

Technical University of Crete

# **Master Thesis**

Impulsive Online Shopping Behavior

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## 1. Introduction

E-commerce is an emerging trend that is growing over the past few years. In 2017 it counted approximately 2.3 trillion in sales with a forecast to reach 4.5 trillion in 2021 (Hatch 2020). Nobody could think a few years ago that E-commerce will convert Internet into a worldwide market, since it has the power to transform a local business into a global one. Without even any physical presence in some cases, it gives consumers the opportunity to buy anything they want online by eliminating distances and even travelling costs wherever they exist, such as in the case the product's distribution has geographic limitations. Most industries such as apparel, books, electronics, skincare, haircare, cinema, furniture, accessories, toys and food seem to adapt more and more this business model. Even the traditional brick-and-mortar businesses, such as grocery stores and butchers' stores, have begun to offer E-commerce services via their Internet sites. These sites are struggling to create differentiation in their content and services in order to satisfy in the best possible way the wide range of consumers' needs and interests as well as the market's various trends, but also to face the intense competition. As a result, this need has led to businesses sites' transformation, from usual web pages or e-shops with basic services, into powerful tools that can meet all the modern fads by supporting multiple functions, such as numerous payment and shipping methods, voice search, personalized services, mobile applications, barcode scanning, virtual support via chat or other means of communication. Indicative examples that create special interest as they are the leaders of E-commerce are Amazon, Jingdonk, Alibaba, Paypal, eBay, Rakuten, Zalando, Groupon and a lot more.

E-commerce offers six types of services:

- **B2B** which means Business to Business and it refers to the electronic transactions of goods and services between companies.
- **B2C** that means Business to Consumers and it refers to the electronic transactions of goods and services between businesses and consumers.
- **C2C** which means Consumer to Consumer and encompasses all the electronic transactions between consumers.
- **C2B** which means Consumer to Business and refers to services and products that are available from consumers to companies for purchasing.
- **C2A** which means Consumer to Administration and includes electronic transactions that take place between individuals and public administrations.

- **B2A** which means Business to Administration and describes all electronic transactions between companies and public administrations.

The continuous growth of e-commerce over the last years has led to the emerging phenomenon of the consumers' online impulse buying. This has been the focus of a significant number of researches that are aiming to analyze the factors that prompt impulsive behavior during online browsing and affect consumers' purchase choices at the most. The phenomenon is interesting because it is not only triggered by a wide range of internal psychological factors but is also influenced by external, market-related incentives.

Impulse buying is a consumer tendency which spontaneously and unexpectedly leads to buying behavior and is an important sales driver for both brick-and-mortar and online businesses. Impulse purchases differ from regular ones as they happen without pre-planning. Both researchers and companies are trying to figure out the psychological underpinnings of offline and online impulse behavior as well as the temptations that will eventually boost sales. Factors that motivate online impulse buying are among others sales and promotions, free shipping, apps and websites with a cohesive environment and design that offer easy and quick checkout.

This thesis aims to analyze the impact of the aforementioned factors on the impulsiveness of shoppers' online behavior as well as to create the framework of impulse buying using established SOR "Stimulus-Organism Response" models. A statistical study takes place with the use of a questionnaire, including the presentation of the socio-demographic profile of the respondents, with the objective to explore in-depth the factors that affect online impulse buying behavior and investigate consumers' actual behavioral perspective.

In its first module, the thesis presents the sense of e-commerce and the online impulsive buying behavior as well as the factors that have the most significant impact on it. A comparison to the regular buying behavior and the difference in consumers' response to online versus offline shopping environments are also presented and analyzed.

In the second part the S-O-R model is displayed, which was initially introduced by Robert Woodworth as an approach of the motivational psychology (1929) and then was further developed by Mehrabian and Russell (1974), aiming to depict the relationship between consumers' reasons for shopping and website stimuli, which consequently affects their purchase intentions.

In the third section the development of the questionnaire is presented, based on the S-O-R model's dependent and independent variables that affect consumers' reactions during online shopping. The aim is to investigate which factors have the greatest impact on consumers' behavioral aspects and at what degree in order to conclude which stimuli are the most important and could benefit e-businesses. The structure of the questionnaire focuses on pointing out which variables of the S-O-R model could

be independent from website's stimuli and which variables depend on it at a high degree.

At the last section, the answers of the sample are thoroughly presented and analyzed along with the extracted results and respective findings. The conclusion of the paper presents a summary of the most significant results that could prove beneficial for digital marketing and e-commerce purposes.

## 1.1 Online Impulse Shopping Behavior

The tendency of a consumer to proceed with purchases of goods or services without previous planning is defined as the impulse shopping behavior. The consumer, triggered by emotions and feelings caused, most of the times, by visual stimulus, takes buying decisions as a result of irrational thinking. During an impulse buying the consumer decides at the spur of the moment what to buy without any actual intent of doing so. Many researchers over the past decades have linked impulsive behavior to unplanned purchasing, Clover (1950), West (1951), Piron (1991).

According to Rook (1987) during impulse buying, the consumer experiences a sudden, irresistible and insistent desire. He characterized the impulse buying as unthinking, imprudent reaction, which occurs shortly after being exposed to stimuli inside a shopping environment.

Rook and Gardner (1993) stated that impulse buying is an unplanned behavior involving rapid decision-making and tendency for instantaneous acquiring of the product.

Beatty and Ferrell (1998) defined impulse buying as immediate purchases which are without any previous consideration either to purchase the specific product category or to satisfy a specific need.

Bayley and Nancarrow (1998) described impulse buying as a "sudden, compelling, hedonically complex buying behavior in which the rapidity of an impulse decision process precludes thoughtful and deliberate consideration of alternative information and choices."

Block and Morwitz (1999) declared impulse purchase as consumer's buying of an item with little or no reflection after the result of an instantaneous, strong urge.

Kacen and Lee (2002) claimed that impulsive behavior is more stimulating and compelling but less reflective when compared to planned purchasing behavior.

Emotional reactions of shoppers towards impulse purchases could determine the classification of impulse buyings. Stern (1962) introduced the classification of a purchase as planned, unplanned or impulse. Planned purchases involve considerable

time dedication into looking for the right information that rationalizes the decision-making process. On the other hand, unplanned buying refers to those shopping decisions that are made without any previous planning. Han (1991) introduced the classification of impulse buying by also developing the type of impulse buying that concerns fashion products, concluding in the below categories :

- i) Planned impulse buying
- ii) Reminded impulse buying
- iii) Suggestion or fashion-oriented impulse buying
- iv) Pure impulse buying

Planned impulse buying occurs when the shopper has previously planned the purchase partly but without considering specific products or product categories. Reminder impulse buying happens when the consumer remembers an existing need of a product when seeing it in the shop. Pure impulse occurs when the e-shopper breaks the habit of the usual shopping and chooses a product that has not crossed consumer's mind before.

## 1.2 Factors affecting online impulse behavior

The various factors affecting online impulse shopping behavior are a combination of the environment in which the overall shopping experience takes place along with the e-shopper's personal preferences, the relevance of the displayed product and the social circle's influence on the e-consumer.

The factors displayed in this paper, are separated into two different categories, internal and external ones.

Internal factors: Concerning personality's characteristics of the e-consumer that contribute and boost the online impulse purchases. Internal factors could be considered for example the emotional state of the consumer and the product relevance to his tastes and preferences.

External factors: They are related to external stimulus that aim to trigger the e-shopper into an online impulse buy. The design of the e-shop and the available time could be considered as such.

### 1.2.1 Available Time

Time is indeed a rather significant factor affecting the impulsiveness of the e-consumer during an e-shop navigation. The less available time a consumer has to

search and decide upon purchasing choices, the more under pressure he is and it is very possible to act upon his instinct rather on rationalized decisions. Time is considered to be an external factor in the model of this research.

Limited time can lead the e-shoppers into emotional pressure and a stressed situation in which he may proceed with unconsidered decisions and as consequence with impulse purchases.

### **1.2.2 Available Money**

Money determines the shopping choices of consumers and affects e-shopper's emotional state and psychology. As available money is considered the amount a consumer has estimated as the budget for shopping certain goods or services online. Depending on the available amount of money, the e-shopper has a certain level of convenience to perform an online purchase, as this defines what a consumer could afford. At this paper we consider as available money the budgeted amount a consumer has estimated to spend on e-shopping as well as the extra money that was left for leisure purposes.

Having enough money is a factor that makes consumers more vulnerable to impulse buying behavior since having augmented purchasing power. (Beatty and Ferrel 1998:185)

### **1.2.3 Environment**

As the environment factor we consider the environment that the consumer lives in. The household's structure and characteristics seem to affect shopping decisions. For example, we expect different reactions and level of impulsiveness from young couples with no kids in comparison to families of 3-5 members because of different prioritization of needs as well as of different reaction to triggers, such as social media/TV influence.

### **1.2.4 Website Design and Services**

The various triggers an e-consumer comes across during his navigation in an e-shop might significantly affect his impulsiveness as they could indulge him into unplanned purchases. From the e-shop's design and ease of navigation to the available services that consumers like and find rather tempting, such as free shipping of products or next day delivery, there is indeed a wide range of factors that may affect and cause impulsiveness. At this paper we investigate these factors thoroughly, trying to understand at what degree they affect shopping impulse decisions. These factors

could cause positive feelings to the e-shopper and boost his willingness to proceed to an unplanned purchase. Moreover, in the long run, a pleasant and comprehensive e-shop environment could increase the frequency of visits of potential shoppers and consequently make them to get more often exposed to impulse behavior. Also, in addition to this, an easy-to-understand e-shop environment, for example one with catchy music and clear pictures displaying the products, could help consumers realize that they have needs that they have not previously considered and as a result, tempt them into impulse shopping.

### **1.2.5 Emotional State**

The emotional state of the e-shopper defines his purchasing decisions. According to Chen & Lee (2015) psychological factors include personality traits, emotional states, interests and cognitive processes. Also, as Ling & Yazdanifard (2015) state, psychological factors significantly and directly influence consumers to buy impulsively using online shopping without evaluating the process. Depending on e-consumer's mood, during navigating in an e-shop and receiving all the triggers from this environment, the shopper has a certain degree of enthusiasm, joy and energy. E-consumer may show a certain degree of impulsiveness under various positive or negative feelings that may make him more vulnerable and prone to unconscious shopping. A recent research held by Jennifer Lerner from Harvard, Carnegie Mellon's Cynthia Cryder, Stanford's James Gross, and the University of Pittsburgh's Ronald Dahl, presented in Neuromarketing, suggests that comfort shopping comes as a result of consumers' struggling to reward themselves when feeling down. Impulse behavior during shopping may also come as a result of individual's effort to feel better. On the other hand, e-consumers' emotions might be positively affected by a website's characteristics, such as the easy navigation, the way products are displayed, the music or visuals of its environment. Consequently, an e-shop's qualitative characteristics may indeed formulate the mood and feelings of the e-shopper and turn him into an impulse shopper. On the other hand, various studies show that also a positive psychological state may lead the e-shopper to buy impulsively, without thinking that much. A survey conducted by Creditcards.com (2014) shows that the vast majority of impulse shoppers has an instantly high level of enthusiasm.

### **1.2.6 Enjoy Shopping**

The level at which e-shoppers enjoy shopping process is a characteristic of their personality. Given that e-consumers of that category are facing the online shopping as an entertainment process, they aren't focusing only on covering their needs but also on satisfying their feelings of happiness and joy.

### **1.2.7 Product Relevance**

The relevance of a product is a subjective factor for the e-shopper and could influence its reactions towards displayed features in an e-shop. The way the information is presented in an e-shop might boost its relevance to consumer's eyes. The higher the level of relevance of a displayed product, the higher the possibility of an unplanned purchase. If the consumer finds easily products of his interest, he might act more impulsively and proceed with shopping them. At the survey presented in this paper, the purpose is to understand if the variety of relevant to the e-shopper products and the personalized propositions of an e-shop are crucial factors affecting the impulse online behavior.

### **1.2.8 Social Influence**

The social circle of the individual has the power to influence his purchasing choices. In this survey we are trying to figure out how strong is the influence of the social factors, such as family or friends as well as social media and TV. Living in an era of high exposure to social media and as more and more influencers appear to affect consumers' choices, with e-businesses investing significant budget to advertise through them, it is important for e-merchants to comprehend the degree of that influence and if it causes impulse reactions to e-shoppers.

### **1.2.9 Online Shopping Frequency**

It is rather important to understand if the frequency of visits in an e-shop does affect the online impulse behavior, since the consumer is more often exposed to shopping choices that could prove rather indulging. The more often a consumer visits a merchant's web site, the more possible is to find a product interesting and to express impulse reactions.

### **1.2.10 Willingness to Buy Impulsively**

The willingness to buy impulsively is the stage prior to impulse shopping and leads the individual to unplanned purchases without consideration, so it is directly related to it. Willingness to buy impulsively is defined as the sudden, strong desire to buy a product. The stronger the willingness, the higher the possibility for the e-shopper to complete an impulse purchase. The e-shop's environment, its design, features, way of products' display and offered services may boost the willingness of the e-shopper.

### 1.2.11 Tendency to Buy Impulsively

The tendency to buy impulsively is also a characteristic of the individual's personality. In this survey we would like to investigate the reaction of the e-shopper towards the various triggers he receives during his navigation in an e-shop and what is this stimulus that boosts his tendency to buy without previous consideration.

## 1.3 Research Model

The factors affecting impulse online shopping behavior constitute the respective research model on which the questionnaire is based on. These factors are internal, conditional and external and more specifically are:

- External Factors :
  - Available Time
  - Available Money
  - Environment
  - Web Site Design & Services
  
- Internal Factors :
  - Emotional State
  - Product Relevance
  - Social Influence
  - Online Shopping Frequency
  - Tendency to Buy Impulsively
  - Enjoy Shopping
  - Willingness to Buy Impulsively

The formulation of the research model is based on the hypothesis presented below :

- **Available Money**

The available budget of the consumer to make online purchases has an effect on his buying behavior, creating more intense positive feelings that urge him to buy even more frequently impulsively. Thus, we conclude in the hypothesis :

### Hypothesis 1

The more the available budget the more positive feelings the consumer has, a fact that enhances his willingness to buy impulsively.

### Hypothesis 2

Having more available budget to spend, is very likely that the consumer will augment the number of online purchases and as a result, this higher frequency will boost more his willingness to buy impulsively.

### Hypothesis 3

The adequacy of budget to spend for online purchases will stimulate the tendency of an impulsive consumer to make more impulse purchases.

- **Available Time**

The available time that the consumer has to spend in order to complete his online purchases may affect his impulsiveness as well, since the consumer may proceed to impulse shopping out of hurry but also if there is plenty of available time may lead to his exposure to the various stimuli for a longer time distance and make him more prone to impulsive behavior :

### Hypothesis 4

Available time is directly linked to consumer's willingness to buy impulsively.

- **Environment**

The environment in which consumer makes his online orders may affect his emotional state by creating positive feelings to him and consequently, influence his purchasing choices. Also, the various social groups that the consumer is linked to may also affect his final choices, even the impulsive ones :

### Hypothesis 5

The environment affects consumer's emotional state, which is directly linked to his willingness to buy impulsively online.

### Hypothesis 6

The social influence of the environment also influences consumer's willingness to proceed with online impulse shopping.

- **Web Site Design & Services**

The way which the e-shop is designed, including the way the consumer navigates in it, along with the various stimuli and triggers he reviews during his shopping experience may affect the impulse shopping choices he makes :

### Hypothesis 7

An appealing website with easy navigation and consumer-friendly services increases the frequency of visits of the e-shopper and as a result triggers his willingness to make more impulse purchases.

### Hypothesis 8

An attractive website may directly affect consumer's willingness to buy impulsively.

### Hypothesis 9

If a consumer that enjoys the overall shopping experience is navigating into a pleasant website, this will positively affect his emotional state and thus it is very likely to want even more to buy impulsively.

### Hypothesis 10

The pleasant emotional state and the positive feelings of the consumer during e-shopping enhance even more his willingness to proceed with impulse online shopping.

### Hypothesis 11

The way that products are displayed in the e-shop as well as the depiction of the necessary information help consumer realize how relevant the product is to his preferences and thus he is more willing to buy products that are related to his desires.

- **Emotional State**

The way the consumer feels during e-shopping may directly affect his shopping choices. The happier the consumer gets during his navigation the more possible is to buy out of impulse :

### Hypothesis 12

The emotional state of the consumer influences online impulse shopping behavior

- **Product Relevance**

The more familiar the consumer is with the displayed product the more relevant the product becomes to consumer's tastes and thus there is high likelihood to proceed with an impulse purchase :

### Hypothesis 13

The product relevance affects consumer's willingness to buy the product impulsively.

### Hypothesis 14

The product relevance influences the emotional state of the consumer by causing a plethora of positive feelings that lead to enhancing the willingness to proceed to impulsive shopping.

### Hypothesis 15

The product relevance urges a consumer that in general enjoys the e-shopping process to have a pleasant emotional state during his navigation and as a result being more prone to impulsive buying.

- **Social Influence**

The consumer has a social circle consisting of family, friends, social media etc. Their influence is rather significant on the e-shopper as they may affect his choices and urge him to impulsive online product's acquisition :

### Hypothesis 16

The social circle of the e-shopper may enhance his willingness to buy impulsively.

### Hypothesis 17

The social influence on the e-shopper may increase his frequency of online impulsive shopping.

### Hypothesis 18

The social circle of the e-consumer may formulate an image of a specific product as relevant to the e-shopper's preferences and as a result to boost his willingness to buy it.

- **Online Shopping Frequency**

The more often an e-consumer buys online the more possible is to proceed with an impulsive choice as he is more exposed to stimuli and triggers :

### Hypothesis 19

The high frequency of online shopping enhances consumer's willingness to buy impulsively.

### Hypothesis 20

An e-shopper with a general tendency to make impulsive purchases is more prone to proceed with this sort of choices when he visits e-shops more often.

- **Enjoy Shopping**

A consumer that likes to buy online is more likely to enjoy proceeding with impulsive shopping choices as well :

### Hypothesis 21

The level that the e-consumer enjoys e-shopping determines his willingness to proceed with impulse purchases.

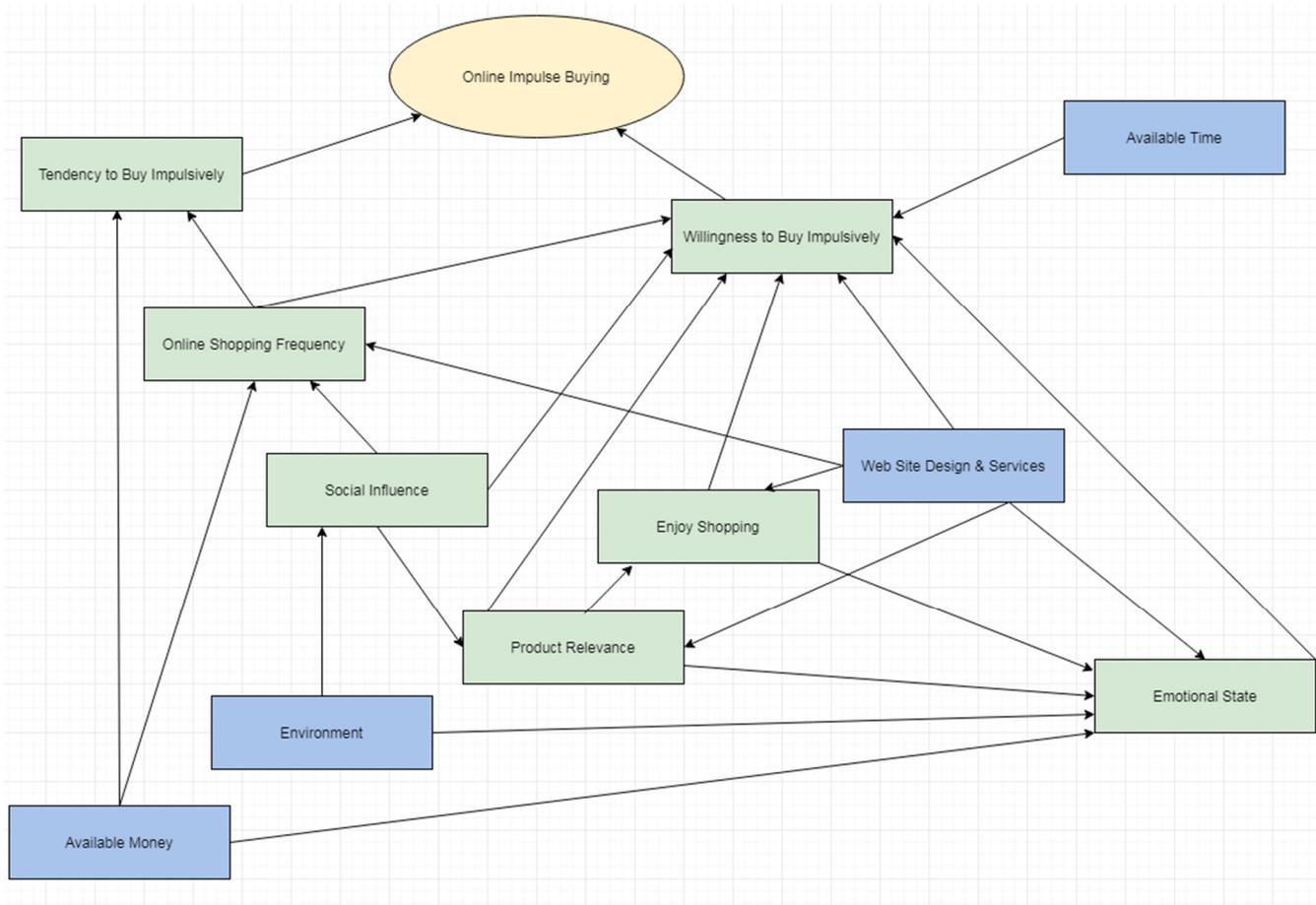


Figure 1 : Research Model

## 2. E-commerce Trend

### 2.1 E-commerce benefits E-business

E-commerce offers several advantages and facilitations to businesses that choose to implement it. E-commerce businesses have the indisputable benefit to have revenues 24h per day, 7 days per week 365 days per year. They do not function only during working hours and are not closed on holidays, so consumers can save time and register their order at any time, either during daytime or at night. E-stores can earn money from markets that are even in different time zones, as e-shops are “always on”. In contrast with brick-and-mortar stores, there are no geographical limitations regarding consumers’ capability to access the point of purchase. Apart from the limitless accessibility and the reduction of consumers’ transportation cost that are boosting online sales, online businesses can also benefit from an important cost saving of the primary investment for a physical store. As a consequence, they have less fixed costs as well, for as long as they operate. Another significant cost that can be reduced by exploiting the economies of scale in deliveries is the logistics one. E-companies draw contracts with courier carriers in order to handle cost-efficiently bulk orders. Most E-commerce companies can be considered as environmentally friendly as they use email instead of paper even for the invoicing process. Consequently, this method contributes in remarkable cost saving in both environmental and financial resources and makes E-commerce businesses more beneficial to society. A website can also be proven a very powerful tool in a skilled businessman’s hand, as a wide variety of data can be gathered and then used to increase sales. These data could refer to demographic information, personal preferences and habits of e-businesses’ customers and help to design and provide in an excellent way personalized services that will contribute in revenue’s increase. Extended personalized features help online businesses in handling customers more efficiently and target their needs automatically in contrast with physical stores that invest in an excessive number of sales personnel to collect information. E-businesses are also quite flexible regarding their operation since there is no physical space that needs to be extended in case they decide to sell more product categories. As a result, there is no anxiety for investing in facilities for a store’s relocation in the incident of either expanding business’ function or due to an unexpected event such as rent’s increase. In addition to this, e-businesses do not have to worry about stores’ buildings maintenance cost as well. In general, it is much more expensive to open a physical store than starting a web one and apart from this, it is way easier to follow market’s trends via an online business, since it is very costly to reopen a physical store every time the crowded areas are relocating.

## 2.2 E-commerce benefits Consumers

Online shopping is very popular nowadays among consumers of all ages. It doesn't matter if you work during the day or during the night as you can acquire anything you want 24h per day, 7 days per week with just a few clicks away while sitting on your comfortable sofa. Who could believe it some years ago that a search engine would be the means of transportation to a virtual store? All the Internet sites give us plenty of features to make our online experience better and more attractive, such as a wide variety of payment options, high security in transaction, comprehensive operation and easy navigation, as well as a plethora of details regarding the displayed products, competitive prices and discount offers, safe and low-cost delivery and time-saving by avoiding queues. They also offer a significant range of shipping methods which help you track your order easily from everywhere. Consumers have the opportunity to save money and time by comparing products' prices among various e-shops without visiting any physical one. Another considerable benefit is the confidentiality that consumers can enjoy while proceeding to purchases in discreet, which they are not feeling comfortable to complete in a physical store. Moreover, consumers have access to the worldwide market, an advantage that considerably increases their field of choices.

## 2.3 Shopping behavior

Shopping behavior is characterized by a need of identification. Initially, in most cases, consumer starts a research by, for example, reading relevant promotion flyers or visiting physical stores. The next step is the evaluation of the product, that is maybe the most important point, during which all respective information is gathered. The thinking of needs, of preferences and of the available financial budget that the consumer is willing to spend, will determine the decision making. At the end of the purchasing process, what follows is a post-sales evaluation, and the result of which will help consumers to improve the buying process in the future.

## 2.4 Impulse buying behavior in Brick-and-mortar stores

Impulse buying behavior in brick-and-mortar industry is affected by different factors compared to online industry. Brick-and-mortar stores focus on designing the consumers' journey in such a way in order to capture customers' attention even to categories that were not included in the planned visiting spots when entering the store. They place products that cause impulse shopping behavior near to high demand

items or near to cashiers, where consumers are waiting in the queue. They try to forecast possible needs, which might have not even crossed consumers' minds before, such as placing the tool that hulls potatoes for example next to cashiers in a toys' store, by providing low cost items to satisfy non-high priority purchases. Furthermore, retailers create the sense of losing to the vast majority of consumers by promoting catchy messages such as "The offer applies only for 24h!" or "Take the second one for free!", which are indeed very incentive ways to capture consumers' interest.

Although over the last years brick-and-mortar shopping becomes less and less attractive in some industries, they are still considered as the leader on impulse buying behavior, since in most cases the checkout area of the stores is full of items that cause this sort of shopping behavior.

Take for example large retail stores that sell furniture and other house apparel, such as IKEA, in which the corridor to the cashiers is full of small items that cover everyday's needs and exist in almost every household.

## 2.5 Online shopping behavior

Online shopping is now a common habit of daily life for almost all of us. Millions of E-commerce businesses are struggling to differentiate and increase their active base of consumers in different ways. They might have different strategic plans but all of them share the same scope to extend their revenues. Most customers are very familiar with online purchases and as a result have become very picky. They usually pay great attention to the expression of their online buying behavior and their shopping choices. Sometimes they are influenced by technology in such a degree that their main criteria for a choice of an e-shop could be formulated by just the availability of its mobile application. Indeed, consumers are so technology affluent that factors such as the convenience that the whole e-shop experience offers is a very important aspect that determines buying decisions. The easy navigation in a shopping site, the support of most of the available browsers, the high-quality pictures that come along with detailed products' descriptions, all that help consumers evaluate the displayed products in an effortless and easy way and decide whether they fit their needs or not. Another very important issue that e-shops have to deal with is the constant update of the availability of their merchandise. This could significantly affect consumers' decision making process and also their feedback on the e-shopping environment. Feedbacks and reviews seem to be rather considerable for e-businesses, as this is one of the best and most direct ways to advertise their services and increase their site's awareness. On the other hand, consumers are also motivated to trust an e-shop when it is high rated and well-reviewed. Even more when this e-shop has no physical presence to make it more trustworthy in shoppers' minds, e-ratings seem to be of the highest importance for consumers to conclude in their purchase. Additional factors that affect

e-shoppers' behavior are the level of the support and the response time that the site provides, as well as the available methods of communication, for example via live chat, phone or email. Social media have a strong impact on buying behavior as consumers seem to be highly affected by influencers and advertisements on popular networking sites, so e-businesses tend to invest more and more in this sort of marketing tools. The available range of payment and shipping methods can add significant value on an ecommerce business and be one of the main criteria for consumers to judge upon.

## 2.6 Online impulse shopping behavior

Online impulse buying is based on a sudden decision to buy something without an actual existing need. It refers to a non-scheduled purchase that the consumer proceeds to, without previous consideration, based on instinct rather than on rational thinking.

An unplanned purchase of a product may be the result of either acting impulsively or remembering an existing need that was previously omitted. This last case concerns the reminder impulse buying that is mostly influenced by financial decision criteria in contrast with the emotional factors that affect the classic online impulse behavior.

By using technology, consumers take advantage of the quick, smart and easy ways of online purchasing. As a consequence, endless opportunities of impulse buying are emerging. Nevertheless, technology does not itself formulate an impulse behavior, but it definitely provides limitless resources to consumers, that have an impulsive tendency, to proceed to and complete fast an online purchase.

As more and more information technologies, e-shops and mobile applications are introduced to our lives, online impulse behavior is encouraged and consequently, a plethora of products and services are offered to e-consumers on a daily basis.

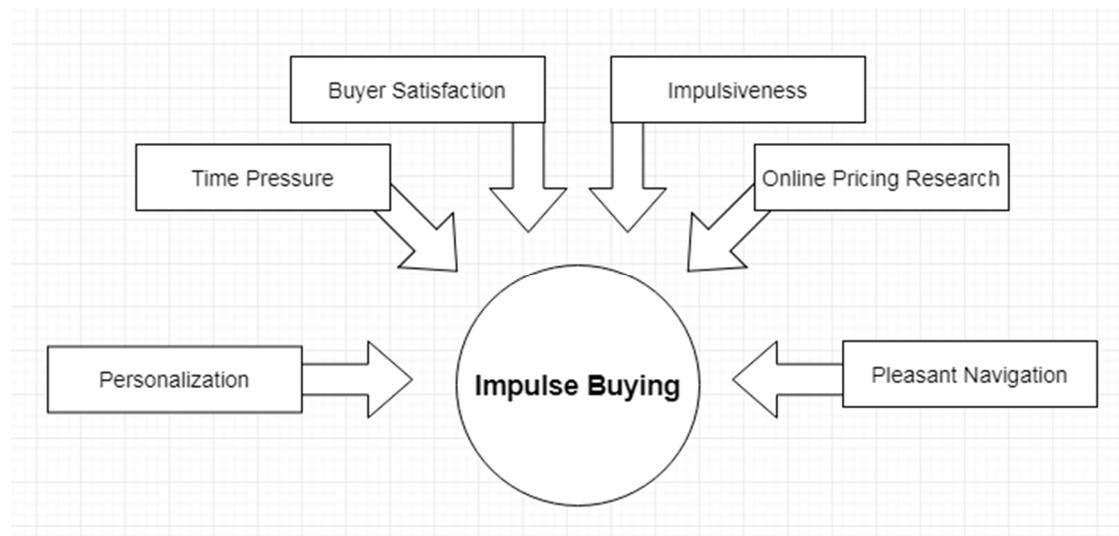
Online impulse buying trends differ from brick-and-mortar ones. In traditional FMCG stores, for example, impulse buyers spend more in chewing gums, candies and snacks. On the other hand, in online stores, consumers seem to spend more in hair accessories, bath equipment and personal care products.

Consumers' impulse buying behavior analysis is a combination of sciences such as Psychology, Finance and Marketing. It constitutes a very interesting topic in both academic and business level. Businesses study closely Impulse buying behavior in order to achieve a more valuable Marketing strategy to increase their sales. So, businesses try to fulfill customers' emotional and physical needs in order to make them feel satisfied. Nowadays shopping can be combined with entertaining. How many hours haven't we all spent time on navigating in a mobile application searching items and comparing prices among different e-shops?

As shopping tends to shift online, some of the products that are traditionally considered as impulse purchases in the brick-and-mortar stores, such as chewing gums, candies and small snacks, don't maintain the same appeal to e-shoppers. On the other hand, online industry gives the opportunity to smaller companies to earn considerable market share that it would be difficult otherwise. In most cases, in the physical stores only well-known brands are placed on the shelves, while smaller businesses are being supplanted. E-businesses can also benefit from consumers impulsiveness and sell products without having earnings just to attract consumers and to tempt them to impulse shopping.

Consumers' impulse buying behavior can be affected by, for example, a conditional free shipping offer, with which the consumer could save money. Taking into consideration that in some cases shipping cost may even equal product's cost, motivation increases for consumers to proceed with buying the product if shipping is free. In addition to this, free returns can also trigger e-shoppers and indulge them into buying things without much thinking. Special pricing that occurs from sales and promotions is also a very strong approaching method to convince the indecisive buyers and especially if they are valid for a specific time period, as they create the sense of losing to consumers. For example, if a toothpaste is on offer only for today, consumers might think it is a good opportunity to stock the product even though there is no immediate need for it. Scarcity messages can boost impulsive behavior as well, and that's why businesses use such triggers as "limited items" or "5 minutes left for the offer" in order to exert psychological pressure on potential buyers. It is usual in commerce and as consequence in e-commerce too, for consumers to be attracted by scarcity messages and succumb in impulse behavior by buying either products or services. The low availability and the limited time of an offer can push the consumer to click on the product either in a site or in a mobile application. How many of us aren't visiting forums or using social media on a regular basis? The biggest part of the population spends a lot of time on using social media and watching influencers' daily habits. These channels are probably the shortest path to spread impulsivity to potential buyers. People also seem to react more impulsively when their potential purchase is also linked to charity or to environmentally friendly purposes. Impulse reactions are also noticed when the products' packaging has a picture, for example, of a cute baby or a puppy on it. Moreover, a good site optimization and the opportunity of using a mobile app to achieve purchases could also contribute in gaining more consumers of the impulse category. Sometimes attractive pictures that come along with appealing music in an e-shop could also trigger impulsiveness, especially if they are combined with clever pop-up messages that draw attention even more. Rewarding is a clever approach as well, because consumer benefits from a point-system, at which points are redeemed during checkout. In that case consumer is elicited to spend money more likely on purchases of lower importance out of impulsiveness. Last but not least, the e-shop itself may contribute to urge consumer into shopping a non-planned product by making suggestions to the visitor regarding affiliated items. For

instance, in a tech e-shop, the consumer buys a mobile and before checkout the site suggests phone cases and screen protectors that match with it.



*Figure 2 : Factors affecting impulse shopping behavior*

E-shoppers have usually predetermined their needs before visiting the online shop to accomplish their purchases. On the other hand, an impulse buyer does not have an actual existing need and should be triggered in order to proceed with a purchase. In that case the e-shop creates the need to the consumers by triggering either their minds or their emotions to proceed with buying something without having planned it. As e-shops are trying to constantly upgrade the quality and the services offered to satisfy consumers in the best possible way, personalization also enriches and becomes more sophisticated. The main purpose is to maintain and increase their customer base but also to convert their visitors into buyers. Triggering e-visitors' impulsiveness is a means to attract new customers but also to indulge their existing ones. As regards consumers, the number that chooses online shopping is constantly augmenting since it seems easy, fast and effortless to conduct e-purchases to the vast majority of them. Being such an easy process to shop online, consumers are more apt to impulse behavior and it is a fact that this phenomenon is observed to a great extent.

### 3. S-O-R model

Theory of S-O-R model is based on Psychology and it's a concept that describes the relationship among Stimulus, Organism and Response. The "stimulus-organism-response" (S-O-R) instant buying framework was created by Mehrabian and Russell (1974) and consists of mental and emotional characteristics of the consumers that vary on an individual basis. The model is related to individual's behavior in case of a possible stimulus event. The flow is working as follows; a trigger that is the Stimulus (S) in our case, affects human's behavior who is the Organism (O) and the Response (R) that depends on the rational or emotional states of the individual. The most significant mediator is, according to this model, the emotional state of mind which urges a consumer to instant buying. This instant buying occurs when someone feels a spontaneous and strong attraction towards purchasing the product and comes as a result of individual's internal discrete characteristics. The main reason that causes impulse buying, according to Ramanathan and Menon (2006) is the positive affect of the product on the consumer and the hedonic fulfillment at the time of the purchase. In general, people tend to show carelessness when they are in a pleasant mood and as a result get involved in an impulse buying.

In the case of the online shopping, an attractive e-shop, that can indulge consumers' attention and urge them into an impulse buying behavior, is a flow that could be considered as a S-O-R model example. The stimulus is a factor such as an e-shop's fancy button or an attractive picture, a rewarding points system, a free shipping service, a special pricing policy or other influencing promotions that can change consumer's online impulse buying behavior into a positive one towards the reviewed products. Organism is represented by the e-consumer who may choose to react to the same stimulus with different ways depending on the corresponding personality of the individual. The reaction is the Response and could be based on positive and negative emotions or on fear and on anxiety that can affect online consumer's decision-making process. Overall, S-O-R refers to the online shopping behavior of the e-consumer and depicts user's reactions to the various stimulus that consumers come across during their navigation in e-shops. E-businesses can leverage from the data collected and analyzed regarding consumers reactions and decide which triggers and at what degree affect purchasing choices.

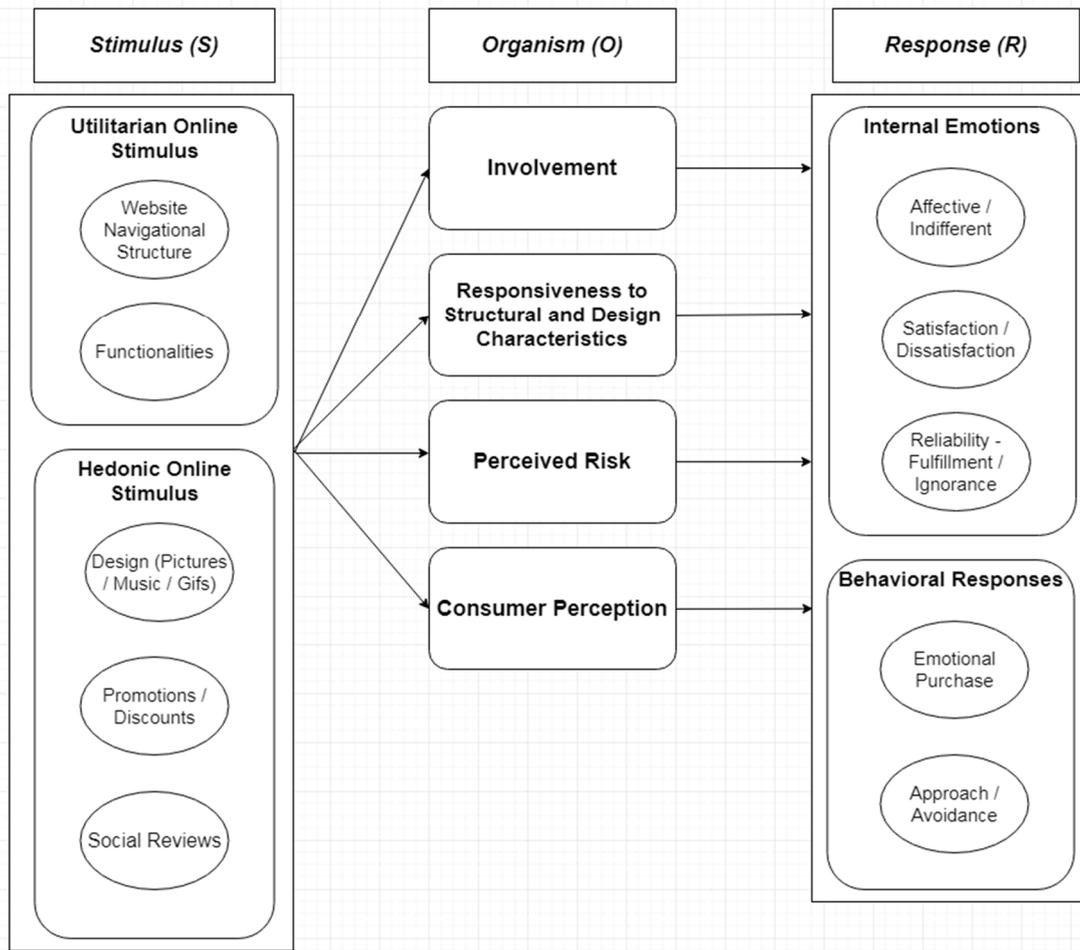


Figure 3 : S-O-R Model definition

Stimulus-Organism-Response model has been designed for environmental psychology by Mehrabian and Russell. It is up to now the prevailing method to study consumers' behavior in a physical as well as in a virtual store, and it describes the reactions of shoppers to the various stimuli in the shops' environment. Therefore, two contrasting types of response (R) are expressed by the consumers (O) upon their internal evaluation of the stimuli, either approach or avoidance. The model also indicates that the emotional status of the organism is based on three different states, known by the acronym PAD:

- **Pleasure – Displeasure**
- **Arousal – Avoidance**
- **Dominance – Submissiveness**

Pleasure defines whether the e-shopper has feelings of joy and satisfaction during the shopping experience. Arousal regards to the excitement that a stimulus might cause to the e-consumer. Dominance refers to the feeling of control that the user has regarding the actions taken during the purchase's completion.

It is crucial for retailers to understand in depth which triggers elicit feelings of pleasure and arousal to consumers and as a result it is very likely to urge them proceeding with a purchase, in order to target more efficiently the e-audience. Compared to physical stores, e-shops have the competitive advantage to be a new, integrated point of trading which capitalizes on consumers' five key senses. The challenge for e-businesses is to comprehend and design these strategies that will enable consumers' senses to act as a whole rather than competing with each other.

The online shopping environment and its structural characteristics are critical factors that can affect e-shoppers' buying behavior at a significant degree.

### 3.1 Stimulus

Consumers' online shopping experience can be influenced by utilitarian or hedonic stimulus factors.

Utilitarian characteristics can be expressed by the following factors:

- **Ease of Navigation**  
An easy to navigate and enjoyable site can make consumers more eager to extend the time they spend into the e-shop and as a result, to expose themselves to potential purchases.
- **Available Financial Resources**  
If there are not enough financial resources stimulus is insufficient by its own.
- **Functionalities**  
A site with great functionalities can be considered as one that supports multi payment gateways and methods, easy check out, multilanguage content conversion, mobile application, personalization services, purchases' completion as a guest, stock's availability information, adequate details regarding delivery cost and time and a good response time of its pages.

Hedonic characteristics can be expressed by the following factors:

- **Site Design**  
An attractive site design can be consisted of high-quality pictures, relaxing music, delightful gifs, charming colors for user eyes and clear fonts. All the above characteristics could trigger visitors emotionally.
- **Promotions and Discounts**  
Advertisement offers can attract consumer's interesting. Discounts can bait the category of greedy consumers.
- **Social Reviews**

In the case of an e-shop there is no need for a physical store. In that case a significant indicator for making consumers feel safe is the reviews of the e-buyers. A good review could give the buyer the sense of security and boost the overall shopping experience.

## 3.2 Organism

This module represents impulsive e-shopper and how he evaluates the various stimulus that affect his impulsiveness. The various states that are displayed depict the internal process of evaluation that leads to a certain reaction (R) towards the buying procedure either positive or negative depending on the result of this assessment.

- **Involvement**  
Depends on client's interests. The e-customer evaluates the relativeness of the product or service that is presented in the e-shop with his potential needs and possible interests. For example, the client might be totally indifferent to watersports related items if he cannot or is not willing to learn swimming.
- **Responsiveness to Structural and Design Characteristics**  
The design, the structure and the environment of the e-shop could affect the shopper's behavior and impulsiveness as an easy navigation, fancy images and Gifs as well as smart pop ups displaying features and promotions can indulge consumers into unplanned purchases. On the other hand, a confusing structure which leads to complicated navigation in an e-shop can act as a repellant factor for impulsive consumers, causing them tiredness and dissatisfaction.
- **Perceived Risk**  
E-shoppers assess the potential risk that might emerge from an online transaction that concerns for example the insertion of personal data as well as bank information in the merchant's website. The safer and more secure an impulsive consumer will feel in an e-shop the more intense is the possibility to proceed with a purchase.
- **Consumer Perception**  
E-consumers' overall way of thinking and background will affect their final decision since, for instance, a previous similar experience in this or in another e-shop could influence their reaction.

### 3.3 Response

The third module of S-O-R depicts the internal emotions of the Organism resulting from the evaluation of the Stimulus during the second stage of the model. The impulsive e-consumer has certain feelings about the final choice of either completing or not the purchase. If the Stimulus has successfully activated the e-shopper's impulsiveness then a series of possible emotions are triggered as they appear below.

- **Affective / Indifferent**  
The e-consumer responds positively towards a purchase after feeling touched emotionally by the product's or service's aspects, characteristics and its potential fruitfulness. Otherwise the e-shopper may remain indifferent after the evaluation of the Stimulus and discard the purchase process.
- **Satisfaction / Dissatisfaction**  
If the e-customer comes to the conclusion that the evaluated product / service matches his preferences thus he is satisfied with the completion of the purchase.
- **Reliability – Fulfillment / Ignorance**  
The overall feeling of the impulse buying that the e-shopper has conducted is fulfilling and enhances the reliability that the consumer feels towards the e-shop. In contrast the e-consumer might ignore the Stimulus and skip the purchase.

The Organism decides to proceed with an emotional purchase (Approach) if the Stimulus successfully turns on the impulsiveness and causes positive feelings. Contractively, the Organism is not triggered by the e-shop's environment and leaves without completing an order (Avoidance).

## 4. Methodology

The questionnaire displayed in the essay is designed to help us determine what factors may influence the responders' answers, interests and opinions regarding the online impulse buying behavior.

### 4.1 Demographic Questions

- **Age**

Age ascertains the level of knowledge and experience of the respondent regarding the emerging online impulse buying behavior. Since the young audience is more familiar with the online buying trend, we expect answers that will differ among the age groups.

- **Gender**

We would like to identify if one of the two genders is more prone to online impulse buying behavior.

- **Net Income**

As our survey focuses on online impulse buying, we need to identify the purchasing power of the respondents as the impulse buying is related to non-first priority products. We expect to see that the more money a willing buyer earns, the more one can afford the impulse purchases.

- **Household size**

This question will help us to identify whether the household size affects impulse buying behavior. We expect to see different answers according to a family's members number.

- **Income dependent members**

We would like to investigate if there are economically depended members in the family, a fact that leads to a higher number of financial obligations, which may affect the online impulse buying.

### 4.2 Psychographic Questions

- **Frequency of online purchases**

This question aims to identify if the respondent is indeed an online consumer and how often he/she is buying online, in order to understand the degree of his/hers experience and familiarization regarding online shopping.

- **Possibility of performing an online impulse purchase**

This question asks the surveyed how possible is it to perform an unplanned purchase so as to identify their willingness to buy impulsively.

- **Usefulness of unplanned purchases**

We would like to identify if this last purchase was indeed an impulse that led to an unnecessary purchase or to a cover a need that might not have been planned but came up during shopping time.

- **Shopping habits**

We try to investigate what kind of consumers are we surveying. For example, if the surveyed is indifferent to e-shopping or is an e-shopper when needed, as when no stock is available in physical stores. Also, if the e-shopper is visiting e-shops to buy specific products that concern planned purchases or is just enjoying to look around with no intention to buy. In addition to the above, we are also trying to clarify whether the surveyed has an intention to buy something appealing to his/her tastes if it happens to see it in the e-shop.

- **Frequency of over-budget e-shopping**

The frequency that an e-shopper exceeds the planned budget for online purchases determines the degree of his/hers impulsiveness.

- **Emotional state during impulse behavior**

It is very important to understand the emotions of the e-shopper that foster an impulse reaction. The surveyed may express impulsiveness when he/she is emotionally stressed or depressed, but he/she may also be more prone to impulse purchases when he/she is very thrilled for a reason.

#### 4.3 Buying Patterns Questions

- **Most influencing online buying factors**

The questions that are included in this section refer to the online impulse buying behavior. It is very crucial to understand which factors have the greatest impact on consumers' choices when they decide to perform an unplanned purchase. Our aim is to understand which triggers the consumers most and is a top-of-mind factor in order to proceed with completing an impulse purchase.

- **Advice from external factors**

What is to be determined at this point is whether the consumer acts indeed out of instinct and proceeds with a purchase, or an external factor might influence the final decision, as it happens in regular shopping.

- **Time pressure**

We would like to understand the behavior of the impulse e-shopper as well as the circumstances under which an unplanned purchase is performed. Time is very significant when it comes to instant decisions and it is important to understand whether it affects impulse shopping.

#### 4.4 Discovery Questions

- **Factors affecting frequency of visits in e-shops**

It is very important for all retailers, either digital or physical, to not only attract consumers' attention but also maintain their consumer base in the long run. What we are trying to find out at this point is whether the same factors that affect impulse e-shopping, do also affect the frequency of visits in the future, or do they differ among them.

- **Time and Money spending**

What is under investigation in this question is whether the triggers that indulge consumers into impulse shopping are the same ones that will make them spend more time and money in e-shops and therefore become a targeted audience for e-retailers.

## 5. Questionnaire Results

After examining a sample of 153 people, we have enough information in order to comment it, some of which combined can lead us to very interesting conclusions regarding our research.

### 5.1 Demographics Answers

#### What is your age?

Age Groups	Size
18-24	3,9%
25-34	58,2%
35-44	26,8%
45-64	7,8%
65+	3,3%

*Figure 1: Age Chart*

The majority of the responders belong to the age group of (25-34) with the group of (35-44) following with a significant participation.

#### What is your gender?

Gender Groups	Size
Male	43,4%
Female	56,6%

*Figure 2: Gender Chart*

Women are the dominant group among the responders.

### What is your monthly net income?

Net Income	Population
Under €1,000	28,8%
Between €1,000 and €1,499	33,3%
Between €1,500 and €1,999	17,6%
Between €2,000 and €2,999	13,7%
Over €3,000	6,5%

Figure 3: Net Income Chart

As we can see from our diagram most participants to the research have net incomes of more than €1000. That helps us to predict that the majority is possibly spending unplanned money as they have extra available money after covering their monthly needs.

### What is the size of your household?

Household Size	Population
1	25,5%
2	38,6%
3	22,9%
4	12,4%
5	0,7%
5+	0,0%

Figure 4: Household Size Chart

As most households consist of two members, we may assume that they are couples.

### How many members of your family are depended on your income?

Dependent Members	Population
None	53,6%
One	24,2%
Two	16,3%
Three	3,9%
More than three	2,0%

Figure 5: Dependent Members

The fact that the majority doesn't have a dependent member on themselves, it is a motivation to spend all their money on their own needs.

After an analysis of the answers, we realized that in the age group of 25-34 the majority of the participants are females and they cover 61% of the group of which the 43% has a net income between 1,000 and €1,499. From these women, the majority lives in a two-member household with no dependent on them members.

As regards the male population of the age group of 25-34, the majority has a net income of €1,000 and €1,499, same as women, and they live in a two-member household with no dependent on them members.

As for the age group of 35-44 the prevailing group are the males with a percentage of 54%. The majority of them has a net income over €1,000 and more specifically the income groups are evenly distributed among the different income ranges. Moreover, these males live mainly in a three-member household with almost two other members depending on their income.

The women of the same age group have an average income of €1,000 and €1,499 with the incomes of €1,500 - €2,000 and under €1,000 coming next in the list. Most of them live also in a three-member household with one member depending on their income.

## 5.2 Psychographics Answers

### Do you buy online and if so, how often?

Online Shopping Frequency	Population
Yes, once a month	44,4%
Yes, once per week	20,3%
Yes, once in every two months	26,1%
Yes, more than twice per week	3,3%
No, never	5,9%

Figure 6: Online Shopping Frequency

- The majority of the surveyed population shops online only once per month.
- Surprisingly, 62% of these shoppers belongs to the young age group of 25-34. We were expecting this age group to shop more often online as they are more familiar with technology and with e-commerce methods, but it is quite possible that this frequency is also due to the lack of available spare income as the financial crisis has surely a strong impact on most households' income.
- 57% of the shoppers that complete online purchases once a month are women with the majority of them earning an income between €1,000 - €1,499. An important finding that occurs from this survey is that these women live in small households (up to two persons) with no depended members on their income. So, we would expect to see a higher frequency of online purchases. We may assume at this point that they prefer brick-and-mortar stores to e-shops as the young of their age combined with their income justifies the ideal target group for potential impulse shoppers both in online and in physical channels.
- Men that shop online once a month belong also to young age groups (25-34 & 35-44) and their income seems not to affect this buying behavior compared to women, as these men belong to the whole range of displayed incomes.
- 72% of those who buy online once in every two months are women. From these women, the youngest and the oldest age groups aren't included in this category (one purchase in every two months) and the prevailing age group of this shopping behavior is the 25-34.
- Similarly, men who buy online once in every two months are of the same age groups as women with the 25-34 age group having an income between €1,000 and €1,499, the 35-44 age group having the whole range of incomes and the 45-64 age group being the most affluent.
- As regards consumers with the highest potential of being impulsive buyers, meaning those who proceed with an online purchase from an e-shop every week, the majority is men with a percentage of 65%. This finding is rather significant since we have been expecting women to be more prone to frequent online purchases. Almost half of these men belong to the age group of 25-34

and have various incomes. The majority lives in small households with no depended members on their income.

- As regards shoppers that perform online purchases almost on a daily basis, women that belong to this group are young with a net income under €1,000 and men on the other hand belong to all age groups with incomes also under €1,000 with one exception being the most affluent.
- The eldest age group of 65+ seems not to be very familiar with online purchases as four of the five in total surveyed don't perform at all e-purchases.

**How possible is to perform an unplanned purchase online? (1:Not possible at all, 5:Extremely possible)**

Possibility Level	Population
1	7,8%
2	19,6%
3	35,3%
4	19,6%
5	17,6%

*Figure 7: Possibility Of Unplanned Purchase*

- As we can see the majority of the responders are positive towards performing an unplanned purchase as 37.5% have answered that are willing to proceed with this. The neutral percentage which is rather high, demonstrates that there is still a high proportion of the population that has the potential to shop online but there are factors that prevent them from doing so. We may make a hypothesis at this point and assume that this percentage of the population might not have been adequately informed about all these new technologies and opportunities that exist in e-shops. This lack of information and experience could cause the hesitation of the surveyed sample towards e-shopping.

**How useful was your latest unplanned purchase? (1:Not at all, 5:Extremely useful)**

<b>Usefulness Level</b>	<b>Population</b>
1	9,8%
2	11,8%
3	30,7%
4	34,0%
5	13,7%

*Figure 8: Usefulness Of Unplanned Purchase*

- In the diagram it is noticeable that the majority of our responders and more specifically the 47.4% of them considered their latest unplanned purchase useful. We may assume that the purchase covered either an unknown need of the buyer or a known one that was unplanned for the specific time of purchase.
- Responders of all income categories seem to perform online unplanned purchases that prove to be useful to them. One category, the ones that have a monthly income up to €1,499, seem to make the best unplanned online buying choices, as the majority of them claims that they have found useful their latest impulsive purchase. Also, most of the surveyed of this budget category, almost 70%, do not have any depended members on their personal income, a fact that makes sense since they also belong to one of the youngest groups, 25-34. We would expect that this category of the population is the most vulnerable one to impulsive shopping of products that probably are of low necessity, but they seem to be the most conscious ones.  
Another conclusion that we may come to, is that because of the financial crisis, among other factors, consumers seem to be more sensitive towards their income and do not perform unuseful purchases even in the case of impulsive shopping. Especially the youngest ones seem to be better educated regarding e-shops' experience and are not easily indulged into unnecessary shopping choices.
- Another considerable fact is that the people, who contributed in the survey and belong to the age group of 65+, aren't familiar with online buying and even in some cases, they have a negative attitude towards it. This occurs from their negative answer to the question asking if they perform online buying as well as from their declaration that they find unnecessary the online unplanned shopping.

**Which of the below best describes your shopping behavior in an e-shop?**

<b>Online Shopping Behaviour</b>	<b>Population</b>
I spend only as much time as I need to complete my planned purchases	15,7%
I perform my planned purchases and then I take a look at other products in the e-shop complete my planned purchases	20,3%
I usually visit e-shops as I like to look around displayed products but without proceeding with purchasing	15,7%
I enjoy to visit e-shops to check the products, and decide upon my mood and needs if I will buy any of them	40,5%
I do not buy products online unless it regards a product that I need and I cannot find in a physical store	5,2%
I do not buy anything online	2,6%

*Figure 9: Shopping Behaviour*

- I enjoy to visit e-shops to check the products, and decide upon my mood and needs if I will buy any of them: Female consumers belonging to 25-34 age group with a monthly frequency of purchases and income up to €1,499.
- I perform my planned purchases and then I take a look at other products in the e-shop: Male and female shoppers mainly belonging to the 25-34 and 35-44 age groups with incomes either under €1,000 or between €1,500-€1,999
- The majority of the consumers, around 75%, performs online purchases either planned or not, a fact that proves the sample is familiar with the e-shops' environment and also has the potential to perform impulse purchases in the future as they are shopping online at least once per month. This frequency shows there is a kind of familiarity with e-shops' environment but still is not that high to indicate it is a habit of daily consumers' lives.
- Age and income seem to influence e-shopper's behavior and triggers their impulsiveness as younger groups with mostly average incomes are more prone to impulsive e-shopping. We may assume at this point that this is also a result of the absence of other financial obligations to be covered from younger audiences' side.

**How often do you spend more money on an e-shop than you have initially planned? (1: Never, 5:Always)**

Overspending Frequency	Population
1	9,2%
2	40,5%
3	33,3%
4	12,4%
5	4,6%

*Figure 10: Overspending Frequency in an E-shop*

- From the diagram it is highly remarkable that half of the responders have answered negatively as regards exceeding their money spending on online purchases. Nevertheless, this does not necessarily mean that they are not impulse buyers, as half of them have answered that they enjoy e-shopping and they also take a look around on products that they might decide to buy upon their mood. This leads us to the assumption that this sample is indeed a potential impulse one.
- From the surveyed who have stated that they do indeed spend more money most of the times that they shop online, women are young females that enjoy to buy online, despite of their income, and as a result visit e-shops with high frequency not only to cover their potential existing needs but also because they are delighted with taking a look around the products and also perform unplanned purchases. Men are also young males, living in small households, that visit e-shops with high frequency as well, perhaps for convenience reasons too, but they also enjoy e-shopping and investigate unplanned purchases.
- Although men and women respectively, out of those that are spending more money than their initial plan on e-shopping, are enjoying the process of online buying, the one third of men does not perform impulse purchases although they exceed their initial budget, probably due to the fact that they have made a wrong plan in the first place.

How enthusiast are you usually during the time of impulse online buying? (1: Sad and/or depressed, 5:Very enthusiast & happy)

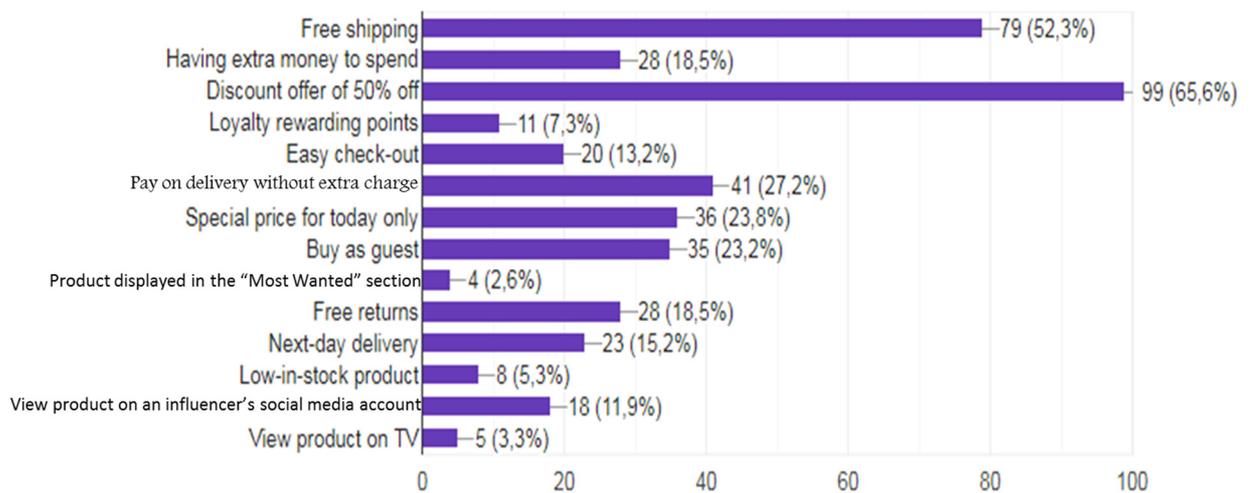
Enthusiastic	Population
1	3,9%
2	8,6%
3	35,5%
4	37,5%
5	14,5%

*Figure 11: Level of Enthusiasm at Impulse E-shopping*

In this question the answers are somehow predictable as the process of an unplanned purchase creates to shoppers the feeling of the excitement and the impatience for acquiring something new. These feelings as well as the emission of pheromones during the shopping procedure are what trigger the impulsiveness of the e-shopper in the first place. Although the 52% admits these sentiments that impulsive shopping causes, there is also a 35.5% of the respondents that remain neutral towards this process, although they do perform unplanned purchases. This same sample states that rarely do they exceed their budget during e-shopping.

### 5.3 Buying Patterns Answers

**Which of the following factors do usually indulge you in performing an unplanned online purchase? (Choose the three most significant for you)**



*Figure 12: Factors Causing Impulse Shopping*

- As we notice in the above diagram the majority of the respondents is indulged by a 50% discount of a product's primary price. This result is somehow expected as during discounts period, sales are significantly increasing. We also observe that the two thirds of the surveyed population considered the discount over 50% a very important factor despite of their income and their shopping frequency.
- Another worth mentioning answer is the free shipping service that is very popular among almost half of the respondents who have answered this questionnaire. Consequently, these two services should be integral components of an innovative e-shop business.
- It is quite interesting that the factors that affect the impulsiveness of the e-shopper, apart from the cost-related ones, are the capability to pay on delivery the product with no extra charge as well as the choice to proceed with a fast check out with no need to create an account in the e-shop and spend extra time on this process.
- Another result that we didn't expect to witness is that there would be only such a small part of the respondents who are influenced by TV advertisements or by the most wanted items' list, which exists in e-shops. Based on those results we can conclude that the e-consumers are not influenced at the same

degree as the offline consumers by traditional channels, such as TV. Maybe as the years go by, due to the fact that the financial crisis has reduced the available shopping budgets of the majority of the households, e-consumers make more picky research among products and their prices before buying them. They also try to avoid extra charges as much as possible, such as shipping cost, that increase the product final price.

- A quite surprising fact is that the influence of social media figures is quite low compared to the general trend of these means and their prevailing position in the modern society. We would expect at least the youngest audience to consider these factors as significant as the cost related ones.

### Who do you usually ask for their opinion prior to an unplanned online purchase?

Social Influence	Population
A friend	34,4%
A family member	17,2%
A specialist regarding the product	8,6%
I take ideas from influencers on social media	3,3%
Other	7,3%
No one	29,1%

Figure 13: Social Influence

- It's quite interesting that one third of the surveyed population does not take any kind of advice prior to an unplanned purchase. From this fact we may come up to a conclusion that the e-shopper acts upon an instant impulse feeling, on his own, without being influenced by external factors. This leads us to consider these e-shoppers more vulnerable to possible triggers that exist in an e-shop.
- Men and women of younger audiences with a considerable income and a low frequency of online purchases choose to act on their own when they bump into a product that is not in their shopping list.
- We also notice that more than half of the survey population take an advice from their family or a friend prior to a previously unconsidered purchase.
- Surprisingly, a very small percentage is influenced by a social media influencer. We would expect especially the youngsters to be very influenced by social media figures and taking ideas for products that are displayed in influencers' accounts.

**Have you ever bought something that you have not planned due to the lack of your available time?**

<b>Time Influence on E-shopping</b>	<b>Population</b>
Yes	57,5%
No	42,5%

*Figure 14: Time Factor in Impulse Buying*

Time, as expected, is indeed a significant factor that determines whether or not the e-shopper will proceed with an unplanned purchase. Impulsiveness is a feeling that is boosted by the lack of available time and the anxiety that this causes to a person. When the shopper has not much time to think about the aspects of the product and its possible use, he seems to proceed with his purchase out of instinct than basing his choice on logical conclusions.

We also notice that the younger age groups are more prone to impulse reactions as most of them state that they have performed unplanned purchases due to the lack of their available time.

The majority of the female responders have stated that they perform impulse purchases under time pressure in contrast to men that are evenly divided to both answer groups.

## 5.4 Discovery Answers

### What would indulge you the most to visit more often an e-shop? (Choose the two most significant for you)

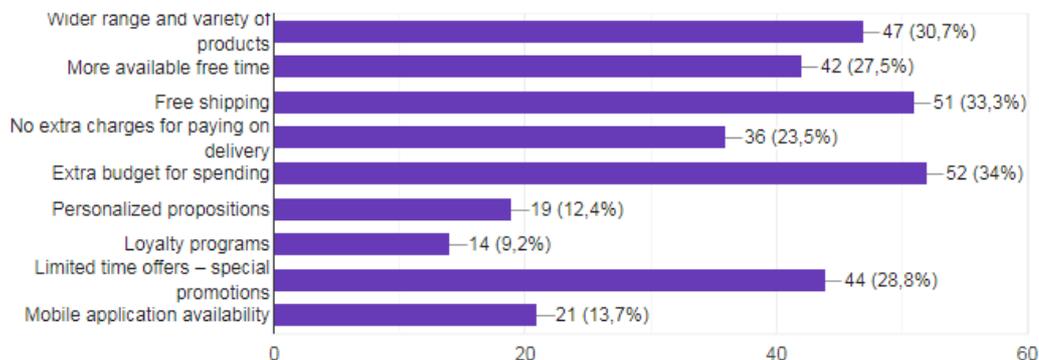


Figure 15: Factors Increasing E-shop Visit Frequency

- We observe that the one third of the surveyed e-consumers would return to an e-shop if this offers a wide variety of products. We also see that this number is larger than the number of e-shoppers that would visit again a web shop for its discounts and special promotions. On the other hand, in a previous question of the questionnaire, half of the sample has answered that 50% discount is the most important factor that could trigger them to perform an unplanned purchase. From the above we may conclude that large discounts can attract consumers' attention instantly, but in the long run this tactic seems to be rather inefficient to assure a high percentage of returning customers. It is true that e-shoppers pay higher attention to the product than to the price in the long term, from the five Ps of Marketing. This leads us to the conclusion that it is quite important to invest more in the way that products are displayed in an e-shop and probably in occasional discounts from time to time than in ongoing discounts, if you wish to maintain your consumer base for a longer time period. Investing in enhancing brand awareness of an e-shop could prove to be much more profitable than trying to indulge new customers through discount promotions. E-businesses could indeed take advantage of the consumers' impulsiveness and trigger them through discount promotions but they should also take very good care of the product that they offer in order to augment their consumer base.
- The extra available budget is the most significant factor that we were indeed expecting to see it affecting the willingness of e-shoppers to visit an e-shop and of course in some cases spending more money. It is noticeable that free shipping can also indulge e-consumers in visiting more often an e-shop's web page as well as performing an impulse purchase. In this case we may assume that consumers could more easily replace the brick-and-mortar shops with the online ones, as they get the same product with no extra charge and with the

convenience to receive them at home. The unexpected figure in the diagram is that personalized propositions which can offer targeted solutions to the possible e-clients, as well as loyalty programs don't hit high in consumers preferences. This could be the result of the low familiarity that e-shoppers have with these contemporary solutions that have emerged over the past few years. It is very possible to see these factors scoring higher over the next years, as e-shoppers become more and more educated and familiar with new technologies and solutions that fit their preferences. Mobile application availability falls in this category as at the moment mostly the younger audiences seem to be interested in them.

**Which of the following factors are more important to you to spend time and money on an e-shop? (Choose the two most significant for you)**

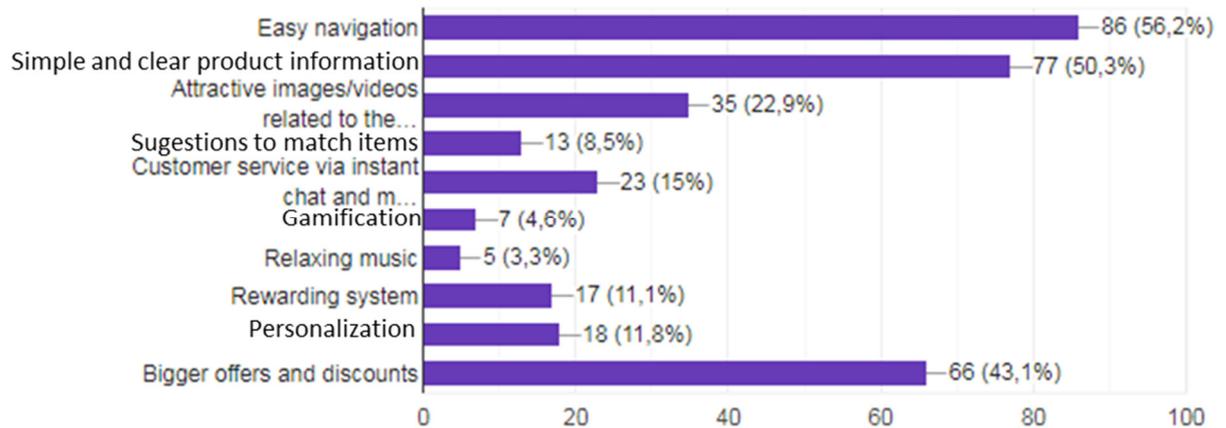


Figure 16: Factors Affecting Money and Time Spending in an E-shop

- From the above diagram, a very important conclusion that emerges is that 131 people from the surveyed sample of the 153 have answered that the most important factor and trigger for purchases and impulse buying is the user-friendly design (Easy navigation/Simple and clear product information). It is quite significant that one third of the surveyed have declared that both these factors are indeed the most important for spending time and money in an e-shop. We observed that surprisingly discounts and offers score at the third place, following consumers' preference for user-friendly e-shops. So, we may underline at this point the high importance and attention that e-businesses have to pay to design easy to navigate websites and to present their products and services in order not only to attract but also to indulge consumers to spend more money.
- What we can additionally mention at this point, is that consumers seem not to be quite influenced by factors such as loyalty programs, rewarding systems and

personalized solutions. Although all these could help e-shoppers save money and time, they seem to be yet very unfamiliar with all the related benefits. Maybe in the future, if this survey will be conducted in the same way, we would see quite different results, as years go by consumers are better educated around all these e-shops' facilitations.

## 6. Conclusion

The aim of this research is to examine consumers' online impulse buying behavior and the factors that affect and trigger it. The conduction of the investigation has led to many useful conclusions concerning the way consumers think of and react to the various stimulus that they interact with in an e-shop's environment. These conclusions could help e-businesses to build prosperous and attractive websites in order to increase and maintain their consumer base but also indulge existing consumers into performing more frequently online purchases and gain new customers by offering options that trigger their impulsiveness. What should be underlined overall is that impulse behavior is indeed based both on instinct and mood of the consumer as well as on the way an e-shop is designed. In many cases the core design of the e-shop and its ease of use are even more important than consumers' current mood during their navigation.

From this investigation occurs that the low frequency of online purchases, either planned or impulse, may have been caused by different factors. Factors as lower budget due to financial crisis that makes consumers' buying choices pickier and their income lower as well as the absence of adequate education around new technologies that prevents e-shoppers from becoming familiarized with e-shops' environment and the personalized services that they offer. Another significant finding is that the majority of buyers with the highest potential to be impulse ones are men, although we were expecting women to be more prone to unplanned impulse purchases. Coley and Burgess (2003) are mentioning that when it comes to impulsive purchases men tend to choose technology related products while women seem to prefer apparel. Even though the majority has performed impulse purchases, they were proven to be covering existing needs, which led us to the result that consumers might act out of instinct but even in that case they aim to buy consciously and satisfy their needs and not proceed to unnecessary spending.

The two most important factors that affect online impulse buying behavior seem to be the high rate discounts and the free shipping. TV and Social media have a considerably low impact on consumers' impulse preferences in e-shops compared to traditional physical stores. Overall variety and quality of displayed products in an e-shop as well as the ease of navigation and the clear information depicted, are the main and most important reasons why a customer would return to an e-shop. From this fact we may conclude that an e-shop's design and products offered have the greatest impact on consumers' way of thinking and influence their shopping decisions at a higher degree than large discounts could. Akram, Khan, Hui and Tanveer (2017) are also mentioning the great importance of the e-shop's quality of services and the high degree at which it affects impulsive shopping. Even in previous researches concerning impulsive shopping behavior, such as in this of Ozer and Gultekin (2014) it is underlined that businesses should focus more on maintaining their consumer base in the long run than trying to attract consumers' interest through temporary pricing

techniques. These parameters seem to also affect consumers' spending behavior apart from increasing their impulsive shopping frequency. Therefore, we should underline that a good advice for e-businesses is to invest more in the quality of their website, as this has proven to be the most significant stimulus, and less in ongoing price-offs, that attract instant attention of consumers but lose them in the long run.

# Appendix

## Questionnaire

### A. Demographics

1. What is your age?

- 18-24
- 25-34
- 35-44
- 45-64
- 65+

2. What is your gender?

- Male
- Female

3. What is your monthly net income?

- Under €1,000
- Between €1,000 and €1,499
- Between €1,500 and €1,999
- Between €2,000 and €2,999
- Over €3,000

4. What is the size of your household?

- 1
- 2
- 3
- 4
- 5
- 5+

5. How many members of your family are depended on your income?

- None
- One
- Two
- Three

- More than three

## **B. Psychographics**

6. Do you buy online and if so, how often?

- Yes, once a month
- Yes, once per week
- Yes, once in every two months
- Yes, more than twice per week
- No, never

7. How possible is to perform an unplanned purchase online? (1:Not possible at all, 5:Extremely possible)

- 1
- 2
- 3
- 4
- 5

8. How useful was your latest unplanned purchase? (1:Not at all, 5:Extremely useful)

- 1
- 2
- 3
- 4
- 5

9. Which of the below best describes your shopping behavior in an e-shop?

- I spend only as much time as I need to complete my planned purchases
- I perform my planned purchases and then I take a look at other products in the e-shop
- I usually visit e-shops as I like to look around displayed products but without proceeding with purchasing
- I enjoy to visit e-shops to check the products, and decide upon my mood and needs if I will buy any of them
- I do not buy products online unless it regards a product that I need and I cannot find in a physical store
- I do not buy anything online

10. How often do you spend more money on an e-shop than you have initially planned? (1: Never, 5:Always)

- 1
- 2
- 3
- 4
- 5

11. How enthusiast are you usually during the time of impulse online buying? (1: Sad and/or depressed, 5:Very enthusiast & happy)

- 1
- 2
- 3
- 4
- 5

### **C. Buying Patterns**

12. Which of the following factors do usually indulge you in performing an unplanned online purchase? (Choose the three most significant for you)

- Free shipping
- Having extra money to spend
- Discount offer of 50% off
- Loyalty rewarding points
- Easy check-out
- Pay on delivery without extra charge
- Special price for today only
- Buy as guest
- Product displayed in the “Most Wanted” section
- Free returns
- Next-day delivery
- Low-in-stock product
- View product on an influencer’s social media account (Instagram, Facebook)
- View product on TV

13. Who do you usually ask for their opinion prior to an unplanned online purchase?

- A friend
- A family member
- A specialist regarding the product
- I take ideas from influencers on social media
- Other, please specify .....
- No one

14. Have you ever bought something that you have not planned due to the lack of your available time?

- Yes
- No

#### **D. Discovery**

15. What would induce you the most to visit more often an e-shop? (Choose the two most significant for you)

- Wider range and variety of products
- More available free time
- Free shipping
- No extra charges for paying on delivery
- Extra budget for spending
- Personalized propositions
- Loyalty programs
- Limited time offers – special promotions
- Mobile application availability

16. Which of the following factors are more important to you to spend time and money on an e-shop? (Choose the two most significant for you)

- Easy navigation
- Simple and clear product information
- Attractive images/videos related to the product
- Suggestions to match items – Frequently bought together section
- Customer service via instant chat and messaging
- Gamification – games to gain extra rewards and discounts
- Relaxing music
- Rewarding system
- Suggestions to buy items based on your preferences/buying habits (personalization)
- Bigger offers and discounts

## Online References

<http://bbs.binus.ac.id/ibm/2019/04/s-o-r-model/>

(Visit : 05/09/2020)

<https://dergipark.org.tr/tr/download/article-file/286760>

(Visit : 17/09/2020)

[https://digitalcommons.lsu.edu/cgi/viewcontent.cgi?article=5168&context=gradschool\\_theses](https://digitalcommons.lsu.edu/cgi/viewcontent.cgi?article=5168&context=gradschool_theses)

(Visit : 12/09/2020)

<https://www.disruptiveadvertising.com/ppc/ecommerce/2018-ecommerce-statistics/>

(Visit : 15/09/2020)

<https://www.emerald.com/insight/content/doi/10.1108/SJME-03-2018-007/full/html>

(Visit : 17/09/2020)

<http://euroasiapub.org/wp-content/uploads/2017/05/18FMApril-4782-1.pdf>

(Visit : 02/09/2020)

[https://www.ijresm.com/Vol.2\\_2019/Vol2\\_Iss2\\_February19/IJRESM\\_V2\\_I2\\_226.pdf](https://www.ijresm.com/Vol.2_2019/Vol2_Iss2_February19/IJRESM_V2_I2_226.pdf)

(Visit : 02/09/2020)

<https://www.instituteofclinicalhypnosis.com/psychotherapy-coaching/classical-conditioning-stimulus-organism-response/>

(Visit : 05/09/2020)

<https://www.linkedin.com/pulse/stimulus-organism-response-model-viliam-vanak>

(Visit : 24/09/2020)

<https://www.neurosciencemarketing.com/blog/articles/comfort-shopping.htm>

(Visit : 17/09/2020)

<https://www.numerator.com/resources/blog/art-impulse-buy-online-opportunities>

(Visit : 12/09/2020)

<https://www.numinix.com/blog/2018/11/05/what-are-the-different-categories-of-e-commerce/comment-page-1/>

(Visit : 25/09/2020)

[https://www.researchgate.net/figure/S-O-R-framework-Source-Mehrabian-and-Russell-1974\\_fig1\\_274640051](https://www.researchgate.net/figure/S-O-R-framework-Source-Mehrabian-and-Russell-1974_fig1_274640051)

(Visit : 06/09/2020)

[https://www.researchgate.net/profile/Ilija\\_Hristoski/publication/314311907\\_Factors\\_Affecting\\_the\\_Competitiveness\\_of\\_e-Commerce\\_Firms\\_A\\_Critical\\_Appraisal/links/58c8edfdaca2723ab17f2d1e/Factors-Affecting-the-Competitiveness-of-e-Commerce-Firms-A-Critical-Appraisal.pdf](https://www.researchgate.net/profile/Ilija_Hristoski/publication/314311907_Factors_Affecting_the_Competitiveness_of_e-Commerce_Firms_A_Critical_Appraisal/links/58c8edfdaca2723ab17f2d1e/Factors-Affecting-the-Competitiveness-of-e-Commerce-Firms-A-Critical-Appraisal.pdf)

(Visit : 25/09/2020)

[https://www.researchgate.net/publication/321364697\\_How\\_website\\_quality\\_affects\\_online\\_impulse\\_buying\\_Moderating\\_effects\\_of\\_sales\\_promotion\\_and\\_credit\\_card\\_use](https://www.researchgate.net/publication/321364697_How_website_quality_affects_online_impulse_buying_Moderating_effects_of_sales_promotion_and_credit_card_use)

(Visit 07/10/2020)

[https://www.researchgate.net/publication/341599300\\_Impact\\_of\\_shopping\\_emotion\\_towards\\_impulse\\_buying\\_in\\_e-commerce\\_platform](https://www.researchgate.net/publication/341599300_Impact_of_shopping_emotion_towards_impulse_buying_in_e-commerce_platform)

(Visit : 17/09/2020)

<https://www.sellbrite.com/blog/impulse-buying-online/>

(Visit : 06/09/2020)

[http://www.springer.com/cda/content/document/cda\\_downloaddocument/9783319294667-c2.pdf?SGWID=0-0-45-1555475-p179465044](http://www.springer.com/cda/content/document/cda_downloaddocument/9783319294667-c2.pdf?SGWID=0-0-45-1555475-p179465044)

(Visit : 23/05/2020)

<https://study.com/academy/lesson/what-is-consumer-buying-behavior-definition-types-quiz.html>

(Visit : 26/09/2020)

<https://www.tandfonline.com/doi/full/10.1080/23311975.2018.1535751>

(Visit : 17/09/2020)

<https://www.telegraph.co.uk/technology/connecting-britain/why-online-shopping-is-better-than-in-store/>

(Visit : 12/09/2020)

[https://en.wikipedia.org/wiki/Types\\_of\\_e-commerce](https://en.wikipedia.org/wiki/Types_of_e-commerce)

(Visit : 12/09/2020)

## References

Ahmad M. B., Ali H. F., Malik M. S., Humayon A. A., Ahmad S., (2019), "Factors Affecting Impulsive Buying Behavior with Mediating role of Positive Mood: An Empirical Study" - *European Online Journal of Natural and Social Sciences* 2019; [www.european-science.com](http://www.european-science.com) Vol.8, No 1 pp. 17-35 ISSN 1805-3602

Coley A., Burgess B., (2003),"Gender differences in cognitive and affective impulse buying", *Journal of Fashion Marketing and Management: An International Journal*, Vol. 7 Iss 3 pp. 282-295

Hualin Wang, (2015), "Study of Influencing Factors on Consumer Online Impulse Buying" - *Management Science and Research*, June 2015, Volume 4, Issue 2, PP.19-25

Muruganantham G., Bhakat R. S., (2013) , "A Review of Impulse Buying Behavior", *International Journal of Marketing Studies* 5(3)

Ozer L., Gultekin B., (2015), "Pre-and post-purchase stage in impulse buying: The role of mood and satisfaction", *Journal of Retailing and Consumer Services*, 22, 71–76