVG	Welch	.060	1	379.034	.807
	Brown-Forsythe	.060	1	379.034	.807
OnlineB_AVG	Welch	2.850	1	388.610	.092
	Brown-Forsythe	2.850	1	388.610	.092

## Age

Participants were divided into four different age groups (Group 1: 25 and below, Group 2: 26-34, Group 3: 35-44, Group 4: 46 and above). Homogeneity of Variance predictions was valid for all dependent variables.

Additionally, Welch test results were taken as the basis for dependent variables. According to the results of ANOVA and Welch Robustness Test, there was no statistically significant difference:  $p < .05$  level. Age effects on the urge to purchase were  $[F(3, 396) = 2.174, p = .091]$  and  $[F(3, 396) = 1.747, p = .157]$ . Age effects on perceived control (moderator) were not significant:  $[F(3, 396) = .166, p = .920]$

Afterwards, post-hoc comparisons with Tukey test indicated that there was no significant difference in the mean score for any of the groups.

Table 81. Test of Homogeneity of Variances for Age

	Levene Statistic	df1	df2	Sig.
Urge_AVG	1.107	3	396	.346
Perceived_AVG	1.909	3	396	.128
OnlineB_AVG	.726	3	396	.537

Table 82. ANOVA Statistics for Age

		Sum of Squares	df	Mean Square	F	Sig.
Urge to Purchase Impulsively	Between Groups	6.099	3	2.033	2.174	.091
	Within Groups	370.293	396	.935		
	Total	376.392	399			
Perceived Control	Between Groups	.281	3	.094	.166	.920
	Within Groups	224.013	396	.566		
	Total	224.294	399			
Online Impulse Buying	Between Groups	2.835	3	.945	1.747	.157
	Within Groups	214.201	396	.541		
	Total	217.036	399			

Table 83. Robustness Tests of Equality of Means for Age

		Statistic <sup>a</sup>	df1	df2	Sig.
Urge to Purchase Impulsively	Welch	1.940	3	4.851	.244
	Brown-Forsythe	1.641	3	3.470	.330
Perceived Control	Welch	.149	3	5.687	.927
	Brown-Forsythe	.235	3	116.811	.872
Online Impulse Buying	Welch	1.852	3	4.934	.256
	Brown-Forsythe	2.004	3	31.409	.134

## Education

Participants were divided into five groups according to their education levels (Group 1: secondary school graduates, Group 2: high school graduates, Group 3: university students, Group 4: undergraduates, Group 5: those with a graduate degree). Homogeneity of Variance assumptions was valid for the urge to purchase impulsively, online impulse buying and the moderator variable (perceived control).

Additionally, Welch Test was conducted. According to the results of Anova and Welch Robustness Test, a statistically significant difference at the  $p < .05$  level was not found. Scores for the urge to purchase according to education were: [F (4, 395) =1.933,  $p=.104$ ] for online impulse buying:[F (4, 395) =716,  $p=.581$ ] and finally effects of education on perceived control were: [F (4, 395) =1.684,  $p=.002$ ].

According to the results, the participants who were university graduates ( $M_{UG}= 3.24$ ,  $SD= 1.002$ ) had a greater mean score in terms of the urge to purchase impulsively compared to the other education groups. Surprisingly, secondary school graduates had a greater perceived control score compared to the other education groups ( $M=3.18$ ,  $SD= .37500$ ). Statistics illustrate that university graduates had a greater score in terms of online impulse buying ( $M= 2.93$ ,  $SD= .75465$ )

Table 84. Test of Homogeneity of Variances for Education

	Levene Statistic	df1	df2	Sig.
Urge_AVG	2.028	4	395	.090
Perceived_AVG	2.248	4	395	.063
OnlineB_AVG	1.124	4	395	.345

Table 85. ANOVA Statistics for Education

		Sum of Squares	df	Mean Square	F	Sig.
Urge_AVG	Between Groups	7.226	4	1.807	1.933	.104
	Within Groups	369.166	395	.935		
	Total	376.392	399			
Perceived_AVG	Between Groups	1.614	4	.404	.716	.581
	Within Groups	222.679	395	.564		
	Total	224.294	399			
OnlineB_AVG	Between Groups	3.640	4	.910	1.684	.153
	Within Groups	213.396	395	.540		
	Total	217.036	399			

Table 86. Robustness Tests of Equality of Means for Education

		Statistic <sup>a</sup>	df1	df2	Sig.
Urge_AVG	Welch	1.747	4	23.620	.173
	Brown-Forsythe	2.249	4	77.589	.071
Perceived_AVG	Welch	1.235	4	19.444	.329
	Brown-Forsythe	.705	4	54.227	.592
OnlineB_AVG	Welch	1.508	4	19.279	.239
	Brown-Forsythe	2.110	4	87.787	.086

### Income

Participants were divided into five income groups (Group 1: 0-1700 TL, Group 2 : 1701-3000 TL, Group 3: 3001-4300 TL, Group 4: 4001-5600 TL, Group 5: 5601 TL and above). Homogeneity of Variance predictions was valid for all variables and the moderator variable. Welch Test was conducted for variables to illustrate significant differences.

According to the outcome of Anova and Welch Robustness Test, only the urge to purchase and income have a significant difference at the  $p < .05$  level between the income groups on dependent variables [ $F(1, 395) = 2.390, p = .050$ ]. Table 87,88 and 89 show the related test results.

A one-way ANOVA test was conducted. Results indicated that, the rate of Internet shopping, attitude towards Internet shopping and online impulse buying differs according to demographics. As table 90 illustrates, three demographic characteristics have a significant relationship with online impulse buying.

Table 87. Test of Homogeneity of Variances for Income

	Levene Statistic	df1	df2	Sig.
Urge_AVG	.376	4	395	.826
Perceived_AVG	1.110	4	395	.351
OnlineB_AVG	1.187	4	395	.316

Table 88. ANOVA Statistics for Income

		Sum of Squares	df	Mean Square	F	Sig.
Urge_AVG	Between Groups	8.893	4	2.223	2.390	.050
	Within Groups	367.500	395	.930		
	Total	376.392	399			
Perceived_AVG	Between Groups	.473	4	.118	.209	.934
	Within Groups	223.821	395	.567		
	Total	224.294	399			
OnlineB_AVG	Between Groups	3.005	4	.751	1.386	.238
	Within Groups	214.031	395	.542		
	Total	217.036	399			

Table 89. Robustness Tests of Equality of Means for Income

		Statistic <sup>a</sup>	df1	df2	Sig.
Urge_AVG	Welch	2.381	4	68.287	.060
	Brown-Forsythe	2.463	4	150.726	.048
perceived_AVG	Welch	.166	4	65.952	.955
	Brown-Forsythe	.170	4	97.824	.953
OnlineB_AVG	Welch	1.377	4	70.185	.251
	Brown-Forsythe	1.437	4	156.381	.224

Table 90. ANOVA table for the Demographic Characteristics on Online Impulse Buying

		Sum of Squares	df	Mean Square	F	Sig.
Education	Between Groups	43.707	62	.705	1.226	.133
	Within Groups	193.733	337	.575		
	Total	237.440	399			
Income	Between Groups	123.307	62	1.989	1.763	.001
	Within Groups	380.133	337	1.128		
	Total	503.440	399			
Internet Shopping Rate	Between Groups	119.478	62	1.927	2.168	.000
	Within Groups	299.482	337	.889		
	Total	418.960	399			
Internet Usage Rate	Between Groups	64.942	62	1.047	1.283	.088
	Within Groups	275.098	337	.816		
	Total	340.040	399			
Attitude Towards Internet Shopping	Between Groups	147.802	62	2.384	1.890	.000
	Between Groups	425.136	337	1.262		
	Within Groups	43.707	62	.705	1.226	.133

### **Internet Shopping Rate**

The test results indicated that there was a significant difference between the rate of Internet shopping and the urge to purchase impulsively. Additionally, test results indicated that income and Internet usage rate were not statistically different, thus, income and internet usage rate has no relationship with the urge to purchase impulsively.

The results revealed that the rate of Internet shopping has effect on the urge to purchase impulsively;  $p = .017$  value proves that shopping rate has a difference with the urge to purchase impulsively. Table 91 show the related test results.

Table 91. ANOVA table for the Demographic Characteristics on the Urge to Purchase Impulsively

		Sum of Squares	df	Mean Square	F	Sig.
Education	Between Groups	20,239	24	,843	1,456	,078
	Within Groups	217,201	375	,579		
	Total	237,440	399			
Income	Between Groups	30,829	24	1,285	1,019	,440
	Within Groups	472,611	375	1,260		
	Total	503,440	399			
Internet Shopping Rate	Between Groups	42,070	24	1,753	1,744	,017
	Within Groups	376,890	375	1,005		
	Total	418,960	399			
Internet Usage Rate	Between Groups	17,078	24	,712	,826	,703
	Within Groups	322,962	375	,861		
	Total	340,040	399			
Attitude Towards Internet Shopping	Between Groups	35,610	24	1,484	1,035	,419
	Between Groups	537,328	375	1,433		
	Within Groups	572,938	399	,843		

## **CHAPTER 5 DISCUSSION and CONCLUSION**

This part of the thesis examines the findings, limitations, suggestions and future work that bear the possibility to broaden the presented research endeavor. The initial segment of this part provides a detailed description of the findings obtained from this research. The constraints of conducting a between-subjects experimental design are presented. Finally, the discussion of the theoretical and practical implications and conclusions extracted from this research are presented.

### **5.1 Discussion of the Results**

Impulse buying and the urge to purchase impulsively are the most extensively cited research responses from the view point of both marketing and retailing; however, there is insufficient evidence on how mood states of the individual and mental perception of discount levels influence online impulse buying and the urge to purchase impulsively.

During the last six decades, impulse buying has been evaluated with a narrow perspective; one or two bricks and mortar stores stimuli were taken into consideration while conducting studies. In the early 2000s, retailing industry focused on the subject of “online impulse buying” and studies started considering the multi-dimensional effects of stimuli on organism (Beatty and Ferrell, 1998). Koufaris (2002) suggested that understanding how online settings can be used to increase online purchases is the future research field.

Based on these factors, one of the main aims of this experimental study has been to gain an insight into the influence of product types (hedonic versus utilitarian), discount levels (low versus high discount level), and mood states (positive and negative moods) on online impulse buying and the urge to purchase impulsively.

The online impulse buying model examines the effects of internal and external stimuli on the urge to purchase impulsively and online impulse buying. The fundamental presumption of this thesis model is that impulse buying behaviour is brought about by hedonic aspirations. To multiply the possibilities that an individual may take part in an online impulse purchase and for the sake of maximizing the hedonic aspects, a hedonic product was presented as a stimulus while positive mood state was presented to maximize the likelihood of the consumers’ urge to purchase impulsively. Alternatively, price discount was presented to alter consumers’ considerations about online impulse buying.

The results of this research offer several suggestions both for the theory and for the practical implications. Companies which offer promotion mixes such as price discount and a variety of product categories such as hedonic and utilitarian product category can take advantage of this research.

As suggested by the theoretical framework, existence of the hedonic aspects on the model was illustrated as a significant, positive effect on the urge to purchase impulsively and online impulse buying. Yu and Bastin (2010) suggest that hedonic aspects are closely associated with the urge to purchase impulsively and online impulse buying.

As previous studies show impulse buying is a spontaneous, hedonically complex buying behaviour; hedonic practices allude to delight as opposed to the utilitarian practices which refer to functional benefits (Bayley and Nancarrow, 1998).

In this research, the types of product were presented to provide a functional convenience and structural firmness in terms of 2x2x2 between-subjects experimental design, which were selected to represent the purchase patterns of both types of consumers. Babin et al. (1994), and Eroglu et al., (2001) suggest that external stimuli have an essential effect on consumers purchasing decisions, which have both hedonic and utilitarian motives. As evidenced by the conclusions of this research and all the other prior studies on the urge to purchase impulsively, these stimuli are measured based on their influence over consumers' urge to purchase impulsively.

Cobb and Hoyer (1986) state that there is an upward trend in impulse purchase; most of the consumers, once in a while, purchase on impulse. Our findings are in line with the existing literature. Also, hedonic consumption has a direct effect on impulse buying Piron (1991).

With the help of the S-O-R framework, the results illustrate that stimuli (hedonic products) create a positive effect on the responses (online impulse buying and the urge to purchase impulsively). Beatty and Ferrell (1998) suggest that in an offline setting, hedonic product presence has a positive influence on impulse buying. In this research, the relationship between product types, online impulse buying and the urge to purchase impulsively was tested in an online setting and support was found for this relationship. Any exposure to the hedonic product increases the probability of an urge to purchase impulsively and prompt

online impulse buying, since the stimulus is the trigger in online impulse buying and the urge to purchase impulsively.

Results support that there is a positive impact between hedonic product and the urge to purchase impulsively. The presence of the hedonic stimulus (perfume) heightens the urge to purchase impulsively, which eventually leads to the actual purchase of the product.

Since the product type stimulus has hedonic aspects, it is expected to have a greater influence than utilitarian product on the urge to purchase impulsively. The findings of this research suggest that hedonic products have a positive impact on the urge to purchase impulsively. The result of this research states that consumers who are exposed to hedonic products are more likely to feel an urge to purchase impulsively than those exposed to utilitarian products.

This study illustrates that a high level of discount has a more positive effect than low level of discount among the participants who participated in the test (n=400). A high level of discount was assigned as a stimulus and its influence on the urge to purchase impulsively (response) was tested.

Dawson and Kim (2009) suggest that in an online retailing, price discounts have one of the strongest impacts on impulse consumption behaviour in the short term. Price discount is an effective instrument which triggers the urge to purchase impulsively for online shoppers.

In this study, reference price was 100 TLs for both of the product types; utilitarian and hedonic, and 30% was a high level of discount whereas 10% was a low level of discount. Study result illustrate that a high level of discount has a greater impact on online impulse buying than a low level of discount.

The results of this study show that a high level of discount has a significant effect on the urge to purchase impulsively; in contrast, a low level of discount has little effect on the urge to purchase. Both of the discount rates were selected carefully and reference item prices were 100 TLs to avoid bias and unfavorable situations.

Xu and Huang (2014) demonstrated that price discount was a more efficient trigger of online impulse buying than was bonus pack, especially for hedonic and cheap products. However, bonus pack had a greater effect on online impulse buying when the product was utilitarian and expensive.

Babin et al. (1995) suggest that emotions usually interfere in the relationship between an environment and ensuing cognitive and affective responses; positive mood state can reduce consumers' judgement over purchasing decisions. In prior studies, positive mood was often reported as an internal stimulus of impulse buying, helping to regulate consumers' purchase decisions.

Chitturi et al. (2007) analyzed the emotional and behavioural outcomes of conducting utilitarian versus hedonic trade-offs. Research context involved both negative and positive emotions such as guilt, anxiety, cheerfulness and excitement. Their findings illustrated that trading utilitarian attributes for hedonic ones recall guilt. As for the preference between two options that cover or exceed desired cutoffs on both utilitarian and hedonic aspects, consumers choose the hedonic option.

Studies show that moods and emotions have influence at all levels of decision making process of consumers. Moods are not intense and permanent; however, they are considered to be general feeling states. Moreover, moods are not directed toward an object, they are a general feeling state (Gardner, 1985).

Beatty and Ferrell (1998) state that moods have a dense and complicated role in impulse buying; moods can influence consumers' evaluation and intervene in the decision making process. Murray et al. (2010) suggest that consumers in positive moods are likely to spend more. Additionally, positive mood inspires more impulse buying than negative mood (Beatty and Ferrell, 1998).

Moods have been classified as stimuli that profoundly affect a number of actions as regards impulse purchasing. Consumers' positive mood can be influenced by their pre-existing moods, emotional disposition, and reaction to existing environmental stimuli such as hedonic-utilitarian items and price discounts (Jeon, 1992).

In contrast, negative mood state, which an individual may experience intensively, has the potential to negatively affect consumers' impulse buying behaviour; negative mood state may reduce the willingness to make a purchase. According to previous studies, the influence of negative mood state on consumers' behaviours is unclear, but it may time to time generate similar responses shown when in a positive mood state. However, in different circumstances, it may generate an opposite influence. (Clark and Isen, 1982; Faber and Christenson, 1996; Youn and Faber, 2000).

In the positive mood scenario, an ordinary picture is drawn where an individual has fun on Sunday and goes to cinema for a comedy movie. These elements were enough to reflect the positive mood toward the participants and as a result, positive mood has a greater impact on the urge to purchase impulsively than negative mood.

Consumers that experience positive moods are more likely to feel an urge to purchase impulsively when they are exposed to hedonic products rather than utilitarian products.

In this study, positive mood has proven that mood has an effect on the product type ( $M=3,99$ ) and moods in general affect the urge to purchase impulsively. There is a significant relationship between the product type and mood states; a positive mood increases the urge to buy a hedonic product type impulsively.

In this study, the interaction level of product types and positive mood state was tested; however, although both stimuli have a significant effect on online impulse buying but there was no interaction between these two stimuli.

Contrary to expectations, no interaction was found between the level of discount and positive mood. Surprisingly, findings were opposite what the S-O-R framework suggested, which points out that the mood state and a high level of discount lead to online impulse buying. (Eroglu et al., 2001; Xu and Huang, 2014).

Although both of the stimuli individually have a significant relationship with response variables (online impulse buying and urge to purchase impulsively), the combination of these two stimuli present no interaction.

This research also tries to figure out whether product types and level of discount create an interaction effect on the urge to purchase impulsively and online impulse buying. No interaction between product types and responses was found as a result.

Mehrabian and Russell (1974) describe perceived control as a basic human emotion, along with other basic emotions such as pleasure and arousal. In their study, perceived control refers to dominance: feelings of lack of control over one's behaviour and the environment.

Averill (1973) categorize perceived control into three different types: cognitive control, decisional control, and behavioral control. Cognitive control represents the idea, the way in which an incident is explicated, predicted or combined into a cognitive plan. Decisional control refers to the opportunity to choose from several courses of actions, and it represent the range of options which are available to an individual. Behavioral control is defined as

the range of responses which may directly affect the objective's nature of a threatening incident. Additionally, Ajzen (2002) proposed that behavioural control is the perceived ease or difficulty of accomplishing a behavior.

Ward and Barnes (2001) observed that, in a retailing environment, consumers who have control over their behaviour display better mood state and they are more involved with the task on which they are focusing. Alternatively, perceived control may be essential for task-oriented consumers who are shopping for utilitarian products while achieving shop efficiency in order to attain their own shopping goals (Lunardo and Mbengue, 2009).

In this study, results show that perceived control has a moderation effect on utilitarian products; consumers have more control when they are exposed to utilitarian products when it comes to the urge to purchase impulsively; however, online impulse buying of the utilitarian product is not supported by this research. Consumers who have positive perceived control during the purchase of a utilitarian product do not engage in online impulse buying. Results shows that perceived control has an impact on utilitarian product, and perceived control moderates the effects of utilitarian products on the urge to purchase impulsively.

As the previous studies suggest, a positive mood state provides more perceived control while performing tasks. In this study, the moderation effect of perceived control was tested, afterwards, results illustrate that perceived control moderates the impacts of positive mood state on the urge to purchase impulsively. Therefore, while consumers are in a positive mood, they are likely to feel in control, although in terms of online impulse buying, they are not eager to engage in online shopping.

This study tries to provide a deeper understanding of the discount levels on responses. Thus, analyses were conducted within groups. Surprisingly, perceived control moderation effect was not supported; in high level of discount, consumers displayed little desire to engage in online impulse buying.

As for the online shopping frequency, consumers who use the Internet more frequently are more likely to engage in online shopping. Additionally, income and online impulse buying have a positive relationship; results indicate that consumers who have more income are more likely to engage in online impulse buying than those with lower income.

The urge to purchase impulsively seems, by all accounts, to be a critical factor (Beatty and Ferrell 1998).

## **5.2. Managerial and Theoretical Implications**

From managerial point of view, study results indicate that there is a positive influence of product types on the urge to purchase impulsively and online impulse buying. Online retailers need to constantly shift their product range from utilitarian products to hedonic products. Additionally, the level of discount may be used as a key component of retailing mix. Results indicate that a high level of discount influences the consumers' decision to engage in online impulse buying. Mood states have an influence on consumers' purchase decision. Online retailers need to consider making their sites enjoyable and stress-free; complex website procedures cause stress to consumers and this leads to frustration.

The reasonable integration and synergistic impacts of a few components that affect online impulse buying could lead to extraordinary sales turnover, which will accordingly be helpful for online businesses and retailers.

An important subject for the practitioners is that utilitarian products are task-oriented. When this is combined with a high level of discount, consumers who have shopping efficiency goals may engage in actual online purchase.

Additionally, results offer recommendations for the retailing industry with regard to product types. Pleasure, joy and excitement encourage online impulse buying and a positive mood has a significant effect on the urge to purchase impulsively. Therefore, retailers may improve their websites to enhance consumers' mood, which increases the possibility of an actual purchase.

This thesis may offer fundamental contributions to online retailers who want to improve their website structure and design. Research results offer a guideline about understanding consumers' buying decisions and their impulsive behaviours in an online setting.

As an additional finding, consumers who are between the ages of 20 and 23 spend more than six hours on the Internet, thus their attitudes towards online shopping are more positive than the other age groups. Also, participants who are university students display very positive (5 point in Likert scale) attitudes towards online shopping compared to the other educational levels.

Exploring and examining all the issues mentioned above may improve the understanding on the impacts of consumers' behaviors in terms of the urge to purchase impulsively and online impulse buying.

### **5.3. Limitations and Recommendations for Further Research**

The use of scenario-based between-subjects experimental design has limitations regarding external validity. For example, in every scenario, participants are told to think they are in that situation, however, emotional involvement of the participant limits the effects of the experiment; participants' responses to scenarios may be weaker as far as actual mood state and purchase experience are concerned. Alternatively, to increase the external validity of the data collection, field setting was selected for this study.

Another limitation of the thesis is that only two basic human emotions are captured; positive and negative emotional states. Therefore, positive and negative mood states were investigated in the context of mood state; however, other emotional states such as guilt, pleasure and arousal can be explored in future studies.

The results of this research establish a good base model through which the combination of variables and their effects on the urge to purchase impulsively and online impulse buying can be determined.

The measurement of the perceived control was a limitation for this research. A multi-item scale was adopted and translated into Turkish. Due to the nature of the items, the scale failed to capture an individual's true reactions to the scenarios. Additionally, participants may not be accurate and honest about their control over the situation, and therefore they tend to hide their actual answers.

Nonetheless, this study was conducted with a paper-based questionnaire. Visualization of the web site in the scenarios may be challenging for the participants due to the fact that the limitations between-subjects experimental design take place in the field rather than in the designed laboratory. Thus, as future research, computer laboratory or equivalent setting may be used to conduct further studies.

Finally, this thesis focuses on using the S-O-R framework to understand consumers' urge to purchase impulsively and online impulse buying behaviours. In future studies, effects of different stimuli and organisms can be investigated.

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## **APPENDICES**

### **Appendix A**

#### **Online impulse buying scale**

A nine-item scale was adopted from Rook and Fisher (1995), however due to nature of this research, the scale was modified for online setting. The statement “When I visit this website” was applied for each scale.

When I visit this website,

1. I often buy things spontaneously
2. "Just do it" describes the way I buy things.
3. I often buy things without thinking.
4. "I see it, I buy it" describes me.
5. "Buy now, think about it later" describes me.
6. Sometimes I feel like buying things on the spur of the moment.
7. I buy things according to how I feel at that moment.
8. I carefully plan most of my purchases.
9. Sometimes I am a bit reckless about what I buy.

### **Appendix B**

#### **The urge to purchase impulsively scale**

A five-item scale was adopted from Beatty and Ferrell (1998).

When I visited this website,

- I experienced a number of sudden urges to buy things
- I had not made a plan to purchase something

- I saw a number of things I wanted to buy even though they were not on my shopping list.
- I experienced no strong urge to make unplanned purchases
- I felt a sudden urge to buy something

## **Appendix C**

### **Perceived control scale**

A four-item scale was adopted from Koufaris (2002) and Ghani (1991).

When I visited this website,

- I felt confused
- I felt calm.
- I felt in control.
- I felt frustrated.

## **Appendix D**

### **Product type manipulation check test**

Sayın Katılımcı,

Bu araştırma; çevrimiçi plansız satın alma ve tüketici davranışları arasındaki ilişkiyi incelemek amacıyla yürütülen akademik bir çalışmadır. Bu soruları cevaplandırmak ortalama olarak 5 dakikanızı almaktadır. Katılımınız tamamen gönüllülük esasına dayanmaktadır. Bu testten elde edilen cevaplar yüksek lisans tezi için kullanılacaktır. Kişisel cevaplar değil örneklemden alınan kümülatif cevaplar önem taşımaktadır. Bu nedenle kimlik bilgilerinizi yazmanıza gerek yoktur. Bu araştırmaya katılmanız sizin için herhangi bir risk taşımamakta olup cevaplarınızın tümü gizli tutulacaktır.

Saygılarımla,

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Soruları cevaplandırmadan önce lütfen hedonik ve faydacı ürün/tüketim davranışı üzerine tanımları inceleyiniz.

Hedonik ürünler, eğlence, zevk ve heyecan sağlayan, deneyimsel tüketim ürünleridir. Hedonik ürünlerde duygusal tepkiler, duygusal hazlar, düş kurma ve estetik beklentiler ön plandadır.

Faydalı ürünler etkili, yardımcı, işlevsel ve pratiktir. Bu ürünler insanların somut ihtiyaçlarını gidermesi için gereken ürünlerdir.

Lütfen aşağıdaki senaryoya göre sorulara cevap veriniz.

Lüks ve çok özel bir koku olan Summer Spirit, taze hissettiren gün boyu kendinizi güvende hissetmenizi sağlayan hoş aromalarla harmanlanmış bir parfümdür.

- Bu ürünün hedonik bir ürün olduğunu düşünüyorum.

Kesinlikle Katılmıyorum	Katılmıyorum	Ne katılıyorum/Ne katılmıyorum	Katılıyorum	Kesinlikle Katılıyorum

- Bu ürünün faydacı bir ürün olduğunu düşünüyorum.

Kesinlikle Katılmıyorum	Katılmıyorum	Ne katılıyorum/Ne katılmıyorum	Katılıyorum	Kesinlikle Katılıyorum

## Appendix E

### Mood type manipulation check test

Sayın Katılımcı,

Bu araştırma; çevrimiçi plansız satın alma ve tüketici davranışları arasındaki ilişkiyi incelemek amacıyla yürütülen akademik bir çalışmadır. Bu soruları cevaplandırmak ortalama olarak 5 dakikanızı almaktadır. Katılımınız tamamen gönüllülük esasına dayanmaktadır. Bu testten elde edilen cevaplar yüksek lisans tezi için kullanılacaktır. Kişisel cevaplar değil örneklemeden alınan kümülatif cevaplar önem taşımaktadır. Bu nedenle kimlik bilgilerinizi yazmanıza gerek yoktur. Bu araştırmaya katılmanız sizin için herhangi bir risk taşımamakta olup cevaplarınızın tümü gizli tutulacaktır.

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Lütfen aşağıdaki senaryoya göre sorulara cevap veriniz.

Yoğun bir çalışma haftasından sonra yakın arkadaş grubunuz ile birlikte güneşli bir pazar gününde kahvaltı yaparak güne başladınız. Kahvaltının ardından arkadaşlarınızla sinemaya giderek komedi filmi izledikten sonra evinize döndünüz.

- Bu durumdaki kişinin olumlu bir ruh halinde olacağını düşünüyorum.

Kesinlikle Katılmıyorum	Katılmıyorum	Ne katılıyorum/Ne katılmıyorum	Katılıyorum	Kesinlikle Katılıyorum

- Böyle olayların gerçek hayatta gerçekleşebileceğini düşünüyorum.

Kesinlikle Katılmıyorum	Katılmıyorum	Ne katılıyorum/Ne katılmıyorum	Katılıyorum	Kesinlikle Katılıyorum

## Appendix F

### Level of discount manipulation check test

Sayın Katılımcı,

Bu araştırma; çevrimiçi plansız satın alma ve tüketici davranışları arasındaki ilişkiyi incelemek amacıyla yürütülen akademik bir çalışmadır. Bu soruları cevaplandırmak ortalama olarak 5 dakikanızı almaktadır. Katılımınız tamamen gönüllülük esasına dayanmaktadır. Bu testten elde edilen cevaplar yüksek lisans tezi için kullanılacaktır. Kişisel cevaplar değil örneklemden alınan kümülatif cevaplar önem taşımaktadır. Bu nedenle kimlik bilgilerinizi yazmanıza gerek yoktur. Bu araştırmaya katılmanız sizin için herhangi bir risk taşımamakta olup cevaplarınızın tümü gizli tutulacaktır.

Saygılarımla,

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Lütfen aşağıdaki senaryoya göre sorulara cevap veriniz.

İnternette gezdiğiniz sırada daha önceden alışveriş yaptığınız web sitesinin indirim bildirimini dikkatinizi çekti. İndirim detaylarını öğrenmek için web sitesine girdiğinizde 100 TL ve üzeri alışveriş yapmanız durumunda %30 indirim kazanacağınızı gördünüz.

- Senaryodaki indirim miktarının yüksek olduğuna inanıyorum.

Kesinlikle Katılmıyorum	Katılmıyorum	Ne katılıyorum/Ne katılmıyorum	Katılıyorum	Kesinlikle Katılıyorum

- Böyle olayların gerçek hayatta gerçekleşebileceğine inanıyorum.

Kesinlikle Katılmıyorum	Katılmıyorum	Ne katılıyorum/Ne katılmıyorum	Katılıyorum	Kesinlikle Katılıyorum

- Daha önce alışveriş yaptığım web sitesi tecrübesi satın alma kararımda etkili olur.

Kesinlikle Katılmıyorum	Katılmıyorum	Ne katılıyorum/Ne katılmıyorum	Katılıyorum	Kesinlikle Katılıyorum

## Appendix G,

### Main test questionnaire Example

Sayın Katılımcı,

Bu araştırma; çevrimiçi plansız satın alma ve tüketici davranışları arasındaki ilişkiyi incelemek amacıyla yürütülen akademik bir araştırmadır. Senaryoyu okuduktan sonra soruları cevaplandırmak yaklaşık 5 dakikanızı almaktadır. Katılımınız tamamen gönüllülük esasına dayanmaktadır. Bu anketten elde edilecek cevaplar yüksek lisans tezi için kullanılacaktır. Kişisel cevaplar değil örneklemden alınan kümülatif cevaplar önem taşımaktadır. Bu nedenle kimlik bilgilerinizi yazmanıza gerek yoktur. Bu araştırmaya katılmanız sizin için herhangi bir risk taşımamakta olup cevaplarınızın tümü gizli tutulacaktır.

Saygılarımla,

İbrahim Cem ÖZKAN

İzmir Ekonomi Üniversitesi

Lojistik Yönetimi Bölümü YL öğrencisi

Lütfen aşağıdaki senaryoya göre sorulara cevap veriniz.

Yoğun bir çalışma haftasından sonra yakın arkadaş grubunuz ile birlikte güneşli bir pazar gününde kahvaltı yaparak güne başladınız. Kahvaltının ardından arkadaşlarınızla sinemaya giderek komedi filmi izledikten sonra evinize döndünüz. Evinizde internette gezdiğiniz sırada daha önceden alışveriş yaptığımız bir web sitesinin indirim bildirimini dikkatinizi çekti. İndirim detaylarını öğrenmek için web sitesine girdiğinizde 100 TL ve üzeri alışveriş yapmanız durumunda %30 indirim kazanacağınızı gördünüz. Siteyi dolaşmaya başladığınızda dikkatinizi internet sayfasının ana başlık bölümünde bulunan ünlü bir marka olan Summer Spirit markalı parfümün 100 TL olduğunu gördünüz. Ürünün açıklama kısmında şu cümleler yer almaktaydı; Lüks ve çok özel bir koku olan Summer Spirit, taze hissettiren gün boyu kendinizi güvende hissetmenizi sağlayan hoş aromalarla harmanlanmış bir parfümdür.

Lütfen yukarıdaki senaryoya göre aşağıda verilmekte olan ifadelere ne derece katıldığınızı belirtiniz.

- Böyle bir web sitesi ziyareti esnasında bir şeyler satın almak için ani bir istek duyarım .

Kesinlikle Katılmıyorum	Katılmıyorum	Kararsızım	Katılıyorum	Kesinlikle Katılıyorum

- Böyle bir web sitesi ziyareti esnasında bir şeyler satın almak için planım olmaz.

Kesinlikle Katılmıyorum	Katılmıyorum	Kararsızım	Katılıyorum	Kesinlikle Katılıyorum

- Böyle bir web sitesi ziyareti esnasında ihtiyacım olmamasına rağmen satın almak isteyeceğim birçok şey görebilirim.

Kesinlikle Katılmıyorum	Katılmıyorum	Kararsızım	Katılıyorum	Kesinlikle Katılıyorum

- Böyle bir web sitesi ziyareti esnasında plansız satın alma yapmak için güçlü bir istek duymam.

Kesinlikle Katılmıyorum	Katılmıyorum	Kararsızım	Katılıyorum	Kesinlikle Katılıyorum

- Bu senaryoyu deęerlendirdiđimde bir Őeyler satın alma ihtiyađı hissederim.

Kesinlikle Katılmıyorum	Katılmıyorum	Kararsızım	Katılıyorum	Kesinlikle Katılıyorum

- Byle bir web sitesi ziyareti esnasında kafam karışır.

Kesinlikle Katılmıyorum	Katılmıyorum	Kararsızım	Katılıyorum	Kesinlikle Katılıyorum

- Byle bir web sitesi ziyareti esnasında heyecan duymam.

Kesinlikle Katılmıyorum	Katılmıyorum	Kararsızım	Katılıyorum	Kesinlikle Katılıyorum

- Byle bir web sitesi ziyareti esnasında kendimi kontrollu hissederim.

Kesinlikle Katılmıyorum	Katılmıyorum	Kararsızım	Katılıyorum	Kesinlikle Katılıyorum

- Byle bir web sitesi ziyareti esnasında amacıma ulaşamamış olduđumu hissederim.

Kesinlikle Katılmıyorum	Katılmıyorum	Kararsızım	Katılıyorum	Kesinlikle Katılıyorum

Byle bir web sitesi ziyareti esnasında.....

- O anki hislerime gre bir Őeyler satın alırım.

Kesinlikle Katılmıyorum	Katılmıyorum	Kararsızım	Katılıyorum	Kesinlikle Katılıyorum

- Genelde ani (spontane) bir Őekilde satın alma yaparım.

Kesinlikle Katılmıyorum	Katılmıyorum	Kararsızım	Katılıyorum	Kesinlikle Katılıyorum

- “Şimdi al, sonra düşün” benim satın alma şeklimi tarif eder.

Kesinlikle Katılmıyorum	Katılmıyorum	Kararsızım	Katılıyorum	Kesinlikle Katılıyorum

- Genelde düşünmeden bir şeyler satın alırım.

Kesinlikle Katılmıyorum	Katılmıyorum	Kararsızım	Katılıyorum	Kesinlikle Katılıyorum

- Bazen ne satın aldığım konusunda umursamazımdır.

Kesinlikle Katılmıyorum	Katılmıyorum	Kararsızım	Katılıyorum	Kesinlikle Katılıyorum

- “Hemen al” benim bir şeyler satın alma şeklimi tanımlar.

Kesinlikle Katılmıyorum	Katılmıyorum	Kararsızım	Katılıyorum	Kesinlikle Katılıyorum

- “Görürüm, alırım” benim satın alma şeklimi tarif eder.

Kesinlikle Katılmıyorum	Katılmıyorum	Kararsızım	Katılıyorum	Kesinlikle Katılıyorum

- Bazen bir şeyler satın alırken boş bulunarak satın aldığımı hissediyorum.

Kesinlikle Katılmıyorum	Katılmıyorum	Kararsızım	Katılıyorum	Kesinlikle Katılıyorum

- Satın almalarımın çoğunu dikkatlice planlarım.

Kesinlikle Katılmıyorum	Katılmıyorum	Kararsızım	Katılıyorum	Kesinlikle Katılıyorum

## Demografik Sorular

1. Cinsiyetiniz?

Kadın  Erkek

2. Kaç yaşındasınız? .....

3. Eğitim durumunuz nedir?

İlkokul Mezunu  Ortaokul Mezunu  Lise Mezunu  Üniversite Mezunu  Üniversite Öğrencisi  Yüksek Lisans / Doktora Mezunu

4. Aylık gelir seviyeniz nedir?

0-1700  1701-3000  3001-4300  4301-5600  5601- üstü

5. Medeni Durum

Evli  Bekar

6. Bir yıl içerisinde internet üzerinden alışveriş sıklığınız nedir?

1-2 defa  3-4 defa  5-6 defa  7 veya daha fazla

7. İnterneti kullanma sıklığınız nedir?

Günde 1 saatten az  Günde 1-3 saat arası  Günde 4-6 saat arası  
 Günde 6 saatten fazla

8. İnternet üzerinden alışverişe genel anlamda bakışınız nasıldır?

Olumlu \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ Olumsuz