

A Data Analytics Approach to Detecting Counterfeit Luxury Goods: Analyzing Material Descriptions and Visual Patterns

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ARTICLE INFO ABSTRACT

Received: 15 April 2024

Revised: 12 May 2024

Accepted: 26 June 2024

The counterfeiting of products via e-commerce platforms is a distinct and growing trend in the counterfeit trade. Along with identifying areas for more research, this study also found gaps in the disjointed corpus of existing information on online product counterfeiting. Specifically, the authors demonstrate that customer preference for a fake brand and the ensuing decline in their liking for the genuine brand are both higher when their attitude towards luxury brands serves a social-adjustive rather than a value-expressive function. This study proposes to investigate the ways in which social and personality characteristics impact the views of US consumers towards luxury brand counterfeits and the ways in which these two sets of variables impact the intention to buy. It gives a profile of those who purchase and do not purchase luxury brand counterfeits. Known scales were used to create a self-administered questionnaire. A poll was carried out using the "mall intercept" technique in downtown New York. Data analysis was done using a range of statistical methods. The results cannot be applied to other overseas markets or the whole US since they are restricted to US customers in New York. Furthermore, only high-end brands get accepted consideration. Future studies have to look at additional categories of goods and cultural environments. The study offers a comprehensive insight of how US consumers feel about premium brand counterfeits. In order to assist eliminate or at least reduce counterfeiting activities, the study results may be utilised to develop solutions for academics, practitioners, and—above all—policy makers. This report concentrated only on luxury goods, whereas earlier research concentrated on music and other digital media piracy and counterfeiting. Additionally included as an antecedent to attitudes and intentions to acquire counterfeit goods is status consumption.

Keywords: : E-Commerce, Counterfeit Trade, Counterfeit Brand, Luxury Brands, Statistical Techniques, Expressive Function, Purchase Intention, International Markets, US Consumers

I. INTRODUCTION

Trade in counterfeit goods, or illegal copies of branded goods sold on the black market, has grown to be a major globally financial issue [1]. Businesses with global operations are worried about the rising rate of counterfeiting not only because imitations directly reduce sales but also because they think that counterfeit goods might damage brands and businesses by devaluing the authentic items [1, 2]. The consequences of counterfeiting are more detrimental to the businesses that produce the original goods than beneficial, regardless of whether buyers see counterfeits as trial or experimental versions and eventually want to buy a real one. Global counterfeiting poses such a serious threat to multinational corporations that international economic cooperation and multilateral agreements (such as the North American Free Trade Agreement, [2], the European Union, and the General Agreement on Tariffs and Trade) have made intellectual property rights protection their top priority. Therefore, minimising harm to companies requires a decrease in the demand for fake goods globally.

Those who intentionally buy counterfeit goods generally choose luxury goods with phoney brands, such designer clothing, watches, sunglasses, and wallets or purses. Earlier research has tried to create profiles of these customers in order to better target them with anti-counterfeiting programmes [2, 3]. These profiles are based on the

demographic and psychographic traits of the customers. Numerous research has looked at these traits, but as multiple qualitative assessments have pointed out, their results are inconsistent and fragmented, leaving a vague image of the people who buy counterfeit goods.

It's interesting to note, however, that the fight against counterfeiting seems to be failing, especially in marketplaces for luxury items where buyers often buy fakes with knowledge. Notwithstanding the efforts made by the majority luxury brand marketers, the International [2, 4]. Counterfeiting costs this business up to \$12 billion annually. This implies that reducing the world's ravenous need for fake goods is crucial to defeating counterfeiting, at least in luxury markets [40, 41]. However, a comprehensive and practical understanding of the reasons behind customers' acquisition of luxury goods that are counterfeit (henceforth referred to as counterfeit brands) is still elusive [2, 3].

Since the market for fake brands depends on customers' demand for authentic luxury goods, knowledge about the reasons behind luxury brand purchases is especially important for comprehending the driving forces behind the purchase of fake brands [39, 40]. Multiple research studies indicate that, [3, 4], putting quality concerns aside, customers usually use these brands to further a number of significant goals in society. This article's main thesis is that customers are more likely to purchase counterfeit goods because of these societal incentives. With reference to the functional theories of attitudes, [4, 5], we specifically suggest that the social functions that underlie consumers' attitudes towards luxury brands determine both their desire for counterfeit brands and the degree to which the availability of such counterfeits changes their preference for the real companies.

Products manufactured illegally that seem like the real thing but are usually of poorer quality in terms of effectiveness, dependability, [2, 5], or durability are called counterfeits. In contrast, things that are perfect replicas of the original are known as pirated goods, and they are usually restricted to technology areas like software [4, 6].

One of history's oldest crimes is counterfeiting [7, 8]. The most common and ancient kind of counterfeiting is probably cash. The practice of forging luxury goods began in 27 B.C. When a Gaulish wine trader sold cheap local wine as pricey Roman wine by forging markings on wine amphorae. Counterfeiting had grown so widespread by the thirteenth century [8] that in several European nations, duplicating important trademarks was now a crime punishable by death or torture [39].

Both deceptive and nondeceptive counterfeiting are possible from the standpoint of the consumer [8, 9]. Purchases made in industries including automobile components [9, 10], consumer electronics, and medicines are often examples of deceptive counterfeiting, in which the buyer is unaware that the product they are purchasing is a fake. Customers are usually aware that they are buying counterfeit goods in other categories, but [38]. This study focuses on non-deceptive counterfeiting, which is especially common in luxury brand markets where consumers can frequently tell the difference between authentic and counterfeit products based on price, distribution channels, and the lower quality of the product [11].

Interestingly, however, during the last several years, the quality of fake goods has been constantly rising and is now, in some circumstances, on par with the original brand [1]. This is mostly due to the fact that many luxury brand marketers have shifted to outsourcing manufacture in an effort to save production costs. Some firms that manufacture luxury goods that are outsourced, for example, have included a "ghost shift" into their production lines in order to create fake goods that they can resell for larger profits. These counterfeits are often made using the same designs, moulds, and specs as the original brands, even if they nevertheless usually use subpar materials. Consequently, [2], the line between counterfeit and authentic in the case of many premium goods is becoming less binary and more of a continuum [40, 41].

There are four kinds of criteria that have been associated in previous study to the choice to knowingly buy counterfeit goods. The first group, [2, 3], labelled person, comprises attitudes towards counterfeiting [34, 38] together with demographic and psychographic factors. In earlier research, for example, those who buy counterfeit goods are less well-off and have more positive opinions about counterfeiting.

Under this heading is also research that relates customers' perceptions of counterfeit goods to their purchasing decisions. The second group concentrates on features including cost, distinctiveness, and accessibility [3]. Unsurprisingly, there is a negative correlation between the price of the authentic brand and the possibility that buyers

would purchase a counterfeit one. The social and cultural context—which includes everything from shopping environment to cultural norms—in which the choice to acquire counterfeit goods is formed is included by the third and fourth categories. Customers are more inclined to buy a fake brand, for example, when they have a more positive reaction to the retail environment.

According to functional theories of attitudes, attitudes have several psychological purposes, including assisting individuals in maintaining their self-esteem (ego defence function), obtaining rewards and avoiding punishments (utilitarian function), and organising and structuring their surroundings (knowledge function) [4, 6]. Important social roles are also played by attitudes, such as promoting self-presentation (social-adjustive function) and permitting self-expression (value-expressive function). It has been shown that a wide variety of consumer behaviours, such as product assessments, processing of advertising messages, and even the interval between durables purchases, are based on these social functions of attitudes [28, 38].

These many purposes or objectives that attitudes serve, as opposed to just attitude valence or strength, are implicated by the functional theories as important factors in the relationship between attitude and behaviour [5]. According to studies, consumers who possess attitudes that serve a social-adjustive function are more receptive to appeals involving image or product form because these appeals align with their social objective of presenting a certain image in social contexts [42]. Customers with attitudes serving a value-expressive function, on the other hand, are more receptive to messages that highlight intrinsic features of products, like quality or dependability (i.e., product function appeals), because these messages are easier to understand in terms of their underlying values and disposition [38, 37].

These distinctions are anticipated to apply to luxury brand situations as well: Value-expressive attitudes towards luxury brands will encourage consumers to purchase these products for reasons related to product functioning, or more precisely, quality, while social-adjustive attitudes towards luxury brands will encourage consumers to purchase these products for reasons related to form or image [4, 6]. Therefore, social-adjustive attitudes towards luxury brands should be linked to a greater preference for counterfeit brands since they are made to resemble luxury brands (i.e., high resemblance in terms of product form) but are usually associated with lower quality (i.e., low resemblance in terms of product function) than value-expressive attitudes.

As the third-biggest consumers of high-end clothing, accessories, and other luxury items worldwide, the United States has proven to be a profitable market for the trade of luxury goods [8]. The market is expected to continue increasing by an estimated 25% yearly and is now producing over \$2 billion in sales annually. A widespread counterfeiting sector like this might hurt earnings and appeal to investors from other countries. It could also jeopardise the reputation of luxury goods made both domestically and internationally.

While previous study has focused on the manufacturing side of counterfeiting, more and more studies are focusing on the behavioural aspects of counterfeiting by consumers [42]. Price factors and non-price variables including attitudes and ownership of luxury counterfeit goods have been the subject of additional investigation in many cultural settings [12]. The goal of this study is to address the need for further research on the behavioural intents of customers who actively seek out counterfeit goods and make purchases in spite of the possibility of criminal consequences. The findings would enable practitioners and policymakers to develop more potent tactics to lessen the US counterfeiting scenario. It looks at the attitudes of US customers towards buying premium brand counterfeits [13].

Therefore, this research has four goals [11]. First, it looks into how US customers' "attitudes towards luxury brand counterfeits" relate to their "social and personality factors." Building on earlier studies, the variable of "status consumption" is included to more accurately predict US consumers' purchase patterns. Second, it looks at the connection between customer sentiments and the desire to buy premium brand counterfeits. Third, it investigates how "social and personality factors" and "purchase intention towards luxury brand counterfeits" are related [12, 13]. Finally, it assesses the distinctions between the features of consumers and non-consumers of luxury brand counterfeits.

What determines an attitude's societal purpose? Numerous research show that the individual consumer (i.e., personality traits) is the primary element dictating the goals that attitudes fulfil in a given consuming situation [14]. The product category, brand positioning, promotional signals, and social environment are examples of situational

elements that may also be important [15]. If customers' predilection for counterfeit luxury products fluctuates with the social functions underpinning their attitudes, then a luxury brand marketer may be able to influence their desire for counterfeit brands via the marketing mix by understanding the situational drivers of these functions [16]. This is on top of the comparatively immutable character attributes of customers. We next discuss how the attitude function-driven demand for phony brands is impacted by two specific components of the marketing mix: advertising content and brand conspicuousness [36, 38].

Luxury businesses may now more effectively support the word-of-mouth marketing strategy thanks to the rise of social media. One of the most important sources of market knowledge for customers nowadays is interpersonal conversation about goods and services [15]. According to a 2018 study, 40% of luxury purchases are impacted by what customers see online, highlighting the significance of social media and online platforms for a premium brand's exposure and standing. Conversely, social media offers luxury firms a potent instrument for market research on consumer trends and behaviours. Recent fashion shows, new product releases, or celebrity appearances may influence social media conversations among consumers.

The relationship between brands and consumers has been the subject of several well-known research, and the idea that consumers are identity-seekers explains their obsession with brands [17]. According to identity theory, people's identities are dynamically constructed from the meanings they get from their own experiences or from social interactions. The traits, social interactions, and roles that characterize a person are what determine their identity. Customers buy brands based on the underlying meanings they are connected with and use these meanings to construct their identities [17], and brands have the power to reinforce these meanings [16]. "We are what we possess," implying that a consumer's identity is shaped and reflected by a variety of facets of consumption, including purchasing and owning brands [18]. This kind of identity includes the many perspectives (often referred to as "multiple selves") that people hold or strive towards. These impressions inspire customers to buy items from companies whose images are closely linked to their identities.

Because luxury branded items are utilised by a small number of individuals [11], they are more equipped to express and develop identities and transmit meaning than other branded products. This is because they communicate unique connections about the customers who use them. Prior studies have shown that customers utilise luxury goods to show off their income, style, taste, and social standing, or to indicate that they belong to desired groups. Additionally, brands are appreciated because they reflect the values and beliefs of their target audience [13]. Brands are also used by consumers to communicate their sense of self. Consumer characteristics that are positively associated with a desired identity that customers may express and create via luxury brand consumption include fashion expression, status-seeking, and innovativeness [37].

Many people turn to counterfeit brands in order to establish their personality since authentic luxury goods are expensive. Unauthorised imitation of a branded goods—that is, a product with a trademark—sells on the black market is known as a counterfeit product. In addition to being real, counterfeit goods are offered for less than the original product's price and mimic a material or symbolic worth that may be shown and shared with other customers.

The majority of the things that are counterfeited are luxury goods that are consumed in a visible manner, such designer clothing, jewellery, watches, and shoes, and are often purchased on the black market. When people buy fake goods (such prescription drugs or auto parts) without realizing it, it might be dishonest. The majority of study, however, focuses on non-deceptive counterfeiting; [10] buyers of such products are aware that they are getting counterfeit goods since they are marketed on the black market and cost far less than the real product.

Depending on whether these brands and products offer identity-consistent or identity-inconsistent signals, consumers' psychographic traits—such as integrity or innovativeness—determine which brands they choose when they try to express and encourage their identities through the purchase of brands, including counterfeit luxury brands [12]. For instance, customers who buy brands that let them exhibit their statuses as part of their personal identities do so because of the psychographic trait of status-seeking.

Numerous psychographic factors that influence how consumers react to fake goods have been examined in earlier research. Customers' lifestyles and personalities are referred to as psychographic variables, which represent the aspects of individual differences in their propensity to exhibit consistent patterns of thoughts, feelings, and

behaviours: fashion-seeking, innovativeness, integrity, materialism, risk aversion, self-concept, status-seeking, smart shopping, and susceptibility. While some psychographic factors influence the purchase of counterfeit goods because they are associated with the positive identity signals that these brands might provide (such as status-seeking or astute purchasing), other factors discourage the purchase of counterfeit goods because they offer negative identity signals [14].

Many computer users buy products via eCommerce sites, which increases the risk of exposing them to fake goods such as luxury goods and medications. Online counterfeiting will always be a shifting target since online product information may be altered to seem like a real listing. Efforts to combat counterfeiting are more complicated than ever because of the actions of fraudulent merchants. Deceptive and nondeceptive marketplaces are the two primary groups into which counterfeit commerce falls.

The goal of the dishonest market is to create or manufacture fake goods that are hard to spot or distinguish from the real thing [18]. The original product may be differentiated from the nondeceptive commercial products. According to early studies in this field, internet counterfeiters use a variety of techniques to pass for authentic goods. In order to identify several strategies that counterfeiters often use; we concentrated on a large online marketplace in our exploratory research [20].

Counterfeits are copies of a registered brand that are almost identical to the original product. This includes trademarks, branding, and packaging [21] that purposefully masquerade as the original goods. Piracy and counterfeiting are essentially the same thing since they both involve making exact replicas of genuine goods. It has been said that these two words are interchangeable [22]. But the majority of piracy is associated with software and material on fixed media, such as movies and music recordings.

Moreover, counterfeiting differs from other types of intellectual property violations, such as the sale of items on the black market. Used scales to test grey market goods for counterfeits, which are unquestionably distinct in their definition and characteristics. While counterfeiting entails creating an illicit replica of the original product, grey market items are, by definition, overruns from outsourced manufacturers that are supplied via unapproved means [7].

The symbolic value of genuine luxury goods is diminished by counterfeit goods, which also weaken brand equity. Since fake goods are less costly than authentic ones, there may not be a discernible difference in perceived quality, which will cause real luxury brand equity to erode. Luxury goods, for example, are more likely to be bought by consumers if they include a fashion element [10]. Without paying for the associated quality, consumers are prepared to pay for the visual features and functionalities. Additionally, consumers are anticipated to choose fake goods with well-known brand names that have some significance for them. This serves to further the idea that illicit manufacture solely targets well-known or valuable brand names.

Because they believe they are less immoral or violating the law, consumers who use situational ethics justify buying counterfeit goods. Customers feel less accountable for their position as counterfeit customers as a result [19]. Major businesses may not be affected by the perceived minor loss of earnings, demonstrating a lack of concern for the use of counterfeit products. While several metrics have been created to assess sentiments around the acquisition of pirated software, consumer attitudes toward premium brand counterfeits are currently being tested. Individuals' behavioural views and attitudes around counterfeiting might be the subject of studies. Furthermore, compared to pirated software, the characteristics of counterfeit products (such as quality, texture, [14], status signalling, etc.) are more variable and easier to identify.

Despite being a worldwide issue, counterfeiting varies in severity throughout nations [12]. The levels of intellectual property rights enforcement in some countries and seizures data from customs authorities suggest that counterfeiting is more common in developing economies, which are both seeing large increases in exports and creating favourable conditions for counterfeiting, even though precise numbers are unavailable. Over the last 15 years, there has been a significant change in the players and conduits of global commerce and counterfeiting, from developed to emerging economies [13]. The majority of counterfeiting research, in spite of this, has concentrated on consumer samples from a single nation.

Numerous examples of how consumer behaviour differs in established and developing countries can be found in the literature on international marketing. Standardization in worldwide marketing is hindered by the disparity in customer backgrounds, necessitating the use of adaption tactics [10]. Consumers may not be persuaded to purchase counterfeit goods unless the particular requirements of people from various markets and demographics are completely recognized and satisfied.

Since many customers in emerging nations have lesser incomes, they are unable to afford genuine luxury brands. Since they are unable to construct their identities via authentic brands, they are more likely to buy fake luxury goods that send out positive signals, such as status symbols, value expression, or passports to a desired global citizenship [20].

For instance, when consumers present counterfeit brands as authentic, they give the impression that they are wealthy enough to purchase the legitimate branded goods, which reinforces a status-seeking persona and acts as a status signal [22]. Buying the real brand requires a certain budget, and if customers have enough money to buy it, they are no longer in need of buying the fake version and often do not buy counterfeit goods again. Using the real brand avoids the negative signals of fake brands (such as lack integrity) while yet producing equivalent positive signals.

II. LITERATURE REVIEW

Louis, A. (2022) [18] One of the main concerns in supply chain management (e.g., food, cosmetics, pharmaceuticals, etc.) is product traceability. Traceability improves communication and risk management by enabling targeted product recalls that pose a health concern (such as counterfeit goods), according to many studies. The capacity to monitor and trace specific objects during their entire lifespan, from production to recycling, is one definition of it. This covers both historical data (traceability) and real-time data analytics on the behaviour of the product. In addition to proposing a common traceability system design, this article compares several efforts on product traceability.

Moutinho, L. (2011) [19] This research aims to determine the factors that influence the purchase intention of both CBP owners and non-owners, as well as the effects of ownership of counterfeit branded goods (CBP) on BP. A quantitative survey of 430 persons in Glasgow, UK, evaluating consumers' brand impressions of CBP and BP, CBP non-deceptive ownership, and CBP purchase intention, was performed after four focus group talks. Except for financial risk and security issues, consumers' opinions of BP were found to be more positive than those of CBP. CBP owners and non-owners were shown to have significantly different perceptions of CBP. On the other hand, customers' opinions of BP were not significantly impacted by CBP ownership. A number of perceptual aspects seemed to have a major impact on CBP behavioural intention, with brand personality being the most important. There was no proof that CBP ownership and customers' opinions of CBP interacted to influence CBP purchase intention.

Masouras, D. (2022) [20] Today, counterfeiting occurs in many different sectors and has serious repercussions for supply chain operations. Consumer products including apparel, food and drink, accessories, electronics, medications, and luxury items are all susceptible to product counterfeiting. The ongoing supply chain breaches have made it necessary to mobilize all parties concerned in order to confront the problems posed by counterfeiting. In order to ensure safe and sustainable supply chain operations, effective traceability seems to be the only method to counteract this situation. The organized literature study on traceability strategies for addressing the issue of product supply chain counterfeiting that resulted in the creation of a structured categorization framework is presented in this research. The conducted research may serve as a reference for actual programs aimed at combating supply chain counterfeiting and seeks to uncover patterns and best practices.

Checchi, E. (2016) [21] In order to combat the spread of counterfeit products across different industries, this paper aims to provide an overview of the methods (i.e., technologies and processes) that might be used. At various levels, counterfeit items may be identified and their circulation controlled using a variety of methods. Among the methods and strategies surveyed in this report are: a) goods authorization methods, which can be used to differentiate between authentic and fake goods; b) supply and distribution chain control technologies, which can be used to detect counterfeit goods entering the supply chain through a legitimate distribution channel; c) container tracking and sealing technologies and processes; d) e-commerce website analysis technologies, which can be utilized to identify counterfeit product sellers; and d) organizational organization and procedure preparation.

Sørensen, T. J. (2017) [22] In addition to having significant economic ramifications, product counterfeiting poses a risk to public safety and health. One possible approach to product authentication is the use of anti-counterfeiting tags with physical unclonable functions (PUFs). A stochastic approach that produces a large number of resilient PUF tags is required to construct PUFs, which are distinct random physical patterns of taggants that are impossible to replicate. With the right analytical equipment, a PUF tag's physical pattern may be read, recorded, and saved. The stored pattern serves as the "lock," while the PUF tag serves as the "key."

Drèze, X. (2010) [23] This study presents the concept of "brand prominence," which refers to how noticeable a company's mark or emblem is on a product. According to their wealth and status needs, the authors propose a taxonomy that places consumers into four groups. They also show how each group's preference for luxury goods with prominent or subtle branding correlates predictably with their desire to associate or disassociate with members of their own and other groups. Low-status wealthy customers like to be with their own kind and pay more for discreet products that only they can identify. To let the less fortunate know they are not among them, wealthy customers with a strong demand for status utilize ostentatious luxury items.

Rossy, Q. (2017) [24] Crypto markets are darknet-based online marketplaces that make it easier to trade a range of illicit items, mostly narcotics. Although the literature mostly focuses on narcotics, these markets also sell a variety of other items and products linked to identity or financial fraud, guns, counterfeit goods, and doping products. This study offers an examination of the structure of trafficking (product categories and proportions, number of sellers, and shipping nations) by analyzing pertinent data gathered on Evolution, a well-known marketplace in 2014–2015. Additionally, it seeks to draw attention to regional trends in the trafficking of these goods (such as trafficking flows, vendor specialization, and evaluation of their function in the supply chain).

2.1 Hypothesis

H1a: Consumer perceptions of luxury brand counterfeiting are negatively impacted by normative and information susceptibility.

H1b: Collectivism positively affects how consumers feel about premium brand counterfeits.

H1c Value awareness influences consumers' perceptions of luxury brand counterfeits in a good way.

H1d: Novelty seeking influences consumers' perceptions of premium brand counterfeits in a good way.

H1e: Integrity has a detrimental effect on how consumers feel about premium brand counterfeits.

H1f: Personal satisfaction has a detrimental impact on how consumers feel about premium brand counterfeits.

H1g: Consumer perceptions of luxury brand counterfeits are negatively impacted by status consumption.

H2 Purchase intention and attitude toward luxury brand counterfeits are significantly correlated.

H3: Purchase intention toward luxury brand counterfeits is significantly correlated with social and psychological variables, including information susceptibility, normative susceptibility, collectivism, value awareness, novelty seeking, integrity, personal pleasure, and status consumption.

H4: Compared to non-purchasers, consumers of luxury brand counterfeits have more favourable opinions about them.

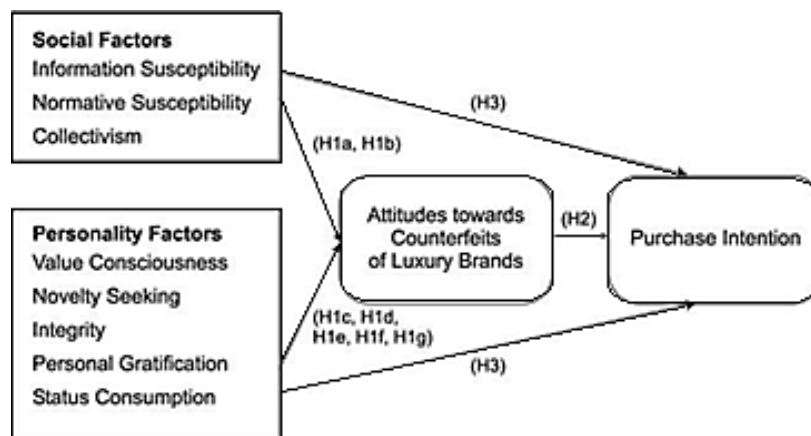


Fig. 1 Model of Attitudes Regarding Luxury Brand Counterfeits.

III. METHODOLOGY

3.1 Data collection

A mall interception at a large retail centre in the US city of New York was used to gather data. Customers were asked to fill out a questionnaire that they could do on their own [23]. A request to participate was made of every fifth person who passed a predetermined area outside the mall's main entrance. Interviewers received training and instructions prior to data collection on how to administer the survey instruments and include respondents with varying demographic characteristics [24, 25].

Over the course of two weeks, data was gathered on both weekdays and weekends. Only 14% of the buyers who were surveyed consented to participate [21]. In this scenario, the study aims to assess attitudes and consumer purchase intention, which may be connected to the population of interest by measuring consumers' attitudes and perceptions in a mall or shopping-related setting [20, 21]. Considering that the majority of earlier studies employed student samples, this improves ecological validity.

3.2 Survey Instruments

A qualified native speaker of English created the survey instrument and translated it into the US. After that, it was re translated by a second qualified translator who looked for errors [22]. The five divisions included demographics and established scales. Table 1 reflects the scale items' descriptions and reliability [23, 24].

Table 1 Measurement scale items' sources and α coefficients.

Scale Measure	Sources	No. of items	α coefficient
Susceptibility to information	[14]	4	0.196
Normative susceptibility	[12]	4	0.795
Collectivism	[10]	5	0.218
values awareness	[19]	4	0.254
Integrity	[26]	4	0.326
Personal gratification	[22]	5	0.218
Novelty seeking	[30]	4	0.965
Status consumption	[28]	5	0.548

Perceptions Regarding Luxury Brand Counterfeiting	[11]	7	0.846
Purchase Intention	[31]	4	0.215

IV. FINDINGS AND DISCUSSION

4.1 Samples

Out of 270 surveys, 68 replies were eliminated because they were incomplete or the respondents were not US citizens [25]. Using SPSS Version 14, the remaining 202 valid replies were examined. Table 2 displays the sample distribution between purchasers and non-purchasers. Men made up 58.4 percent of the respondents. There were more purchasers than non-buyers, which is indicative of the high rates of counterfeiting in the United States [25]. As seen in Table 2, 74.2 percent of purchasers were between the ages of 21 and 35 [28, 30].

Table 2 Distribution of the sample between consumers and non-consumers of premium brand counterfeits.

Items		Non-buyers (n=51; 26.36%)	Buyers (n=151;79.88%)
Gender	F	29.7	46.8
	M	71.8	55.9
Age	Under 21	9.89	9.8
	21-35	68.9	75.8
	36-45	14.5	13.5
	46 above	6.98	2
Occupation	Business	27	26.5
	Self-employed	15	14.5
	Executive	10	10.3
	Engineering	9	9.8
	Others	38	45
Income	Under RMB 50,000	55	58.9
	RMB 50,000- RMB 100,000	23	28.9
	RMB 100,001- RMB 150,000	15	3.6
	RMB151,000 and above	9	9.8
Education Level	Diploma or certificate	31	25.6
	Bachelor degree	62	58.9
	Postgraduate level	6	10.5

	Others	8	8.9
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4.2 Perceptions of premium brand counterfeits

The original 10-item scale measuring attitudes toward luxury brand counterfeits was subjected to an exploratory factor analysis. Two components, "perceptions of counterfeits" and "social consequences," were identified by Varimax rotation [25]. As shown in Table 3, they were ultimately whittled down to seven items with a range of reliabilities that was deemed acceptable. It is evident that opinions on premium brand counterfeits are two-dimensional. For all ensuing regression analyses, these two components were thus employed separately [14, 15].

Table 3 Factor Analysis of Perceptions of Luxury Brand Counterfeits.

Items	Factor Loadings	
	F1- Perceptions of counterfeits	F2- Social Consequences
Luxury brand counterfeits are just as trustworthy as the real thing.	0.255	
Luxury brand counterfeits are of comparable quality to the real.	0.214	
Counterfeits of luxury brands provided similar functions to the original version	0.359	
Intellectual property is violated when luxury brand counterfeits are purchased.		0.580
Purchasing counterfeit premium labels will harm the market for luxury items.		0.490
Purchasing premium brand counterfeits harms the rights and interests of the genuine, original producer.		0.492
It is against the law to buy expensive brand counterfeits.		0.549
The proportion of variance	38.365	25.259
Eigenvalue	0.189	2.959
Cronbach's α	0.415	0.419
Cronbach's α	0.595	
KMO	0.148	
Barlett's test of sphericity	0.000	0.000

4.3 How societal and personal characteristics affect "perceptions of counterfeits"

H1a–H1g were tested using stepwise regression between the factor of "perceptions of counterfeits" and "personality and social factors." Status consumption and "perceptions of counterfeits" are positively correlated, according to Table 4's data ($b = 0.601$, adjusted $R^2 = 0.283$) [16, 18]. Normative susceptibility, information susceptibility, and novelty seeking are the other important components; their total adjusted R^2 is 0.367. Thus, H1a has some support. Because of the lack of a substantial correlation between collectivism, value awareness, integrity, and personal pleasure, H1b, H1c, H1e, and H1f are disregarded [18].

4.4 Social and personality traits' effects on "social consequences"

The component "social consequences" and "personality and social factors" were compared using stepwise regression in order to assess H1a 2 H1g. With an adjusted R² of 0.263, integrity is the most important factor, according to the findings in Table 4 [20, 21]. Value awareness, status consumption, and personal pleasure are the other important components; their combined adjusted R² is 0.376. Table 4, [22] shows that novelty seeking, normative and information susceptibility, and collectivism have no meaningful link with "social consequences"; as a result, H1a, H1b, and H1d are rejected.

Table 4 Regression in Steps Findings about the variables affecting two aspects of attitudes toward luxury brand counterfeits.

	<i>B-values</i>	<i>Standard error</i>	β	<i>Adjusted R²</i>	<i>t-value</i>	<i>Significances</i>
Perceptions of counterfeit products	-0.419	0.521	-0.415	0.489	0.485	-0.416
Consumption of status	-0.978	-0.369	0.265	-0.261	0.215	-0.502
Searching for novelty	0.049	0.490	-0.789	0.578	-0.263	0.210
Normative susceptibility	0.541	-0.441	0.415	-0.648	-0.485	-0.648
Susceptibility to information	-0.699	0.219	-0.621	0.268	0.478	0.263
Social repercussions	0.693	-0.495	0.489	-0.548	-0.326	-0.254
Integrity	-0.149	0.471	-0.156	0.658	0.145	0.541
Individual satisfactions	-0.325	0.526	-0.795	0.564	-0.582	-0.962
Consumption of status	0.659	-0.218	-0.460	-0.215	-0.211	-0.362
Value awareness	-0.149	0.369	0.626	0.636	0.632	0.251

4.5 Association between purchase intention and perceptions of premium brand counterfeits

A regression analysis was performed between the two variables of attitudes and intention to buy about luxury brand counterfeits [23, 24]. Both variables are significant, with "social consequences" accounting for an R² of 0.024 ($p < 0.025$, $b \pm 0.2085$) and "perceptions of counterfeits" accounting for an R² of 0.740 ($p < 0.000$, $b \pm 0.861$). Customers' opinions about counterfeit goods seem to influence their propensity to buy [25]. The "social consequences" of buying premium brand counterfeits, however, seem to discourage buyers from making the purchase, but the correlation is not very strong. Consequently, our results support H2.

4.6 Social and personality characteristics' effects on intention to buy

The relationship between social and psychological traits and the desire to buy luxury brand counterfeits was examined using stepwise regression. Status consumption, integrity, value awareness, normative susceptibility, and information susceptibility were shown to have significant associations with purchase intention, as shown in Table 5 [23]. Because status consumers are more inclined to buy luxury brand counterfeits, status consumption is shown to be the most important factor ($p, 0.000$, $b \pm 0.448$, $R^2 \pm 0.325$) [25,26].

Table 5 Stepwise Regression Analysis of Purchase Intention-Relating Factors.

	<i>B-values</i>	<i>Standard error</i>	β	<i>Adjusted R²</i>	<i>t-value</i>	<i>Significances</i>
Status consumption	0.629	0.012	0.214	0.121	5.142	0.000
Integrity	0.415	0.241	0.211	0.215	3.251	0.004
Value consciousness	0.625	0.215	0.321	0.201	4.590	0.001
Normative susceptibility	0.015	0.326	0.215	0.550	5.646	0.059
Information susceptibility	0.541	0.412	0.213	0.253	4.699	0.054

Customers who scored well on normative susceptibility ($p = 0.001$, $b = 0.341$) and value awareness ($p = 0.011$, $b = 0.203$) are more likely to make a purchase. Customers with high ratings for honesty ($p = 0.003$, $b = 0.20242$) and information susceptibility ($p = 0.003$, $b = 0.20240$) are less likely to make a purchase [18, 26]. Personal satisfaction, collectivism, novelty seeking, and purchasing intention are not significantly correlated. H3 is thus partly supported.

4.7 Disparities between those who purchase premium brand counterfeits and those who do not

Consumers' opinions regarding counterfeit goods vary from those of non-consumers Table 6. Compared to non-buyers, consumers believe luxury brand counterfeits to be equally dependable ($x = 3.83$ and 3.80), have comparable functionalities ($x = 4.46$ and 4.27), and have comparable quality ($x = 4.07$ and 3.86) [25, 27]. Regarding the element of "perceptions of counterfeits," H4 is approved. According to the findings about the "social consequences" of views toward luxury brand counterfeits, there is no discernible difference between purchasers and non-buyers [28, 29]. The beliefs of both categories of customers are that counterfeit products violate intellectual property, harm the rights and interests of genuine and original producers, harm the luxury goods sector, and are against the law [30].

Table 6 Attitudes of Consumers and Non-Consumers Regarding Luxury Brand Counterfeits.

Measures	Non-buyers	Buyers	t-value
Factor- 1 Views on Counterfeiting			
Luxury brand counterfeits are of comparable quality to the real.	3.69	4.08	-0.362**
Luxury brand imitations provide comparable purposes to the genuine.	4.52	5.10	-0.054**
Luxury brand counterfeits are just as trustworthy as the real thing.	3.69	3.69	-0.840**
Factor- 2 Social Consequences			
Intellectual property is violated when luxury brand counterfeits are purchased.	2.50	2.65	-3.519
Purchasing counterfeit premium labels will harm the market for luxury items.	2.19	2.35	-3.215
Purchasing premium brand counterfeits harms the rights and interests of the genuine, original producer.	2.50	2.18	-3.648
It is against the law to buy expensive brand counterfeits.	2.46	2.98	-3.202

V. DISCUSSION

Purchase intentions and customer perceptions of counterfeit goods are shown to be influenced by normative susceptibility. In order to impress others, consumers sometimes feel the need to buy premium products [31, 32]. But

since the originals are so expensive, people often turn to fakes. Companies that sell luxury brands may make their items more affordable for customers by extending their brands and obtaining specific licenses.

Regarding information susceptibility, it has also been shown that buyers who base their decisions on the professional judgment of others are less likely to buy premium brand knockoffs [25]. Therefore, consumers should be informed about the adverse effects by the policy makers of the appropriate governmental agencies. Customers should be informed of the safety and quality requirements for counterfeit goods, for example. Celebrities and public figures are examples of endorsements that might convey credibility [25, 26].

Value-conscious buyers are more inclined to buy luxury brand counterfeits, according to the research [28]. Reiterating advertising slogans like "the best clone would not be close to an original" to highlight the superiority and worth of the original brand is one strategy to counteract this behaviour.

The societal repercussions of customer views regarding luxury brand counterfeits are shown to be significantly influenced by integrity [30, 32]. This is in line with comparable findings from other studies. Therefore, it is important to emphasize teaching consumers on ethics and morality from a social policy perspective. Not only should educational programs be offered in schools, but also to workers in domestic enterprises, tourism-related businesses, and global corporations.

Particularly at this age when learning is still growing more quickly, it must begin from the very beginning. From the standpoint of management, as past research has shown, giving the influences a more "human face" will increase customer empathy [33]. Advertisements for counterfeit goods that highlight the long-term effects of counterfeiting on the economy and the possibility of unemployment may be used to introduce this.

It is crucial to remember that the issue of counterfeiting affects both the producers and the consumers of fake goods [34]. The belief that luxury brand producers are making undue profits from the high cost of these products may erode consumers' loyalty to premium brand counterfeits.

The self-fulfilling prophesy that they are doing nothing wrong is therefore used by customers to defend their purchase. Luxury brand companies should think about projecting a sense of social responsibility and high ethical standards in order to attract customers. It seems that status consumption regularly affects "perceptions of counterfeits" and "social consequences" based on attitudes toward luxury brand counterfeits [31, 33]. Interestingly, however, buyers who are looking for prestige are more inclined to see luxury brand counterfeits favourably. The only reason is that a growing number of US customers are getting affluent, and there is a more conscious urge to show off this status [34, 35]. However, due to the region's and the US's robust economic development, the wealth disparity is becoming bigger.

Similarly, the findings show that the intention to buy premium brand counterfeits is influenced by status consumption. The prestige and status symbol that the luxury brand implies should be emphasized by its owners. A key component of deterring counterfeiting would be highlighting the importance placed on "mianzi," or face, by US customers.

The difference in how authentic and counterfeit brands are perceived in terms of quality, dependability, and functioning has been a topic of significant discussion in the past [35, 36]. It is true that luxury brand counterfeits in the US are surprisingly excellent quality; in fact, some even have "grading systems" linked to them to distinguish more superior counterfeits from worse ones. Because of the reduced pricing and compatibility with the genuine version's features, buyers are more inclined to buy an imitation.

It would also be possible to adopt other social policy measures. It is unfortunate that consumers and non-consumers have similar opinions on the moral and societal problems associated with counterfeit goods, including the violation of intellectual property rights [27, 37]. While it is beneficial to inculcate fear of the penalties and criminal penalties associated with counterfeiting, other avenues for altering consumer behaviour may also be investigated. A regulation that would penalize both purchasers and sellers for purchasing or selling counterfeit goods should be implemented by the US government. Since both parties should be held accountable, such tactics should be used to deter the "demand" and "supply" sides of counterfeiting.

VI. CONCLUSION

In conclusion, customer perceptions of luxury brand counterfeits clearly have a significant impact on consumers' intentions to make purchases. Ethical and legal issues have less of an impact on consumers than their views of premium brand counterfeits. Customers' opinions and buying intentions are primarily influenced by two factors: "integrity" and "status consumption." Compared to non-buyers, purchasers had more favourable opinions of counterfeits in terms of their quality, dependability, and functioning, which is in line with other studies. The results also support earlier research showing that, when assessing the social effects of counterfeiting, there is no discernible difference in the views of buyers and non-buyers.

The concepts of materialism and "face consumption" may be further examined to see whether they have an impact on US consumers. Another option is to concentrate on foreigners who visit or live in the United States and purchase fake luxury goods. Because travellers on vacations are likely to feel excited and soften their ethical perspective, examining environmental circumstances and mood states may provide different findings.

Deeper insights could be gained from further research that looks at customer purchasing patterns for counterfeit goods utilizing qualitative methods. This research shows that customers' honesty influences their propensity to buy, but it may not be the same for other product categories like software and pirated CDs. To find out whether consumers also possess counterfeit goods, actual ownership may be quantified.

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