



# Survey the Effect of Product Knowledge, Brand Image, Product Involvement, and in Explaining Consumer Purchase Behavior of Counterfeit Products (Case Study: Perfume in Iran)

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## Original Article

### Abstract

Today, the importation of products with counterfeit brand is constantly increasing and, in some case, recognizing them is too difficult by customers. In some cases, people buy a product although they know that it is a counterfeit one. Presents paper looks for studying brand image, direct/indirect impacts of product contribution and product cognition on intent to buy products with counterfeit brand. The aim is to study the conceptual model and developed hypotheses based on current literature. In this paper, four groups are studied. Conceptual model and experimental hypothesis are evaluated by a hierarchical regression analysis through the data from 218 perfume consumers in Isfahan and Tehran provinces. Research findings indicate that brand personality plays a vital role in intent to buy products with counterfeit brand more than other factors. While product contribution and cognition play no vital role in intent to buy counterfeit brands. Therefore, products with counterfeit brand are not studied as a product but also, more importantly, as a brand (counterfeit brand). The value of present research compared to previous ones is that they have considered counterfeit products only in terms of a product while present study is a few one that has investigated the brand of counterfeit products.

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Counterfeiting, Brand image, Consumer behavior, Counterfeit Branded Products, perfume

## INTRODUCTION

Today, counterfeiting is considered as an important economical phenomenon. Valid commodities with trademarks such clothes, shoes, perfumes and even certain medicines are sold to credulous people who think that have conducted good transaction while they have helped fraudsters by drawing their monies to their accounts. They not only cheat original manufacturers by aggressing their intellectual property but also fraud consumers by selling products with counterfeit brands and even expose customers to risks in some cases. Skin

injuries resulted from consuming counterfeit jewellery and perfumes and watches, medical poisoning and irrevocable chronic symptoms are a part of such big cheating. This a global problem which influence over all people because that when intellectual property is violated and jobs are lost, businesses are destroyed and cheated consumers lose their trust to original products while counterfeit product manufacturers are only looking for their income [1]. Higher demand for counterfeit branded products (CBPs) has caused that studying affecting factors on CBP consumers' buying behavior would be more

valuable than before. Current studies have highly neglected the impact by brand on CBP consumers' buying behavior [2].

Counterfeit is to supply a product with the name of original brand in lower prices. Counterfeit products involve a similar or non-identifiable brand from the registered brand. They violate the rights of brand owner [3]. Between 1984 through 1994, the value of counterfeit products has grown 11% in global market. According to International Commerce Chamber, counterfeit constitutes 8% of global trading [4].

In global level, selling counterfeit products is estimated \$300 billion. Obviously, counterfeit is changed to considerable phenomenon in past two decades. Although manufacturing and selling counterfeit products are considered as crimes in several countries (i.e. USA and UK), previous studies indicate that about one third of consumers buy such products deliberately without considering the potential outcomes of counterfeiting [5]. Since demand is always a major factor in the market, some authors have argued that consumer's demand for counterfeit products is one of the major reasons for counterfeiting phenomenon existence and growth. Academic literature indicates that the concentration is more on supply rather than demand [6]. Intent to buy counterfeit products not only shows decision making in selecting a product, but also indicates decision making on a brand [7]. Therefore, present paper attempts to have new glance to counterfeit products demand aspect. The aim of present study is to investigate the impacts by product cognition, product contribution, brand image and counterfeit brand by consumers as well as the interactions among such variables and their effects on consumers' intent to buy counterfeit products.

There are different aspects of counterfeit among which two aspects are paid more attention. One is cheating or combining counterfeit by which the consumers do not aware the reality that they are buying counterfeit products instead of original ones and the consumer cannot be considered as responsible for such behavior and non-cheating counterfeit by which the consumers buy counterfeit products intentionally [8].

### Brand image

Due to the concentration of different researches, brand image is contractually defined in different moods. Due to lack of a firm and radical foundation where a concept can be shaped, authors tend to use brand image and other alternative concepts like brand personality. Aaker has alarmed on "brand image trap" in brand personality and brand management relevant literature. He clarifies that brand image and brand personality are two

different concepts [9]. Brand image is "how the brand is understood by customers?" it relates to those concepts on brand that remain in consumer's memory [10]. Brand personality is an exclusive set of brand related concepts to which brand strategists are interested to keep or remain and it shows to what brand is created and the promise occurred between organizational members and customers [11].

Three key components of brand image are brand personality, perceived product attributes and the benefits/consequences of using a brand [12].

Brand personality causes that the consumer exposes him/her or a certain aspects of him/her. As a symbolic function, it helps to distinguish consumers and to integrate them. Brand personality represents brand values and the image drawn by ordinary consumers may be an ideal image for other consumers [13]. Previous studies indicate that brand desired personality is the central runner of consumers' priorities and habits because that consumers relate more to a desired group or ideal image. Product attributes can be classified in different ways. Keller believes that product attributes include its describing characteristics. Stokmans says that a product can be seen as a set of intrinsic and extrinsic attributes or as a set of conceived attributes. Present research uses Stokmans' attitude [20].

Product intrinsic attributes include information that relates to the product directly.

Product extrinsic attributes include information that relate to a product indirectly.

Such thinking is in line with some previous studies and information [14].

Perceived advantages are what consumer conceives that a product can do for him/her. They relate to products perceived attributes and brand personality. In decision making process, consumers consider perceived advantages. Such advantages relate to counterfeited branded products. In fact, advantages mean what consumers believe that CBPs can bring for them. Benefits are what consumers look for it through buying a product/brand. Such benefits are directed toward the values consumers wish [15].

Usually, product contribution refers to consumers' long term perception on the importance of a group of products based on his/her inner needs, values and interests. Product contribution is widely used as an explanatory variable for consumers' behavior.

It is proved that contribution level determines depth, complexity and broadness of cognitive/behavioral processes in consumers' selections. Therefore, product contribution is a central and vital framework to conceive consumers' buying decision behavior and related issues

[16]. Thus, when product contribution is high, it is likely that consumers assess counterfeit branded products against their counterparts, namely, original ones.

Processing advising information includes studying current precise information and analyzing positive/negative attributes of costs and interests so that consumers can distinguish and perceive the differences between counterfeit branded products from original ones and give lower priority to counterfeit branded products compared to original ones [21].

On the other hand, when product contribution is low, consumers' attempts and even abilities to process the information would decrease due to lack of motivation and one may not be able to distinguish easily counterfeit branded products from original ones [22]. As a result, consumers' brand image on counterfeit branded products and original ones may not be established in such cases that would lead to a more desired perception to counterfeit branded products compared to original ones [17].

Consumers' product cognition is recognized as an attribute which impacts on all steps of decision making process. Consumers with different product cognition level have different perceptions on a product.

Consumers with higher levels of product cognition have a more developed and complicated pattern with more formulated decision making criteria. When they process the information, they need lower cognitive effort since the relevant cognitive structure can become active automatically and they can process more information [18].

### Hypotheses

H1. Consumers' utility level to brand personality of counterfeit branded products has a positive relationship to intent to buy counterfeit branded products.

H2. Consumers' perception on product attributes has a positive impact on intent to buy counterfeit branded products.

H3. Consumers' perception on product benefits and advantages has a positive impact on intent to buy counterfeit branded products.

H4. There is a negative relationship between product contribution and consumers' perception on the brand image of counterfeit branded products.

H5. There is a negative relationship between product contribution and intent to buy counterfeit branded products.

H6. There is a negative relationship between consumers' cognition on product and the perceived brand image of counterfeit branded products.

H7. There is a negative relationship between product cognition and consumers' intent to buy counterfeit branded products

### Mediating impacts

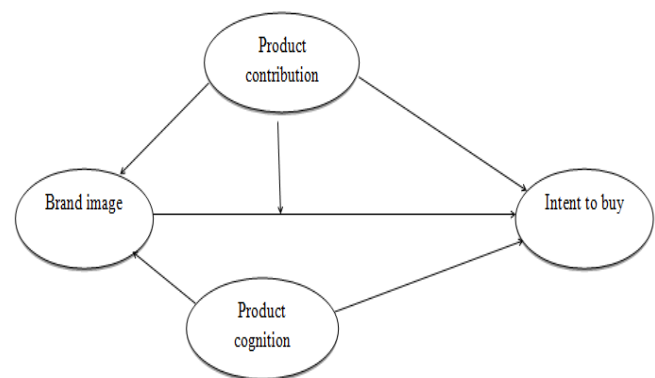
Mediating impacts occur when an independent variable impacts on a dependent variable through the effect on middle variables or as their results.

H8. There is a relationship between product cognition and intent to buy counterfeit branded products due to consumers' perception on brand image.

H9. There is a relationship between product contribution and intent to buy counterfeit branded products due to consumers' perception on brand image.

H10. When product contribution is high, the positive impact of perceived brand image (attributes, advantages /disadvantages of the product and brand personality) and intent to buy counterfeit branded products is stronger than when product contribution is lower.

### Conceptual Framework



**Figure 1.** The assumed relationship between product contribution, product cognition, brand image and intent to buy

### Brand selection

Aim: studying Versace counterfeit perfumes as a well-known brand in perfume industry and with highest counterfeit products in perfume market. This brand is selected due to easiness and broadness of its counterfeit and existence its counterfeit perfumes. It is considered as a luxury brand and one can find both counterfeit and original products in Iran while it is too difficult to distinguish them.

### Methodology and samples

Tehran and Isfahan are the main cities in which both original and counterfeit branded products can be seen in their shops. Initially, the authors attend in 20 randomly selected shops. However, only 6 shops announced their readiness to cooperate with us for data collection. They include two relatively small shops in residential areas; two medium size shops with daily 10 million Rials sale; 1 shopping center which seemed

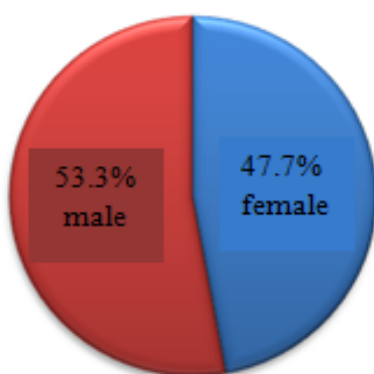
an expensive shop and 1 shop in suburb with a low price strategy.

The sample consists of 300 consumers of whom 210 provided us with usable answers. The sampling was conducted in 21 days including weekends and in all working hours of shops through stimulant based approach (providing respondents with counterfeit products before filling the questionnaire).

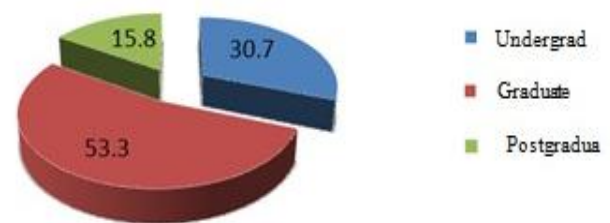
Research clarifying components include product contribution, production cognition and brand image. Likert five-range scale (1 = extremely disagree and 5 = extremely agree) was used to devise research questionnaire which was distributed among respondents. Respondents were selected among perfume shops' clients and necessary care was given in terms of gender, age group, income and social class in order to keep the balance of the sample. The average age of respondents was 31 years old and their average income was 12,400,000 Rials. 53.5% of respondents were male and 47.7% were female. The traits of subjects are shown in table 1.

**Table 1.** The attributes of subjects

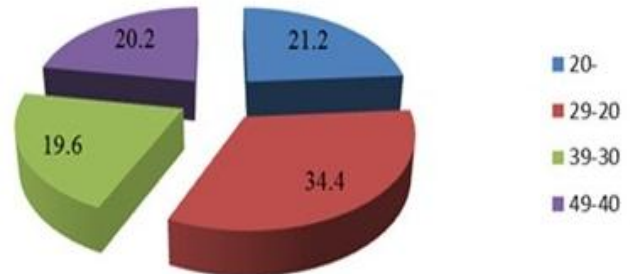
| Variable            | Total subjects | N   | (%)  |
|---------------------|----------------|-----|------|
| Gender              | 210            |     |      |
| Female              |                | 98  | 47.7 |
| Male                |                | 112 | 53.3 |
| Age                 | 210            |     |      |
| -20                 |                | 50  | 23.8 |
| 20-29               |                | 69  | 32.8 |
| 30-39               |                | 44  | 20.9 |
| 40-49               |                | 47  | 22.3 |
| Education           | 208            |     |      |
| Undergraduate       |                | 64  | 30.7 |
| Graduate            |                | 111 | 53.3 |
| Postgraduate        |                | 33  | 15.8 |
| Household income    | 198            |     |      |
| -500000             |                | 39  | 19.6 |
| 500,000 – 1,000,000 |                | 68  | 34.4 |
| 1,000,000-2,000,000 |                | 51  | 25.7 |
| +2,000,000          |                | 40  | 20.2 |



**Graph 1.** Distribution of respondents in terms of gender



**Graph 2.** Distribution of respondents in terms of education



**Graph 3.** Distribution of respondents in terms of age

### Stimulus based approach

Versace counterfeit perfumes were given to participants (stimulus based approach). Then, they were asked to talk and judge on the relationship between initial items and brand image. Discussions with participants on counterfeit products were taped and executed. The result was the extraction of 19 items on brand image for counterfeit perfumes.

**Table 2.** factors extracted from stimulus based approach

| Row | Variable                                                      | Dependency                  | 1    | 2    | 3    | 4    | 5    | 6    |
|-----|---------------------------------------------------------------|-----------------------------|------|------|------|------|------|------|
| 1   | Expensiveness                                                 | Original product properties | 0.63 |      |      |      |      |      |
| 2   | Proper package                                                | Original product properties | 0.65 |      |      |      |      |      |
| 3   | Long-standing                                                 | Original product properties | 0.78 |      |      |      |      |      |
| 4   | Made in Italy                                                 | Original product properties | 0.81 |      |      |      |      |      |
| 5   | Qualitative raw materials                                     | Original product properties | 0.67 |      |      |      |      |      |
| 6   | The smell I like.                                             | Practical attributes        |      |      |      | 0.69 |      |      |
| 7   | Proportionate to my gender.                                   | Practical attributes        |      |      |      | 0.72 |      |      |
| 8   | The content of bottle                                         | Practical attributes        |      |      |      | 0.72 |      |      |
| 9   | Worth of paid money                                           | Satisfied value             |      |      | 0.60 |      |      |      |
| 10  | It causes superiority and difference                          | Satisfied value             |      |      | 0.69 |      |      |      |
| 11  | Paid money and the product are in line with personal prestige | Satisfied value             |      |      | 0.67 |      |      |      |
| 12  | It is you inner mood                                          | Mental value                |      | 0.48 |      |      |      |      |
| 13  | It give the feeling of uniqueness                             | Mental value                |      | 0.58 |      |      |      |      |
| 14  | It attracts others' support                                   | Mental value                |      | 0.76 |      |      |      |      |
| 15  | It gives you prestige                                         | Mental value                |      | 0.82 |      |      |      |      |
| 16  | Throw off and grow weary of after a while                     | Mental value                |      |      |      |      |      | 0.85 |
| 17  | It may not be what you want                                   | Mental value                |      |      |      |      |      | 0.67 |
| 18  | The feeling of happiness                                      | Stimulation                 |      |      |      |      | 0.78 |      |
| 19  | The feeling of youngness                                      | Stimulation                 |      |      |      |      | 0.87 |      |



How to summarize the information

To summarize obtained data on the brand image of Versace counterfeit perfumes, principal component analysis is utilized.

Reliability and validity

To study the reliability and validity of all factors and scales, Principal Factor Analysis as well as Chronbach's alpha analysis and, if possible, Pearson correlation analysis (when the aim of analysis is to clarify the structure) were utilized. However, the commonest preferred method is PFA. The findings indicate that all unilateral scales with current data are reliable except than satisfied profitability that it's Chronbach's alpha value is 0.66.

## RESULTS

We would compute the correlation of Versace counterfeit perfume with each construct:

**Table 3:** The relationship between counterfeit perfume and constructs

| Construct                  | Variance | Correlation coefficient | Factors | KMO  |
|----------------------------|----------|-------------------------|---------|------|
| Product contribution       | 59%      | 0.91                    | 10      | 0.90 |
| Product cognition          | 60%      | 0.77                    | 4       | 0.71 |
| Intent to buy              | 84%      | 0.95                    | 5       | 0.89 |
| Personality                | -        | 0.57                    | 2       |      |
| Product's major properties | -        | 0.79                    | 5       |      |
| Product's attribute        | -        | 0.70                    | 3       |      |
| Practical value            | -        | 0.31                    | 2       |      |
| Satisfied value            | -        | 66/0                    | 3       |      |
| Mental value               | -        | 0.75                    | 4       |      |
| The number of respondents  |          |                         | 120     |      |

### Reviewing research hypotheses

#### Hypothesis 1

H1. Consumers' utility level to brand personality of counterfeit branded products has a positive relationship to intent to buy counterfeit branded products. The findings partly support this hypothesis as one of the aspects of brand personality which impacts remarkably on the intent to buy Versace counterfeit perfumes.

#### Hypothesis 2

H2. Consumers' perception on product attributes has a positive impact on intent to buy counterfeit branded products. The findings indicate that product's technical specifications not general attributes impact on intent to buy Versace counterfeit perfumes.

#### Hypothesis 3

H3. Consumers' perception on product benefits and advantages has a positive impact on intent to buy counterfeit branded products. The findings support this hypothesis relatively. This model shows that advantages/interests (satisfied profit) factors impact on intent to buy counterfeit products. People buy more counterfeit perfumes when they feel that they would achieve more profit

#### Hypothesis 4

H4. There is a negative relationship between product contribution and consumers' perception on the brand image of counterfeit branded products. The findings do not support this hypothesis and state that counterfeit brand perceived image is not changing by product contribution level.

#### Hypothesis 5

H5. There is a negative relationship between product contribution and intent to buy counterfeit branded products. The findings do not support this hypothesis and state that product contribution has no significant impact on intent to buy counterfeit branded products.

#### Hypothesis 6

H6. There is a negative relationship between consumers' cognition on product and the perceived brand image of counterfeit branded products. The findings support this hypothesis relatively. Product cognition relates to consumers' perception on product attributes negatively. More consumers' cognition would make it more likely to consider counterfeit branded products in lower degrees in terms of general attributes of the products (i.e. packaging, material quality, etc.).

#### Hypothesis 7

H7. There is a negative relationship between product cognition and consumers' intent to buy counterfeit branded products. The findings do not support this hypothesis and state that even aware consumers may buy counterfeit branded products.

#### Hypothesis 8

H8. There is a relationship between product cognition and intent to buy counterfeit branded products due to consumers' perception on brand image. The findings support this hypothesis.

Although product cognition is considerably related to one proposed mediator, it has no impact on result variable.

#### Hypothesis 9

H9. There is a relationship between product contribution and intent to buy counterfeit branded products due to consumers' perception on brand image.

Product contribution has not considerable relation to result variable. Therefore, hypothesis 9 is not supported.

H10. When product contribution is high, the positive impact of perceived brand image (attributes, advantages/disadvantages of the product and brand personality) and intent to buy counterfeit branded products is stronger than when product contribution is lower. The findings indicate that there is no evidence to show that product contribution can impact on consumers' perception on counterfeit branded products. Therefore, hypothesis 10 is no supported.

## CONCLUSION

Noteworthy, research findings do not support most hypotheses. However, it can show the entrance of counterfeit branded products into new challenges in theoretical actions shaped in past years on nonattendance of such products. On present paper, performance interests mean Disposability and Functionality namely acceptable performance of product with short lifecycle and its disposability without paramount concern on huge financial wastes.

In fact, consumers believe that counterfeit branded products are more consumable and, to the same reason, they have more chance of selling. "High level of being consumable" and "paying only a part of a luxury and original product's price" are two properties of counterfeit products that original products will never achieve them and this is the main challenge for original manufacturers.

Marketing activities can acquire remarkable breakthroughs if they follow up an approach on highlighting the negative personality of ordinary users, brand assigners and the employees/CEOs of those companies that manufacture counterfeit products. To resolve counterfeiting problem, the present study recommends marketers/strategists of original manufacturers to think straightforwardly on the consumption by their consumers. For instance, they can use the advantages and feelings on a maxim like: "look for a real top product rather than 10 medium ones." Likewise, they can integrate anti-counterfeit initiatives with a social responsibility scheme.

Policymakers can help to resolve such problem through public awareness on the environmental concerns regarding huge volume of disposable goods. Future researches should study other big counterfeited brands to

show whether the findings of present study are extendable or not.

Since it is not yet certain whether original products are impacted by counterfeit branded products, researchers can do a before/after empirical experiment in order to study on the potential changes in consumers' perceptions on original products upon the entrance of counterfeit branded products. Present study was limited to only one brand of one product (perfume) even though it makes no barrier on the emergence of considerable results. Finally, it should be noted that perfume is less observable than other products like clothes, sun glasses, bags, etc. (often, they are extremely counterfeited).

Furthermore, only one counterfeit product version is used to stimulate the participants while there may a wide range of counterfeit products in the market as well as consumers' different perceptions on different versions of such counterfeit products. Therefore, one should be cautious in generalizing the reported findings until the confirmation of these results by other researches on other products and brands.

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