Counterfeiting and Demographics: What Factors Influence the Buying Process of Portuguese Consumers?

Susana BERNARDINO
J. Freitas SANTOS
Isabel ANTUNES
Joana ALVES

Abstract

Counterfeiting is a worldwide spread phenomenon with serious economic, social and political impacts on the society. This study examines the profile of consumers who admit to purchasing counterfeit products in Portugal. Specifically, it investigates whether demographic profile is able to impact the decision factors that drive consumers to purchase counterfeit products. The investigation reveals that a high proportion of consumers have been involved in some way in the purchase of counterfeit products, although consumers distinguish between counterfeit products that can be dangerous for its well-being (medicine) and vanity (clothes and shoes, perfume), and relatively risk-free (auto-parts, machinery) products. The study developed shows that the factors that influence the buying process of counterfeiting products in Portugal can be grouped into intangible (status, brand, design, exclusivity, fashion) and rational (price, perceived quality and personal satisfaction) factors. Finally, the findings suggest that only in one factor (price) and for age and education, the demographic characteristics seems to be important in the moment of buying counterfeit products.

Key-words: *Counterfeiting, purchase, consumers, demographic profile.*

1. Introduction

Globalization stimulated the expansion of counterfeiting activities with consequences for companies and consumers in different business areas, such as financial, health or security (Bloch, et al., 1993). To attenuate the effects, companies need to minimize the risks of copying and governments assure that legal sanctions are applied, in order that other individuals are discouraged from be involved in counterfeiting practices. On the demand side, advertising campaigns centered on the consumers' underlying motivations have been carried out with more or less success to reduce the consumption of counterfeit goods (Viot, Roux & Kremer, 2014). However, counterfeiting is a very complex phenomenon that neither governments nor companies have been able to eradicate. Then, a more comprehensive knowledge

of the factors that lead some consumers to buy counterfeit goods is of crucial interest to deal with this problem.

There are two types of counterfeiting: deceptive and non-deceptive counterfeiting. Counterfeiting is considered deceptive when consumers believe that they are purchasing a genuine item (Staake, Thiesse & Fleisch, 2009). The non-deceptive counterfeiting occurs when the location of purchase, price and quality level of the product clearly suggests the nature of the goods, and the consumer consciously purchases the counterfeit product instead of the original (Eisend, 2016).

The majority of the empirical studies published are based on convenience samples largely composed of students. Although students are a prime target of counterfeiting, they are not the only people affected by this phenomenon. In addition, many studies cover a single product category such as auto parts, sunglasses, pirated music CDs, and software (Davcik, Sharma, Chan & Roy, 2019). Hence, there is a need for more research in different product categories. Finally, few studies in Portugal have centered on the push factors of current users of counterfeit products, in particular relating those factors with demographic variables.

Herein, this communication aims to generate additional knowledge on the topic, by analyzing the factors that influence the willingness of Portuguese consumers to purchase counterfeit goods, as well as to study the areas of activity where consumers prefer to buy those goods. Also, this paper examines how those factors vary by gender, age, income or education.

The remainder of this communication is organized as follows. First, a brief overview of counterfeit in Portugal is reported. Then, a review of the factors that push consumers to buy counterfeit goods is developed separating the demographic factors from the product-related variables. A methodology section follows explaining the process of collecting the data. Finally, the results are presented and the findings are discussed.

2. Definition and some data about counterfeiting

The concept of counterfeiting, according to the Green Paper of the Commission of the European Communities, covers all products, processes and services that are the subject matter or result of an infringement of an intellectual property right, of a copyright or neighbouring right or of the *sui generis* right of the maker of a data base. This broad definition includes not only the case of products that are copied fraudulently (fakes), but also the case of products that are identical to the original ones but are made without the rightholder's consent (Freitas Santos & Cadima Ribeiro, 2006a).

The global trade in counterfeit goods has been increasing over the years. For instance, the counterfeiting rate raised from 2.5% in 2013, to 3.3% in 2016, corresponding to approximately EUR 436.37 billion and around EUR 481.81 billion respectively (OECD/EUIPO, 2019). According to the Organisation for Economic Cooperation and Development (OECD) and the European Union Intellectual

Property Office (EUIPO) the value of counterfeiting would be around 2.5% of the total value of world trade (OECD/EUIPO, 2021).

The growth and evolution of the global illicit trade in goods comes first from China as producing and exporting country, with about 80% of the total global trade in counterfeit goods (Coates, 2019). China is followed by countries such as Turkey, Singapore, United Arab Emirates and Hong Kong, which have the highest rates of counterfeit goods in the world, both in total values and the number of seizures (OECD/EUIPO, 2021). In terms of destination, the United States and the European Union are the major recipients of the counterfeit products. Europe is pointed out as one of the main consumption markets for counterfeit products, where France, Germany, Italy, and the United Kingdom are the main destinations for these products (Viot et al., 2014; OECD/EUIPO, 2019).

Looking at the logistics chain, counterfeit goods are transported frequently in small parcels via postal mail or in larger quantities that are shipped on large vessels (OECD/EUIPO, 2021). The movement of counterfeit products from China to the rest of the world is facilitated by the ownership of key shipping ports around the world. In Antwerp, for instance, one of the largest and busiest ports in the world, 3 out of 4 container docks are operated by Chinese corporations (EUROPOL/Office for Harmonisation in the Internal Market, 2016).

The kind of consumption of counterfeit goods is extensive. Most of the products seized are based on six major industries, namely footwear, clothing, leather goods, electrical machinery and electronic equipment, and perfumes and cosmetics (OECD/EUIPO, 2021). However, recently it has been possible to observe an increase in the number of categories counterfeited that goes from toys, to chemicals or even car parts (OECD/EUIPO, 2021).

The regular studies on international trade in counterfeit goods show that global trade in fake goods remains a serious problem. The EU, as a high-income trade area, is a specific target for counterfeiters with percentages reaching 5.8 % of total imports from the rest of the world (OECD/EUIPO, 2021).

In the international context, China remains the main producer and exporter of counterfeit goods to the European Union, followed by Syria and Afghanistan (OECD/EUIPO, 2021). Interestingly, however, recent studies have shown a remarkable growth of countries belonging to the European Community engaged in the production of these goods (EUIPO/EUROPOL, 2022).

With regard to seizures made within Europe, Italy is the big leader with 41% of all confiscated assets, followed by France, Germany, Spain, and Greece (OECD/EUIPO, 2021).

The counterfeit goods consumed in Europe are mainly luxury goods, toys, and games, as well as electronic goods, cosmetics, and perfumery (OECD/EUIPO, 2021; OECD/EUIPO, 2019). These products are mostly sold online, particularly on social networks in live stream (EUIPO/EUROPOL, 2022). Specifically, in Portugal, the scenario is similar to the international and European context, as in 2021, the number of seizures of counterfeit products has significantly increased (112%)

compared to 2020, with approximately 3 million counterfeit items being confiscated (Anti-counterfeiting Group, 2021).

The Counterfeit products in Portugal mostly come from China, Turkey, Panama, and India, and the most recurrent typology of counterfeit goods corresponds to clothing, footwear, food, beverages, and cars (Anti-counterfeiting Group, 2020).

E-commerce has been dominating its position as the preferred platform for the proliferation of counterfeit products, with its growth being indicative of what the future will be. For instance, in 2019, the value of counterfeit products purchased online, seized in the jurisdiction of Customs at Lisbon Airport, stood at €8 million, and in 2020, the value increased to €14.5 million (Anti-counterfeiting Group, 2019; Anti-counterfeiting Group, 2020).

3. Factors affecting the consumption of counterfeit goods: a brief review of empirical literature

The focus of this review of the empirical literature about counterfeiting is on the factors that influence or restrain the demand for counterfeit goods. The point of departure is a synthesis of the determinants of counterfeit purchases that includes the characteristics of the person (demographics and psychographic variables), product (price, product attributes and scarcity), culture, situational context (purchase situation and mood), and attitudes toward counterfeit goods (perceived risks and benefits) (Eisend & Schuchert-Güler, 2006; Eremeeva, 2019).

The **demographic variables** comprise age, education, employment status, family, gender, and income. The **psychographic variables** encompass fashion seeking, innovativeness, integrity, materialism, risk aversion, self-concept (self-construal, self-view, self-esteem), status seeking, smart shopping, and susceptibility (informative and normative) (Eisend, Hartmann & Apaolaza, 2017).

The **variables related to product** involve price, product attributes (image, design, perceived quality of the product) and scarcity. Culture has been pointed out as positively associated with the Hofstede's dimensions of high power distance, individualism, high uncertainty avoidance, and masculinity (Freitas Santos & Cadima Ribeiro, 2006). The situational context includes the purchase situation that depends on the opportunity and availability of counterfeit goods, and mood (holidays, souvenirs) (Eisend & Schuchert-Güler, 2006; Eremeeva, 2019).

The **attitudes toward counterfeit goods** are related to the perceived risks or benefits that determine the purchase decisions of consumers. These risks could be of financial, performance, physical, psychological, social, time, legal, macro, and overall nature (Ha & Lennon, 2006; Viot, Roux & Krémer, 2014). The benefits are linked with the intrinsic (sense of adventure, fashion/novelty seeker, sense of morality, perception toward inequality, perception toward the actual product, quality acceptance, and purchasing experience) and extrinsic motivations (social acceptance, peer influence, sense of belonging/desired image, perceived risks (associated with purchase), perceived risks (associated with usage), affordability,

accessibility, degree of justice and penalty, and social networking sites) (Viot, Roux & Krémer, 2014; Thaichon & Quach, 2016).

In the context of this investigation, from this wide array of variables mentioned above we selected for a more detailed review of the empirical evidence on the demographic variables (gender, age, education, and income) and the product-related variables (price, social status, perceived quality, brand image, design, personal satisfaction, exclusivity, fashion). Therefore, different approaches to counterfeiting were excluded from this review not for its contribution to explaining the counterfeiting phenomenon but for pragmatic reasons, related to the scope of the research to be developed. For instance, a much broader analysis of literature, such as the Viot et al. (2014), incorporates societal factors (macroeconomic risks, economic risks for business, and risks for brands) and other deterrents associated with doubts about the origin of the goods (psychological, social, physical and legal risks). The same applies to approaches based on psychographic or psychological variables (Eisend et al., 2017; Eremeeva, 2019; Babamiri, Moghadam, Saeidnia & Zemestani, 2020), such as personality traits, fashion and status seeking, materialism, integrity, self-concept, innovativeness, susceptibility, and smart shopping as the study concentrates only on demographic variables. Other examples of alternative approaches include the application of the theory of planned behavior to explain consumer attitudes toward counterfeits (e.g. Kim & Karpova, 2010), the means-end chain to explain motivational drivers of counterfeiting consumption (e.g. Pueschel, 2020), model estimation by ordinal logit analysis (Cordell, Wongtada & Kieschnick Jr, 1996) or different structural models to test theoretical constructs related with the intention to purchase counterfeit (e.g. Tseng, Chiu & Leng, 2021). Although interesting, these approaches are disregarded as they are beyond the objectives of this study.

Table 1 presents several empirical studies that demonstrate the impact of age, gender, income and education on the consumption of counterfeit goods. An overall analysis shows that some studies registered a positive effect on younger people, while in others no effect has been recognized. Several studies indicate that males are more prone to buy counterfeit while others indicate the contrary and others seem that gender has no effect at all on the consumption of counterfeit goods. Similar empirical evidence has been found for income with more studies with impacts on low than high-income persons and a few others with no effect. Regarding education, the main impact seems to be on the less educated consumers.

Table 1. Demographic influences on counterfeiting

Demographics	Authors	Empirical evidence
Age	1 - Tóth (2012) 2 - Bian & Veloutsou (2017) 3 - Eisend, Hartmann & Apaolaza (2017)* 4 - Staake, Thiesse & Fleisch (2009)* 5 - Latif, Yigit & Kirezly (2018)*	Younger people are more prone to buy counterfeit goods (1+2+3+4+5+7+8+9) Older people are more prone to buy counterfeit goods (5) No effect (5+6+9)

Demographics	Authors	Empirical evidence
	6 - Large (2019) 7 - Lee & Yoo (2010)* 8 – Elsantil & Hamza (2021)* 9 – Eremeeva (2019)*	
Gender	1 - Bian & Veloutsou (2017) 2 - Eisend, Hartmann & Apaolaza (2017)* 3 - Andrade et. al. (2019) 4 - Gani, et. al. (2019) 5 - Latif, Yigit & Kirezly (2018)* 6 - Staake, Thiesse & Fleisch (2009)* 7 - Lee & Yoo (2010)* 8 – Elsantil & Hamza (2021)* 9 – Eremeeva (2019)*	Males are more prone to buy counterfeit goods (1+2+6+7+8+9) Females are more prone to buy counterfeit goods (3+7+8) No effect (4+5+7+9)
Income	1 - Andrade et. al. (2019) 2 - Gani, et. al. (2019) 3 - Eisend, Hartmann & Apaolaza (2017)* 4 - Staake, Thiesse & Fleisch (2009)* 5 - Large (2019) 6 - Latif, Yigit & Kirezly (2018)* 7 - Lee & Yoo (2010)* 8 – Elsantil & Hamza (2021)* 9 – Eremeeva (2019)*	Low income persons are more prone to buy counterfeit goods (1+2+3+4+7+8+9) High income persons are more prone to buy counterfeit goods (5+7+8) No effect (5+6+7)
Education	1 - Wee. et. al. (1995) 2 - Li et. al. (2018) 3 - Eisend, Hartmann & Apaolaza (2017)* 4 - Bian & Veloutsou (2017) 5 - Latif, Yigit & Kirezly (2018)* 6 - Staake, Thiesse & Fleisch (2009)* 7 - Lee & Yoo (2010)* 8 – Elsantil & Hamza (2021)* 9 – Eremeeva (2019)*	Less educated persons are more prone to buy counterfeit goods (1+2+6+7+9) Minor effect (4) No effect (5+7)

Source: Own elaboration. Notes: (*) Factors based on a literature review article.

Table 2 presents a synthesis of the empirical evidence about the product-related variables considered in the research - price, social status, perceived quality, brand image, design, personal satisfaction, exclusivity and fashion. All the variables considered in the review have a positive impact on the consumption of counterfeit goods. Price and brand image seem to be the most influential variables when consumers decide to buy counterfeited goods (seven studies each). Another important variable is the perceived quality of the counterfeit product which received six references suggesting that consumers evaluate positively the quality/price

relation of the counterfeited merchandise. Few empirical studies were found for social status, design, exclusivity (three each), personal satisfaction (two) and fashion (one).

Table 2. Product variables related with counterfeiting

Variables	Authors	Empirical evidence
Price	1 - Viot et al. (2014)* 2 - Eisend, Hartmann & Apaolaza (2017)* 3 - Staake, Thiesse & Fleisch (2009)* 4 - Lee & Yoo (2010)* 5 - Pueschel, (2020) 6 – Elsantil & Hamza (2021)* 7 – Eremeeva (2019)*	Positive (1+2+3+4+5+6+7)
Social status	1 - Li et. al. (2018) 2 - Lee & Yoo (2010)* 3 – Elsantil & Hamza (2021)*	Positive (1+2+3)
Perceived quality	1 - Viot et al. (2014)* 2 - Latif, Yigit & Kirezly (2018)* 3 - Staake, Thiesse & Fleisch (2009)* 4 - Lee & Yoo (2010)* 5 – Elsantil & Hamza (2021)* 6 – Eremeeva (2019)*	Positive (1+2+3+4+5+6)
Brand image	1 - Bian & Moutinho (2009) 2 - Latif, Yigit & Kirezly (2018)* 3 - Eisend, Hartmann & Apaolaza (2017)* 4 - Gani, et. al. (2019) 5 - Lee & Yoo (2010)* 6 – Elsantil & Hamza (2021)* 7 – Eremeeva (2019)*	Positive (1+2+3+4+5+6+7)
Design	1 - Eisend, Hartmann & Apaolaza (2017)* 2 - Lee & Yoo (2010)* 3 – Eremeeva (2019)*	Positive (1+2+3)
Personal satisfaction	1 - Staake, Thiesse & Fleisch (2009)* 2 - Lee & Yoo (2010)*	Positive (1+2)
Exclusivity	1 - Latif, Yigit & Kirezly (2018)* 2 - Lee & Yoo (2010)* 3 – Elsantil & Hamza (2021)*	Positive (1+2+3)
Fashion	1 - Eisend, Hartmann & Apaolaza (2017)*	Positive (1)

4. Methodology

The objective of the study was to examine the factors that determine the acquisition of counterfeit products in Portugal, and to assess the extent to which demographic characteristics are able to influence the purchase of counterfeit products. To attain this goal a questionnaire was constructed based on the review of the literature already mentioned above. The first part of the questionnaire solicited respondents to answer questions about gender, age, education and income. After that, two dichotomous questions were included to indicate if respondents know the definition of counterfeit (stated in the question) and if they already purchased a counterfeited product. The next group of questions allows multiple responses for identifying: i) the factors that consumers use to detect if a product is counterfeited or not; ii) the factors that according to the consumers generate more impact in the society; iii) the channels where consumers frequently buy counterfeited goods. The survey ends with two questions that incorporate two different types of scales: one question, about the product-related determinants to purchase counterfeited goods, uses a scale between 1 (nothing important) to 5 (extremely important); the other question consumers evaluate the likely probability of purchase counterfeits in a scale between 1 (very unlikely) and 5 (extremely unlikely) by type of goods (food, medicines, clothes and shoes, cosmetics, auto parts, electronic equipment, perfume, electric machinery). The questionnaire was subjected to a pre-test among ten experts in the field that propose some changes in the two last questions.

The survey was conducted online during the months of July and August of 2022. A link to a questionnaire was shared on social media (Facebook, WhatsApp) and also sent by email to a list of institutional emails of the researcher. In a process of snowball sampling, it was possible to receive 304 valid responses as two are not considered because contained missing answers.

The characteristics of the sample are presented in table 3. The variables are grouped in two categories with gender (male vs. female), age (<=36 years vs. >36 years) and education (Primary & secondary vs. higher) very similar in absolute and relative terms. The only exception is income where the two categories (<= €705 vs. >€705) are asymmetrical.

Table 3. Sample characteristics

Demographics	N	%
Gender		
Male	136	55
Female	138	45
Age		
<= 36 years	146	42.9
> 36 years	158	57.1
Education		
Primary & Secondary	136	44.7
Higher	168	55.3

Demographics	N	%
Income (monthly) <= €705 > €705	99 205	32.6 67.4
Total	304	100

Source: Own elaboration.

5. Results

5.1 Consumption of counterfeit by type of products

The results obtained indicate that the vast majority of respondents (90%) were aware of the meaning of the term "counterfeiting". Furthermore, around 70% of the respondents (213 cases), mentioned that they had previously purchased a counterfeit product.

The analysis of the consumers' willingness to purchase counterfeit goods was measured by a 5-point Likert scale, in which 1 corresponded to unlikely, 2 corresponds to not very likely, 3 corresponds to possible, 4 to likely and 5 to very likely.

The analysis suggests that the only category where a higher probability of purchasing is observed is clothes and shoes (mean value of 3,2, located on the positive pole of the 5-point Likert Scale). After that, the other most valued categories were perfume (mean of 2.2), electric equipment (2.13) and auto parts (mean of 2.12).

The categories in which respondents indicate a lower willingness to purchase counterfeit products are medicine and food, where the mean value attained is, respectively, 1.29 and 1.45.

Table 4. Purchase of counterfeit goods by type of product

Product	Mean	Standard Deviation	Skewness	Kurtosis
Food	1.4507	0.993	2.473	5.414
Medicine	1.2862	0.775	3.305	11.443
Clothes & Shoes	3.2105	1.200	- 0.182	-0.686
Cosmetics	1.750	1.032	1.259	0.669
Auto Parts	2.1217	1.180	0.743	-0.526
Electric Equipment	2.1349	1.179	0.708	-0.608
Perfume	2.2204	1.251	0.625	-0.736
Electric Machinery	1.8816	1.030	1.041	0.425

Source: Own elaboration. Notes: Scale from 1 – very unlikely, 2 – unlikely, 3 – not likely or unlikely, 4 – likely, 5 – very likely.

5.2 Factors that determine the purchase of counterfeit products

Analyzing the determinants of consumption of counterfeit goods (Table 5), we observe that the most valued variables are the price, which is considered as

important or very important by 81.25% of the respondents, and attained an average evaluation of 4.08 on the 5-point Likert scale. The factors personal satisfaction and perceived quality are those that on average are most valued by the respondents (mean value of 3,41 and 3,19, respectively), although these variables are considered neutral by a high percentage of respondents (21.38% and 25.0%, respectively). In addition, almost half of the respondents (44.73%) consider the brand or the design of the products as important or very important when buying counterfeit products, with each of these factors reaching an average value of 2.96 among the respondents.

Differently, the least important factors in consumer behavior are fashion (mean value of 2.49), exclusivity (mean of 2.50) and status (mean value of 2.67). The average valuation of these factors among the respondents was located at the negative point of the scale.

Table 5. Descriptive statistics for push factors

Factors	1 (%)	2 (%)	3 (%)	4 (%)	5 (%)	Mean	SD
Price	4.60	6.91	7.24	37.83	43.42	4.08	1.09
Status	36.51	23.03	23.36	11.51	5.59	2.67	1.29
Perceived quality	13.49	17.11	25.0	25.0	19.41	3.19	1.30
Brand	17.11	16.78	21.38	33.22	11.51	2.96	1.28
Design	17.11	16.78	21.38	33.22	11.51	2.96	1.28
Personal satisfaction	12.83	8.55	21.38	39.14	18.09	3.41	1.22
Exclusivity	27.96	22.37	29.27	12.83	7.57	2.50	1.24
Fashion	25.32	20.72	23.68	21.05	8.22	2.49	1.29

Source: Own elaboration. Notes: SD – Standard Deviation
Source: Own elaboration. Notes: Scale from 1 – very unlikely, 2 – unlikely, 3 – not likely or unlikely, 4 – likely, 5 – very likely; SD- Standard Deviation;

In order to have a more comprehensive understanding of the main drivers that influence the buying process, we performed an exploratory factor analysis, through principal components, by using a varimax rotation.

The results attained (Table 6) show that the different push factors can be grouped into two main drivers. The first driver (Factor 1) is related to intangible factors, and includes the factors status, brand, design, exclusivity and fashion. The second driver (Factor 2), in turn, refers to rational factors and includes the price, perceived quality and personal satisfaction. The results of the Kaiser-Mayer-Olkin Measure of Sampling Adequacy and Bartlett's Test of Sphericity confirm that the structure of the data is suitable to proceed to data reduction. The exploratory factorial analysis allows an understanding of the variables to which the consumers behave similarly when deciding to buy counterfeit products.

Table 6. Results of exploratory factorial analysis

Factors	F1	F2
Price	0.117	**0.786**

Factors	F1	F2
Status	**0.739**	0.047
Perceived quality	0.123	**0.753**
Brand	**0.735**	0.264
Design	**0.617**	0.512
Personal satisfaction	0.381	**0.755**
Exclusivity	**0.789**	0.209
Fashion	**0.826**	0.228
Eigenvalues	2.186	1.743
% Variance	36.826	27.306

Source: Own elaboration. Notes: Kaiser-Mayer-Olkin Measure of Sampling Adequacy = 0.865, Bartlett's Test of Sphericity = 948.432 (p<0.001).

5.3 Factors that determine the purchase of counterfeit products, according to the consumers' demographic profile

After the analysis of the drivers that determine the willingness to purchase counterfeit products, we assess the extent to which each factor is influenced by the demographic profile of the respondents, including gender, age, education and income.

Gender

Related with gender, the results of the ANOVA test show no statistical significant differences between the demographic profile and the factors that determine the willingness to purchase counterfeit goods (Table 7). Therefore, the results indicate that no gender differences are observed in the factors for buying counterfeit goods and that men and women tend to be influenced in a similar way by the different factors in analysis.

Table 7. Push factors for buying counterfeit products, by gender (ANOVA)

Factors	Sum of Squares (a)	Mean Square (a)	F	Significance
Price	0.005 361.771	0.005 1.196	0.004	n.s.
Status	0.02 453.397	0.02 1.501	0.014	n.s.
Perceived quality	2.549 513.609	2.549 1.701	1.499	n.s.
Brand	0.254 497.272	0.254 1.647	0.154	n.s.
Design	1.373 497.785	1.373 1.648	0.833	n.s.
Personal satisfaction	1.891 467.711	1.891 1.549	1.221	n.s.
Exclusivity	2.061 459.935	2.061 1.523	1.354	n.s.
Fashion	0.142 504.964	0.142 1.672	0.085	n.s.

Age

When taking into account the age of the respondents (Table 8), we observe that are statistically significant differences between respondents in relation to a single factor – price. The results show that price is the main determinant that separates the older from the younger consumers. This later group is more prone to acquire counterfeit goods (higher mean) than older consumers. No statistically significant differences were found in the valuation attached to the other push factors.

Table 8. Push factors for buying counterfeit products, by age (ANOVA)

Factors	Sum of Squares (a)	Mean Square (a)	F	Significance
Price	20.621	5.155	4.518	P<0.01
	341.155	1.141		
Status	4.038	1.010	0.672	n.s.
	449.38	1.503		
Perceived quality	6.884	1.721	1.010	n.s.
	509.273	1.703		
Brand	3.271	0.818	0.495	n.s.
	494.255	1.653		
Design	11.973	2.993	1.837	n.s.
	487.185	1.629		
Personal satisfaction	10.965	2.741	1.787	n.s.
	458.637	1.534		
Exclusivity	6.89	1.722	1.132	n.s.
	455.107	1.522		
Fashion	11.292	2.823	1.709	n.s.
	493.813	1.652		

Source: Own elaboration. Notes: (a) – First value between groups, second value within groups.

Education

The analysis of the factors that affect the purchase of counterfeit products according to the respondents' education (Table 9), show that price is the only factor that is statistically significant. The results indicate that the higher the education level of the respondents, the more they value the price when deciding to buy counterfeit goods. In other words, respondents with higher levels of education are more inclined to consume counterfeit goods. The value attached by respondents to the other factors, either rational or intangible, is not influenced by the education level. These results mean that other factors (such as status, perceived quality, brand, design, personal satisfaction, exclusivity or fashion) tend to have a similar impact on consumers' purchasing decisions regardless of their level of education.

Table 9. Push factors for buying counterfeit products, by education (ANOVA)

Factors	Sum of Squares (a)	Mean Square (a)	F	Significance
Price	13.584 348.192	6.792 1.157	5.871	P<0.01
Status	0.245 453.172	0.123 1.506	0.081	n.s.
Perceived quality	2.302 513.856	1.151 1.707	0.674	n.s.
Brand	1.449 496.077	0.725 1.648	0.440	n.s.
Design	0.675 498.483	0.338 1.656	0.204	n.s.
Personal satisfaction	0.936 468.666	0.468 1.557	0.300	n.s.
Exclusivity	1.771 460.225	0.886 1.529	0.579	n.s.
Fashion	4.709 500.396	2.355 1.662	1.416	n.s.

Source: Own elaboration. Notes: (a) – First value between groups, second value within groups.

Income

The analysis of Table 10 shows that no differences are found in the importance of different factors, either rational or intangible, on the consumption of counterfeiting according to the respondents' income level. Thus, the results of test ANOVA indicate that, overall, consumers having different income level tend to value different motivations similarly.

Table 10. Push factors for buying counterfeit products, by income (ANOVA)

Factors	Sum of Squares (a)	Mean Square (a)	F	Significance
Price	3.494 358.263	0.873 1.196	0.729	n.s.
Status	2.281 451.137	0.57 1.509	0.378	n.s.
Perceived quality	6.822 509.336	1.705 1.703	1.001	n.s.
Brand	11.847 485.679	2.962 1.624	1.823	n.s.
Design	2.816 496.342	0.704 1.66	0.424	n.s.
Personal satisfaction	7.364 462.238	1.841 1.546	1.191	n.s.
Exclusivity	8.989 453.008	2.247 1.515	1.483	n.s.
Fashion	10.612 494.493	2.653 1.654	1.604	n.s.

Source: Own elaboration. Notes: (a) – First value between groups, second value within groups.

6. Conclusion

Counterfeiting is a phenomenon that has achieved great expression all over the world, with serious damage to society and different economic agents.

The investigation performed reveals that Portuguese consumers are very familiar with the term counterfeiting and a large majority has already bought products of this nature. Nevertheless, the willingness to acquire such products is quite different according to the category of products involved. The only category where a positive predisposition is observed is in clothes and shoes. In the categories, where the risks associated of purchase are arguably higher, the individuals' predisposition to buy counterfeit products is substantially lower.

When analyzing the reasons which lead consumers to purchase counterfeit products, the investigation reveals that the main drivers could be grouped into rational factors and intangible ones. The factors that consumers incorporate into their rational buying process of buying counterfeit goods are price, personal satisfaction and perceived quality. As such, the investigation suggests that Portuguese consumers of counterfeit products are not triggered by intangible reasons, but rather by more rational elements that are perceived to be more appealing compared to the original products.

The research carried out also aimed to assess the extent to which demographic factors were able to influence the purchase of counterfeit products. The results attained showed that, overall, the likelihood of purchasing counterfeit products is not constrained by demographic characteristics, as the relevance attached to the majority of push factors is not influenced by demographics. Indeed, the factors related to intangible factors (namely, fashion, exclusivity, status and brand), as well as some rational factors (personal satisfaction and perceived quality), are not determinant when the demographic profile is considered. The only exception found concerns the price, whose importance assumed in the decision to purchase counterfeit goods varies according to the consumers' age and education level. The lower price perceived in counterfeit products is particularly valued by younger consumers and the respondents that have higher education levels.

Unveiling the factors affecting the buying process could have important practical implications for different actors. Firstly, for companies and marketing professionals, in order they can define a differentiating value proposition and create a more effective communication strategy capable of highlighting the characteristics of their products, as opposed to counterfeit products. In addition, public entities could benefit from a more precise understanding of the consumers' behaviour, which could be embedded in new strategies to monitor and fight against counterfeiting in the country. This information could wither be suited for the launch of awareness-raising actions to be developed by public entities that could targeted the more sensitive groups identified by the research.

Nevertheless, some limitations can be recognized in the research, especially the characteristics of the sample that could affect the analysis of the demographic factors. In future investigations, with a more stratified random sample, it will be

possible to have more robust results. Also, it would be positive to exploit the influence of other personal characteristics, such as personality. Additionally, the study of the main risks and fears associated with the consumption of counterfeit goods could enhance the understanding of the main deterrents of counterfeiting. Finally, future investigations could either study the role of digital technologies on the consumption of counterfeiting.

References

1. Andrade, M. L., Leite, R. S. & Sousa, D. C. (2019). Ética e o consumo de produtos falsificados. *Consumer Behavior Review*, 3(1) 1-17. Doi: 10.51359/2526-7884.2019.237860
2. Anti-counterfeiting Group. (2019). Activity Report (2019). Available at https://anti-contrafacao.gov.pt/Portals/34/Documentos/GAC_Relat%C3%B3rio_Atividades_2019.pdf?ver=2020-05-08-194510-207
3. Anti-counterfeiting Group. (2020). Activity Report (2020). Available at https://anti-contrafacao.gov.pt/Portals/34/Documentos/RA%20GAC%202020.pdf?ver=IAuboq2XzzV7oUAjhLbWWQ%3d%3d
4. Anti-counterfeiting Group. (2021). Relatório de Atividades (2021). Available at https://anti-contrafacao.gov.pt/Portals/34/GAC_RA%202021.pdf
5. Babamiri, M., Moghadam, R.H., Saeidnia, H., & Zemestani, M. (2020). Relationship between personality characteristics and attitude toward purchase of counterfeit goods in the Iranian population. *Cogent Psychology*, 7(1), 1779000. DOI: 10.1080/23311908.2020.1779000
6. Bian, X., & Veloutsou, C. (2017). Consumers' attitudes regarding non-deceptive counterfeit brands in the UK and China. In *Advances in Chinese Brand Managem*ent (pp. 331-350). Palgrave Macmillan, London.
7. Bian, X., & Moutinho, C. (2009). An investigation of determinants of counterfeit purchase consideration. *Journal of Business Research*, 62, 368-378.
8. Bloch, P. H., Bush, R. F., & Campbell, L. (1993). Consumer "Accomplices" in Product Counterfeiting: A Demand-Side Investigation. *Journal of Consumer Marketing*, 10(4), 27–36. DOI: 10.1108/07363769310047374
9. Coates, R. (2019), Are there counterfeits in your global supply chain? Technical report, *Logistics Management*, August.
10. Cordell, V. V., Wongtada, N., & Kieschnick Jr, R. L. (1996). Counterfeit purchase intentions: role of lawfulness attitudes and product traits as determinants. *Journal of Business Research*, 35(1), 41-53. DOI: https://doi.org/10.1016/0148-2963(95)00009-7
11. Davcik, N., Sharma, P., Chan, R. & Roy, R. (2019). An introduction to the special issue on the past, present and future research on deliberate lookalikes. *Journal of Product and Brand Management*. 28(6), 701-706.
12. Eisend, M. (2016). Morality Effects and Consumer Responses to Counterfeit and Pirated Products: A Meta-Analysis. *Journal of Business Ethics*, 1-23.
13. Eisend, M., & Schuchert-Güler, P. (2006). Explaining Counterfeit Purchases: A Review and Preview. *Academy of Marketing Science Review*, *10*, 214-229.
14. Eisend, M., Hartmann, P., & Apaolaza, V. (2017). Who Buys Counterfeit Luxury Brands? A Meta-Analytic Synthesis of Consumers in Developing and Developed Markets. *Journal of International Marketing*, *25*, 89-111.

15. Elsantil, Y., & Hamza, E.A.A. (2021). A review of internal and external factors underlying the purchase of counterfeit products. Academy of Strategic Management Journal, 20(1), 1-13.

16. Eremeeva, J. P. (2019). Three essays on luxury counterfeit consumption by GCC nationals. Business Administration. Université Paris Sciences et Lettres. English.

17. EUIPO & EUROPOL. (2022). Intellectual property crime threat assessment 2022, Publications Office of the European Union. DOI: 10.2814/830719

18. EUROPOL/Office for Harmonisation in the Internal Market. (2016). *2015 situation report on counterfeiting in the EU*. The Hague: EUROPOL/OHIM.

19. Freitas Santos, J. & Cadima Ribeiro, J. (2006). An exploratory study of the relationship between counterfeiting and culture. *Tékhne-Revista de Estudos Politécnicos*, 3(5-6), 227-43.

20. Freitas Santos, J. & Cadima Ribeiro, J. (2006a)). International counterfeiting in the European Union: a host country approach. *Journal of Euromarketing*, 16(1-2), 165-176. DOI:10.1300/J037v16n01_12

21. Gani, M. O., Alam, M. I., & Faruq, M. O. (2019). Factors affecting consumers' purchase intention for counterfeit luxury goods in Bangladesh. Innovative Marketing, 15(4), 27-41- Doi: 10.21511/im.15(4).2019.03

22. Ha, S., & Lennon, S. J. (2006). Purchase Intent for Fashion Counterfeit Products: Ethical Ideologies, Ethical Judgments, and Perceived Risks. *Clothing and Textiles Research Journal*, *24*, 297–315.

23. Kim, H. & Karpova, E. (2010). Consumer attitudes toward fashion counterfeits: application of the theory of planned behaviour. *Clothing & Textiles Research Journal*. 28(2), 79-94.

24. Large, J. (2019). The consumption of counterfeit fashion. In the Consumption of Counterfeit Fashion (pp. 93-101). Palgrave Pivot, Cham. DOI: https://doi.org/10.1007/978-3-030-01331-8_5

25. Latif, O. B., Yigit, M. K. & Kirezly, O. (2018). A review of counterfeiting research on demand side: Analyzing prior progress and identifying future directions. *Journal of World Intellectual* Property, 21, 458-480.

26. Lee, S-H & Yoo, B. (2010). A review of the determinants of counterfeiting and piracy and the proposition for future research. *The Korean Journal of Policy Studies*, 24(1), 1-38.

27. Li, E. P. H., Lam, M., & Liu, W. S. (2018). Consuming counterfeit: A study of consumer moralism in China. International Journal of Consumer Studies, 42(3), 367-377. DOI: 10.1111/ijcs.12428

28. OECD/EUIPO. (2019). Trends in Trade in Counterfeit and Pirated Goods, Illicit Trade, Publishing: Paris/European Union Intellectual Property Office. DOI: https://doi.org/10.1787/g2g9f533-e

29. OECD/EUIPO (2021), Global Trade in Fakes: A Worrying Threat. Illicit Trade. OECD Publishing, Paris. DOI: https://doi.org/10.1787/74c81154-en.

30. Pueschel, J. (2020). I Want It All and I Want It Now. Motivations of Counterfeit Luxury Consumption Among GCC Consumers. *Management International/International Management/Gestiòn Internacional*, *24*, 36-48. https://doi.org/10.7202/1077432ar.

31. Staake, T., Thiesse, F., & Fleisch, E. (2009). The Emergence of Counterfeit Trade: A
32. Literature Review. *European Journal of Marketing*, *43*, 320-349.

33. Thaichon, P., & Quach, S. (2016). Dark Motives-Counterfeit Purchase Framework: Internal and External Motives behind Counterfeit Purchase via Digital Platforms. *Journal of Retailing and Consumer Services*, *33*, 82-91.

34. Tóth, Z. (2012). Surveys on consumers' awareness and attitudes in relation to counterfeiting in Hungary. Advisory Committee on Enforcement, 8th session, Geneva. WIPO (World Intellectual Property). Retrieved from: https://www.wipo.int/ edocs/mdocs/mdocs/en/wipo_ace_8/wipo_ace_8_4.pdf

35. Tseng, W.-Y., Chiu, W. and Leng, H.K. (2021), A comparative study of consumers' intention to purchase counterfeit outdoor products in Taiwan and Hong Kong, *Journal of Asian Business and Economic Studies*, 28(3), 162-176. https://doi.org/ 10.1108/JABES-02-2020-0011.

36. Viot, C., Roux, A. L., & Krémer, F. (2014). Attitude towards the purchase of counterfeits: Antecedents and effect on intention to purchase. *Recherche et Applications en Marketing* (English Edition), 29(2), 3-31. DOI: 10.1177/ 2051570714533474

37. Wee, C., Ta, S. & Cheok, K. (1995). "Non-price determinants of intention to purchase counterfeit goods: an exploratory study", International Marketing Review, Vol. 12 No. 6, pp. 19-46. DOI: 10.1108/02651339510102949