



Lisbon School  
of Economics  
& Management  
Universidade de Lisboa

# **MASTERS IN MANAGEMENT (MIM)**

## **MASTERS FINAL WORK**

DISSERTATION

### **E-COMMERCE: IMPULSIVE BUYING IN FASHION CLOTHES STORES**

MAFALDA DO NASCIMENTO CHAVES

MARCH – 2022



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MAFALDA DO NASCIMENTO CHAVES

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MARCH – 2022

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## ABBREVIATIONS

AVE – Average Variance Extracted  
C – Complain  
CSR – Corporate Social Responsibility  
EC – Electronic Commerce  
EIBB – E-Impulsive Buying Behaviour  
IBB – Impulsive Buying Behaviour  
HSM – Hedonic Shopping Motivation  
PA – Personalized Advertising  
PLS – Partial Least Squares  
PWQ – Perceived Website Quality  
R – Regret  
RI – Return Intention  
RT – Return Tendency  
SDG – Sustainable Development Goals  
SEM – Structural Equation Modeling  
SI – Social Influence  
SP – Sales Promotion  
S-O-R – Stimulus-Organism-Response  
TPB – Theory of Planned Behaviour  
TRA – Theory of Reasoned Action  
WN – Website Navigability  
WS – Website Security  
WVA – Website Visual Appeal

## ABSTRACT

The rising usage of the internet in many nations has revolutionized the way people socialize, learn, govern, and conduct business in recent years. E-commerce transactions are also increasing and are becoming a societal trend. The existence of a simple and convenient online shopping system may encourage impulsive buying behaviour. The digital revolution is the transition from a conventional shopping landscape to E-commerce in which goods and services are supplied electronically. Previous studies have found that online shopping behaviour can be influenced by impulse as well as reasoned considerations of the advantages of E-commerce.

Due to the pandemic that we are currently experiencing, consumers' online behaviour has changed, and online purchases have increased. Therefore, it becomes crucial to analyse the factors that lead to online impulse purchases. To explore this topic three theories were used. Theory of Reasoned Action (TRA)-based Web Trust Model to get an overview of the various stages of consumer behaviour when making a purchase, the S-O-R Framework to determine which factors influence online impulsive buying under the context of purchasing clothes and fashion products, and the Theory of Reasoned Action to understand the consequences of E-Impulsive Buying Behaviour. A quantitative method was adopted, based on information obtained through a survey with 261 participants. The research was evaluated using Partial Least Squares (PLS). The study's findings indicated that Hedonic Social Motivation, Sales Promotion, Social Influence, and Website Security impact E-Impulsive Buying Behaviour. Nevertheless, Website Navigability, Website Visual Appeal, Perceived Website Quality, and Personalized Advertising concluded that the effect is not statistically relevant. Additionally, the outcomes of this investigation indicated that consumers' E-Impulsive Buying Behaviour has an immediate effect on Regret, and it has no influence on Complain, as this variable was rejected. However, post-purchase regret of online customers who have previously made impulsive purchases may impact their complaint behaviour. It was also stated that complain affects both variables, Return Intention and Return Tendency. Lastly, it was confirmed that between refunding and exchanging products, the most usual is to exchange them.

KEYWORDS: Electronic Commerce, E-Impulsive Buying Behaviour, Online Shopping, Online Fashion Clothes Stores



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## 1. Introduction

Consumers previously frequented physical stores for products information and used to complete their purchases there, with the actual store acting as one of their few sources of product details. The increasing use of digital technologies has expanded the number of information sources. Internet Technology has developed into one of the most critical tools that people, organizations, and countries can use to accelerate economic growth, as it can be seen in the graph in Appendix i. where sales through EC increased from 1336 billion U.S dollars in 2014 to a forecast of 6388 billion U.S dollars in 2024 (Statista, 2021).

This technological revolution has transformed retail, making online shopping (Electronic Commerce) another approach to acquiring products and services (Gunawan & Iskandar, 2020). Simplicity and market accessibility have motivated consumers to sell and purchase electronically. Buying on the internet has been determined to be more convenient and timesaving than going to a store (Kinsey & Senauer, 1996). The Covid-19 pandemic was a significant factor in transforming not only EC (Bhatti et al., 2020), but also impulsive purchasing behaviour (Deng et al., 2020; Xiao et al., 2020; Xiong et al., 2020).

Consumer behaviour analysis should also consider how customers respond to stimuli in an EC context due to the transition toward selling online. Online impulsive buying behaviour is an important part of EC since EC companies strive to attract customers. Companies try to persuade customers to engage with their online stores, frequently by creating marketing strategies. According to Liu et al. (2013), online buyers are more impulsive compared to customers that buy in physical stores, demonstrating that impulsive buying behaviour is prominent in the E-commerce environment.

Considering the frequency of impulsive buying behaviour across the most diversified product types, such as food, apparel, and household, it has been converted into an important study subject for consumer behaviour experts. Currently, the fashion industry is regarded as the strongest in the online sector, needing to develop future strategies and visions (Forbes, 2020). Fashion's future is via internet, and organizations will need to adapt their manufacturing, selling, and advertising processes to make this industry operate in a virtual environment (Forbes, 2020). Clothing is the major component of the fashion sector in Portugal (Statista Market Forecast, 2020).

Since companies must adapt to this new lifestyle (E-commerce), it is also important to study their responsible behaviour towards consumers. To this end, a concept called Corporate Social Responsibility was created. CSR is the commitment that organizations carry out to contribute to society's growth (Golob & Podnar, 2019). This concept is gaining traction in the business world and is quickly becoming one of the top priorities for businesses. After several years of studying this concept and differing opinions, the latest researchers have identified three key CSR practices that organizations are becoming more interested in, covering social issues, economic well-being, and the environment (Sen & Bhattacharya, 2001; Sharma, 2019). The combination of these three scopes illustrates why the term "sustainable" had become an essential concept in CSR terminology (Kolk, 2010). Organizations that encourage CSR programs are more likely to attract new customers and obtain support from existing clients, which has a significant influence on consumers' purchase behavior (Hameed et al., 2018). In alignment with this term, there is another called Sustainable Development Goals. The SDGs were accepted by the United Nations as part of the 2030 Agenda for Sustainable Development. They are considered as a modern, international set of goals aimed to establish a worldwide framework for sustainable growth through a combination of social improvement, economic growth, and environmental preservation (United Nations, 2015). So, by integrating corporate strategies with the SDGs, corporate leaders are rapidly ratcheting up their CSR initiatives, as investing in processes in a way that optimizes potential value generation in sustainable development, rather than focusing on profit maximization as in the past (Chung et al., 2018; ElAlfy, 2020). This study will examine the main factors that determine impulsive buying behaviour. CSR, on the other hand, is absent from these factors. As a result, this gap requires greater research on the effect of CSR repercussions on impulse purchase. There have been no studies that investigate the importance and connections of CSR with EIBB.

This thesis focuses on consumers' impulsive behaviour in online fashion clothing stores. Adapting Stimulus-Organism-Response Framework, Theory of Reasoned Action, and Theory of Reasoned Action (TRA)-based Web Trust Model, the research objectives present in this thesis are the factors that lead people to buy impulsively, what are their

consequences after impulsive buying and what is the most used way by consumers when they are not satisfied with their purchase. Since it is scarce to find pre-purchases, purchases, and post-purchases behaviour combined in one research work, it becomes an important study to investigate. Therefore, four research questions are formulated: “What factors influence impulsive buying and what is their relevance in the context of online fashion clothing stores?”; “What is the impact of E-impulsive buying on immediate post-purchase decision behaviour?”; “What is the impact of complain between product return tendency and product return intention?” and “What is the difference in the impact of refunding or exchanging products?”.

To address these questions, a quantitative approach was used, collecting data from a survey of 261 respondents. The main findings of the research are as follows: HSM, SP, SI, and WS influence E-Impulsive Buying Behaviour; WN, WVA, PWQ, and PA are not statistically significant on EIBB; EIBB has a direct effect on Regret, but has no effect on Complain; Post-purchase regret of online customers who have previously made impulsive purchases may influence their complain behaviour; Complain influences both the Return Intention and Return Tendency variables; When choosing between refunding and exchanging products, the most common option is to exchange them.

Consequently, the investigation is divided into seven parts: Chapter II provides an overview of the literature in which E-impulsive buying behaviour and its consequences are explored; Chapter III clarifies the research model and hypotheses are established; Chapter IV is related to the methods that were used, where the results obtained through the survey are explained with more detail; Chapter V analyses the data and presents the results; Chapters VI and VII explore the most significant investigation’s observations, limitations, and future research possibilities. This study adjusts three theories to jointly analyse two topics that have been studied separately for some time (the factors that influence EIBB and what happens in the post-purchase phase), seeking to provide useful information to organizations involved in this area.

## **2. Literature Review**

### **2.1 Electronic Commerce**

Electronic Commerce (EC) is frequently referred to as any type of economic transaction that takes place through the internet (Wigand, 1997). The terms of the sale are negotiated over the internet or through any other technology (extranet, email, instant messaging), and payment can be done online or offline (Moriset, 2018).

According to Nurdiansyah et al. (2018), EC refers to all transactions regarding the purchase and sale of a product or service over the internet. The increasing of EC platforms has helped in the significant expansion of online shopping. Moreover, the growing use of social media platforms has a critical impact on EC.

This new trade model has a direct influence on how traditional businesses operate, leading to the adaptation of innovative business models. This growth of sales does not only affect the consumers, but has an impact on companies too, supporting the establishment of new interactions, and negotiating models with cost savings and productivity improvements, resulting in a globally competitive market.

### **2.2 Consumer Behaviour**

Setiadi (2013) characterizes consumer behaviour as any activity directly associated with the acquisition and consumption of a product or service, including the decision-making process. Lately, it was defined as the study of how people, groups, and organizations select, purchase, and use products, services, ideas, or experiences to meet their needs and wants (Kotler and Armstrong, 2016).

### **2.3 E-Impulsive Buying Behaviour**

According to Sembiring (2013), impulsive buying occurs when a customer buys without previous planning, due to a deep emotional impulse for a product or service that causes the sensation of having an enormous and urgent need for that product or service. This type of behaviour is noticed when customers are confronted with immediate, emotive, and rapid purchases (Abbasi, 2017). Lately, Utami (2018) described impulsive buying as a purchase that arises when consumers become interested in acquiring a certain product, usually because of a shop's appealing stimuli. In general, impulsive buying

behaviour begins when someone discovers a product or service and immediately wants to buy it, followed by the act of buying it.

Due to the increasing importance of online shopping, the concept of impulsive buying behaviour has been extended to the context of EC, where it is referred to as e-impulsive buying behaviour. According to Lo et al. (2016), impulsive buying in an online context is a representation of the consumer's incapacity to control shopping urges when confronted with a consumptive stimulus. As previously stated, as online shopping grows in prevalence, impulsive online shopping also rises, and several research indicates that many online consumers make impulsive purchases (Floh & Madlberger, 2013; Jeffrey & Hodge, 2007; Parboteeah et al., 2009).

EC studies about the detrimental effects of IBB are extremely scarce and appear to be biased since prior research focused on motivations associated with impulsive purchasing, arguing that strategic approach of impulsive buying results in improved profitability for EC companies (Floh & Madlberger, 2013; Liu et al., 2013; Verhagen & Van Dolen, 2011; Wells et al., 2011). According to Rook (1987), spontaneous purchases are more likely to occur with little regard for the consequences. So, this is an important concern because of the effects that IBB brings to customers and sellers.

## **2.4 Consequences of E-Impulsive Buying**

While most of the research examined the antecedents of IBB (Su & Lu, 2018; Yeung & Yee, 2010), just a few examined its consequences. However, several consequences have been found as outcomes of EIBB, such as complaints, negative word of mouth (WOM) communication (Zeelenberg & Pieters, 1999), regret (Zeelenberg & Pieters, 2004), and return (Park & O'Neal, 2005). Therefore, some impulsive purchases are not recognized as useful or required in the consumers' life. Hence, IBB may result in post-purchase regret. When consumers experience post-purchase regret, they look for both internal and external factors (Zeelenberg et al., 1998). Along with, consumers' regret influences their complaint behaviour (Tsiros & Mittal, 2000), considering that they have a greater propensity for complaining when they associate their regret to external factors (e.g., an undesirable low level of customer service) instead of internal factors (e.g., wrong purchasing choice; Son, 2006).

Furthermore, consumer complaints regarding impulsive buying are highly connected with consumers' intention or tendency to return products (Lim et al., 2017). Despite being accountable for returning products, the seller suffers damages because of such actions. Considering that a customer wants to return a product, he is solely responsible for the product's return. By contrast, the seller is in charge of the original delivery, shipping, and storing of the returned product (Lim et al., 2017).

Overall, returning goods can have negative impacts on EC companies and therefore it is critical to investigate this practice.

## **2.5 E-Impulsive Buying Behaviour in Fashion Clothes Stores**

Fashion is a sector that is constantly developing and changing (Sarah et al., 2020). The rapid acceptance of EC is one of the most significant transformations. Nowadays, more consumers are buying and ordering products online (Bhatti et al., 2020). In general, the fashion industry seems to have the largest predominance of online purchasing. Within the fashion industry, clothes have grown to be the most often purchased type of product online in a range of advanced economies, and it is widely recognized as the industry's dominant section (Sarah et al., 2020).

Fashion represents the culture of a nation, as well as the way people describe themselves (Dhurup, 2014). Most consumers associate fashion with apparel and footwear, which are an integral component of a person's well-being (Holmberg & Öhnfeldt, 2010). Often, when people buy clothing, they are buying an identity (Tungate, 2008).

Fashion's relevance in consumers' everyday lives is growing and is becoming perceived as a materialistic emotion (Wadera & Sharma, 2019). Online clothing purchases are seen as more impulsive than those performed in a physical channel (Wadera & Sharma, 2019). This is because fashion is considered an industry influenced by unexpected needs and feelings (Dawson & Kim, 2009; Kim et al., 2008; Phau & Lo, 2004). According to Hausman (2000), up to 40% of orders performed in clothing are categorised as impulsive. Furthermore, experts have examined this tendency to determine how it relates to online fashion companies (Wadera & Sharma, 2019).

In the fashion sector, there are two types of customers: slow fashion and fast fashion (Watson & Yan, 2013). Customers that make reasonable and planned purchases are typically late embracers of fashion. Slow fashion is reshaping consumer mindsets by

purchasing in smaller quantities, yet with higher-quality products (Watson & Yan, 2013). On the other hand, fast fashion is seen as suitable for consumers' who are impulsive and illogical (Watson & Yan, 2013).

### **3. Research Model and Hypothesis**

#### **3.1 Conceptual Framework**

Considering the literature review described above, several theories have been established to improve our understanding of the antecedents of consumers' impulsive buying behaviour and its consequences.

In this regard, some of the most important theories and models are a) Latent State-Trait (LST) theory of Steyer (1987,1988) and colleagues (Steyer & Schmitt, 1990) that intends to explain how the relation between external conditions or characteristics can influence human behaviour (Chen et al., 2016); b) Dholakia's theory of consumption impulse implementation which defends that sales promotion is one of the environmental stimulations that, if sufficiently represented on EC websites, might generate consumption impulses (Dholakia, 2000). According to Solomon et al. (2018), sales promotion is intended to encourage the immediate purchase and testing of a product during a specified period, and so is extremely probable to empower IBB; c) Theory of Reasoned Action (TRA) used to justify the interaction between a consumer's attitude, intention, and behaviour in a specific scenario (Fishbein & Ajzen, 1975). Consumers' regret, complaint, intention to return products, and returning products are described by this theory; d) Theory of Reasoned Action (TRA)-based Web Trust model adjusted from McKnight et al., (2002). Respectively, the process of pre-purchase trust and post-purchase pleasure is divided into the following steps: pre-buying, buying, and post-buying; e) Attitude Theory which demonstrates a relationship between perceptions, emotions, and behaviours. People's perceptions influence both emotions and behaviours, and emotions influence human behaviours (Hilgard, 1980). Another frequently used model is Stimulus-Organism-Response (S-O-R). Akram et al. (2017) explored online impulsive buying using S-O-R Framework. They argued that this process may be utilized to analyse online IBB because several previous research has examined the relationships between

environmental factors, consumers' emotional and cognitive states, and the following behaviours. Stimuli are variables of the exterior environment (Xiang et al., 2016) or just occurrences that provoke consumers. The cognitive and emotive responses generated by these stimuli establish the organism. The response exemplifies the outcomes and choices made by people because of cognitive or emotional internal procedures and includes the ending behaviour (Sherman et al., 1997).

### **3.2 Research Model**

Three theories were taken into consideration to accomplish the work's purpose, the S-O-R Framework, the Theory of Reasoned Action, and the Theory of Reasoned Action (TRA)-based Web Trust Model. In the last decade, the S-O-R framework has been the most common theoretical framework for describing EIBB (Liu et al., 2013; Khalifa & Shen, 2007; Floh & Madlberger, 2013; Parboteeah et al., 2009). At the same time, the first part of this study on online impulsive buying tries to analyse both external and internal determinants, as well as the subsequent behaviour and is heavily influenced by the environmental psychology perspective, which is congruent with the S-O-R framework. The theories of Reasoned Action and Reasoned Action (TRA)-based Web Trust Model were chosen because, since there are few studies about post-purchase behaviour, they were the ones identified that address the last part of this study, the consequences of consumer behaviour, specifically related to online impulsive buying. Moreover, the research demonstrates that some investigators have effectively used these models to evaluate the antecedents and consequences of IBB (Park et al., 2012; Ajzen, 1985; Kim et al., 2009).

Although these theories are rather complete, they must be adapted to suit the situation at hand. To make it more perceptible where the variables fit, through the Theory of Reasoned Action (TRA)-based Web Trust Model, the research model was divided into three parts: pre-buying, buying, and post-buying (Figure I). The first two parts of the research model were retrieved from the S-O-R framework. The first part indicated as pre-buying represents the antecedents of EIBB referred to as stimulus. The second part of the model, designated as buying, characterizes the E-Impulsive Buying Behaviour, which falls under the part of the response. Afterwards, and through the Theory of Reasoned Action, these parts were connected with the last one, designated as post-buying, which



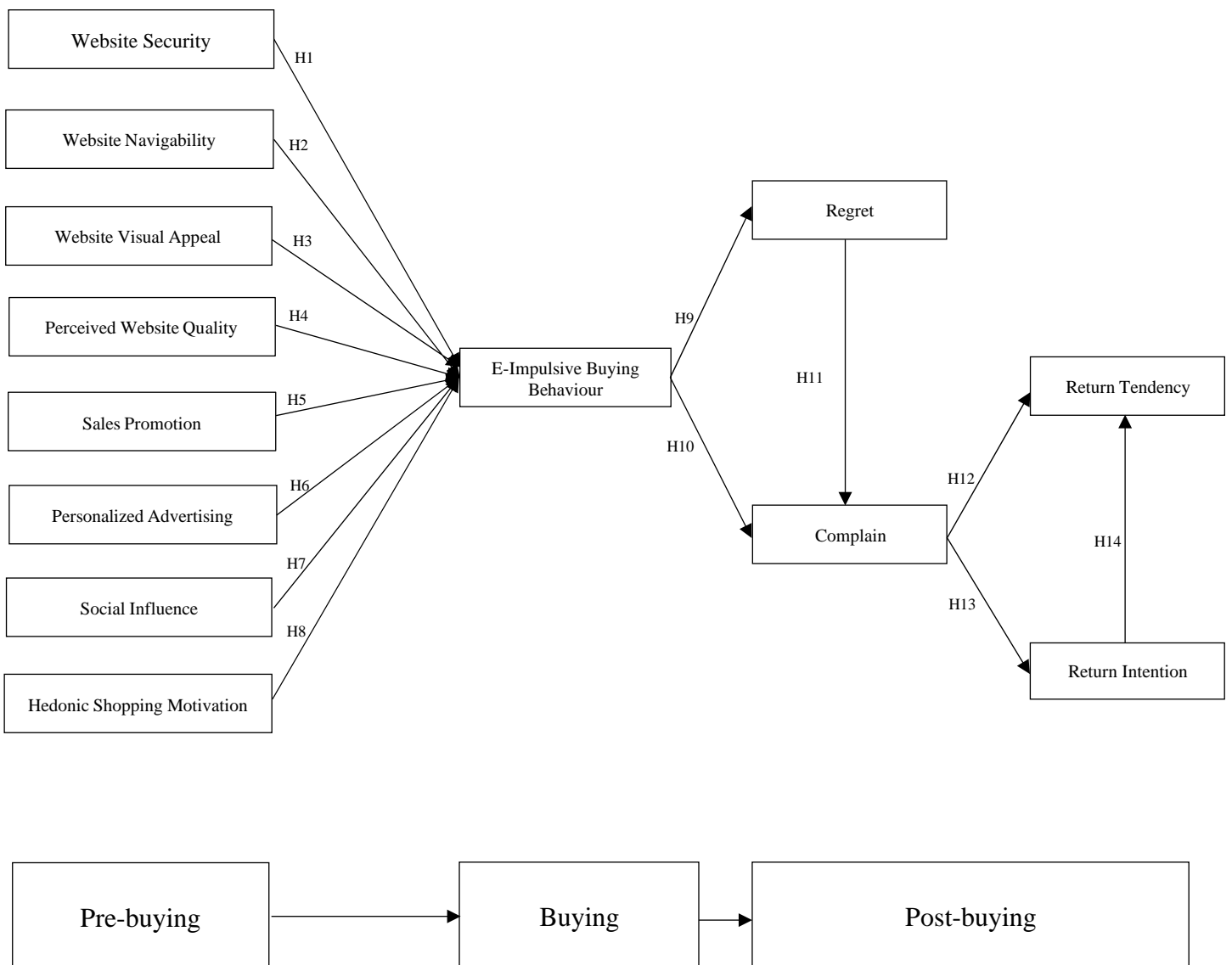
was taken from the model presented in the article by Lim et al. (2017). This part clarifies the customers' regret, complaining behaviour, intention to return, and the return of products that follow an impulsive buying, in other words, the consequences of EIBB.

In the S-O-R Framework, stimuli are divided into two subcategories: internal and external. The external ones will be understood as Website Stimuli (Website Security, Website Navigability, Website Visual Appeal, and Perceived Website Quality), Marketing Stimuli (Sales Promotion and Personalized Advertising), and Situational Stimuli (Social Influence). The internal stimulus will be measured through consumers' impulsive characteristics (Hedonic Shopping Motivation). These antecedents of online impulse buying behaviour were chosen as they present the characteristics of individuals belonging to the two subgroups of the S-O-R Framework stimuli.

According to Tommy et al. (2016), in the S-O-R Theory, the Organism part has been eliminated since the main objective of this study is to analyze the direct effect of stimuli on IBB without a customer's internal assessment. According to Parboteeah et al. (2009), as impulse purchases are frequently the instantaneous outcome of engagement to numerous stimuli, EIBB is a fast and impulsive procedure.

Thus, after identifying all the constructs of the three chosen theories, the following research model was built (Figure I).

Figure I. Research Model



Lim, S.H., Lee, S., & Dan J. Kim, 2017

### 3.1 Website Security (WS)

Website security refers to the mechanisms to preserve the privacy of personal details, the protection of online transactions, the description of the website’s data safety, and the website’s trustworthiness (Wu et al., 2012). Website Security is a highly important indicator since if consumers feel that the website is trustworthy, it has a direct influence on their behaviour (Wells et al., 2011). When customers buy online, one of their main concerns is Website Security. Throughout most circumstances, improving Website Security would increase people’s confidence when purchasing on the website, which is a

precondition for online impulsive buying. According to Zou (2018), consumers are more willing to engage in EIBB if they feel protected on the website. Taking this into account, it is reasonable to assume a positive relationship between Website Security and E-Impulsive Buying Behaviour. As a result, the following hypothesis is established:

**H1:** Website Security has a positive impact on E-Impulsive Buying Behaviour

### 3.2 Website Navigability (WN)

The website's general flow, the structure's layout, and the coherence of the navigation rules are all characterized as navigability (Palmer, 2002). When users visit a website and do product research, website navigability is critical. This feature of E-commerce promotes operational efficiency (Wells et al., 2011). Additionally, navigation is essential for optimizing the customer experience on a website (Nielsen, 2000) and increasing online IBB (Li et al., 2016; Zou, 2018). In line with that, the following hypothesis is proposed:

**H2:** Website Navigability has a positive impact on E-Impulsive Buying Behaviour

### 3.3 Website Visual Appeal (WVA)

The aesthetic appeal of a website is determined by the selection of numerous visual components such as fonts and images that contribute to the overall design of the website (Loiacono et al., 2007). If a website is aesthetically appealing, it increases the likelihood of people visiting it and the customer's intention of buying products. According to the available research on online impulsive purchasing, website visual attractiveness is directly associated with EIBB (Liu et al., 2013; Wells et al., 2011). Thus, the underlying hypothesis is developed:

**H3:** Website Visual Appeal has a positive impact on E-Impulsive Buying Behaviour

### 3.4 Perceived Website Quality (PWQ)

Like how physical shops manage the store environment to increase impulse purchases, certain online attributes, such as perceived website quality acts as an external factor that affects impulsive purchasing (Wells et al., 2011). The current evidencesuggests that the overall website quality may influence impulsive buying behaviour by

generating a favourable emotional reaction (Liu et al., 2013). Therefore, the following hypothesis is established:

**H4:** Perceived Website Quality has a positive impact on E-Impulsive Buying Behaviour

### 3.5 Sales Promotion (SP)

External marketing stimulus, such as sales promotion, may serve as an incentive to lead consumers to impulsive purchases (Dawson & Kim, 2009). A recent study conducted by Sundström et al. (2019) revealed that some types of sales promotion, such as free delivery or a discounted price for a short period may prompt impulse purchases. Chen & Yao (2018) hypothesized that sales promotion generates positive feelings in customers and modifies their measure of comparison pricing, affecting their desire to make a purchase. This might suggest that sales promotion can intensify a website on generating impulsive purchases. Therefore, the following hypothesis is formulated:

**H5:** Sales promotion has a positive impact on E-Impulsive Buying Behaviour

### 3.6 Personalized Advertising (PA)

An advertisements' main goal is to provide details about a specific good or service. PA provides consumers with more relevant and tailored information (Chen & Hsieh, 2012; Deuze, 2016; Liu-Thompkins, 2019) while reducing the amount of information shown to consumers (Liang et al., 2006). A high level of personalization indicates that marketers are conscientious about providing product information to prospective customers based on their individual buying preferences (Komiak & Benbasat, 2006). Setyani et al. (2019) claimed that PA produces greater suggestions and provides accurate product information. Companies have access to a massive amount of data on their clients' buying behaviours, interests, and preferences. It enables them to develop consumer identities and establish an effective marketing strategy (Ansari & Mela, 2003; Deuze, 2016; Liang et al., 2006). Thus, it can be assumed that consumers experience a high volume of PA when interacting with various websites, which generally results in consumers engaging in the advertisements and producing a need to purchase the product by impulse. Based on the preceding findings, the relevant hypothesis is advanced:

**H6:** Personalized Advertising has a positive impact on E-Impulsive Buying Behaviour

### 3.7 Social Influence (SI)

Social Influence can be defined as an individual's propensity to gain insights through observing other individuals (Gwee & Chang, 2013). This means that Social Influence refers to the possibility that people's opinions or behaviours can change because of their relationships with others. Thus, society has a significant role in the development of a consumer's IBB (Scherhorn et al., 1990). Therefore, the following hypothesis is proposed:

**H7:** Social Influence has a positive impact on E-Impulsive Buying Behaviour

### 3.8 Hedonic Shopping Motivation (HSM)

Hedonic shopping motivation refers to mental needs, such as pleasure, esteem, feelings, and other subjective emotions (Setiadi, 2013). Hedonic Shopping Motivation represents the potential enjoyment in shopping as well as the possibility of a complementary interaction between customers and their buying reference group. HSM characteristics have a direct and indirect effect on customers' purchasing quantities by creating positive emotions.

According to Rahma & Septrizola (2019), HSM has a positive and significant influence on EIBB. Furthermore, Andryansyah & Arifin (2018) suggest that HSM has a substantial influence on variables associated with impulsive purchases. In other words, the greater the HSM drive, the higher the chance of IBB. Therefore, the following hypothesis is formed based on the above study:

**H8:** Hedonic Shopping Motivation has a positive impact on E-Impulsive Buying Behaviour

### 3.9 E-Impulsive Buying Behaviour (EIBB)

Impulsive buying behaviour happens when a purchase is made without previous planning, which usually culminates in regret and complaint due to increased levels of disappointment (Kacen & Lee, 2002; Rook, 1987). Buyers' pleasure or disappointment with their buying experience is dependent upon the difference between pre- and post-purchase expectations (Oliver, 1980, 1997). The level of satisfaction that exists in brick-and-mortar stores also exists in the online purchasing context (Bhattacharjee, 2001). Prior research on impulsive shopping supports the idea that EIBB directly affects regret and

complaint. As a result, it is claimed that regret and complaints are positively associated with IBB:

**H9:** E-Impulsive Buying Behaviour has a positive impact on Post-Purchase Regret

**H10:** E-Impulsive Buying Behaviour has a positive effect on Complaining Behaviour

### 3.10 Regret (R)

Regret is an undesirable emotion that occurs when an individual acknowledges that he/she could have chosen correctly if he/she had decided differently (Zeelenberg & Pieters, 2007; Gabler et al., 2016). It is a conflicting idea that motivates customers to modify their attitudes and behaviours. When customers acknowledge that the option they chose is less preferable than the alternative one, they may develop a sense of regret.

Consumers' purchase regret influences their complaining behaviour (Tsiros & Mittal, 2000). When customers experience post-purchase regret, they seek either internal or external factors (Zeelenberg et al., 1998). They demonstrate more complaining when they assign regret to external reasons instead of internal reasons (Son, 2006). It is assumed that consumers who experience regret because of a negative purchase decision will demonstrate wider behavioural responses including complaining (Newman & Werbel, 1973; Richins, 1983). The following hypothesis is proposed:

**H11:** Post-Purchase Regret has a positive impact on Complaining Behaviour

### 3.11 Complain (C)

Powers & Jack (2013, 2015) concluded that when customers show signs of concern after purchasing a product, either for questioning their need for the product or if it was the right choice considering the range of products available, they may ponder returning it to the vendor.

Consumers' desire to refund, switch or return products bought is referred to as return intention. Return tendency refers to the overall predisposition towards return. Multiple studies have been conducted to investigate return intention and return tendency. Park & Choi (2013) discussed that when customers purchase clothing, if there is a delay in returning, swapping, or incurring in shipping costs, their degree of unhappiness increases, which has an impact on their complaining behaviour. Hence, it is suggested the following hypothesis:

**H12:** Complaining Behaviour has a positive impact on Return Tendency

**H13:** Complaining Behaviour has a positive impact on Return Intention

### 3.12 Return Intention (RI)

Many studies have analysed the interaction between behavioural intention and actual behaviour (Bhattacharjee, 2001; Venkatesh et al., 2003). The interaction has been explained using the Theory of Reasoned Action (Ajzen, 1985). It is reasonable to assume that customers' intention to return products through online shopping will result in actual returning behaviour. The following hypothesis is recommended:

**H14:** Return Intention has a positive impact on Return Tendency

## 4. Methods

### 4.1 Data Collection

As previously stated, the purpose of this research is to examine the factors that influence IBB in online fashion clothing stores and the consequences following their purchase. To do this, a conceptual model was established, and a quantitative method was applied to validate the research hypotheses. Appendix ii provides an overview of the constructs' operationalization. The quantitative method, using a survey, was chosen because it enables a larger sample size to be reached to study the hypotheses and thus obtain a more accurate conclusion; it is a quick and objective method of collecting information; it allows a randomized sample, which eliminates biased responses; and finally, it is anonymous, permitting respondents to share a more honest perspective.

The survey was developed using the Qualtrics platform and scales were adapted from the existing literature. The sample population was characterized by individuals of various nationalities who had prior experience with E-commerce, as those who rated the first question "Experience with E-commerce" as 1 on the Five-Point Likert Scale were removed from the sample for this investigation. There was no specified age range, which allowed a larger variety of respondents. Additionally, thirty people completed a pilot test with an experimental draft of the survey to determine its suitability (Creswell, 2007). Therefore, following the inputs from the participants, small changes were implemented

to the structure of certain questions to make them clearer. The survey was distributed using social media platforms such as Instagram, Facebook, and WhatsApp, resulting in a nonprobability sample and a snowball effect. The responses were gathered between 5<sup>th</sup> December 2021 and 3<sup>rd</sup> January 2022. Subsequently, it was possible to observe 829 responses, but only 261 were validated due to the lack of information present in those that were not considered. Thus, all validated answers have no missing data.

The survey was divided into three different parts. Since the concept of E-commerce could be unknown to some respondents, a front page was presented to inform the participants about the objectives of this work and the main concepts. Furthermore, the privacy of the information acquired from respondents was protected. The survey was designed in Portuguese and English so that the investigation could be extended to other nationalities. Because the initial model was published in English and the survey was implemented in Portugal as well, these statements were translated into Portuguese to ensure their accuracy. Following that, the initial English version was compared to the Portuguese version by two other people. This resulted in more trustworthy information.

The first part of the survey was composed of the evaluation of respondents' EC experience. These were evaluated based on three brands (ZARA, Pull&Bear, and H&M) since the work was focused on the fashion clothing industry. Respondents were presented with short introduction videos of the brands and were asked to select one of the brands previously used to shop online. These three brands were chosen as they are world-renowned and have products both for males and females. The second part focused on the research model, consisting of several statements intended to evaluate the research. Lastly, the third part dealt with the collection of data on sociodemographic characteristics. The participants' age, gender, and level of education were determined. Participants were requested to rate the sentences on a five-point Likert Scale for each question (excluding age, gender, and level of education).

## **4.2 Data Analysis**

The development of Structural Equation Modeling with latent factors has been transforming the landscape of international marketing and management investigation (Henseler et al., 2009). Gefen et al. (2000) distinguished two types of SEM methods:



partial least squares SEM (PLS-SEM) and covariance-based SEM (CB-SEM). CB-SEM and PLS-SEM are two distinct methods to evaluate the “cause-effect relations between latent constructs” (Hair et al., 2011). They diverge not just in respect of their fundamental beliefs and results, but in terms of their estimating processes (Hair et al., 2014; Shook et al., 2004). PLS-SEM is an iterative method that seeks to describe the variance of latent variables by reducing standard errors and increasing the R-squared of endogenous constructs (Hair et al., 2014; Ringle et al., 2012). On the other hand, CB-SEM intends to reproduce the covariance matrix without regard for explained variance (Hair et al., 2011a). The PLS-SEM was the method adopted in this research. This method has four unique features. Firstly, enables the calculation of unlimited cause-effect connection models using either reflective or formative measuring methods (Diamantopoulos & Winklhofer, 2001). Secondly, PLS may be employed to build path models with small sample sizes (Chin & Newsted, 1999). Thirdly, this path model may be quite complex without presenting estimating issues (Wold, 1985). Lastly, when distributions are significantly biased (Bagozzi, 1994) or when independent data is uncertain, PLS can also be applied. Smart PLS 3.0 was used to accomplish the structural equation modeling (demonstrate the connections among the constructs) relying on PLS.

## **5. Data Analysis and Results**

### **5.1 Preliminary Data Analysis**

Table I represents the respondents’ information about gender, age, level of education, and which brand used/used the most for online shopping. After analyzing the information was determined that 128 participants (49,0%) were male and 133 (51,0%) were female. In terms of age demographics, the range with the higher expression is the one with individuals between 18 and 24 years old – weighing 67% of participants. In terms of level of education, more than half of the participants have at least a university degree (53,6% of the participants). Considering the brands presented, ZARA stands out as chosen by more than half of the participants – weighing 64%. With an EC experience

average of 3,84, it is possible to assume that the sample has considerable experience to participate in this survey.

Table I. Descriptive statistics (n=261)

<b>Characteristics</b>	<b>Frequency</b>	<b>(%)</b>
<b>Gender</b>		
Masculine	128	49,0%
Feminine	133	51,0%
<b>Age groups</b>		
< 18	1	0,4%
18-24	175	67,0%
25-34	31	11,9%
35-44	8	3,1%
45-56	26	9,9%
55 or above	20	7,7%
<b>Level of education</b>		
12 <sup>th</sup> grade	58	22,2%
Graduation	140	53,6%
Master	53	20,3%
Doctorate	2	0,8%
Other	8	3,1%
<b>Brand used for online shopping</b>		
ZARA	166	64%
Pull&Bear	60	23%
H&M	35	13%
<b>Experience</b>	<b>Mean</b>	
E-commerce	3,84	

Measured in a five-point Likert scale

(1=No experience; 5=Very experienced)

## 5.2 Analyzing the model

### 5.2.1 Measurement Model Analysis

Measurement Model is the method of attributing values to a variable relying on an established criteria that determines how the values are assigned to the variable in an appropriate form (Hair, 2013). Twelve reflective constructions comprise the proposed model (WS, WN, WVA, PWQ, SP, PA, SI, HSM, EIBB, R, C and RI) and a construct from a single item (RT) (Appendix iii). As such, the reliability and validity of reflective measurement models should be determined (Henseler et al., 2009). Generally, the first parameter considered is internal consistency and reliability. Considering that Cronbach's Alpha tends to underestimate the internal consistency and reliability of variables in PLS, it is more acceptable to use an alternative indicator, the composite reliability (Werts et al., 1974). The composite reliability explains that indicators have diverse loadings and can be evaluated similarly to Cronbach's Alpha. To ensure high levels of reliability and internal consistency, composite reliability must exceed 0,7 (Nunnally & Bernstein, 1994). As presented below, Composite Reliability values are higher than 0,7 which ensures the model's consistency and reliability.

Table II. Reliability measurement of reflective variables (n=261)

Measurement Item	Cronbach's Alpha ( $\alpha$ )	Composite Reliability	AVE
Complain	0,581	0,778	0,541
E-Impulsive Buying Behaviour	0,866	0,909	0,715
Hedonic Shopping Motivation	0,804	0,871	0,630
Perceived Website Quality	1,000	1,000	1,000
Personalized Advertising	0,711	0,872	0,773
Regret	0,745	0,855	0,663
Return Intention	0,857	0,913	0,778
Return Tendency	0,902	0,938	0,836
Sales Promotion	0,833	0,888	0,665

Social Influence	0,862	0,916	0,786
Website Navigability	0,862	0,912	0,777
Website Security	0,814	0,889	0,727
Website Visual Appeal	0,918	0,946	0,854

Concerning assessment validity, two criteria are often considered: the convergent and the discriminant validity.

Convergent validity refers to the fact that a group of indicators reflects the same latent construct, as proven by their one-dimensionality. Average Variance Extracted was recommended to be used as a convergent validity criterion (Fornell & Larcker, 1981). In accordance with Gotz et al. (2009), an AVE value of at least 0,5 suggests adequate convergent validity, which means that a latent construct can account for more than half of the variance of its indicators on average. It is possible to see in Table II that all constructs have an AVE higher than 0,5 which means that the convergent validity of the model is guaranteed.

In PLS, the discriminant validity has been analysed with the Fornell-Larcker criterion and the Cross-Loadings (Fornell & Larcker, 1981). As per Fornell-Larcker criterion (Fornell & Larcker, 1981), a latent variable should correlate higher variance with its designated indicator than with any other latent construct. The AVE of each latent construct must exceed the maximum squared correlation of the latent construct with every other latent construct. As shown in Table III, all values are specified in conformity with the criteria. Cross-Loadings states that each indicator's loading should be higher than all its Cross-Loadings (Chin, 1998; Gotz et al., 2009). Appendix iv shows that the requirement was satisfied. While the Fornell-Larcker criteria analyses discriminant validity at the construct stage, cross-loadings enable this assessment at the indicator stage.

Table III. Fornell-Larcker criterion (n=261)

	C	EIBB	HSM	PWQ	PA	R	RI	RT	SP	SI	WN	WS	WVA
C	<b>0,736</b>												
EIBB	0,267	<b>0,846</b>											
HSM	0,302	0,659	<b>0,793</b>										
PWQ	0,019	0,089	0,151	<b>1,000</b>									
PA	0,234	0,275	0,382	0,194	<b>0,879</b>								
R	0,367	0,599	0,485	0,019	0,235	<b>0,814</b>							
RI	0,353	0,141	0,157	0,110	0,117	0,144	<b>0,882</b>						
RT	0,243	0,367	0,354	-0,024	0,109	0,380	0,223	<b>0,914</b>					
SP	0,189	0,422	0,477	0,157	0,331	0,398	0,174	0,172	<b>0,815</b>				
SI	0,196	0,429	0,471	0,240	0,273	0,297	0,169	0,264	0,251	<b>0,886</b>			
WN	0,076	0,099	0,211	0,568	0,197	-0,010	0,207	-0,029	0,183	0,199	<b>0,881</b>		
WS	0,021	0,219	0,186	0,261	0,182	0,096	0,039	-0,000	0,179	0,180	0,252	<b>0,852</b>	
WVA	0,056	0,079	0,175	0,723	0,177	-0,015	0,151	-0,032	0,206	0,190	0,612	0,227	<b>0,924</b>

Notes: Diagonal values indicate the AVE; correlation coefficients that lie outside the diagonal suggest squared correlation  
C – Complain; EIBB – E-Impulsive Buying Behaviour; PWQ – Perceived Website Quality; PA – Personalized Advertising; R – Regret; RI – Return Intention; RT – Return Tendency; SP – Sales Promotion; SI – Social Influence; WN – Website Navigability; WS – Website Security; WVA – Website Visual Appeal

### 5.2.2 Structural Model Analysis

The reliability and validity of the outer model or measurement model evaluation enable verification of the structural model. The structural model explains the connections between the variables. Hair et al., (2017) stated that the following requirements are critical for evaluating the structural model: collinearity, path coefficients,  $R^2$ , and cross-validated redundancy ( $Q^2$ ). To evaluate the model 1000 samples were generated from 261 examples using the bootstrapping approach. Firstly, the multicollinearity problems were tested, through the application of the Variance Inflation Factor (VIF). There could exist collinearity problems if the values of the VIF were higher than 5 (Hair et al., 2017). It is not applicable in this case since each value is below 5 (Table IV), establishing that no issues about collinearity have been highlighted, and the investigation may continue.

Furthermore, it is possible to identify that two of the values are equal to one, meaning that these regressors do not demonstrate multicollinearity.

Table IV. Collinearity Statistics (VIF)

<b>Construct</b>	<b>E-impulsive Buying Behaviour</b>	<b>Regret</b>	<b>Complain</b>	<b>Return Intention</b>	<b>Return Tendency</b>
Complain				1,000	1,142
E-Impulsive Buying Behaviour		1,000	1,560		
Hedonic Social Motivation	1,647				
Perceived Website Quality	2,290				
Personalized Advertising	1,251				
Regret			1,560		
Return Intention					1,142
Sales Promotion	1,367				
Social Influence	1,350				
Website Navigability	1,727				
Website Security	1,129				
Website Visual Appeal	2,421				

After evaluating the Collinearity Statistics, it is important to validate the R-squared ( $R^2$ ).  $R^2$  represents the variance described by each endogenous latent variable.  $R^2$  values are between 0 and 1, and values closer to 1 indicate greater prediction accuracy. The  $R^2$  values of 0,75; 0,50 and 0,25 are regarded as substantial, moderate, and weak, accordingly (Henseler et al., 2009; Hair et al., 2011). Nevertheless, it is essential to consider that in some study situations,  $R^2$  values of 0,10 are regarded as acceptable (Raithel et al., 2012). Considering Appendix v, the  $R^2$  for EIBB (0,481) is regarded as moderate. This suggests that the exogenous variables contributed to 48,1% of the variation in EIBB. Regarding Raithel (2012), the  $R^2$  for Complain (0,138), Regret (0,359) and RI (0,124) are acceptable. This proposes that about 13,8% of the variance in Complain, 35,9% in Regret and 12,4% in RI are described by the external variables. The

$R^2$  for RT (0,080) is weak. This shows that the exogenous variables only reflected 8% of the variance in RT. Even so, we may infer that the model is adequate to clarify endogenous variables' variance.

Cohen's (1988)  $f^2$  may be used to determine the effect size of the exogenous variables contributing to the  $R^2$  for each factor in the model. Cohen (1988) defined  $f^2$  values of 0,02; 0,15 and 0,35 as representing small, medium, and large impacts, correspondingly. Impact sizes smaller than 0,02 suggest that no effect exists (Hair et al, 2017). As presented in Appendix vi, the variables with the largest impact values are E-Impulsive Buying Behaviour with a large impact on Regret (0,559), Hedonic Shopping Motivation with a medium impact on EIBB (0,327) and Complain with a medium impact on RI (0,142). After that, some values represent a small impact, such as Complain on RT (0,033), Regret on Complain (0,079), RI on RT (0,024), SP on EIBB (0,027) and SI on EIBB (0,033). All other variables have no impact.

Another element of the structural model's evaluation is its predictive capability, called Stone-Geisser's  $Q^2$ . This is the main determinant of predictive relevance (Stone, 1974; Geisser, 1975) and can be quantified by the blindfolding method (Tenenhaus et al., 2005). The blindfolding method is a resampling approach that is used to remove and forecast each data point of the indicators in the reflective measurement model of endogenous constructs. According to Stone-Geisser criteria, the model must be capable of estimating the latent endogenous construct's indicators. The blindfolding process is used exclusively on endogenous constructs that have implemented a reflective measurement model. If the value is higher than zero for an endogenous construct, its explanatory variables have predictive value (Hair et al, 2017). The  $Q^2$  values of Complain (0,064), EIBB (0,334), Regret (0,232), RI (0,092) and RT (0,062) in Appendix vii demonstrate the predictive relevance of the model.

The final criterion to consider is the significance of the relationship in the structural model among variables (Table V and Figure II). This is accomplished using bootstrapping, a process that takes several subsamples from the original data using replacement (Henseler et al., 2009). By bootstrapping subsamples, it is possible to create a distribution for the variable in question and estimate the bootstrap standard errors, which establishes the statistical significance of the original indicator weights. To put it

differently, bootstrap standard errors enable the calculation of p-values (Henseler et al., 2009).

Considering a 5% level of significance, there are path coefficients characterized by weak relationships since  $p\text{-value} > 0,05$ . These are  $WN \rightarrow EIBB$  (0,337);  $WVA \rightarrow EIBB$  (0,378);  $PWQ \rightarrow EIBB$  (0,989);  $PA \rightarrow EIBB$  (0,827) and  $EIBB \rightarrow Complain$  (0,316). It is determined that hypotheses H2, H3, H4, H6, and H10 are not accepted in this model. By contrast, the other hypotheses are statistically significant, since the  $p\text{-value} < 0,05$ , so they are accepted.

Addressing the assumptions accepted in this model it is possible to conclude that Website Security has a positive influence on E-Impulsive Buying Behaviour and if the standard deviation of WS increases by 1, then the EIBB will increase 0,098; Sales Promotion has a positive impact on E-Impulsive Buying Behaviour and if its standard deviation rises by 1, then EIBB will rise 0,140; Social Influence has a positive effect on E-Impulsive Buying Behaviour and if its standard deviation grows by 1, the EIBB will growth 0,153; Hedonic Shopping Motivation has a positive influence on E-Impulsive Buying Behaviour and if the standard deviation of HSM increases by 1, EIBB will increase 0,529; E-Impulsive Buying Behaviour positively impacts Regret and if its standard deviation rises by 1, then Regret will rise 0,599; Regret effects positively Complain and if its standard deviation grows by 1, then Complain will growth 0,322; Complain has a positive influence on Return Tendency and if the standard deviation of Complain increases by 1, then Return Tendency will increase 0,187; Complain also has a positive impact on Return Intention and if its standard deviation rises by 1, then Return Intention will rise 0,353; lastly, Return Intention has a positive effect on Return Tendency and if its standard deviation grows by 1, then Return Tendency will growth 0,157.

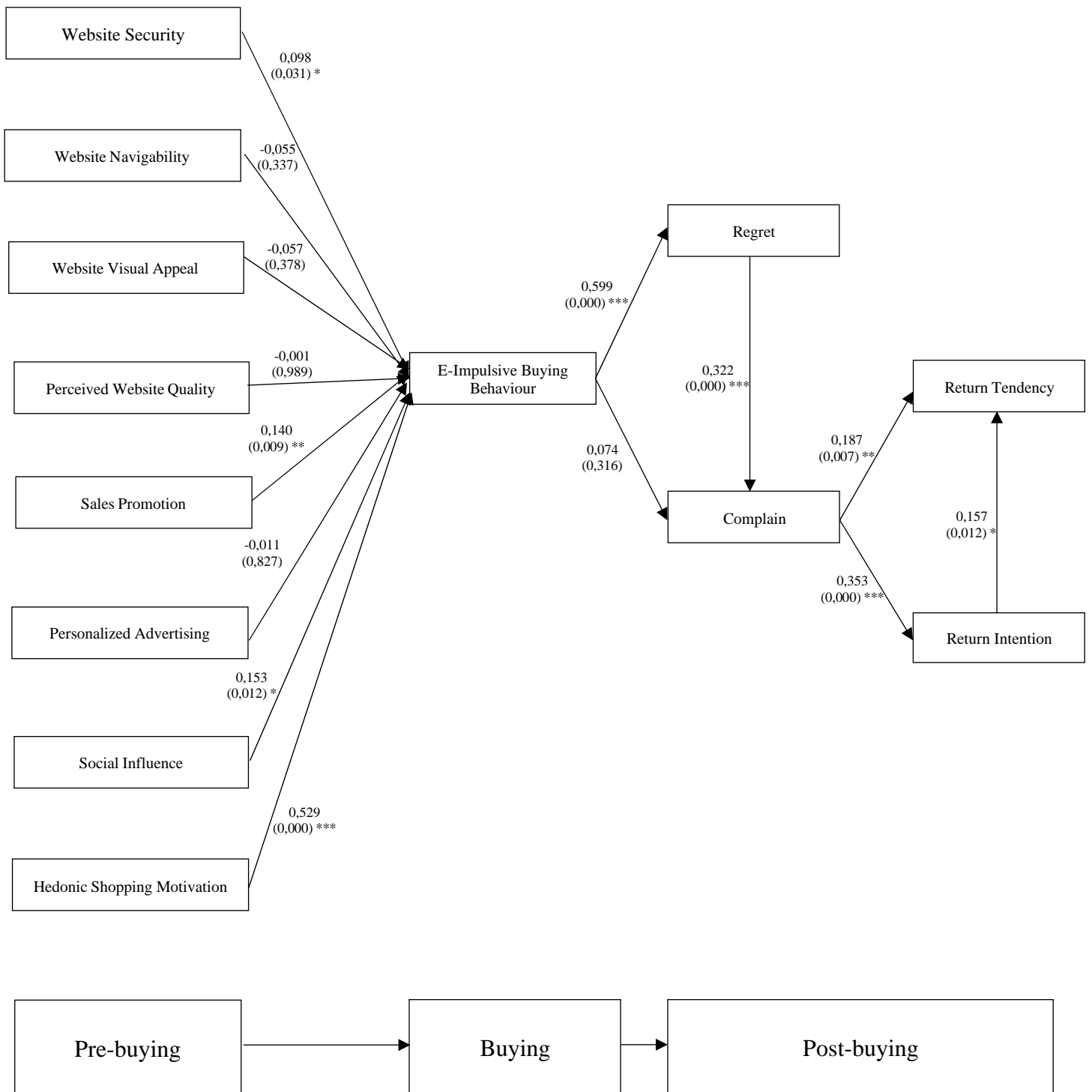


Table V. Structural model results and hypotheses testing

#	Relationships	Path Coefficients	p values	Supported
H1	Website Security → E-impulsive Buying Behaviour	0,098	0,031	<b>Yes</b>
H2	Website Navigability → E-impulsive Buying Behaviour	-0,055	0,337	No
H3	Website Visual Appeal → E-impulsive Buying Behaviour	-0,057	0,378	No
H4	Perceived Website Quality → E-impulsive Buying Behaviour	-0,001	0,989	No
H5	Sales Promotion → E-impulsive Buying Behaviour	0,140	0,009	<b>Yes</b>
H6	Personalized Advertising → E-impulsive Buying Behaviour	-0,011	0,827	No
H7	Social Influence → E-impulsive Buying Behaviour	0,153	0,012	<b>Yes</b>
H8	Hedonic Shopping Motivation → E-impulsive Buying Behaviour	0,529	0,000	<b>Yes</b>
H9	E-impulsive Buying Behaviour → Regret	0,599	0,000	<b>Yes</b>
H10	E-impulsive Buying Behaviour → Complain	0,074	0,316	No
H11	Regret → Complain	0,322	0,000	<b>Yes</b>
H12	Complain → Return Tendency	0,187	0,007	<b>Yes</b>
H13	Complain → Return Intention	0,353	0,000	<b>Yes</b>
H14	Return Intention → Return Tendency	0,157	0,012	<b>Yes</b>

Note: Bootstrapping times: 1000

Figure II. PLS Results of Structural Model



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Note: Bootstrapping times: 1000; \*p < 0,05, \*\*p < 0,01, \*\*\*p < 0,001

### 5.3 The impact of refunding and exchanging products on EIBB

Since one of the research objectives of this work is to understand which is the way most used by consumers when they make an impulse purchase, two of the questions in the survey were analysed to better understand this issue - "I often ask for refunds of the goods I purchase online" and "I often exchange goods I purchase online". Having said that, through the Five-Point Likert Scale, the mean was used to understand the consumers' tendency. The next sections will explain in detail the results obtained and its conclusions concerning this topic.

Table VI. Impact of refunding and exchanging products and t-test statistic

	N	Min	Max	Mean	t	Sig (2-tailed)
Refunding products bought on the shopping website	261	1	5	2,84	2,724	0,007
Exchanging products bought on the shopping website	261	1	5	2,91		

## 6. Discussion

This thesis aims to understand what factors influence online impulsive buying by considering some variables that were found suitable to the context of online fashion clothing stores and what are the consequences adjacent to EIBB.

Answering the first question of this research – “What factors influence impulsive buying and what is their relevance in the context of online fashion clothing stores?” – it is possible to conclude that the critical variables in order of significance are: Hedonic Shopping Motivation, Sales Promotion, Social Influence, and Website Security. Thus, when consumers are confronted with these stimuli, they are unable to control their shopping urges (Lo et al., 2016) and end up buying the product without prior planning (Sembiring, 2013).

By noting the preceding findings, it is feasible to infer that Hedonic Shopping Motivation ( $\beta=0,529$ ;  $p<0,000$ ) has a strong impact on impulsive buying behaviour in

online shopping, representing the most influential factor. Consequently, this demonstrates that participants believe that fun and adventure are significant variables for impulsive buying behaviour in EC (Arnold & Reynolds, 2003). These findings support the existing investigation, such as the research conducted by Gultekin & Ozer (2012), which indicates that HSM has a positive and substantial effect on EIBB. This implies that the greater an individual's HSM, the greater the probability of engaging in E-Impulsive Buying Behaviour in the context of online fashion clothing stores. Furthermore, corroborating previous results, this research demonstrates that individuals' hedonistic features and apparent happiness when buying online have a substantial impact on their EIBB.

Additionally, Sales Promotion is recognized as the second most significant factor affecting EIBB ( $\beta=0,140$ ;  $p<0,009$ ). These results are consistent with those previously published by Lo et al. (2016), who claims that Sales Promotion has a crucial role in the pre-purchase decision for alternative products. According to their research, some sales promotion strategies, such as "buy one get one free, limited-time promotion, extra incentives, and gifts" might influence EIBB. Therefore, this research clarifies the previously stated conclusions while confirming that Sales Promotion has a substantial impact on EIBB within the context of online fashion clothes stores.

Moreover, Social Influence also has a positive effect on EIBB ( $\beta=0,153$ ;  $p<0,012$ ). This analysis indicates that the people's opinion who are valuable for the survey participants may increase their propensity towards impulsive buying purchases in online shops. These outcomes are compatible with those beforehand published saying that is undeniable that Social Influence may have a significant impact on customers' IBB in the context of EC (Kwahk & Kim, 2016).

Similarly, Website Security is statistically significant in terms of EIBB ( $\beta=0,098$ ;  $p<0,031$ ). Earlier studies illustrate the result obtained in this paper, meaning that website features may act as an environmental indicator affecting IBB. Subsequently, according to Wells et al. (2011), Website Security has a substantial influence on IBB.

However, this investigation rejected some of the hypotheses. More specifically, the hypotheses H2 (Website Navigability  $\rightarrow$  E-impulsive Buying Behaviour), H3 (Website Visual Appeal  $\rightarrow$  E-impulsive Buying Behaviour), H4 (Perceived Website Quality  $\rightarrow$  E-impulsive Buying Behaviour), and H6 (Personalized Advertising  $\rightarrow$  E-impulsive Buying Behaviour) were excluded for not being statistically significant.

Firstly, Website Navigability corresponds to the structure and logical layout of the information and pages included within a shop website (Montoya-Weiss et al., 2003). The current findings contrast with the earlier study (Li et al., 2016; Zou, 2018), which highlighted the significant influence of this variable on EIBB. One potential reason for this outcome is that consumers are currently accustomed to use these type of websites daily. Hence, due to the customers' experience with many of these technologies, it is assumed that they possess the ability and aptitude to comprehend how online fashion stores' websites operate, which translates to the collapse of this factor's ability when predicting Impulsive Buying Behaviour.

Furthermore, Website Visual Appeal was also not identified as a factor in determining E-Impulsive Buying Behaviour, suggesting that the Visual Appeal of a website on an online store will not induce customers to make impulsive purchases. In the meantime, dissatisfaction against the online store website may lead to the consumer's purchases being cancelled. Hasan (2016) established that Website Visual Appeal has a detrimental influence on consumer dissatisfaction toward online retailers. In the sense that, consumers are extremely cautious on the website's visual design to determine the product's look, flavour, and quality (Wells et al, 2011). This means that a website with an unappealing aesthetic design might upset users. Thus, visual website design elements that contribute to emotions of discomfort must be eliminated, such as a weak layout, tiny fonts, and improper images.

Moreover, it was shown that Perceived Website Quality seems to be insufficient to stimulate impulsive buying. On the one hand, Lo et al. (2016) stated that Website Quality parameters are related to hygiene factors. They also highlighted that if these hygiene factors are not met by EC websites, customers' attention to ambiguous information may grow. As a result, the Perceived Website Quality may decrease online impulsive purchasing. Therefore, EC companies must have a high-quality website that is simple to browse and comprehend, as well as aesthetically attractive. Nevertheless, a possible reason for the rejection of this hypothesis was the fact that the Website Security variable was the only one that proved to be accepted in the model. Therefore, the rejection of the Perceived Website Quality variable is understandable, as most of the Website-related variables (H2: Website Navigability → E-impulsive Buying Behaviour, H3: Website Visual Appeal → E-impulsive Buying Behaviour) were rejected.

Lastly, Personalized Advertising was considered irrelevant in EIBB. This result is incongruent with some that have been studied previously (Kervenoael et al., 2009).

Regarding the second research question – “What is the impact of E-Impulsive Buying on immediate post-purchase decision behaviour?”– two hypotheses were considered for its answer (H9: E-impulsive Buying Behaviour → Regret and H10: E-impulsive Buying Behaviour → Complain). Thereby, it can be stated that consumers in this study and in the context of online fashion stores could indeed, only feel immediate regret, as hypothesis H10 (E-impulsive Buying Behaviour → Complain) was rejected. Nonetheless, even though consumers’ EIBB has no immediate impact on complaint behaviour, the post-purchase regret of online shoppers – who have previously engaged in impulsive buying – might influence their complaint behaviour afterwards. This occurs when customers are unable to discern whether purchases are truly beneficial or necessary in their life.

Considering the previous data, it is fair to infer that EIBB ( $\beta=0,599$ ;  $p<0,000$ ) has a substantial effect on Regret. Regret can arise because of customers feeling guilty for not picking alternative products after analysing what they acquired, to what they might have acquired (Sugden, 1985). The result found is also in line with Park & O’Neal (2005), who studied post-purchase decisions of impulsive apparel purchases. Individuals who were empowered to make impulsive apparel purchases demonstrated a propensity to view impulsive buying negatively. Besides that, they frequently expressed regret toward the clothes or towards themselves following their acquisition, despite their initial enthusiasm. This exhibits that the greater the EIBB, the greater the post-purchase regret when buying in online fashion clothing stores. A cohesive finding with previous research states that impulse purchases result in disappointment (Piron, 1991) and regret (Piron, 1991).

Additionally, it was shown that EIBB was ineffective to stimulate complaint behaviour ( $\beta=0,074$ ;  $p<0,316$ ). The reason behind this rejection could be that consumers who buy on impulse always have the option to be pleased or dissatisfied with their purchase. Keeping this argument in mind, those consumers who are unfulfilled – and consequently feel regret – might initially intend to complain and later give up doing it, or they may complain (Day, 1977). Moreover, those who are satisfied, even though they

bought on impulse do not complain. Following this premise, it is not possible to say that complaining behaviour is directly associated with Impulsive Buying in fashion clothing stores.

In the analysis was also found that Regret has a significant influence on Complain ( $\beta=0,322$ ;  $p<0,000$ ). Previous studies have proved this result, such as that of Kang & Chung (2010) which evidence that is usually assumed that costumers who express regret following a negative experience, for example, unhappiness on purchasing websites would exhibit higher behavioural action, for instance complaining.

Concerning the third question – “What is the impact of Complain between product Return Tendency and product Return Intention?” – it is affirmed that even though complain has an impact on both variables it is more significant in terms of Return Intention.

Following the analysed results, it was stated that complain has a meaningful effect on both Return Intention ( $\beta=0,353$ ;  $p<0,000$ ) and Return Tendency ( $\beta=0,187$ ;  $p<0,007$ ). On the one hand, these outcomes are in the same direction as previous ones about Return Intention. They have evaluated return and refund desire in a complaining approach and discovered a positive correlation between complaining and refund and return intention (Yoon, 2009). Additionally, it can be observed the same situation with Return Tendency studied by Gregg & Scott (2008), Park & Choi (2013), and Yoon (2009). Foremost, it is also important to note that Return Intention has a positive and significant impact on Return Tendency ( $\beta=0,157$ ;  $p<0,012$ ), which implies that the higher the intention the return, the more likely the consumer is to return the product.

Finally, to conclude the last question, the variable Return Tendency was used to understand what the consumers’ real behaviour is and not only what their intentions are. The following question was formulated: “What is the difference in the impact of refunding and exchanging products?”. Two questions were proposed to the survey participants. They were requested to evaluate their frequency of refunding or exchanging on a five-point Likert scale ranging from "never" to "daily". The population under research is identical and the purpose of the question is to compare them, which means that a t-test statistic is acceptable. The discrepancy between refunding products

(mean=2,84) and exchanging products (mean=2,91) appears to be significant. Concluding, since exchanging products' mean is higher, consumers are more likely to exchange products than refund them.

## **7. Conclusion, Limitations, and Future Work**

### **7.1 Conclusion**

In the past years, customer behaviour experts have focused heavily on impulsive buying. Nevertheless, most of the existing conceptual literature on IBB has been centered on the offline context, and just a few studies investigated the distinctive features of the online context. For this reason, the principal purpose of this investigation was to explore the effect of some factors on the online impulsive buying behaviour and its consequences in the online context. The current study established the validity of the three theories analysed, implying that several variables for assessing impulsive buying and post-purchase decisions give helpful understanding in the context of the fashion industry.

From the findings of this research, Hedonic Shopping Motivation has a critical positive influence on EIBB, emphasizing that consumers believe that they will enjoy making their online impulsive purchases. Meaning that, the more the consumers feel fun, the newness, the compliments of the society, the higher the tendency to impulsively buy online products in fashion clothing stores. Moreover, Sales Promotion has a significant effect on EIBB, demonstrating that if promotional activities exist, such as “buy one, get one free” or if the product has a sale sign, consumers tend to buy more and on impulse. Similarly, Social Influence was also confirmed as being positively statistically significant when impulsively buying products, while other people's opinions were valued in their intentions to do it. Another factor affecting positively EIBB is Website Security, indicating that in the context of online fashion clothing stores, consumers attach great importance to the safety of each website and the more secure they are about the data they make available, the more impulsive their behaviour will be.

On the other hand, Website Navigability, Website Visual Appeal, Perceived Website Quality, and Personalized Advertising have no bearing on EIBB.



Nevertheless, it is also concluded that consumers in this research and the setting of online fashion retailers, after making an impulsive purchase, have just instantaneous regret, without affecting complaint behaviour. Though, post-purchase regret of people who have previously made impulsive purchases may impact their complaint behaviour. This implies that consumers who show regret after an unpleasant experience would engage in complaining behaviour.

Equally important, it was found that despite Complain has a very expressive influence on both product Return Tendency and product Return Intention, it is more significant in respect of Return Intention, which means that there is a greater propensity for consumers to intend to return the product than to do so.

Finally, regarding Return Tendency, it was settled that consumers are more willing to exchange products than to refund them. Product exchange gives the retailer another avenue for consumer engagement. This involvement may culminate in the client purchasing the same item or a different one. Whenever a consumer returns an item for a refund, the organization often makes a loss because of the delivery charges, and any profit earned on the initial transaction is missed. With an exchange, the damage is less significant. Concluding, it is positive that consumers prefer exchanging than refunding products.

Therefore, this study contributes to empirical details about the influence of some antecedents of Impulsive Buying Behaviour in the context of the online fashion industry and aids in understanding the consequences that arise from this behaviour.

## **7.2 Limitations and Future Work**

As in any research paper, there are also some limitations in this study and should be considered for its future development.

Firstly, the survey was made in English and Portuguese to distinguish and analyse the nationality of the participants, but when extracting the report from the Qualtrics platform the nationality did not appear and therefore it was not possible to identify, in the work, how many nationalities were addressed. In future research projects, it would be interesting to obtain this detail so that more conclusions can be drawn.

Secondly, the sample for this study was 261 observations, and the majority (67%) are individuals aged between 18 and 24 years old, that is, students and workers at the

beginning of their careers. For future work, it could be worthwhile to analyse the behaviour of older consumers and probably in another type of situation such as married and/or with children. This fact could increase the purchasing power of the participants in the survey and thus increase or decrease impulsive behaviour.

Thirdly, the results were obtained from three fashion clothing stores. For future work the generality of the model is suggested, requiring further investigation for a more comprehensive number of stores.

Fourthly, the interest of this investigation would be to explore online impulsive buying trends in the apparel and fashion sector. Although variables such as age, gender and education level were analysed, other variables such as product type and associated price, consumer characteristics and situational factors (time, availability of money, personality) would be beneficial to analyse in further research.

Additionally, only negative consequences of impulsive behaviour in online shopping were analysed in this study. In the succeeding papers both positive and negative consequences should be analysed within the same investigation.

However, in comparison to other studies already conducted, this research may be unparalleled since eight antecedents of impulsive behaviour in online shopping and its possible consequences were analysed, and indeed, there are few or no studies that have examined it within this depth and breadth. On the other hand, it was also a gender-equitable work (male = 49% participants; female = 51% participants), which produces a more real and balanced result, since women may be more susceptible to impulsive purchasing than men (Kollat & Willett, 1967).

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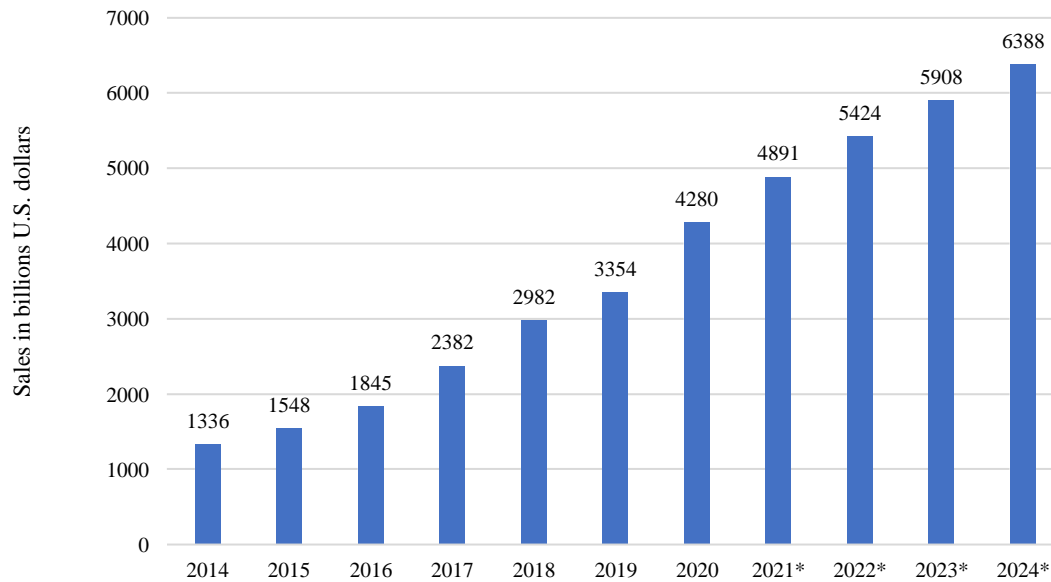
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## Appendixes

Appendix i. Retail E-commerce sales worldwide from 2014 to 2024 (in billion U.S. dollars)



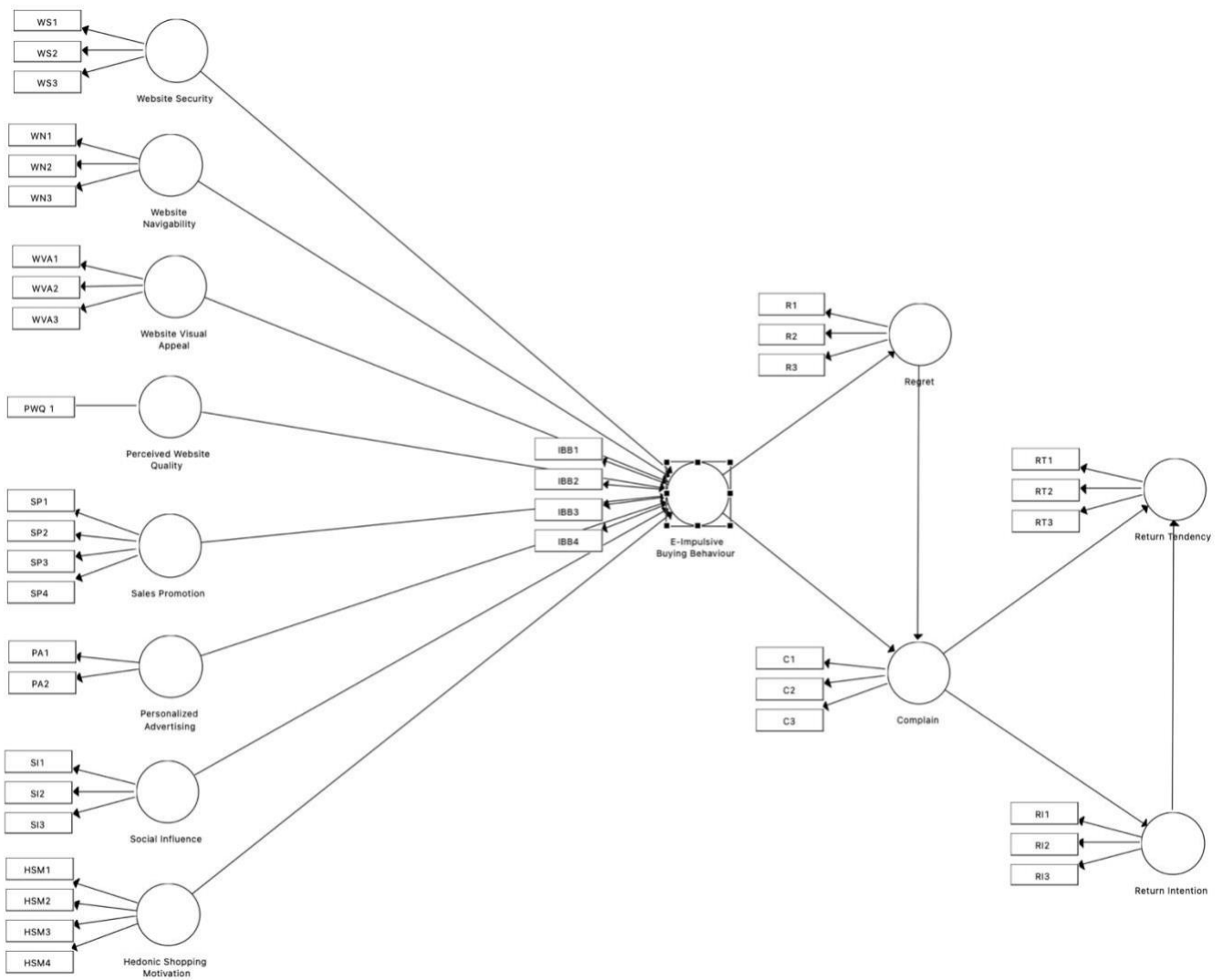
Appendix ii. Model Statements

Construct	ID	Items	Scale	Reference
Respondent profile	AGE	Age	Years	
	GENDER	Gender	Female, Male	
	QUA	Qualifications	-	
	EXP	Experience with e-Commerce	Five-point Likert scale	
Website Security (WS)	WS1	I am confident that the information I disclose during my transaction will not be used by inappropriate parties	Five-point Likert scale	Pavlou, 2001
	WS2	I believe inappropriate parties cannot deliberately observe the information I provide during my transaction with this web retailer		
	WS3	In my opinion, inappropriate parties will not collect and store the information I provide during my transaction with this web retailer		

<b>Website Navigability (WN)</b>	WN1	Navigating through this website is easy for me	Five-point Likert scale	Salisbury et al., 2001
	WN2	I find that my interaction with this website is clear and understandable		
	WN3	It is easy for me to be completely able to navigate the pages of this website		
<b>Website Visual Appeal (WVA)</b>	WVA1	The website is visually pleasing	Five-point Likert scale	Loiacono et al., 2007
	WVA2	The website displays visually pleasing design		
	WVA3	The layout of the website is attractive		
<b>Perceived Website Quality (PWQ)</b>	PWQ1	Overall, how would you rate the quality of this website?	Five-point Likert scale	
<b>Sales Promotion (SP)</b>	SP1	I am more likely to make an impulse purchase if the product has a sale tag	Five-point Likert scale	Hussain, 2018
	SP2	Promotional campaigns (eg, buy one get one) leads me to impulse purchases		
	SP3	I tend to buy extra products if they are on discount		
	SP4	I tend to buy impulsively if a product is on discount		
<b>Personalized Advertising (PA)</b>	PA1	I feel that the ads content displayed on the website is personalized for me	Five-point Likert scale	Zafar et al., 2021
	PA2	I feel that the ad on the website is delivered in a timely way		
<b>Social Influence (SI)</b>	SI1	People around me think that I should do online purchases	Five-point Likert scale	Venkatesh et al., (2012)
	SI2	People who influence my behaviour think that I should do online purchases		
	SI3	People whose opinions I value, support the use of online purchases		
<b>Hedonic shopping motivation (HSM)</b>	HSM1	I like to purchase the latest trends	Five-point Likert scale	Kim, S., & Eastin M.S., 2011
	HSM2	Shopping satisfies my sense of curiosity		
	HSM3	I shop to entertain myself		
	HSM4	I get excited when I go shopping		
<b>E-impulsive buying behaviour (IBB)</b>	IBB1	I make an unconsciously purchase when I shop online	Five-point Likert scale	Lim et al., 2017
	IBB2	When I shop online, I make unplanned purchases		
	IBB3	I made several online purchases although it was not my intention to buy anything before browsing the website		
	IBB4	There was time when I did not hesitate when purchasing online		
<b>Regret (R)</b>	R1	When I make unplanned purchase of goods/services at the shopping web site, I often feel anxious	Five-point Likert scale	Lim et al., 2017
	R2	When I make unplanned online purchases of goods, I often feel that they are useless to me		

	R3	When I buy goods/services impulsively, I assure myself that they will be useful later		
<b>Complain (C)</b>		When I experience problems with shopping at a particular shopping web site		
	C1	I complain to other people (family, relatives, and friends)	Five-point Likert scale	Lim et al., 2017
	C2	I file complaint to consumer protection agencies		
	C3	I call the website's customer services and explain my situation		
	When I experience problems of goods at a particular shopping web site			
<b>Return Intention (RI)</b>	RI1	I intend to return the goods I purchased	Five-point Likert scale	Lim et al., 2017
	RI2	I intend to ask for a refund of the purchase I made		
	RI3	I intend to exchange the goods I purchased		
<b>Return Tendency (RT)</b>	RT1	I often return goods I buy online	Five-point Likert scale	Lim et al., 2017
	RT2	I often ask for refunds of the goods I purchase online		
	RT3	I often exchange goods I purchase online		

Appendix iii. Path model (Smart PLS 3 results)



Appendix iv. Cross-Loadings

	C	EIBB	HSM	PWQ	PA	R	RI	RT	SP	SI	WN	WS	WVA
C1	<b>0.746</b>	0.262	0.323	0.071	0.169	0.378	0.274	0.133	0.267	0.182	0.135	0.088	0.079
C2	<b>0.650</b>	0.145	0.159	-0.052	0.192	0.171	0.156	0.250	-0.005	0.133	-0.057	-0.009	-0.019
C3	<b>0.799</b>	0.166	0.161	-0.000	0.164	0.228	0.324	0.179	0.106	0.114	0.054	-0.048	0.045
IBB1	0.228	<b>0.849</b>	0.588	0.057	0.291	0.497	0.111	0.331	0.353	0.418	0.055	0.197	0.026

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IBB2	0.227	<b>0.894</b>	0.568	0.053	0.259	0.503	0.165	0.347	0.360	0.385	0.097	0.188	0.060
IBB3	0.215	<b>0.858</b>	0.582	0.095	0.260	0.558	0.142	0.326	0.373	0.323	0.088	0.133	0.096
IBB4	0.244	<b>0.777</b>	0.486	0.097	0.107	0.465	0.053	0.229	0.341	0.322	0.098	0.230	0.088
HSM1	0.150	0.431	<b>0.716</b>	0.183	0.282	0.285	0.141	0.204	0.353	0.405	0.121	0.177	0.220
HSM2	0.171	0.491	<b>0.831</b>	0.178	0.336	0.326	0.073	0.239	0.395	0.390	0.224	0.198	0.200
HSM3	0.336	0.613	<b>0.843</b>	0.063	0.332	0.458	0.102	0.364	0.396	0.371	0.099	0.092	0.060
HSM4	0.277	0.533	<b>0.777</b>	0.084	0.260	0.441	0.186	0.290	0.371	0.342	0.232	0.143	0.111
PWQ1	0.020	0.088	0.151	<b>1.000</b>	0.194	0.019	0.110	-0.024	0.157	0.240	0.567	0.261	0.723
PA1	0.165	0.206	0.239	0.195	<b>0.843</b>	0.162	0.019	0.055	0.275	0.175	0.136	0.162	0.188
PA2	0.239	0.272	0.412	0.153	<b>0.914</b>	0.242	0.168	0.128	0.305	0.292	0.203	0.159	0.132
R1	0.332	0.483	0.403	0.018	0.228	<b>0.840</b>	0.119	0.340	0.312	0.251	-0.003	0.040	-0.038
R2	0.267	0.499	0.315	0.033	0.182	<b>0.841</b>	0.125	0.367	0.241	0.240	0.003	0.074	-0.013
R3	0.304	0.481	0.464	-0.004	0.163	<b>0.761</b>	0.108	0.219	0.419	0.234	-0.023	0.120	0.015
RI1	0.293	0.149	0.103	0.094	0.086	0.097	<b>0.899</b>	0.189	0.097	0.204	0.190	0.033	0.098
RI2	0.324	0.116	0.140	0.085	0.124	0.159	<b>0.884</b>	0.207	0.204	0.158	0.185	0.052	0.140
RI3	0.314	0.111	0.170	0.113	0.098	0.124	<b>0.862</b>	0.192	0.153	0.088	0.172	0.016	0.160
RT1	0.235	0.331	0.306	0.006	0.116	0.343	0.208	<b>0.905</b>	0.150	0.263	-0.026	0.026	-0.004
RT2	0.220	0.338	0.329	-0.053	0.049	0.330	0.226	<b>0.923</b>	0.128	0.207	-0.026	-0.021	-0.049
RT3	0.205	0.338	0.338	-0.019	0.141	0.371	0.172	<b>0.915</b>	0.199	0.257	-0.027	-0.006	-0.035
SP1	0.128	0.272	0.318	0.189	0.223	0.316	0.165	0.062	<b>0.759</b>	0.204	0.201	0.123	0.213
SP2	0.138	0.343	0.366	0.053	0.285	0.265	0.072	0.089	<b>0.840</b>	0.252	0.139	0.131	0.176
SP3	0.203	0.326	0.384	0.230	0.296	0.331	0.131	0.230	<b>0.810</b>	0.159	0.197	0.153	0.243
SP4	0.157	0.412	0.466	0.072	0.272	0.380	0.196	0.164	<b>0.849</b>	0.204	0.088	0.171	0.075
SI1	0.180	0.388	0.411	0.174	0.233	0.272	0.172	0.256	0.221	<b>0.922</b>	0.156	0.142	0.165
SI2	0.199	0.440	0.484	0.194	0.305	0.304	0.097	0.262	0.274	<b>0.946</b>	0.149	0.171	0.115
SI3	0.139	0.295	0.340	0.300	0.170	0.201	0.203	0.173	0.154	<b>0.783</b>	0.250	0.171	0.257
WN1	0.029	0.097	0.188	0.574	0.188	0.036	0.165	-0.034	0.150	0.218	<b>0.916</b>	0.225	0.582
WN2	0.122	0.100	0.190	0.438	0.188	-0.039	0.213	-0.015	0.167	0.145	<b>0.909</b>	0.223	0.496
WN3	0.044	0.050	0.183	0.513	0.129	-0.033	0.165	-0.032	0.183	0.163	<b>0.816</b>	0.230	0.577
WS1	0.064	0.211	0.206	0.215	0.212	0.078	0.057	0.009	0.189	0.174	0.228	<b>0.871</b>	0.206
WS2	-0.011	0.154	0.097	0.295	0.109	0.009	0.063	0.040	0.128	0.152	0.272	<b>0.823</b>	0.242
WS3	-0.004	0.188	0.157	0.173	0.129	0.146	-0.019	-0.044	0.134	0.133	0.155	<b>0.863</b>	0.141
WVA1	0.037	0.057	0.172	0.664	0.152	0.031	0.142	-0.031	0.209	0.169	0.586	0.200	<b>0.907</b>
WVA2	0.044	0.059	0.124	0.679	0.199	-0.030	0.084	-0.046	0.151	0.162	0.580	0.231	<b>0.927</b>
WVA3	0.068	0.092	0.181	0.667	0.148	-0.031	0.175	-0.018	0.205	0.189	0.546	0.203	<b>0.938</b>



Appendix v.  $R^2$ 

	$R^2$	$R^2$ Adjusted
E-Impulsive Buying behaviour	0,481	0,465
Complain	0,138	0,131
Regret	0,359	0,356
Return Intention	0,124	0,121
Return Tendency	0,080	0,073

Appendix vi.  $f^2$ 

Construct	Complain	E-Impulsive Buying Behaviour	Regret	Return Intention	Return Tendency
Complain				0.142	0.033
E-Impulsive Buying Behaviour	0.004		0.559		
Hedonic Shopping Motivation		0.327			
Perceived Website Quality		0.000			
Personalized Advertising		0.000			
Regret	0.079				
Return Intention					0.024
Return Tendency					
Sales Promotion		0.027			
Social Influence		0.033			
Website Navigability		0.003			
Website Security		0.016			
Website Visual Appeal		0.003			

Appendix vii.  $Q^2$ 

	$Q^2 = (1-SSE/SSO)$
Complain	0,064
E-Impulsive Buying Behaviour	0,334
Regret	0,232
Return Intention	0,092
Return Tendency	0,062

