

# Original vs. Smell-alike A study of purchase intention drivers in the perfumes category

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### **ABSTRACT**

Title: "Original vs Smell-alike. A study of purchase intention drivers in the perfumes category."

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This study aims to understand which factors influence the purchase intention of perfumes by making a comparative analysis between original and imitation perfume brands. The latter have the exactly same fragrance as the original perfume but they are sold at a much lower price. Therefore, this evidence of a possible threat for original perfume retailers is going to be demystified.

The theory of planned behavior was applied in order to understand what drives purchase intention. Furthermore, it was hypothesized that there is a performance and social risk associated with the purchase of perfumes and that could be the factor that differentiates the intention to purchase original perfumes instead of imitations.

An online survey was conducted and the main findings were that attitude, subjective norms and perceived behavioral control impact positively the purchase intention of perfumes. Moreover, when a customer believes that there is a price-quality inference relation, they tend to have a negative attitude towards imitation perfumes. Additionally, only performance risk influences negatively the purchase intention of perfumes. Finally, there was no evidence of differences between all the drivers influencing purchase intention regardless the kind of perfume.

This study would be helpful for all managers of perfumes to gain insights in a way to increase consumers purchase intention. Improvement of quality perceptions, ensure good guarantees supported by good services, certify easy availability of resources and opportunities and launch marketing campaigns encouraging word-of-mouth communication are some possible strategies presented as main conclusions.

# **SUMÁRIO**

**Título:** "Originais vs Fragrâncias equivalentes. Um estudo sobre os principais determinantes da intenção de compra na categoria de perfumes."

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Este estudo teve como objetivo compreender quais os fatores que influenciam a intenção de compra de perfumes, realizando uma análise comparativa entre marcas de perfume originais e imitações. Estas últimas, têm uma fragrância equivalente aos originais, mas possuem preços inferiores. Consequentemente, este estudo irá desmistificar esta possível ameaça para os retalhistas de perfumes originais.

A teoria do comportamento planeado foi utilizada como base para entender o que impulsiona a intenção de compra de perfumes. Além disso, foi prevista a existência de um risco social e de performance associados à compra, que foram considerados fatores diferenciadores da intenção de compra de perfumes originais ao invés de imitações.

Posteriormente, foi realizado um inquérito online que concluiu que a atitude, as normas subjetivas e o controlo comportamental percecionado influenciam positivamente a intenção de compra. Além disso, quando um consumidor acredita na relação preço-qualidade, este tende a ter uma atitude negativa para com as fragrâncias equivalentes. Adicionalmente, existe um risco de performance que afeta negativamente a intenção de compra de perfumes. Concluindo, não foram encontradas diferenças evidentes entre os fatores que influenciam a intenção de compra de perfumes originais versus imitações.

Por fim, este estudo será útil para gerentes de perfumes, sendo que podem aplicar estratégias de forma a aumentar a intenção de compra. Melhorar as perceções de qualidade, assegurar boas garantias apoiadas por bons serviços, certificar a disponibilidade de recursos e oportunidades e lançar de campanhas de marketing incentivando a comunicação boca-a-boca são algumas estratégias apresentadas como principais conclusões.

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# **GLOSSARY**

AT – Attitude

PBC – Perceived behavioral control

PI – Purchase intention

 $PQI-Price-Quality\ Inference$ 

PR – Performance risk

SN – Subjective norms

SR – Social risk

TPB – Theory of planned behavior

### **CHAPTER 1: INTRODUCTION**

### 1.1 BACKGROUND AND PROBLEM STATEMENT

The luxury market is overcoming the economic crisis reaching annual sales of US\$ 1 trillion in 2017. The world's 100 biggest luxury goods companies achieved a growth rate of 1 percent and sales of US\$217 billion (Arienti, 2018). Among clothing and footwear, bags and accessories, jewelry and watches and multiple luxury goods, cosmetics and fragrances were the industries with the highest growth rate (Arienti, 2018). In Europe, in 2017, the fragrances market grew by 2.7% reaching a value of \$15.5 billion (MarketLine Industry Profile, 2018).

This growth was accompanied by two main trends in the fragrance industry: One is related to celebrities advertising perfumes and publishing perfumes under their names. This trend has been shown to have an impact on customer's purchasing decisions. The other tendency derived from the growing number of individually crafted scents constituted from natural and ecofriendly ingredients (Statista, 2018).

Although changes and growth are a reality, this sector has faced different challenges over the years. These challenges are related to the moderate threat posed by substitutes in this industry. Counterfeit goods are one of these threats, costing this industry billions in lost revenues (MarketLine Industry Profile, 2018). Accordingly, in Spain, the estimated losses can exceed 900 million euros per year (Statista, 2015). The other threat was the appearance of brand imitations, which is a profitable marketing strategy based on similarities and which aims to facilitate the consumers' acceptance of a brand (Zaichowsky, 1995). Since the imitator looks like the successful original brand, it might be credited with the original brand's properties such as quality, performance, reliability and origin. Furthermore, that comparison can have a substantial impact on brand attitude and purchase (Zaichowsky, 1995). In line with this, other authors defined "knock-off" goods as products or services that can be regarded as similar in substance, name, shape, form, meaning or intent to a recognized product or service in the marketplace. A significant example of this is the "smell-alikes" of established perfumes that are sold at lower prices (McDonald & Roberts, 1994).

When there is an intention to incorporate the name, shape, symbol, color or look of an original brand into a new brand, it can consequently lead to the pioneer suffering losses of sales (Zaichkowsky & Simpson, 1996). Moreover, it is important to highlight that firms make big investments in terms of advertising (Boulding, Lee, & Staelin, 1994) and packaging (Twedt,

1968) so as to create and maintain unique associations as a way of differentiation of their products from those of their competitors (Keller, 1993). Considering that products or services can be easily imitated with the purpose of taking advantage of these unique associations, the topic of brand imitation is a very interesting issue to be studied in the cosmetics and fragrances industry. In particular, the fragrances industry has been dealing with the opening of stores such as, Equivalenza, Refan or Ydentik that aim to use the same olfactory notes of the best-selling fragrances worldwide while charging much lower prices.

The main objective of this research is to study consumers' purchasing intentions with regard to perfumes of original brands versus imitations, based upon the theory of planned behavior (Ajzen, 1991). This theory supports that intention to perform a behavior can be predicted from attitudes toward the behavior, subjective norms and perceived behavioral control (Ajzen, 1991). Moreover, the intention to perform the behavior will lead to the action itself (Ajzen, 1988). Finally, an experiment will be conducted in order to understand if the perceived risk, social and performance, is a variable that influences the attitude and the purchase intention with regard to perfumes.

### 1.2 PROBLEM STATEMENT

The purpose of this research is to study what are the main drivers of perfume' purchase intention across original brands versus imitation brands, based on the theory of planned behavior.

The overall goal is to analyze if there are differences in the factors influencing the purchase intention of perfumes that have very similar olfactory notes but completely distinctive packaging and prices. Additionally, the social and performance perceived risk will be studied in order to understand if the risk influences the attitude and purchase intention with regard to perfumes.

To answer the problem statement, the following research questions will be investigated:

RQ1: What are the main factors of the theory of planned behavior influencing perfumes purchase intentions?

RQ3: Is there a perceived risk related to the purchase of perfumes?

RQ3: Do the TPB and the perceived risk explain the purchase intention differences between original perfume brands and imitation perfume brands?

### 1.3 RELEVANCE

For an academical point of view, this research is highly relevant since it is the first study that applies the theory of planned behavior to the purchase intention with regard to perfumes, making a distinction between original brands and imitations. Many studies have relied on this theory to predict and understand what are the main motivations to engage in a behavior. Nevertheless, only one study focuses on factors affecting consumer purchase intent with regard to luxury perfumes in Algeria (Chihab & Abderrezzak, 2016a) and some have applied the theory of planned behavior to luxury and counterfeit products (Cheng, Thi, & Tu, 2011; Jain, Khan, & Mishra, 2017; Phau, Teah, & Lee, 2009). Moreover, no study so far has analyzed which factors influence the purchase intention with regard to imitation fragrances nor the original perfume brands. Additionally, the concept of brand imitation has not been studied in fragrances since the majority of the research focused on trademarks and visual similarities and not on scents. Thus, this research will certainly add value by empirically studying the concept of brands imitation.

With respect to managerial relevance, this research aims to provide significant data to managers and marketeers of luxury brands and imitations. This relevant data will be crucial to better apply marketing strategies by considering the factors that really influence perfumes' purchase intentions as well as by addressing the perceived risk as a possible factor that impacts customers' decision making.

Finally, my personal interest in this sector played a very important role in choosing this topic. My past experience working in Perfumes & Companhia, the market leader of perfumes in Portugal, made me question what makes customers buy luxury brands of perfumes marked with extremely high prices, instead of low-cost perfumes that aimed to provide similar fragrances to the originals. Besides that, the perfume is something invisible to the eyes of those around us and it can only be smelled thus, it is extremely difficult to perceive whether the consumer is using a perfume brand or an imitation brand. Therefore, since the possibility of being caught by someone using an imitation is very small compared with products that can be easily visualized, the question that prevails is: what makes customers buy the original brand instead of the imitation? Is it because there is a perceived risk associated? From my point of view, being able to understand what is going on in the mind of perfumes consumers is a great challenge.

To conclude, I intend to contribute with relevant data and conclusions to the fragrances sector and consequently provide guidelines and ideas on how to improve marketing strategies. A more in-depth knowledge of perfumes customers will surely help improve both types of business.

### 1.4 RESEARCH METHODS

In order to answer the previous research questions primary and secondary data will be used. Firstly, an extended analysis of secondary data will help to build the main hypothesis of this research. Moreover, this analysis will be crucial to define the main concepts to be studied as well as important factors that should be considered as predictors of purchase intent.

Secondly, primary data will be collected in the form of an online questionnaire. The main advantage of this type of survey is the fact that it is faster, cheaper and easier to do when compared with more traditional methods (Fricker & Schonlau, 2002). The questionnaire will be conducted with consumers of perfumes. Consumers refers to every individual that uses perfumes of an original brand or brand imitation.

### 1.5 DISSERTATION OUTLINE

The structure of this research will be organized in the following manner:

The next section is devoted to Literature Review which is intended to introduce all relevant concepts to this research such as original brands and brand imitations, the theory of planned behavior, and the perceived risk. The development of hypotheses that will guide the study is included in this section. The third section presents the methodology and description of the data. Chapter four will report results and analyze them. The last chapter is dedicated to conclusions, limitations and suggestions for further research.

### **CHAPTER 2: LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK**

This chapter covers the main topics related to the research questions and the general topic under analysis. The first part of the literature review will focus on the concept of luxury brands (original brands) and brand imitations. The intention is to provide some theoretical insights into what are the main consequences of this trend for original brands and consumers. Since academic literature is very scarce with respect to brand imitation as a concept applied to luxury brands and, in particular, to perfumes, all the hypotheses will be built using counterfeit products as a proxy to brand imitation. Counterfeit goods are illegal, low-priced and lower quality imitations of products with high brand value (Lai & Zaichkowsky, 1999).

Afterwards, the Theory of Planned Behavior will be introduced, as well as its main predictors of intention such as attitude, with a special focus on price-quality inference, perceived behavior control, and subjective norm. Lastly, these topics are followed by the relationship between attitude and perceived risk and its further impact on purchase intentions with regard to perfumes.

### 2.1 Luxury Brand versus Brand Imitation

There were already many efforts to define what is a luxury brand; however there is still a lot of hesitation due to the subjectivity of the term (Phau & Prendergast, 2000). Luxury was created based on consumer perceptions, and determined by personal and interpersonal motivations (Vigneron & Johnson, 2004). Therefore, what is luxury for one individual can be merely ordinary to another one. Thus, this inconsistency brings confusion to its conceptualization (Phau & Prendergast, 2000).

Nueno and Quelch (1998) stated that a luxury brand is not only a premium-priced product, a status symbol or a smart investment. From an economic perspective, luxury objects are those with the highest price-quality relationship on the market (Kapferer, 1997). Accordingly, luxury brands are constantly able to charge higher prices when compared to products with the same tangible function (Mckinsey Corp, 1990). In a more romantic overview, Kapferer (1997) stated that "Luxury defines beauty; it is art applied to functional items. Like light, luxury is enlightening". Summarily, the concept can be defined as multidimensional and validated by a five-factor model constituted by conspicuousness, uniqueness, quality, hedonism and extended self (Vigneron & Johnson, 2004). Extended self suggests that consumers use a luxury brand to classify or distinguish themselves from others and, at the same time, to integrate symbolic

meaning into their own identity (Holt, 1995). Correspondingly, luxury imitators use this dimension transmitted from luxury brands to enhance the self-concept and reproduce stereotypes of affluence by consuming luxury items (Dittmar, 1994; Hirschman, 1988).

Luxury imitators or brand imitation, in a broader definition, is a profitable marketing strategy based on similarities and which aims to facilitate the acceptance of a brand by the consumers (Zaichowsky, 1995). Since the imitator looks like the successful original brand, it might be credited with the original brand's properties such as quality, performance, reliability and origin. Furthermore, that comparison can have a substantial impact on consumers' brand attitude and purchase intention (Zaichowsky, 1995). In line with this concept are "knock-offs" goods or imitators which are products or services that can be regarded as similar in substance, name, shape, form, meaning or intent to a recognized product or service in the marketplace. A significant example of this is the "smell-alikes" of established perfumes that are sold at lower prices (McDonald & Roberts, 1994).

Although brand imitation is very common in convenience goods, it can also occur in luxury products, such as perfumes. Considering that luxury products are far more expensive than convenience products, a brand imitation is an interesting and affordable alternative. Therefore, the more an imitator looks like the original luxury brand, the better (D'Astous & Gargouri, 2001). Moreover, brand imitations charge lower prices than original brands, which might provide superior value if the products are as good as the original ones (Zaichkowsky & Simpson, 1996). Nevertheless, a consequence of brand imitation for original brands may not only be a loss of sales, but also damage to the brand equity related to the change of consumers' attitudes towards the uniqueness of the original brand (Zaichkowsky & Simpson, 1996). Besides that, there are two circumstances in which the original brand can be hurt. Firstly, the consumer can be dissatisfied with the brand purchased and assign that dissatisfaction to the original brand (Lai & Zaichkowsky, 1999). A second possibility is that the consumer can be satisfied with the imitator brand and switch preferences to the imitator, which also offers lower prices (Lai & Zaichkowsky, 1999). This consequential confusion and imitation strategies can reduce the number of consumers who are loyal and repeat purchasers of original brands (Foxman, Muehling, & Berger, 1990).

### 2.2 THEORY OF PLANNED BEHAVIOR

The theory of planned behavior (TPB), followed by the theory of reasoned action (Fishbein & Ajzen, 1975, 1980), is a theoretical framework that focuses mainly on the intention of an individual to perform a certain behavior. Both theories assume that individuals behave in a sensible way, consider available information and ponder the implications of their actions (Ajzen, 1988). What distinguishes them, is the introduction of perceived behavior control in the TPB, as a determinant of behavioral intentions (Ajzen, 1988, 1991).

Intentions are considered to be good predictors which captures the motivational factors that will lead to a particular behavior (Ajzen, 1991). In marketing, the purchase intention is a good determinant of subsequent purchase behavior which makes it a good indicator for short-term predictions (Morwitz & Schmittlein, 1992). Furthermore, measures of purchase intention have been created to identify buying likelihoods for products with time frames ranging from one week to twenty four months or more (Morrison, 1979). Indeed, it has been shown that purchase intention possesses predictive usefulness (Jamieson & Bass, 1989; Stapel, 1971).

The TPB states that people tend to perform a behavior when this is evaluated positively, when facing social pressure and when they believe they have the opportunities and means to do so (Ajzen, 1988). Hence, intentions are a function of three main determinants: one personal, another social and the third regarding issues of control (Ajzen, 1988). The personal one is the attitude toward the behavior (Ajzen, 1988), the social one refers to subjective norms and the perceived behavior control regards the ability to perform or not perform the behavior (Ajzen, 1988). At the basic level, the behavior is determined by salient information or beliefs (Ajzen, 1991; Taylor & Todd, 1995) that are considered to be the main determinants of an individual's intentions and actions (Ajzen, 1991). Three salient beliefs are determined: the attitudinal belief which considers the possible consequences of the behavior and influences the attitude, the normative belief that is based on normative expectations of others and determines the subjective norms, and the control beliefs concerning resources and opportunities that influence the perceived behavior control (Ajzen, 1991).

Few empirical studies have applied the TPB to the luxury industry. Loureiro and Araujo (2014) based their study on this theory to understand how customers' attitudes, perceived behavioral control, subjective norms, and past experience influence the intention to recommend and pay more for luxury clothing in the Brazilian market. In Algeria, a study relied on the theory of

reasoned action to understand which factors influence the purchase intention of luxury perfumes, considering the brand image, attitude, social and functional values as well as past behavior as main predictor of purchase intent (Chihab & Abderrezzak, 2016b). With respect to counterfeit products, some studies applied the TPB to explain key drivers of demand for counterfeits (De Matos, Ituassu, & Rossi, 2007; Penz & Stottinger, 2006; Phau & Teah, 2009; Yoo & Lee, 2009).

### **2.2.1 ATTITUDE**

Attitude is determined by attitudinal beliefs (Taylor & Todd, 1995) and concerns the degree to which a person has a favorable or unfavorable evaluation of a behavior (Ajzen, 1988, 1991), weighted by the evaluation of the outcome's desirability (Taylor & Todd, 1995). The theory of reasoned action states that an attitude with regard to a certain behavior is a direct predictor of behavioral intention (Fishbein & Ajzen, 1975, 1980). Therefore, when there is a positive attitude regarding buying counterfeit products, this is expects to impact purchase intention of counterfeits in a positive manner while affects negatively the purchase intention of original brands (Wee, Tan, & Cheok, 1995; Yoo & Lee, 2009). Hence, a positive attitude toward the original brand would be a constraint to buying the copy due to the consumer knowledge of the possible harm caused to the genuine brand (Tom, Garibaldi, Zeng, & Pilcher, 1998). On this basis the following hypothesis can be formulated:

H1 a): Attitude towards imitation perfume brands has a positive effect on purchase intention of imitation perfume brands

**H1 b):** Attitude towards imitation perfumes brands has a negative effect on purchase intention of original perfume brands.

### 2.2.1.1 ATTITUDE: PRICE-QUALITY INFERENCE

It is commonly assumed by consumers that price and quality are variables greatly correlated, which means that as the price of a product increases, so its quality also increases (Kardes, Cronley, Kellaris, & Posavac, 2004). This correlation belief is frequently associated with the notion that "you get what you pay for" (Baumgartner, 1995). Particularly, consumers tend to associate high (low) price to high (low) quality when there is limited information about the quality of a certain product or when the consumer cannot instantly evaluate it (Tellis & Gaeth, 1990).

The difference between consumer's perception of an original product and a counterfeit product can be due to these two important factors: price and quality (Huang, Lee, & Ho, 2004). Both fall within the most important general attributes by which brands are chosen (Tellis & Gaeth, 1990). Additionally, together with poor guarantees and risks, both are directly related to the attitude toward counterfeits (Huang et al., 2004).

Since counterfeit products are sold at lower prices it is possible to deduce that the higher the importance of price-quality inference, the lower is the perception of quality for counterfeits (Huang et al., 2004). Based on these arguments, it is possible to build the following hypothesis:

H1 c): Consumers who believe in price-quality inference will have a negative attitude toward imitation perfume brands

H1 d): Consumers who believe in price-quality inference will have a positive attitude toward original perfume brands

### 2.2.2 SUBJECTIVE NORMS

Subjective norms are formed as the individual's normative belief (Taylor & Todd, 1995) and are associated with the perceived social pressure to perform or not perform a certain behavior (Ajzen, 1988, 1991), weighted by the motivation to comply with those perceived expectations (Taylor & Todd, 1995). It considers how relatives and friends' pressure can influence individuals to adopt a course of conduct (Bearden, Netemeyer, & Teel, 1989). Depending on the behavior itself, the important referents can be parents, spouse, close friends, coworkers or even experts in the area (Ajzen, 1988). In accordance with this, the consumer susceptibility can be informational when the expertise of others influences their behavior, or normative when pleasing others plays an important role in the decision-making process (Bearden et al., 1989). Generally, if a referent whose opinion an individual is motivated to comply with, thinks he/she should perform the behavior, the individual will feel the social pressure to do so, whereas if the referent does not think the behavior should be performed, the individual will feel the pressure to avoid performing it (Ajzen, 1988). Regarding counterfeits, this social influence can act as inhibitor or contributor, depending on the approval of the reference group (De Matos et al., 2007). Based on this, the following hypothesis was formulated:

**H2:** Consumers who perceive that their friends/relatives approve of their behavior of buying perfumes will have a positive perfumes purchase intention

### 2.2.3 Perceived Behavior Control

The perceived behavior control is the individual's control belief (Taylor & Todd, 1995) and refers to people's perception of how easy or difficult it is to perform the behavior of interest (Ajzen, 1988, 1991), being weighted by the perceived facilitation of the control factor (Taylor & Todd, 1995). A consumer can have a positive attitude toward buying a product but, at the same time, recognize that he/she cannot afford it due to the higher price (Kim & Chung, 2011). Thus, the resources and opportunities accessible to a certain individual can define the probability of behavioral accomplishment (Ajzen, 1991). Consequently, external and internal factors can reduce or increase control (Penz & Stottinger, 2006). The external factors that can lead to temporary changes in intentions are lack of opportunity and dependence upon others (Ajzen, 1988). Internal factors, however, refer to the need for information, skills or abilities to perform a behavior, and other emotional factors related to stress or compulsions which are more difficult to gain control over (Ajzen, 1988). Thus, there is a positive relationship between resources and opportunities that an individual believes him/herself to have and a negative relationship anticipated obstacles or impediments to the perceived behavior control (Ajzen, 1991). For instance, easy access, knowledge and higher ability with regard to counterfeits will positively influence the intention to purchase fake products (Penz & Stottinger, 2006).

**H3:** Perceived behavioral control will have a positive effect on perfumes purchase intention

## 2.4 PERCEIVED RISK

Bauer (1960) was the first author introducing the concept of perceived risk in consumer behavior research. Perceived risk is the consumer's perception of what is uncertain and which can lead to the consequence of buying a certain product or service (Dowling & Staelin, 1994). At the brand level, perceived risk is defined as the expectation of losses related to the purchase, which expectation can act as an impediment to buying (Peter & Ryan, 1976).

The inherent risk and the handled risk are the two main components of the perceived risk. The first one is related to the person's perception of risk in a specific product category whereas the second one refers to the risk of a specific brand in the product class (Bettman, 1973; Dowling & Staelin, 1994). In addition to these components, previous studies defined different types of perceived risks such as performance, financial, social, physical and psychological (Greenleaf & Lehmann, 1995; Havlena & DeSarbo, 1991; Jacoby & Kaplan, 1972). These five risks were identified as being fair in defining the overall perceived risk (Jacoby & Kaplan, 1972).

Nevertheless, Roselius (1971) suggested time loss as the sixth variety of risk that occurs when there are product malfunctions and consequently, a waste of time and effort, and the inconvenience of getting the product adjusted, repaired or replaced.

Perceived risk has been used as a variable that impacts purchase intention of pirated or counterfeit products (Cordell, Wongtada, & Kieschnick, 1996; Tan, 2002). Thus, buying counterfeit products can have performance, financial and social risks involved (Bian & Moutinho, 2009; Cordell et al., 1996). However, only the dimensions of social and performance risk are of interest to this study, due to the nature of the category under analysis. The performance perceived risk represents the possibility that something fails with the product, or that it will not perform as expected (Cordell et al., 1996; Horton, 1976). For instance, in the realm of software piracy, there is no warranty that the software will work as well as the original version (Tan, 2002). In perfumery, the concept of performance is used to indicate a perfume's ability to make its presence noticeable. It is critical in terms of the functionality of the product since the objective is to achieve the maximum odor effect at the lowest possible quantity (Calkin & Jellinek, 1994).

With regard to counterfeit goods, the most important risk is the social one, which happens when the social group that one individual belongs, or aspires to belong to, does not approve the purchase of the counterfeit products (Wee et al., 1995). Thus, the social risk concerns the possibility that a product or a service will influence the way others think of the individual (Tan, 2002). This can lead to exclusion or sanction when buying such products (Wee et al., 1995).

Finally, the perceived risk was shown not only to influence the purchase intention but also the attitude, being an integral part of it (Stone & Mason, 1995). Thus, consumers' risk averseness negatively affects their attitude toward gray market goods (Huang et al., 2004). Hence it was inferred that the higher the perceived risk, the lower is the probability that a consumer would consider buying a counterfeit product (Bian & Moutinho, 2009). Based upon this, the following hypothesis was built:

**H4 a):** Social risk and Performance risk negatively influence the attitude towards and purchase intention with regard to perfumes

**H4 b):** The Social Risk has a larger effect than the performance risk on the purchase intention with regard to perfume brand imitation

**H4 c):** Attitude mediates the relationship between perceived risk and purchase intention of perfumes

# 2.5 Conceptual Framework

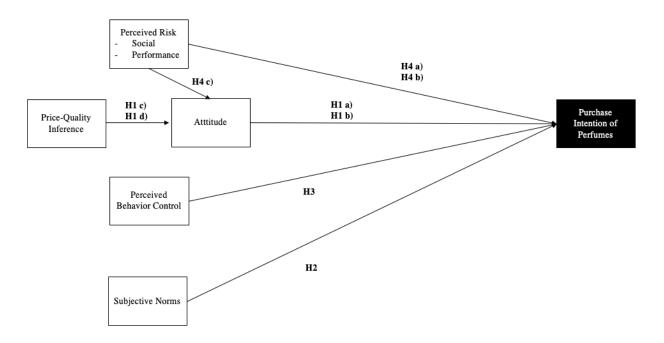


Figure 1: Conceptual Framework

### **CHAPTER 3: METHODOLOGY**

The following chapter will present in detail the methodology employed to study the subject under analysis and to make conclusions about all the hypothesis framed in the previous chapter.

### 3.1 RESEARCH APPROACH

The main goal of this dissertation is to understand which factors influence the purchase intention of perfumes. The perceived risk was introduced in the analysis in order to understand if there is a social or a performance risk that can influence the purchase intention and the attitude of one individual when buying an original brand or an imitation perfume brand.

The conceptual framework was designed based on an extensive literature review and will be further tested empirically in order to identify the relationship between the variables as well as its impact on consumers' purchase intention.

The most commonly used research designs are exploratory, descriptive and explanatory (Saunders, Lewis, & Thornhill, 2009). In this study, first an exploratory method was applied to gain familiarity, insights and to acknowledge which theories already approach the subject being studied. Afterward, an explanatory method was conducted to confirm the relationships between the variables (Saunders et al., 2009).

A quantitative research method focuses on objective measurements collected through two experimental designs: a pilot survey and the main survey, both administrated in Portuguese and in English. They were performed in order to gather numerical data that was further analyzed using statistical methods. Both methods were conducted collecting online data through Qualtrics' web platform and the data analyzed using the IBM SPSS tool, a statistical software that enables the user to find quickly and easily insights in the data.

### 3.2 SECONDARY DATA

Secondary data was greatly used in the literature review in the form of academic articles, journals, conference proceedings, and books. This data allowed to gather reliable information with respect to the theory being studied as well as the main variables. Accordingly, the secondary data formed the basis of all the hypothesis framed.

### 3.3 PRIMARY DATA

Primary data was collected to answer the specific research questions and all the hypothesis formulated. A pilot survey administered to 30 people was previously done in order to exploit and anticipate possible issues and ensure an appropriate language to the target population. The pilot survey was followed by the survey which was submitted via social media and e-mail.

### 3.3.1 DATA COLLECTION

The sampling process starts by defining the target population, which are the elements that can provide the information sought and which will enable the researcher to make inferences. Considering the main purpose of this research, the study of the main factors influencing the purchase intention of perfumes, original brands versus brand imitations, it is important to delineate that the target population is individuals who use perfumes. Therefore, to ensure that, the first question of the questionnaire, a control question, guaranteed that only perfume users continue with the online survey.

The fragrances category has a special issue related to the fact that a lot of people uses perfumes but never bought them since most were offered as a gift by familiars, friends or partners. Indeed, in the U.S gift sets correspond to 46% of fragrances' direct sales (Statista, 2014). Thus, there is a distinctive question that aimed to identify who usually buy their own perfumes for those who never bought. Nevertheless, all of these consumers continued the survey since that this distinction may bring some interest in the analysis of the data.

After determining the sampling frame, the selecting sampling technique was defined as a non-probability sample. Accordingly, a convenience and snowball sampling were used with the purpose of gather quickly and inexpensive information on a specialized population. However, this sampling specification can bring a potential bias which is not recommended to generalize the results to the population.

### 3.3.2 RESEARCH DESIGN

This study used a true-experimental design in which every treatment member has an equal probability of being assigned to a group.

The survey has six main sections: the first one is common to every individual and consists of the control and sample characterization questions. Firstly, it is asked how frequently do respondents use perfume and if they usually buy their own perfume. If they answer yes to this last question, it is questioned how much did they spent on buying their last perfume (50 ml). Then, the respondent is presented with the following information: branded perfumes are perfumes with singular fragrances such as, Carolina Herrera, Calvin Klein, Chanel and much more. Moreover, smell-alike perfumes are defined as brands that have multiple fragrances similar to branded perfumes, for example Equivalenza, Refan, Ydentik and more perfumes. It is important to explain that the concepts used were branded perfumes and smell-alike perfumes instead of original or imitations perfumes in order to simply the consumers interpretation and to improve the flow of the survey. Moreover, if the term imitation was used, that could bias the respondents answers due to the negative connotation of the term. After asking which kind of perfume they are currently using for instance, branded perfume, smell-alike or both, participants were challenged to think about the perfume which they use most often and write below the name or the brand of that perfume. The main purpose of this questions was to ensure that throughout the survey they would keep in mind the perfume that they like the most, being this the original one or an imitation that smells-alike the branded perfume.

In practice, there were two main stimulus and each individual could be randomly assigned to questions related with an original perfume brand or to the imitation perfume brand. To avoid some possible biases related to the purchase intention questions, some individuals were asked these questions at the beginning of the survey whereas the other group was presented with these questions only at the end.

Since the price-quality inference is a variable that is part of the model, both stimuli had the information of each perfume price. The original perfume price, 72€, was defined by calculating the average price, without discount, of 10 perfumes of 50 ml (5 for men and 5 for women) that were on sale on Perfumes&Companhia website on November 8, 2018. For a more detailed description the perfumes randomly chosen were as follows: Twilly D'Hermês (95.95€), Black Opium (73€), Because It's You (76.50€), Good Girl (89.65€), La Vies Est Belle (89€), Aqva Pour Homme Altantiqve (69.65€), Azzaro Chrome (55.70€), Cristiano Ronaldo Legacy (55€), Versage Man Eau Fraîche (60€) and Calvin Klein CK2 (57.65€).

Considering that the imitation perfume brands charge very similar prices between them, the price, 12.50€, was defined considering what is charged in Equivalenza for a 50ml perfume. This

choice was made based on the fact that Equivalenza is the imitation brand with more shops scattered throughout Portugal and the world, being in 20 countries with more than 800 stores in total.

The following sections correspond to the measurement of the various variables of the model, for instance, purchase intention, attitude, perceived behavior control, subjective norms, and perceived risk. Finally, the survey ends with demographic questions such as gender, age, education level, monthly net household income, and occupation.

### 3.3.2 MEASUREMENT / INDICATORS

After the presentation of the stimulus, the first or final section of the main block, depending on the group that the individual was allocated, is about the purchase intention of perfumes in the forthcoming months for the branded perfume that each respondent like the most and to the corresponding smell-alike. This variable measurement followed the construct used by Ajzen (2002) with 3 items at a 7-point multi-item scale. Therefore, respondents had to answer the following statements: (("If they intend to buy the perfume in the forthcoming months ("extremely likely – extremely unlikely")); ("If they would try to buy the perfume in the forthcoming months ("definitely true – definitely false")) and ("If they plan to buy the perfume in the forthcoming months ("strongly agree-strongly disagree")).

This dissertation used the construct defined by Ajzen (2002) to measure all variables of the theory of planned behavior which are attitude, perceived behavior control, and subjective norms. Attitude toward the behavior was created pondering two components, one instrumental represented by adjective pairs such as, ("valuable – worthless"), and ("harmful – beneficial") and the other experimental presented with ("pleasant – unpleasant") and ("enjoyable – unenjoyable") scales. The adjectives ("good – bad") were also introduced to access the overall evaluation. For this construct, a semantic differential scale in a 7-point ration was used.

To measure the price-quality inference, Lichtenstein, Ridgway, & Netemeyer (1993) questions were served as the base for all the statements presented. A 4 item 7-point Likert scale was implemented in the following statements ("Generally speaking, the higher the price of a perfume, the higher the quality"; "The old saying you get what you pay is generally true"; "A

price of a perfume is a good indicator if its quality" and "You always have to pay a little bit more for the best").

Posteriorly, perceived behavior control with 4 items, measured on a 7-point scale, was established to capture the individual's confidence to perform the behavior (Ajzen, 2002). Two of them apprehend people's sense of self-efficacy which were (("For me to buy X¹ perfume in the forthcoming months ("Definitely would be possible – Definitely would not be possible)) and (("If I wanted to I could but the X perfume in the forthcoming months ("strongly agree – strongly disagree")). The other two items were related to behavior's controllability, addressing people's beliefs of their own behavior control measured with these statements: ("How much control do you believe you have over buying the X perfume in the forthcoming months ("complete control – complete no control")) and ("It is mostly up to me whether or not I buy the X perfume in the forthcoming months ("strongly agree – strongly disagree")).

For the subjective norm concept, the following 3 items, measured on a 7-point scale were defined: (("Most people who are important to me think that ("definitely should – definitely should not") buy the X perfume in the forthcoming months")); (("It is expected of me that I buy the X perfume in the forthcoming months ("extremely likely – extremely unlikely")) and (("The people in my life whose opinions I value would ("definitely approve – definitely disapprove") my purchase of the X perfume in the forthcoming months")).

Finally, to access the performance and social risk, 3 and 2 items measured on a 7-point scale were respectively established. The performance risk statements were adapted from Sweeney, Soutar, & Johnson (1999) originated from Jacoby & Kaplan (1972), Stone & Winter (1987) and (Spence, Engel, & Blackwell, 1970). To be accurate in measuring all variables of the model, the scales of the perceived risk that were previously measured at a 9-point multi-item scaled were adapted to a 7-point multi-item scale.

Considering the performance risk, the following statements were asked: (("There is a chance that there will be something wrong with the X perfume ("strongly agree – strongly disagree"));

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<sup>&</sup>lt;sup>1</sup> X refers to the original perfume brands or the imitation perfume brands depending on the stimulus allocated in the online survey

(("There is a chance that X perfume does not last long ("strongly agree – strongly disagree")) and (("The X perfume is ("extremely risky – not risky at all") in terms of how it would perform). The concept of social risk was adapted from Jacoby & Kaplan (1972) and Featherman & Pavlou (2003) using a 7-point Likert scale with the following statements: ("Using the X perfume will affect the way others think of me") and ("Using X perfume would cause me to a have a potential loss of status by some people whose opinion I value").

The concepts with more than one item will be further compressed in a global variable if the internal consistency evaluated by the Cronbach alpha value falls at least at the acceptable scale.

Framework	Measure	Item	References
Dependent Variable	Purchase Intention	3	Ajzen (2002)
Independent Variable	Attitude	5	Ajzen (2002)
Independent Variable	Price-Quality Inference	4	Lichtenstein, Ridgway, & Netemeyer (1993)
Independent Variable	Perceived Behavior Control	4	Ajzen (2002)
Independent Variable	Subjective Norm	3	Ajzen (2002)
			Sweeney, Soutar, & Johnson (1999), originally from Jacoby &
Independent Variable Performance Risk		3	Kaplan (1972), Stone & Winter (1987) and Spence, Engel,
			Blackwell, & Spence (1970)
Independent Variable	Social Risk	2	Jacoby & Kaplan (1972) and Featherman & Pavlou (2003)

Table 1: Measurement Model

### 3.3.3 DATA ANALYSIS

As it was mentioned before, the data analysis was conducted using SPPS statistical software. All variables were edited, re-coded and transcribed in order to guarantee accuracy and precision. Immediately after this, the data was cleaned to ensure consistency check as well as the treatment of missing responses. Therefore, all the unfinished surveys were excluded from the analysis. Moreover, all constructs were tested with respect to reliability based on Cronbach Alpha.

The following section will use descriptive statistics to analyze demographics and characterize the sample. Various statistics tests were carried out to test all the hypothesis formulated for instance, regression analysis, independent sample T-tests and ANOVA.

### **CHAPTER 4: RESULTS AND DISCUSSION**

This chapter aims to analyze the quantitative data collected through the survey. Firstly, there will be a detailed characterization of the sample. Afterwards, the results obtained considering all the hypothesis formulated will be exposed. Finally, the relationship between what was presented in the literature review and the results of the data collected will be studied.

### 4.1 SAMPLE CHARACTERIZATION

There were 550 valid responses to the survey carried out in this study. However, 45 were excluded from the analysis since they were not users of perfumes. Therefore, the total valid sample is 505 responses. The characterization of the sample is presented in the table below and it is divided into 3 groups: the people assigned to original perfume brands; the people assigned to imitation perfume brands; and the total sample without discrimination.

		Original	Imitation	Total
Respondents	Total #	247	257	504
Gender	Female	150	171	63.7%
	Male	97	86	36.3%
Age	Under 20	6.1%	5.4%	5.8%
	20-29	65.6%	62.3%	63.9%
	30-39	6.5%	8.2%	7.3%
	40-49	9.3%	9.3%	9.3%
	50-59	6.9%	7.4%	7.1%
	Over 60	5.7%	7.4%	6.5%
Country	Portugal	85.8%	86%	85.9%
	Germany	2.8%	3.9%	3.4%
	Italy	1.6%	1.2%	1.4%
	UK	0.8%	1.6%	1.2%
	Brazil	1.2%	0%	0.6%
	Other	7.8%	7.3%	7.5%
Education	Less than high school	1.2%	1.6%	1.4%
	Professional degree	3.2%	0.8%	2%
	High School	23.5%	33.1%	28.4%
	Bachelor's degree	44.9%	39.7%	42.3%
	Master's degree	25.9%	23.7%	24.8%
	Doctoral degree	1.2%	1.2%	1.2%
Ocupation	Student	34.8%	34.6%	34.7%
	Full-time worker	44.9%	46.3%	45.6%
	Unemployed	2%	1.6%	1.8%
	Retired	4.5%	4.3%	4.4%
	Other	13.8%	13.2%	13.5%
Income	Less than 500€	5.7%	3.1%	4.4%
	501€ - 2000€	48.6%	48.3%	48.4%
	2001€-4000€	21.8%	24.5%	23.2%
	4001€-6000€	4%	6.6%	5.4%
	More than 6001€	4.8%	2.7%	3.8%
	Do not want to reveal	15%	14.8%	14.9%

Table 2: Sample characterization by group

By analyzing the table above, the main conclusion derives from the fact that the sample is non-probabilistic. As a result, it is not representative of the population, which implies the need for greater care in the conclusions to be drawn. The majority of the sample are Portuguese people (85.9%), 64% are aged 20-29 years old, 42.4% have a Bachelor's degree and the greater number are students or full-time workers (80.4%). Finally, the larger part has a family monthly net income of 501€-2000€ (48.4%). The groups are quite homogeneous in the distribution between original perfumes and imitation perfumes.

With respect to habits, 55.2% of the sample claimed that they always use perfume whereas only 13.1% mentioned wear perfume very rarely, rarely or occasionally. Thus, the sample mostly represents frequent users of perfumes.

Contrary to the statistical evidence presented in the previous section related to the buying of their own perfume, in this sample, 72.9% of the respondents mentioned buying their own perfume which only corresponds to 27.1% perfume gifts. Moreover, on average, they spent 54.55€ buying their last perfume of 50ml. This information agrees with the fact that 78.2% declared they are currently using a branded perfume whereas only 11.5% stated wearing a smell-alike perfume.

### 4.2 MEASURE RELIABILITY

In order to test the reliability or internal consistency, it was used the Cronbach's alpha coefficient that aims to detect how closely related are a set of items as a group. Since all the constructs are constituted with more than one item and even if they were all built considering previous literature, it is essential to start by measuring the reliability of the items used in this sample. According to George and Mallery (2003), Cronbach alpha values are questionable between 0.60 and 0.69, are acceptable between 0.70 and 0.79, are good between 0.8 and 0.89 and finally are of excellent quality above 0.9.

For all the three items of purchase intention of original perfume brands and imitation perfume brands, as well as the general purchase intention, the Cronbach alpha equals to 0.957, 0.962 and 0.967, respectively, which achieves excellent reliability.

With respect to attitude, the alpha is 0.950, which once more illustrates an excellent reliability. Price-quality inference, constituted by four items, showed a good reliability with an alpha of 0.817. However, when deleting the item that mentions "the old saying you get what you pay is generally true" the reliability improves to 0.826. A possible justification for this removal was

due to the translation of the proverb into Portuguese (*O barato sai caro*), which does not have the exactly some meaning of the English expression. Therefore, the removal of this item was considered and applied.

Performance risk showed a good reliability with an alpha of 0.854 as well as social risk with an alpha of 0.830.

With regards to subjective norms, the alpha is acceptable in terms of reliability since it is equal to 0.774 for the three items. Nonetheless, when removing the item that declares "it is expected of me that I buy the smell-alike/brand perfume in the forthcoming months" the alpha improves to 0.798, which falls between acceptable and good reliability. A possible justification for the lower consistency of this item is the fact that the interpretation may have been hard and unclear with regard to the definitions of what "it is expected". Hence, the removal of that item was carried out.

Finally, the perceived behavior control that is measured by four items, only presented an alpha of 0.689 that is considered questionable. When evaluating the Cronbach's alpha if items were deleted, there is no possibility of improving it, which means that if we were to delete one of the items, the alpha would not lead to a reliability improvement. However, the author of the TPB stated that the first two items capture the self-efficacy of perceived behavior control whereas the last two items, the behavior's controllability (Ajzen, 2002). When doing the Cronbach's alpha for self-efficacy, only two items, the reliability improves to an alpha of 0.709, which is already acceptable for the analysis. Considering the two items measuring the controllability, the alpha improves to 0.748 being acceptable as well. Nevertheless, the analysis will proceed with all items of the perceived behavior control.

In the end, for every single variable, all items were compressed in one single variable by conducting the mean.

Variable	Initial number	Original	Imitation	Total Sample
	of items	perfume brand	perfume brand	
Purchase intention original	3	0.959	0.954	0.957
Purchase intention imitation	3	0.973	0.950	0.962
Purchase intention	3	0.959	0.950	0.955
Attitude	5	0.947	0.952	0.950
Price-Quality Inference	4	0.832	0.799	0.818
Perceived behavior control	4	0.749	0.631	0.689
Self-efficacy	2	0.752	0.674	0.709
Controllability	2	0.743	0.752	0.748
Subjective norms	3	0.717	0.810	0.774
Performance risk	3	0.796	0.811	0.854
Social risk	2	0.796	0.860	0.830

Table 3: Cronbach Alpha Results before deleting items

Variable	Final number of	Original	Imitation	Total Sample
	ite ms	perfume brand	perfume brand	
Purchase intention original	3	0.959	0.954	0.957
Purchase intention imitation	3	0.973	0.950	0.962
Purchase intention	3	0.959	0.950	0.955
Attitude	5	0.947	0.953	0.950
Price-Quality Inference	3	0.836	0.815	0.827
Perceived behavior control	4	0.749	0.631	0.689
Self-efficacy	2	0.752	0.674	0.709
Controllability	2	0.743	0.752	0.748
Subjective norms	2	0.797	0.792	0.798
Performance risk	3	0.796	0.811	0.854
Social risk	2	0.796	0.860	0.830

Table 4: Cronbach Alpha Results after deleting items

### 4.3 RESULTS FROM THE HYPOTHESIS TEST

Before proceeding to the hypothesis test, it is important to remind that the purchase intention to buy original perfume brands and imitations perfume brands was asked through three items to every individual of the sample in order to test the hypothesis 1 and 2. For further analysis, a general variable called purchase intention was created in order to build the general models. This variable only contains the values of purchase intention of brand if the individual was allocated to the brand stimulus and the values of purchase intention of imitation if the individual was allocated to the imitation stimulus. An independent sample t-test was performed to understand if the means for purchase intention asked at the beginning or at the end of the questionnaire were equal. Firstly, by doing the Levene's test there is evidence of homogeneity. Considering equal variances assumed, the null hypothesis was not rejected,  $(M_{beginning} = 3.63, vs. M_{end} = 3.85; t(503) = -1.188; p > 0.05)$ , which implied that there are no differences between the means of purchase intention regardless the order that has been asked. The analysis went ahead without potential biases.

**Hypothesis 1a)** Attitude towards imitation perfume brands has a positive effect on purchase intention of imitation perfume brands

To test this effect, and considering that the dependent and independent variable are metric variables, the following linear regression was performed between attitude towards imitation perfume brands and purchase intention of imitation perfume brands:

$$PIimitation_{i} = \beta_{0} + \beta_{1}AT_{i} + \varepsilon_{i},$$

$$i = 1, ..., \overline{N}$$

Where PI imitation is Purchase intention of imitation perfume brands, AT is Attitude of imitation perfume brands and N is equal to 258 individuals.

All the assumptions required to conduct a linear regression were validated. Firstly, Durbin-Watson statistic test confirms that the error terms are independent of each other. Moreover, the mean of error term showed to be normally distributed and equal to zero  $(E\{\varepsilon_i\} = 0)$ . The variance of the error term is a constant and independent of value X.

The overall model is statistically significant (F(1; 256) = 226.220; p < 0.001). With a  $R^2$  of 0.469, the attitude explains 46.9% of the variance of imitation perfumes purchase intention. The  $\beta_1$  is positive and equal to 0.847 with a p < 0.001, therefore, attitude has a positive statistically significant impact on purchase intention of imitation perfumes. Thus, on average, for every unit increase in attitude, which implies a more positive attitude, there is an increase of 0.847 units in the purchase intention of imitation perfumes, *ceteris paribus*.

Consequently, **Hypothesis 1a) is verified**. The null hypothesis that attitude towards imitation perfume brands does not have an effect on purchase intention of imitation perfumes brands was rejected.

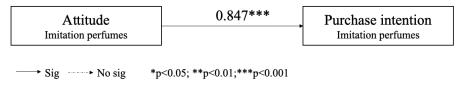


Figure 2: Results from the linear regression of the impact of AT on PI imitation

**Hypothesis 1B)** Attitude towards imitation perfume brands has a negative effect on purchase intention of original perfume brands

Once more this regression is constituted by metric variables hence, the following linear regression was conducted:

$$PIoriginal_{i} = \beta_{0} + \beta_{1}AT_{i} + \varepsilon_{i},$$
$$i = 1, ..., \overline{N}$$

Where PI imitation is Purchase intention of original perfume brands, AT is Attitude of original perfume brands and N is equal to 258 individuals.

All the assumptions of linear regression were verified which means that residuals are not correlated, the error is normally distributed and has zero mean. Moreover, there is evidence of homoscedasticity.

The general model is statistically significant (F(1; 256) = 17.847; p < 0.001) and the attitude toward original perfume brands only explains 6.5% of the variance in the purchase intention of original perfume brands. The  $\beta_1$  is -0.309 with a p < 0.001, which suggests that on average, one unit increase in attitude towards imitation perfume brands decreases 0.309 units in the purchase intention of original perfume brands, *ceteris paribus*.

Accordingly, **Hypothesis 1b) is verified**. The null hypothesis that attitude towards imitation perfume brands does not have an effect on purchase intention of original perfumes brand was rejected.

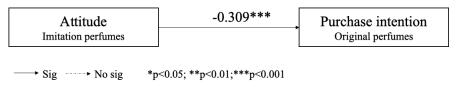


Figure 3: Results from linear regression of the impact of AT on PI original

**HYPOTHESIS 1C)** Consumers who believe in price-quality inference will have a negative attitude toward imitation perfume brands

This hypothesis was tested running a linear regression since the dependent variable, attitude, as well as the independent variable, price-quality inference, are metric variables.

$$ATimitation_{i} = \beta_{0} + \beta_{1}PQI_{i} + \varepsilon_{i},$$

$$i = 1, ..., \overline{N}$$

Where AT imitation is Attitude towards imitation perfume brands, PQI is Price-quality inference and N is equal to 258 individuals.

Firstly, all the assumptions of linear regression were tested and verified. The general model is statistically significant (F(1;256) = 12.320; p < 0.01) and price-quality inference explains 4.6% of the variance of attitude towards imitation perfume brands. The  $\beta_1$  is negative and equal to -0.290 with a p < 0.01, therefore, price-quality inference has a negative statistically significant impact on attitude towards imitation perfumes brand. Hence, on average, for every unit increase in price-quality inference, which implies a higher level of agreement towards the positive correlation between price and quality, there is a decrease of 0.290 units in the attitude towards imitation perfumes, *ceteris paribus*. This decrease in attitude indicates a more negative attitude.

Correspondingly, **Hypothesis 1c**) is verified. The null hypothesis that consumers who believe in price-quality inference will not have an effect on attitude towards imitation perfume brands was rejected.

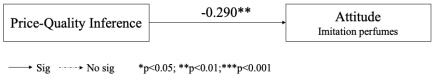


Figure 4:Results from linear regression of the impact of PQI on AT imitation

**HYPOTHESIS 1D)** Consumers who believe in price-quality inference will have a positive attitude towards original perfume brands

In order to test H1d), the following regression was run:

$$AToriginal_i = \beta_0 + \beta_1 PQI_i + \varepsilon_i,$$
  $i = 1, ..., \overline{N}$ 

Where AT imitation is Attitude toward original perfume brands and PQI is Price-quality inference and N is equal to 258 individuals.

Firstly, all the assumptions from linear regression were verified. The residuals of this model are neither heteroscedastic nor autocorrelated and can be approximately normally distributed. In addition, the Durbin-Watson statistic test showed that the error terms are independent of each other.

The general model is not statistically significant (F(1; 245) = 0.178; p > 0.05). The price-quality inference merely explains 0.1% of the variance of attitude towards original perfume brands. The  $\beta_1$  is positive and equal to 0.033 with a p > 0.05, therefore, price-quality inference is not statistically significant.

To conclude, **Hypothesis 1c) is not verified**. The null hypothesis that says that consumers who believe in price-quality inference will not have an effect on attitude towards original perfume brands was not rejected.

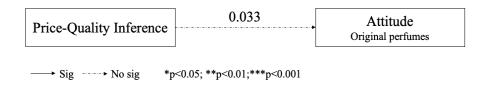


Figure 5: Results from linear regression of the impact of PQI on the AT original

Additionally, independent sample t-tests were conducted to understand if there were differences in the purchase intention, attitude and price-quality inference between original perfumes and imitations. Homogeneity of variances were verified and evidence of higher purchase intention and attitude for original perfumes than for imitation perfumes were proved, (  $Purchase\ Intention, M\_original = 4.16, vs.\ M\_imitation = 3.35; t(503) = 4.501; p < 0.001); (Attitude, <math>M_{original} = 5.04, vs.\ M_{imitation} = 4.46; t(503) = 4.008; p < 0.001).$ 

**Hypothesis 2)** Consumers who perceive that their friends/relatives approve of their behavior of buying perfumes will have a positive purchase intention

To test the following hypothesis, two metric variables were used, subjective norms and purchase intention. Accordingly, a linear regression was performed:

$$PI_{i} = \beta_{0} + \beta_{1}SN_{i} + \varepsilon_{i},$$

$$i = 1, ..., \overline{N}$$

Where PI is Purchase intention, SN is Subjective norms and N is equal to 505 for the total sample, 247 for the original perfume brands and 258 for the imitation perfume brands.

Before starting the analysis, all the assumptions were validated. The error terms are independent of each other  $(DurbinWatson_{total} = 1.978; DurbinWatson_{original} = 1.916; DurbinWatson_{imitation} = 2.075)$  and approximately normally distributed, there is homoscedastic across data and the mean of the error term is zero.

The general model is statistically significant (F(1;503) = 170.203; p < 0.001) and subjective norms explain 25.3% of the variance of purchase intention. The  $\beta_1$  is positive and equal to 0.871 with a p < 0.001, consequently, subjective norms have a positive statistically significant impact on purchase intention. Hence, on average, for every unit increase in subjective norms, there is an increase of 0.871 units in the purchase intention, *ceteris paribus*. When analyzing original perfumes and imitation perfumes separately, the correlation between those variables is stronger in imitation perfumes ( $\rho_{original} = 0.411$ ;  $\rho_{imitation} = 0.557$ ). The variance of purchase intention is better explained by imitation perfumes ( $Adjusted\ R_{original}^2 = 0.165$ ;  $Adjusted\ R_{imitation}^2 = 0.308$ ). The general model is statistically significant for both cases ( $F_{original}(1;245) = 49.773$ ; p < 0.001) and ( $F_{imitation}(1;256) = 115.138$ ; p < 0.001). Thus, for original perfumes and imitation perfumes, subjective norms have a statistically significant positive effect on purchase intention ( $\beta_{1original} = 0.736$ ; p < 0.001) and ( $\beta_{1imitation} = 0.925$ ; p < 0.001).

To conclude, **Hypothesis 2) is verified**. The null hypothesis that states that subjective norms will not have an effect on purchase intention was rejected.

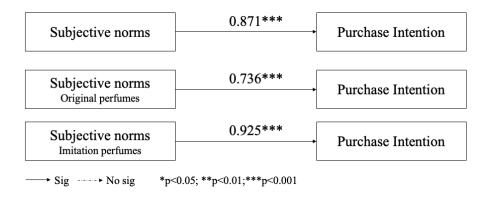


Figure 6: Results from linear regression of the impact of SN on the PI

In addition, there was evidence that the mean for subjective norms were high for original brand perfumes than for imitation perfumes, assuming equal variances (Subjective norms,  $M_{original} = 4.78$ , vs.  $M_{imitation} = 4.40$ ; t(503) = 3.656; p < 0.001).

**Hypothesis 3)** Perceived behavioral control will have a positive effect on purchase intention

To test H3) a linear regression was conducted:

$$PI_{i} = \beta_{0} + \beta_{1}PBC_{i} + \varepsilon_{i},$$

$$i = 1, ..., \overline{N}$$

Where PI is Purchase intention, PBC is Perceived behavioral control and N is equal to 505 for the total sample, 247 for the original perfume brands and 258 for the imitation perfume brands.

All assumptions of the linear regression model were validated. Both variables of the model are metric, the error terms are independent of each other ( $DurbinWatson_{total} = 1.899$ ;  $DurbinWatson_{original} = 1.870$ ;  $DurbinWatson_{imitation} = 1.825$ ) and approximately normally distributed, there is homoscedastic across data and the mean of the error terms is zero.

The general model is statistically significant (F(1;503) = 210.419; p < 0.001) and the perceived behavioral control explains 29.5% of the variance of purchase intention. The  $\beta_1$  is positive and equal to 1.010 with a p < 0.001, therefore, PBC has a positive statistically significant impact on purchase intention. Hence, on average, for every unit increase in PBC

there is an increase of 1.010 units in the purchase intention, *ceteris paribus*. When analyzing original perfumes and imitation perfumes separately, the variance of purchase intention is better explained by imitation perfume ( $Adjusted R_{original}^2 = 0.265$ ;  $Adjusted R_{imitation}^2 = 0.316$ ). The general model is statistically significant for both cases ( $F_{original}(1;245) = 89.906$ ; p < 0.001) and ( $F_{imitation}(1;256) = 119.755$ ; p < 0.001). Thus, for original and imitation perfumes, perceived behavioral control has a statistically significant positive effect on purchase intention ( $F_{1original} = 0.919$ ;  $F_{1original} = 0.919$ ) and ( $F_{1imitation} = 1.067$ ;  $F_{1original} = 0.919$ ).

As an additional note, there was no evidence that the mean for PBC were different for original perfume brands than for imitation perfumes, assuming equal variances (PBC,  $M_{original} = 5.57$ , vs.  $M_{imitation} = 5.403$ ; t(503) = 1.674; p > 0.05).

Lastly, **Hypothesis 3) is verified**. The null hypothesis that states that perceived behavioral control will not have an impact on purchase intention was rejected.

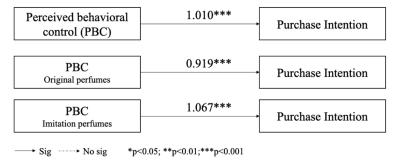


Figure 7: Results from linear regression of the impact of PBC on the PI

**Hypothesis 4 A)** Social risk and Performance risk negatively influence the purchase intention with regard to perfumes

**Hypothesis 4 B)** The Social Risk has a larger negative effect than the performance risk on the purchase intention with regard to perfume brand imitation

To test H4 a) and b) a multiple linear regression was conducted:

$$PI_i = \beta_0 + \beta_1 SR_i + \beta_2 PR_i + \varepsilon_i,$$
 
$$i = 1, ..., \overline{N}$$

Where PI is Purchase intention, SR is Social risk, PR is Performance risk and N is equal to 505 for the total sample, 247 for the original perfume brands and 258 for the imitation perfume brands.

Firstly, the assumptions of multiple linear regression were validated. All variables in the regression are metric, the error terms are independent of each other (*DurbinWatson\_total* = 2.013; *DurbinWatson\_original* = 1.998; *DurbinWatson\_imitation* = 2.055) , the variance of the error term is a constant and is independent of value X, the mean of the error term is zero and the error is normally distributed. There is no multicollinearity in the model since tolerance is always higher than 0.4.

The general model is statistically significant (F(2;502) = 26.657; p < 0.001) and the social and performance risk explains 9.6% of the variance of the purchase intention. The  $\beta_1$  is positive and equal to 0.092 with a p > 0.05. Hence, social risk is not statistically significant which implies that there is no evidence that social risk impacts the purchase intention. The  $\beta_1$  is negative and equal to -0.413 with a p < 0.001. Consequently, on average, for every unit increase in the performance risk there is a decrease of 0.413 units in the purchase intention, *ceteris* paribus.

Considering a separately analysis of original perfumes and imitation perfumes, both general models are statistically significant  $(F_{original}(2; 244) = 6.543; p < 0.01)$  and  $(F_{imitation}(2; 255) = 14.331; p < 0.001)$ . For original perfume brands,  $\beta_1$  is positive and equal to 0.184 with a p < 0.05. Therefore, social risk impacts positively the purchase intention of original perfumes. With respect to imitation perfumes, social risk showed to be statistically insignificant with a  $\beta_1$ = -0.015 and a p > 0.05.

In particular, for original and imitation perfumes, performance risk has a statistically significant negative effect on purchase intention ( $\beta_{2original} = -0.245$ ; p < 0.01) and ( $\beta_{2imitation} = -0.539$ ; p < 0.001). Accordingly, the higher the performance risk the lower the purchase intention for both stimuli.

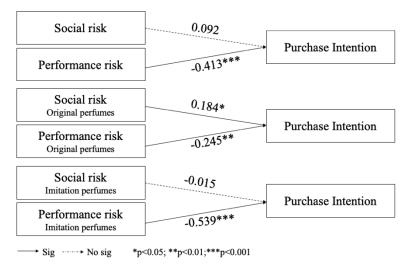


Figure 8: Results from linear regression of the impact of SR and PR on the PI

Concluding, **Hypothesis 4 a) and b) were not verified**. In the three models, performance risk is significant and has a negative effect on purchase intention of perfumes. However, social risk only impacts purchase intention of original perfumes and in a positive way. Therefore, the social risk does not have a stronger negative impact of perfumes purchase intention.

**HYPOTHESIS 4C)** Attitude mediates the relationship between perceived risk and purchase intention of perfumes

To test the following hypothesis, a mediation test will be performed in order to understand if attitude mediates the relationship between perceived risk and purchase intention. In the analysis, perceived risk was measured through performance risk and social risk. Therefore, the mediation study will be made separately for both variables.

A mediation analysis assumes three conditions that should be satisfied. Firstly, the dependent variable (Y) should be influenced by the independent variables (X). This relation is named c-path. Secondly, the mediator (M) should be influenced by the independent variable (X), called a-path. Finally, the dependent variable should be influenced by the mediator, termed b-path. If the following steps yield significant results, a multiple linear regression should be performed in order to test the influence of X and M on Y, this relation is entitled c'path. After the following

analysis, there are two possibilities: if the dependent variable is no longer significant when controlled for M, there is a statistical evidence of full mediation. On the other hand, if both variables, the dependent variable and the mediator are statistically significant, there is evidence of partial mediation.

First of all, the **Figure 9** presents the results related to the hypothesis mediation of attitude in the relationship between social risk and purchase intention. The main conclusion is that there is no mediation effect just starting by the statistically insignificance of the a-path (0.045) relationship. Moreover, c-path (0.109) and c'-path (0.075) are both statistically insignificant (p > 0.05).

Thus, considering this, the hypothesis 4c) is partially not verified.

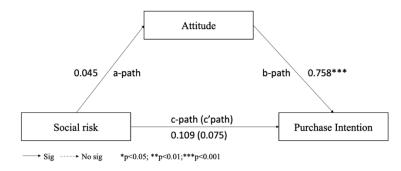


Figure 9: The mediating effect of AT in the relationship between SR and the PI

Secondly, the **Figure 10** presents the results related to the hypothesis mediation of attitude in the relationship between performance risk and purchase intention. Results show that there is a mediation effect because a-path (-0.285), b-path (0.494) and c-path (-0.417) are statistically significant with a (p < 0.01). Moreover, c'-path (-0.215) is lower than c-path (-0.417). Nevertheless, both paths are statistically significant (p < 0.001) which means that the introduction of attitude as a mediator does not lead to the statistical insignificance of the performance risk. Therefore, there is evidence of partial mediation. This general model is statistically significant (F(2;502) = 165.225; p < 0.001) and both, attitude and performance risk explain 39.7% of the variance of purchase intention of perfumes.

Thus, considering this, the hypothesis 4c) is partially verified.

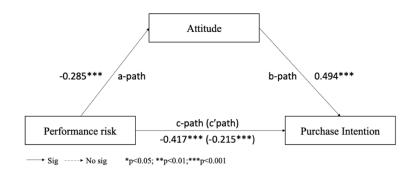


Figure 10: The mediating effect of AT in the relationship between PR and the PI

#### 4.4 GENERAL MODEL AND COMPARATIVE MODEL

To conclude a general model with a multiple linear regression considering all variables that impact purchase intention of perfumes was conducted:

$$PI_{i} = \beta_{0} + \beta_{1}PR_{i} + \beta_{2}SR_{i} + \beta_{3}AT_{i} + \beta_{4}SN_{i} + \beta_{5}PBC_{i} + \varepsilon_{i},$$

$$i = 1, \dots, \overline{N}$$

Where PI is Purchase intention, PR is Performance risk, SR is Social risk, AT is Attitude, SN is Subjective norms, PBC is Perceived behavioral control and N is equal to 505 individuals.

All the assumptions of multiple linear regression were validated. All variables in the regression are metric, the error terms are independent of each other ( $DurbinWatson_{total} = 1.943$ ), and the mean of the error term is zero and approximately normally distributed. There is homoscedasticity and no evidence of multicollinearity in the model since tolerance is higher than 0.4.

The general model is statistically significant (F(5;449) = 111.786; p < 0.001) and the model with the complete set of independent variables explains 52.4% of the variance in the purchase intention of perfumes. Social risk is the only variable in the model that is not statistically significant since  $\beta_2$  is positive and equal to 0.042 with a p > 0.05. Perceived behavioral control is the predictor that has a higher impact in purchase intention of perfumes ( $\beta_5 = 0.534; p < 0.001$ ). Hence, on average, for every unit increase in PBC, there is an increase of 0.534 units in the purchase intention, *ceteris paribus*. The second variable with the highest impact is attitude ( $\beta_3 = 0.484; p < 0.001$ ). Finally, performance risk is the only variable that has a negative

effect on purchase intention ( $\beta_1 = -0.149$ ; p < 0.001). Therefore, on average, for one unit increase in performance risk, there is a decrease of 0.149 units in the purchase intention of perfumes.

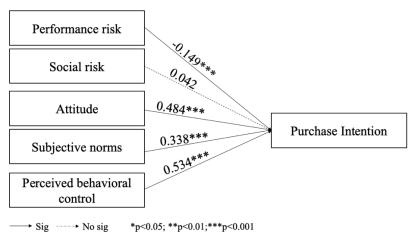


Figure 11: General model

Finally, in order to understand if there are differences in the impact on purchase intention between original perfumes and imitation perfume, a multiple linear regression was run:

$$\begin{split} PI_i = \ \beta_0 + \beta_1 PR_i + \ \beta_2 SR_i + \beta_3 AT_i + \beta_4 SN_i + \beta_5 PBC_i + \beta_6 PERFUME_i + \beta_7 PERFUME_i \\ * PR_i + \beta_8 PERFUME_i * SR_i + \beta_9 PERFUME_i * AT_i + \beta_{10} PERFUME_i * SN_i \\ + \beta_{11} PERFUME_i * PBC_i + \varepsilon_i, \end{split}$$

$$i = 1, \dots, \overline{N}$$

Where PI is Purchase intention, PR is Performance risk, SR is Social risk, AT is Attitude, SN is Subjective norms, PBC is Perceived behavioral control, PERFUME is a dummy variable where 1 represents original perfumes and 0 imitation perfumes and N is equal to 505 individuals.

All the assumptions of a multiple regression model were verified expect the evidence of multicollinearity because all the independent variables have a tolerance lower than 0.4. This implies that there is evidence of multicollinearity. When tolerance is lower than 0.1, serious issues can occur. Some consequences can be the increase of the coefficient variance estimates, which will cause the estimates unstable and sensitive to changes in the model.

In order to compare the different impacts on purchase intention between both type of perfumes, the "PERFUME" dummy variable, that assumes the value 1 when is an original perfume and 0 when is an imitation perfume, was introduced in the model as well as all the interactions between all the dependent variables and the dummy. The general model is statistically significant (F(11; 493) = 51.008; p < 0.001) and all independent variables explain 52.2% of the variance of the purchase intention of perfumes. None of the interaction between the dummy "PERFUMES" and the variables that previously explain purchase intention is statistically significant p > 0.05. Therefore, there are no differences between the impact of all independent variables in the purchase intention regardless of the type of perfume.

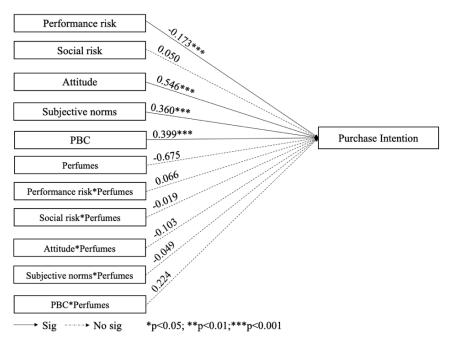


Figure 12: Comparative model

#### **CHAPTER 5: CONCLUSIONS AND LIMITATIONS**

The last chapter will reveal the main conclusions of this study. The managerial and academic implications will be presented as well as the study limitations and suggestions for further research.

#### 5.1 Main Findings & Conclusions

# RQ1: What are the main factors of the theory of planned behavior influencing perfumes purchase intentions?

This study integrates the theory of planned behavior to explain which factors influence the purchase intention of perfumes. Subjective norms, perceived behavioral control and attitude are the main antecedents of intentions that will lead to a certain behavior (Ajzen, 1991). Additionally, price-quality inference was hypothesized as a possible antecedent of consumer attitude.

The study considered here has found that consumers who value price-quality inference have an unfavorable attitude towards imitation perfume brands. Therefore, if a consumer believes that price and quality are positively correlated, they tend to have a more negative attitude with respect to imitation perfume brands. Nevertheless, even if the consumer believes that this relationship applies, it does not mean that their attitude is more favorable to original perfume brands.

Considering all the factors of the theory of planned behavior, perceived behavioral control was the most important factor in predicting purchase intention. In that way, the easy access, the higher control and ability for instance, in terms of financial capacity and store availability, are the most important reasons that will lead to a higher purchase intention of perfumes. Attitude is the second predictor that most impacts purchase intention which means that when a person has a favorable evaluation of the purchase of perfumes, this impacts positively the purchase intention. Finally, subjective norms also impact positively the purchase intention suggesting that relatives and friends act as contributors to buy perfumes since the approval of the individual's reference group is an important factor to perform this behavior.

# **RQ2:** Is there a perceived risk related to the purchase of perfumes?

In this study, it was theorized that it could have been a social and performance risk related to the purchase of perfumes. Results from the general model revealed that there is a performance risk but not a social risk associated. Consequently, there is a performance risk associated with possible fails of perfumes such as, allergy concerns, the possibility of the fragrance not lasting long or the fact that the perfume could not perform as expected.

In the general model, social risk was not statistically significant, which means that this research sample considers that using a perfume does not influence the way others think of them. However, an interesting fact is that when analyzing only the individuals that received the stimulus of the original brand perfumes, the social risk is a statistically positive significant variable. Thus, individuals consider that wearing an original perfume brand influence the way others think of them and this will lead to a higher purchase intention.

# RQ3: Do the TPB and the perceived risk explain the purchase intention differences between original perfumes brands and imitation perfume brands?

A general model was created in order to understand if there were differences between the factors that influence the purchase intention of original perfume brands and imitation perfume brands. Unexpectedly, considering this sample, there were no statistical significant differences in the impact of all variables studied in the purchase intention of perfumes.

#### 5.2 MANAGERIAL AND ACADEMIC IMPLICATIONS

The relative importance of the predictors study above can bring an important contribution to managers of brands of perfumes or retailers who can use them as the main appeal to sell their brands. For instance, price-quality inference communication strategies can be applied specially for imitation perfume brands since individuals that believe in this relation will have a more negative attitude towards this kind of perfumes. Therefore, managers of imitation perfume brands should reinforce price-quality inference messages and improve consumer's perceptions of quality in their channels (Huang et al., 2004).

Furthermore, performance risk is a variable that impacts negatively the purchase intention of both original perfume brands and imitation perfume brands. Considering this, managers should ensure good guarantees supported by good services in order to increase consumers trust of future performance of perfumes (Huang et al., 2004).

Additionally, since perceived behavioral control is the factor that most impacts purchase intention, it is highly important for managers to ensure easy availability of resources and opportunities reducing the effort of the consumer to find and get perfumes for instance, via online search or through e-commerce. This way purchase intention could be encouraged (Hyejeong & Elena, 2010).

Finally, since subjective norms also have a positive impact on purchase intention, marketers or perfume retailers could launch marketing campaigns that encourage word-of-mouth communications among family and friends (Hyejeong & Elena, 2010).

In academic terms, this research contributes to the existing literature by testing the key antecedents of the theory of planned behavior applied to the fragrance industry. Moreover, it identifies the relative importance of each variable in the purchase intention of perfumes. Additionally, it proves that attitude act as a partial mediator in the relationship between performance risk and purchase intention.

## 5.3 LIMITATIONS AND FURTHER RESEARCH

Due to natural time and resources constraints, there are some limitations of this study that should be exposed.

First of all, the concept of brand imitation was never applied to scents which was clearly the first barrier to build all the hypothesis of this study. As a solution, counterfeit goods were considered as a proxy. Nevertheless, since these products are illegal and have a more negative connotation, that might have been a limitation of this study. The fact that social risk was not a statistical significant variable in the impact of purchase intention for the imitation perfume brands could have been the result of the differences between the meanings of both concepts.

Secondly, a non-probability sampling was the technique used to collect all the information. It is very important to mention that all results are only valid for the sample in the analysis, which implies that there is no possibility of generalization of the results to all the population. Moreover, the survey was distributed through social media platforms and e-mail which can be

quite limitative in terms of achieving different ages groups. As a consequence, the demographics are very unbalanced with respect to ages and nationalities in particular. Furthermore, the sample is constituted by 505 individual which can be considered small and once more, not representative of the all population. For further research, ideally, a bigger and more representative sample should be used in order to improve the reliability of the results.

In this study, the total sample used to reach all the conclusions are individuals that use perfumes, no matter if they buy their own perfume or not. Since the main focus is studying the factors influencing the purchase intention of perfumes, all users of perfumes were considered in order to avoid possible bias related to the responses of people that are current buyers of perfumes. Moreover, the question related to the purchase intention implies a future purchase and not a past or current motivation. Nevertheless, there is a possible limitation arriving from the fact that this survey was launched just before Christmas time (16<sup>th</sup> November – 19<sup>th</sup> November) which is clearly a positive period of sales for the fragrances industry and that can consequently bring possible bias to the individual's intention of buying perfumes in the forthcoming months. For future research, a post-Christmas survey should be conducted in order to reduce this issue.

Regarding the survey, there is a limitation related to the fact that the key benefit of the product itself, perfumes, is the fragrance which cannot be tested through an online questionnaire. In this specific situation, it can be that some respondents were never aware of a smell-alike perfume and they could hardly believe that these products can have the same smell of an original perfume and be charged at much lower prices. Thus, for future research, an experiment using real products could reduce this problem and ensure that the all sample have sufficient knowledge to answer all the questions asked.

As it was mentioned previously, the Cronbach alpha for the perceived behavioral control was considered questionable. Besides that, removing items does not increase the reliability which is clearly a limitation of the study. A possible solution can be implemented in future researches: a better construct for PBC can be considered, nonetheless, this study uses the exact same questions than other authors in which the Cronbach alpha was higher. This problem might be a consequence of the sample limitation.

Finally, in the comparative model, there is evidence of multicollinearity that happens whenever an independent variable is highly correlated with other independent variables which can bring unstable parameters estimates. Hence, this is clearly a limitation of the final model.

As a general comment, at the beginning, I was clearly ambitious in trying to test all the relationships presented in the theory of planned behavior. In the first versions of the conceptual framework, I could only test all possible relations between the independent variables using statistical software other than SPSS. This lack of technical skills forced me to simplify the model.

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# **APPENDICES**

## **APPENDIX 1:SURVEY**

<b>D</b>			
Dear	parti	cıpa	ınt,

Thank you very much for taking part in this study and contributing with your precious time.

This survey is part of my thesis to obtain the master degree in Management with specialization in Strategic Marketing at Católica-Lisbon.

This survey is available in Portuguese and English. All the answers are confidential and anonymous, it going to be analyzed with a purely academic purpose.

There are no right or wrong answers so please be free to answer whatever suits you better.

At the end of the survey, you can leave a personal contact (mobile phone or email)! One perfume will be drawn at the end of november.

The survey will take about 7 minutes to be complete.
I am very grateful, Inês Pinto Serina
Q1 Do you use perfume?
○ Yes (1)
O No (0)
Skip To: End of Block If Do you use perfume? = Yes Skip To: End of Survey If Do you use perfume? = No
Q2 How often do you use perfume?
O Always (7)
Very frequently (6)
Frequently (5)
Occasionally (4)
Rarely (3)
O Very rarely (2)
O Never (1)
Skip To: End of Survey If How often do you use perfume? = Never
Q3 Do you usually buy your own perfume?
○ Yes (1)
O No (0)
Skip To: Q4 If Do you usually buy your own perfume? = Yes

Skip To:  $\widetilde{Q}$ 5 If Do you usually buy your own perfume?

## Q4 How much did you spend on buying your last perfume (50 ml)?

For this study,

Branded Perfumes are brands with singular fragrances, for example, Carolina Herrera, Calvin Klein, Chanel, Yves Saint Laurent, Paco Rabanne, Hugo Boss, Dolce & Gabbana, Dior, Versace, Lancôme, Cacharel, Zara and much more...

Smell-alike Perfumes are brands that have multiple fragrances similar to branded perfumes, for example, Equivalenza, Refan, Ydentik, Ekyval, Yodeyma, Caravan, Lap pharma and more...



- Branded Perfume (1)
- Smell-alike (2)
- Both (3)

Q6 Please, think about the branded perfume/smell-alike that you use most often. Write the name or the brand of the perfume below. If you do not remember the name or the brand, at all, you can proceed to the next question.

# Q7 Imagine that the branded perfume that you really like costs 72 $\epsilon$ (50ml).

Place the O according to your opinion of buying the branded perfume in the forthcoming months

I intend to bu	ıy the <b>branc</b>	led perfume	in the forth	coming mon	ths			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	
Extremely unlikely	0	0	0	0	0	0	0	Extremely likely
I will try to b	ouy the <b>bran</b>	ided perfum	e in the fortl	hcoming mo	nths			
	1(1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)	
Definitely false	0	0	0	0	0	0	0	Definitely true
I plan to buy	the <b>brande</b>	<b>d perfume</b> i	n the forthco	oming month	ıs			
1	1(1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)	
Strongly disagree	0	0	0	0	0	0	0	Strongly agree
Place the O a  I intend to bu					ke in the fort 5 (5)	hcoming mo	nths 7 (7)	
Extremely unlikely	0	0	0	0	0	0	0	Extremely likely
I will try to b		lalita in the	o fouth comin	a maamtha				I
1 will try to c	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)	
Definitely false	0	0	0	0	0	0	0	Definitely true
I plan to buy	the smell-al	like in the fo	rthcoming m	onths				
1	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)	
Strongly disagree	0	0	0	0	0	$\circ$	0	Strongly agree

For now on, always keep in mind the branded perfume that you really like and assume that costs 72€ (50ml). or

Imagine the smell-alike perfume that has the same scent of the branded perfume that you really like and costs  $12.50 \in (50 \text{ml})$ .

# Q8 On each of the adjectives below, place the O according to your attitude

For me, buying the branded perfume /smell-alike in the forthcoming months is:

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)	
Harmful	0	$\circ$	$\circ$	0	$\circ$	$\circ$	0	Beneficial
Bad	0	0	0	0	0	0	$\circ$	Good
Worthless	0	$\circ$	$\circ$	$\circ$	$\circ$	$\circ$	0	Valuable
Unenjoyable	0	$\circ$	$\circ$	$\circ$	$\circ$	$\circ$	0	Enjoyable
Unpleasant	0	$\circ$	$\circ$	$\circ$	$\circ$	$\circ$	0	Pleasant

# Q9 Please indicate your level of agreement with the following statements:

C 11	1 .	.1 1 1	.1	C	C	41	1 1 /1	11.
( tenerally	z speaking.	the higher	the nric	e ot a i	nerfilme	the	higher fr	ie aliality
Conciding	beauting,	the manie	tile pile	c or u	perrunine,	uic	III SIICI U	ic quality

O Strongly agree (7)
Agree (6)
O Somewhat agree (5)
Neither agree nor disagree (4)
O Somewhat disagree (3)
O Disagree (2)
O Strongly disagree (1)

The old saying "you get what you pay" is generally true
O Strongly agree (7)
O Agree (6)
O Somewhat agree (5)
O Neither agree nor disagree (4)
O Somewhat disagree (3)
O Disagree (2)
O Strongly disagree (1)
The price of a perfume is a good indicator of its quality
O Strongly agree (7)
O Agree (6)
O Somewhat agree (5)
O Neither agree nor disagree (4)
O Somewhat disagree (3)
O Disagree (2)
O Strongly disagree (1)
You always have to pay a bit more for the best
O Strongly agree (7)
O Agree (6)
O Somewhat agree (5)
O Neither agree nor disagree (4)
O Somewhat disagree (3)
O Disagree (2)
O Strongly disagree (1)

# For me, buying the branded perfume/smell-alike in the forthcoming months O Definitely would be possible (7) • Very probably would be possible (6) Probably would be possible (5) Neither would be possible nor would not be possible (4) O Probably would not be possible (3) O Very probably would not be possible (2) O Definitely would not be possible (1) If I wanted to I could buy the branded perfume/smell-alike in the forthcoming months O Strongly agree (7) O Agree (6) O Somewhat agree (5) Neither agree nor disagree (4) Somewhat disagree (3) Disagree (2) O Strongly disagree (1) How much control\* do you believe you have over buying the branded perfume/smell-alike in forthcoming months \*"Control" means how the buying decision depends or not only on you. External factors such as financial capacity, store availability, dependence on others can reduce/increase your control. Complete control (7) Moderate control (6) Slightly control (5) Neutral (4) Slightly no control (3) Moderate no control (2)

Complete no control (1)

Q10 Please answer the following statements and questions according to your own opinion:

Is mostly up to me whether or not I buy the <b>branded perfume/smell-alike</b> in the forthcoming months
O Strongly agree (7)
O Agree (6)
O Somewhat agree (5)
Neither agree nor disagree (4)
O Somewhat disagree (3)
O Disagree (2)
O Strongly disagree (1)
Q11 Please choose from the following option, with word best completes the space on the sentence, according to your own opinion
Most people who are important to me think that I buy the <b>branded perfume/smell-alike</b> in the forthcoming months
Opefinitely should (7)
O Very probably should (6)
O Probably should (5)
Neither should nor should not (4)
Probably should not (3)
O Very probably should not (2)
Opefinitely should not (1)
It is expected of me that I buy the <b>branded perfume/smell-alike</b> in the forthcoming months
Extremely likely (7)
Moderately likely (6)
O Slightly likely (5)
Neither likely nor unlikely (4)
O Slightly unlikely (3)
Moderately unlikely (2)
Extremely unlikely (1)

alike in the forthcoming months	smen-
O Definitely approve (7)	
O Very probably approve (6)	
O Probably approve (5)	
O Neither approve nor disapprove (4)	
O Probably disapprove (3)	
O Very probably disapprove (2)	
O Definitely disapprove (1)	
Q12 Please answer the following statements and questions according to your own opinion:	
There is a chance that there will be something <b>wrong*</b> with the <b>branded perfume/smell-alike</b> *"Wrong" can be, for example, lower power fragrance enhancing the smell of alcohol; the fact that can skin irritations such as allergies or blemishes etc	cause
O Strongly agree (7)	
O Agree (6)	
O Somewhat agree (5)	
O Neither agree nor disagree (4)	
O Somewhat disagree (3)	
O Disagree (2)	
O Strongly disagree (1)	
There is a chance that the <b>branded perfume/smell-alike</b> does not last long	
O Strongly agree (7)	
O Agree (6)	
O Somewhat agree (5)	
Neither agree nor disagree (4)	
O Somewhat disagree (3)	
O Disagree (2)	
O Strongly disagree (1)	

The <b>branded perfume/smell-alike</b> is risky in terms of how it would perform
O Strongly agree (7)
Agree (6)
O Somewhat agree (5)
Neither agree nor disagree (4)
O Somewhat disagree (3)
Obisagree (2)
O Strongly disagree (1)
Using the <b>branded perfume/smell-alike</b> will affect the way others think of me
O Strongly agree (7)
O Agree (6)
O Somewhat agree (5)
Neither agree nor disagree (4)
O Somewhat disagree (3)
Obisagree (2)
O Strongly disagree (1)
Using the <b>branded perfume/smell-alike</b> would cause me to have a potential loss of status by some people whose opinion I value
O Strongly agree (7)
Agree (6)
O Somewhat agree (5)
Neither agree nor disagree (4)
O Somewhat disagree (3)
Obisagree (2)
O Strongly disagree (1)
The survey is almost over! I only need to know some basic information about you. Keep in mind that the survey is anonymous and all the information will be only used for academic purposes.

XV

Q13 Gender
O Male (1)
Female (0)
Q14 Where are you from?
▼ Afghanistan (1) Zimbabwe (1357)
Q15 Age:
O Under 20 (1)
20-29 (2)
30-39 (3)
O 40-49 (4)
O 50-59 (5)
○ 60 or older (6)
Q16 What is the highest level of school you have completed?
O Primary school (1)
Less than high school (2)
O High school (3)
Bachelor's degree (4)
Master's degree (5)
O Doctoral degree (6)
O Professional degree (7)
Q17 Current occupation:
O Student (1)
Student worker (2)
Part-time worker (3)
Full-time worker (4)
Ounemployed (5)
Retired (6)

Q18 Monthly nousehold net income:
O Less than 500€ (1)
O 500€ - 1000€ (2)
O 1001€ - 1500€ (3)
O 1501€ - 2000€ (4)
O 2001€ - 3000€ (5)
○ 3001€ - 4000€ (6)
O 4001€ - 5000€ (7)
○ 5001€ - 6000€ (8)
O 6001€ - 7000€ (9)
O More than 7000€ (10)
I do not want to reveal (11)
Q19 Number of individuals in the household (You included):
O <sub>1</sub> (1)
O 2 (2)
O <sub>3</sub> (3)
O 4 (4)
O 5 (5)
O 6 (6)
O 7 (7)
O 8 (8)
O 9 (9)
O 10 (10)
Q20 You are eligible to get one free perfume at the end of November. Leave your contact (phone or email) if you wish to participate in the draw:  (The contact will be only used to announce the winner, no spam or sharing contact will occur)

# **APPENDIX 2:DESCRIPTIVE STATISTICS**

		Total sam	ple			
Variable	Description	Obs	Min	Max	Mean	Std.dev
PI	Purchase Intention	505	1	7	3.74	2.06
PI brand	Purchase Intention brand	505	1	7	4.02	2
PI imitation	Purchase Intention imitation	505	1	7	3.40	2.05
AT	Attitude	505	1	7	4.74	1.66
PCI	Price-quality inference	505	1	7	4.39	1.27
SN	Subjective norms	505	1	7	4.59	1.19
PBC	Perceived behavioral control	505	1	7	5.48	1.11
PR	Performance risk	505	1	7	4.34	1.49
SR	Social risk	505	1	7	2.73	1.55
		Original perfum	e brands			
Variable	Description	Obs	Min	Max	Mean	Std.dev
PI	Purchase Intention	247	1	7	4.16	2.04
PI brand	Purchase Intention brand	247	1	7	4.16	2.04
PI imitation	Purchase Intention imitation	247	1	7	3.46	2.10
AT	Attitude	247	1	7	5.04	1.65
PCI	Price-quality inference	247	1	7	4.31	1.34
SN	Subjective norms	247	1	7	4.78	1.14
PBC	Perceived behavioral control	247	1	7	5.57	1.15
PR	Performance risk	247	1	7	3.56	1.39
SR	Social risk	247	1	7	3	1.63
		Imitation perfum	e brands	•		
Variable	Description	Obs	Min	Max	Mean	Std.dev
PI	Purchase Intention	258	1	7	3.35	2.01
PI brand	Purchase Intention brand	258	1	7	3.89	1.97
PI imitation	Purchase Intention imitation	258	1	7	3.35	2.01
AT	Attitude	258	1	7	4.46	1.62
PCI	Price-quality inference	258	1	7	4.47	1.20
SN	Subjective norms	258	1	7	4.4	1.21
PBC	Perceived behavioral control	258	1	7	5.4	1.10
PR	Performance risk	258	1	7	5.10	1.18
SR	Social risk	258	1	7	2.48	1.43

# **APPENDIX 3:SPPS RESULTS FROM THE HYPOTHESIS**

# **APPENDIX 3.1**: HYPOTHESIS H1A)

# Model Summaryb

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin- Watson
1	,685ª	,469	,467	1,46571	2,057

a. Predictors: (Constant), Attitude

#### Coefficientsa

		Unstandardize	d Coefficients	Standardized Coefficients		
Model		В	Std. Error	Beta	t	Sig.
1	(Constant)	-,429	,267		-1,607	,109
	Attitude	,847	,056	,685	15,041	,000

a. Dependent Variable: PurchaseIntention\_imitation

#### **ANOVA**<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	485,990	1	485,990	226,220	,000b
	Residual	549,967	256	2,148		
	Total	1035,957	257			

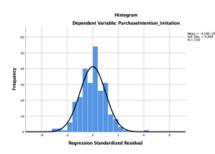
a. Dependent Variable: PurchaseIntention\_imitation

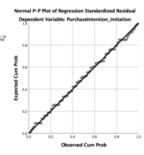
b. Predictors: (Constant), Attitude

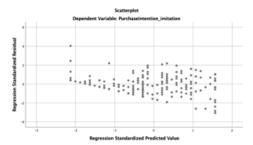
#### Residuals Statistics<sup>a</sup>

	Minimum	Maximum	Mean	Deviation	N
Predicted Value	,4177	5,4989	3,3463	1,37514	258
Residual	-4,49885	5,91564	,00000	1,46286	258
Std. Predicted Value	-2,130	1,565	,000	1,000	258
Std. Residual	-3,069	4,036	,000	,998	258

a. Dependent Variable: PurchaseIntention\_imitation







# **APPENDIX 3.2:** HYPOTHESIS H1B)

#### Model Summaryb

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin- Watson
1	,255ª	,065	,062	1,90604	1,844
- 0	distance (C.				

b. Dependent Variable: PurchaseIntention\_Brand

#### Coefficientsa

		Unstandardize	d Coefficients	Standardized Coefficients		
Model		В	Std. Error	Beta	t	Sig.
1	(Constant)	5,273	,347		15,182	,000
	Attitude	-,309	,073	-,255	-4,225	,000

Residuals Statistics<sup>a</sup>

a. Dependent Variable: PurchaseIntention\_Brand

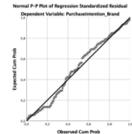
**ANOVA**<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	64,837	1	64,837	17,847	,000b
	Residual	930,045	256	3,633		
	Total	994,882	257			

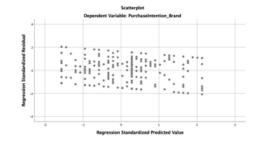
Predicted Value 3,1078 4,9637 3,8941 ,50228 258 -3,96373 3,89219 ,00000 1,90233 258 -1,565 -2,080 2,042 ,998 258

a. Dependent Variable: PurchaseIntention\_Brand b. Predictors: (Constant), Attitude

Mean = -5,680-06 564 Day = 0,998 N = 218



Residual



b. Dependent Variable: PurchaseIntention\_imitation

# **APPENDIX 3.3:** HYPOTHESIS H1C)

#### Model Summaryb

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin- Watson
1	,214 <sup>a</sup>	,046	,042	1,58919	2,160

a. Predictors: (Constant), PriceQualityInference3

b. Dependent Variable: Attitude

#### Coefficientsa

		Unstandardize	d Coefficients	Standardized Coefficients		
Model		В	Std. Error	Beta	t	Sig.
1	(Constant)	5,754	,382		15,056	,000
	PriceQualityInference3	-,290	,083	-,214	-3,510	,001

4,4581

,00000

,34795

1,58609

,998

258

258

258

Residuals Statistics<sup>a</sup>

5,4637

3,27682

3,7232

-2,112 -2,444

-3,88352

a. Dependent Variable: Attitude

a. Dependent Variable: Attitude

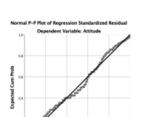
#### ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	31,115	1	31,115	12,320	,001 <sup>b</sup>
	Residual	646,533	256	2,526		
	Total	677.648	257			

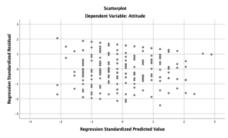
Mean = 6,576-96 Std. Dev. = 0,998 N = 258

a. Dependent Variable: Attitude

b. Predictors: (Constant), PriceQualityInference3



Residual



# APPENDIX 3.4: HYPOTHESIS H1D)

#### Model Summary<sup>b</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin- Watson
1	,027ª	,001	-,003	1,65770	1,752

a. Predictors: (Constant), PriceQualityInference3

b. Dependent Variable: Attitude

#### Coefficientsa

		Unstandardize	d Coefficients	Standardized Coefficients		
Model		В	Std. Error	Beta	t	Sig.
1	(Constant)	4,899	,356		13,766	,000
	PriceQualityInference3	,033	,079	,027	,422	,673

a. Dependent Variable: Attitude

# ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	,490	1	,490	,178	,673 <sup>b</sup>
	Residual	673,255	245	2,748		
	Total	673,745	246			

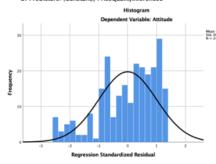
a. Dependent Variable: Attitude

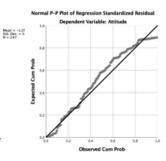
b. Predictors: (Constant), PriceQualityInference3

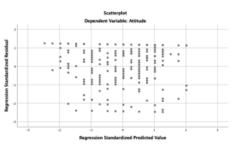
#### Residuals Statistics<sup>a</sup>

	Minimum	Maximum	Mean	Deviation	N
Predicted Value	4,9327	5,1328	5,0429	,04464	247
Residual	-4,09944	2,06730	,00000	1,65433	247
Std. Predicted Value	-2,469	2,013	,000	1,000	247
Std. Residual	-2,473	1,247	.000	.998	247

a. Dependent Variable: Attitude







# **APPENDIX 3.5**:HYPOTHESIS H2)

# Model Summary<sup>b</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin- Watson
1	,503ª	,253	,251	1,78287	1,978

a. Predictors: (Constant), Subjectivenorms2

b. Dependent Variable: PurchaseIntention

#### Coefficientsa

		Unstandardize	d Coefficients	Standardized Coefficients		
Model		В	Std. Error	Beta	t	Sig.
1	(Constant)	-,256	,317		-,808	,419
	Subjectivenorms2	,871	,067	,503	13,046	,000

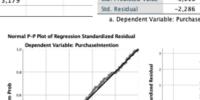
a. Dependent Variable: PurchaseIntention

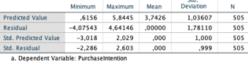
#### ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	541,012	1	541,012	170,203	,000b
	Residual	1598,856	503	3,179		
	Total	2139,868	504			

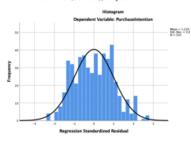
a. Dependent Variable: PurchaseIntention

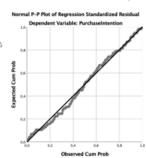
b. Predictors: (Constant), Subjectivenorms2

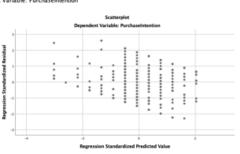




Residuals Statistics<sup>a</sup>







#### Model Summaryb

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin- Watson
1	,411ª	,169	,165	1,86115	1,916

a. Predictors: (Constant), Subjectivenorms2

b. Dependent Variable: PurchaseIntention

#### Coefficientsa

		Unstandardize	d Coefficients	Standardized Coefficients		
Model		8	Std. Error	Beta	t	Sig.
1	(Constant)	,635	,513		1,239	,217
	Subjectivenorms2	,736	,104	,411	7,055	,000

a. Dependent Variable: PurchaseIntention

# ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	172,408	1	172,408	49,773	,000b
	Residual	848,650	245	3,464		
	Total	1021.058	246			

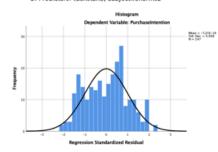
a. Dependent Variable: PurchaseIntention

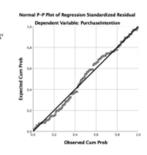
b. Predictors: (Constant), Subjectivenorms2

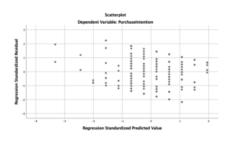
# Residuals Statistics<sup>a</sup>

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	1,3715	5,7882	4,1565	,83716	247
Residual	-4,05212	4,15627	,00000	1,85736	247
Std. Predicted Value	-3,327	1,949	,000	1,000	247
Std. Residual	-2,177	2,233	,000	,998	247

a. Dependent Variable: PurchaseIntention







#### Model Summary<sup>b</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin- Watson
1	,557ª	,310	,308	1,67072	2,075

a. Predictors: (Constant), Subjectivenorms2

b. Dependent Variable: PurchaseIntention

#### Coefficientsa

		Unstandardize	d Coefficients	Standardized Coefficients		
Model		В	Std. Error	Beta	t	Sig.
1	(Constant)	-,724	,393		-1,841	,067
	Subjectivenorms2	,925	,086	,557	10,730	,000

a. Dependent Variable: PurchaseIntention

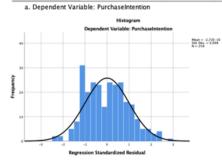
#### ANOVA<sup>a</sup>

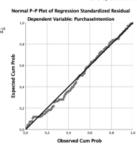
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	321,384	1	321,384	115,138	,000b
	Residual	714,573	256	2,791		
	Total	1035,957	257			

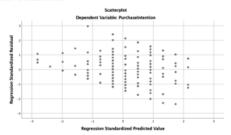
#### Residuals Statistics<sup>a</sup>

	Minimum	Maximum	Mean	Deviation	N
Predicted Value	,2007	5,7498	3,3463	1,11827	258
Residual	-3,95404	4,94962	,00000	1,66746	258
Std. Predicted Value	-2,813	2,149	,000	1,000	258
Std. Residual	-2.367	2.963	000	998	258

a. Dependent Variable: PurchaseIntention







# **APPENDIX 3.6:** HYPOTHESIS H3)

#### Model Summary<sup>b</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin- Watson
1	,543ª	,295	,294	1,73189	1,899

a. Predictors: (Constant), PBC

b. Dependent Variable: PurchaseIntention

## Coefficients<sup>a</sup>

		Unstandardize	d Coefficients	Coefficients		
Model		В	Std. Error	Beta.	t	Sig.
1	(Constant)	-1,798	,390		-4,615	,000
	PBC	1,010	,070	,543	14,506	,000

Maximum

5,2747

Mean

3,7426

1,11905

1,73017

1,000

505

505

505

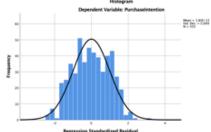
a. Dependent Variable: PurchaseIntention

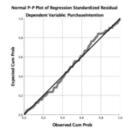
-,7879

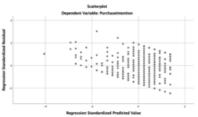
		,	ANOVA			
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	631,142	1	631,142	210,419	d000,
	Residual	1508,726	503	2,999		
	Total	2139,868	504			

Sig.	Predicted Value
.000b	Residual
,000	Std. Predicted Vi
_	Std. Residual
	a Dependent









#### Model Summaryb

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin- Watson
1	,518ª	,268	,265	1,74608	1,870

- a. Predictors: (Constant), PBC
- b. Dependent Variable: PurchaseIntention

#### Coefficients<sup>a</sup>

		Unstandardize	d Coefficients	Standardized Coefficients		
Model		В	Std. Error	Beta	t	Sig.
1	(Constant)	-,958	,551		-1,740	,083
	PBC	,919	,097	,518	9,482	,000

a. Dependent Variable: PurchaseIntention

#### Residuals Statistics<sup>a</sup>

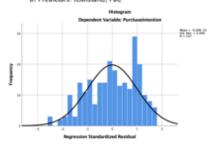
	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	-,0397	5,4722	4,1565	1,05558	247
Residual	-4,47222	3,13541	,00000	1,74253	247
Std. Predicted Value	-3,975	1,246	,000	1,000	247
Std. Residual	-2,561	1,796	.000	.998	247

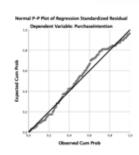
a. Dependent Variable: PurchaseIntention

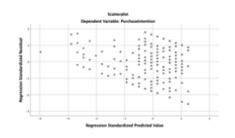
ANOVA

Mode	1	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	274,104	1	274,104	89,906	d000,
	Residual	746,954	245	3,049		
	Total	1021,058	246			

- a. Dependent Variable: PurchaseIntention
- b. Predictors: (Constant), PBC







#### Model Summaryb

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin- Watson
1	,565ª	,319	,316	1,66042	1,825

- a. Predictors: (Constant), PBC
- b. Dependent Variable: PurchaseIntention

#### Coefficientsa

		Unstandardize	d Coefficients	Coefficients		
Model		В	Std. Error	Beta	t	Sig.
1	(Constant)	-2,419	,537		-4,506	,000
	PBC	1,067	,098	,565	10,943	,000

a. Dependent Variable: PurchaseIntention

#### ANOVA<sup>a</sup>

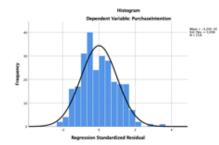
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	330,165	1	330,165	119,755	,000b
	Residual	705,792	256	2,757		
	Total	1035.957	257			

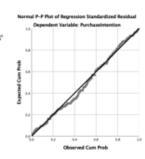
- a. Dependent Variable: PurchaseIntention
- b. Predictors: (Constant), PBC

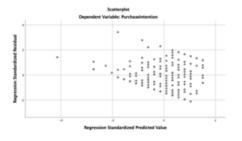
#### Residuals Statistics<sup>a</sup>

	Minimum	Maximum	Mean	Deviation	N
Predicted Value	-1,3523	5,0503	3,3463	1,13344	258
Residual	-3,51675	5,68453	,00000	1,65719	258
Std. Predicted Value	-4,145	1,503	,000	1,000	258
Std. Residual	-2,118	3,424	,000	,998	258

a. Dependent Variable: PurchaseIntention







# **APPENDIX 3.7:** HYPOTHESIS H4 A) E B)

## Model Summaryb

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin- Watson
1	,310ª	,096	,092	1,96302	2,013

a. Predictors: (Constant), Performancerisk, SocialRisk

b. Dependent Variable: PurchaseIntention

		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
Model		8.	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	5,284	,316		16,745	,000		
	SocialRisk	,092	,056	,069	1,631	,104	.998	1,002
	Performancerisk	-,413	.059	-,299	-7,041	,000	.998	1,002

Coefficients<sup>a</sup>

#### **ANOVA**<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	205,441	2	102,721	26,657	,000b
	Residual	1934,427	502	3,853		
	Total	2139,868	504			

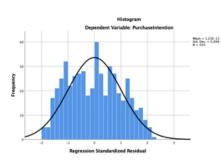
a. Dependent Variable: PurchaseIntention

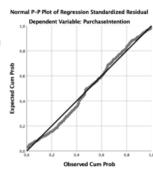
b. Predictors: (Constant), Performancerisk, SocialRisk

#### Residuals Statisticsa

	Minimum	Maximum	Mean	Deviation	N
Predicted Value	2,4872	5,5152	3,7426	,63845	505
Residual	-3,78036	4,28294	,00000	1,95912	505
Std. Predicted Value	-1,966	2,776	,000	1,000	505
Std. Residual	-1,926	2,182	,000	,998	505

a. Dependent Variable: PurchaseIntention







#### Model Summary<sup>b</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin- Watson
1	,226ª	,051	,043	1,99290	1,998

a. Predictors: (Constant), Performancerisk, SocialRisk b. Dependent Variable: PurchaseIntention

#### Coefficients<sup>a</sup>

		Unstandardized Coefficients		Coefficients			Collinearity:	Statistics
Model		8	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	4,477	,428		10,466	,000		
	SocialRisk	,184	.078	.147	2,351	,019	.999	1,001
	Performancerisk	-,245	,092	-,167	-2,669	,008	.999	1,001

#### ANOVA<sup>a</sup>

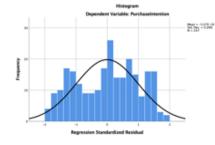
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	51,974	2	25,987	6,543	,002 <sup>b</sup>
	Residual	969,084	244	3,972		
	Total	1021,058	246			

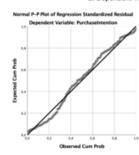
b. Predictors: (Constant), Performancerisk, SocialRisk

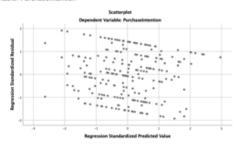
#### Residuals Statisticsa

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	2,9481	5,5182	4,1565	,45965	247
Residual	-3,84518	3,80718	,00000	1,98478	247
Std. Predicted Value	-2,629	2,962	,000	1,000	247
Std. Residual	-1,929	1,910	.000	,996	247

a. Dependent Variable: PurchaseIntention







#### Model Summary<sup>b</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin- Watson	
1	,318ª	.101	.094	1,91105	2,055	

- a. Predictors: (Constant), Performancerisk, SocialRisk
- b. Dependent Variable: PurchaseIntention

		Unstandardized Coefficients		Coefficients			Collinearity Statistics	
Model		8	Std. Error	8eta	t	Sig.	Tolerance	VIF
1	(Constant)	6,127	,544		11,273	,000		
	SocialRisk	-,015	,084	-,011	-,180	,857	.974	1,027
	Performancerisk	-,539	.103	-,316	-5,251	,000	.974	1,027
a. 0	ependent Variable:	PurchaseIntentio	on					

Coefficients<sup>a</sup>

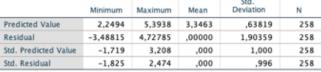
#### Residuals Statistics<sup>a</sup>

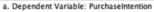
		A	NOVA			
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	104,673	2	52,336	14,331	,000 <sup>b</sup>
	Residual	931,284	255	3,652		
	Total	1035,957	257			

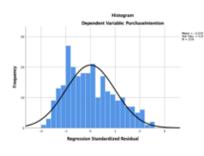
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	104,673	2	52,336	14,331	d000,
	Residual	931,284	255	3,652		
	Total	1035,957	257			

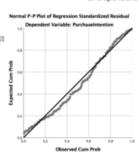
b. Predictors: (Constant), Performancerisk, SocialRisk

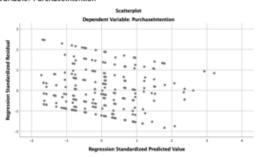
a. Dependent Variable: PurchaseIntention









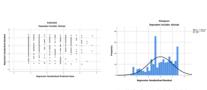


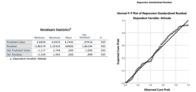
# **APPENDIX 3 8**: HYPOTHESIS H4 C)



Model		Sum of Squares	df	Mean Square		Sig.
1	Regression	2,481	1	2,481	.896	.1445
	Residual	1192,064	503	2,768		
	Total	1394,545	504			



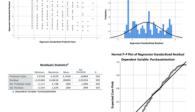






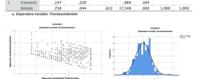


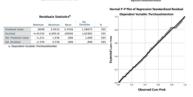












#### Model Summary<sup>b</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin- Watson
1	.614ª	378	375	1.62894	1 977

a. Predictors: (Constant), SocialRisk, Attitude b. Dependent Variable: PurchaseIntention

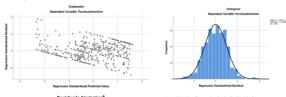
#### ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	807,839	2	403,919	152,225	,000 <sup>b</sup>
	Residual	1332,029	502	2,653		
	Total	2139,868	504			

a. Dependent Variable: PurchaseIntention b. Predictors: (Constant), SocialRisk, Attitude

# Coefficientsa

		Unstandardize	d Coefficients	Standardized Coefficients			Collinearity	Statistics
Model		В	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	-,043	,250		-,174	,862		
	Attitude	,755	,044	,609	17,292	,000	,998	1,002



	Resi	duals Stat	istics"			Normal P-P Plot of Regress		
	Minimum	Maximum	Mean	Std. Deviation	N	1.0	Depende	nt Variable: I
Predicted Value	,7863	5,7645	3,7426	1,26604	505			
Residual	-4,68980	6,13898	,00000	1,62570	505	0.4		
Std. Predicted Value	-2,335	1,597	.000	1,000	505			
Std. Residual	-2,879	3,769	,000	,998	505	ê		
Std. Residual a. Dependent Vari			,000	,998	505	Cum Pro		
						9		_/
						ā		
						4.2	_	

#### Model Summary<sup>b</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin- Watson
1	,630ª	,397	,395	1,60330	1,975

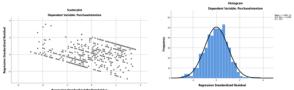
#### ANOVA<sup>a</sup>

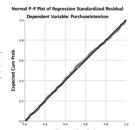
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	849,443	2	424,722	165,225	,000b
	Residual	1290,425	502	2,571		
	Total	2139.868	504			

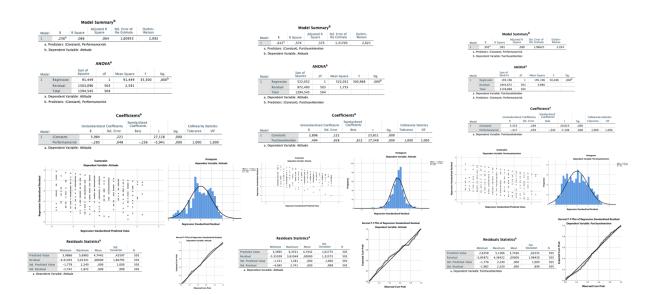
a. Dependent Variable: PurchaseIntention b. Predictors: (Constant), Attitude, Perform

#### Coefficientsa

		Unstandardize	d Coefficients	Standardized Coefficients			Collinearity	Statistics
Model		В	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	1,314	,345		3,809	,000		
	Performancerisk	-,215	,049	-,156	-4,338	,000	,934	1,070
	Attitude	,709	,044	,572	15,954	,000	,934	1,070







# **APPENDIX 3.9: GENERAL AND COMPARATIVE MODEL**

#### Model Summaryb

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin- Watson
1	,727ª	,528	,524	1,42222	1,943

- a. Predictors: (Constant), PBC, SocialRisk, Performancerisk, Attitude, Subjectivenorms2
- b. Dependent Variable: PurchaseIntention

#### ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1130,542	5	226,108	111,786	d000,
	Residual	1009,326	499	2,023		
	Total	2139,868	504			

- a. Dependent Variable: PurchaseIntention
- Predictors: (Constant), PBC, SocialRisk, Performancerisk, Attitude, Subjectivenorms2

#### Coefficientsa

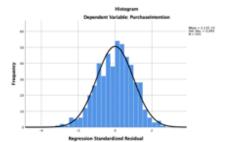
		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
Model		В	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	-2,505	,450		-5,560	,000		
	Performancerisk	-,149	,045	-,108	-3,338	,001	,908	1,102
	SocialRisk	,042	,041	,032	1,025	,306	,985	1,015
	Attitude	,484	,044	,391	11,049	,000	,755	1,324
	Subjectivenorms2	,338	,062	,195	5,430	,000	,731	1,368
	PBC	.534	.066	.287	8.117	.000	.756	1.323

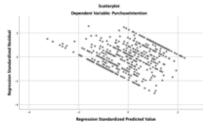
a. Dependent Variable: PurchaseIntention

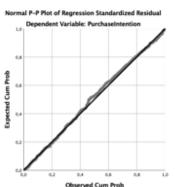
# Residuals Statistics<sup>a</sup>

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	-1,1311	7,1376	3,7426	1,49771	505
Residual	-4,32624	3,64746	,00000	1,41514	505
Std. Predicted Value	-3,254	2,267	,000	1,000	505
Std. Residual	-3,042	2,565	,000	,995	505

a. Dependent Variable: PurchaseIntention







#### Model Summary<sup>b</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin- Watson
1	,730 <sup>a</sup>	,532	,522	1,42480	1,947

- a. Predictors: (Constant), Perfume\_PBC, SocialRisk, Attitude, Subjectivenorms2, PBC, Performancerisk, Perfume\_SocialRisk, Perfume\_PerformanceRisk, Perfume\_Attitude, Perfume\_SubjectiveNorms, Perfume allocation
- b. Dependent Variable: PurchaseIntention

# Residuals Statisticsa

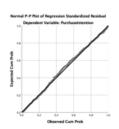
	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	-,9313	7,0043	3,7426	1,50333	505
Residual	-4,34175	3,56961	,00000	1,40917	505
Std. Predicted Value	-3,109	2,170	,000	1,000	505
Std. Residual	-3,047	2,505	.000	.989	505

a. Dependent Variable: PurchaseIntention



- a. Dependent Variable: PurchaseIntention
- b. Predictors: (Constant), Perfume\_PBC, SocialRisk, Attitude, Subjectivenorms2, PBC, Performancerisk, Perfume\_SocialRisk, Perfume\_PerformanceRisk, Perfume\_Attitude, Perfume\_SubjectiveNorms, Perfume allocation

# March - 1, 100 (nd. (no. + 1, 60) (n. 100)





		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
Model		8	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	-2,069	.721		-2,871	.004		
	Performancerisk	-,173	,080	-,126	-2,163	,031	,281	3,558
	SocialRisk	,050	,063	,038	,789	,430	,419	2,384
	Attitude	,546	.069	,441	7,934	.000	,307	3,256
	Subjectivenorms2	,360	,089	,208	4,048	,000	,360	2,779
	PBC	,399	.104	,214	3,850	,000	,306	3,267
	Perfume allocation	-,675	,946	-,164	-,714	,476	,018	55,664
	Perfume_PerformanceRi sk	,066	,104	,065	,632	,527	,090	11,104
	Perfume_SocialRisk	-,019	,086	-,018	-,225	,822	.155	6,471
	Perfume_Attitude	-,103	,090	-,139	-1,143	,254	,064	15,535
	Perfume_SubjectiveNor ms	-,049	,127	-,059	-,384	,701	,040	25,306
	Perfume_PBC	.224	.135	.315	1,660	.098	.026	37,952

a. Dependent Variable: PurchaseIntention

