

# The Role of Product Involvement, Product Knowledge and Image of Counterfeits in Explaining Consumer Purchase Behavior

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## ABSTRACT

Counterfeiting has become a significant economic phenomenon. Because of the increased demand for counterfeit branded products, the study of determinants of consumers' counterfeit branded products purchase behavior has become more worthwhile than ever before. This research sought to investigate the impact of perceived image, mediator, and moderator effects of product involvement and product knowledge on consumer purchase intention of counterfeit products in the context of non-deceptive counterfeiting as well as explore the perceptions and attitudes of original luxury brand owners towards counterfeit luxury goods. The findings demonstrated that consumers' perceived image of counterfeit branded products has a positive influence on the purchase intention of a counterfeit branded product. The results supported the negative relationship between involvement and perceived image of counterfeit branded products. The findings also indicated that a negative relationship exists between product knowledge and perceived image of counterfeit branded products whereas consumers' perceived image of counterfeit branded products mediated the relationship between product involvement and purchase intention of counterfeit branded products. Finally, the findings highlighted the mediating role of consumers' perceived image of counterfeit branded products in the relationship between product knowledge and purchase intention of CBP.

**KEY WORDS:** Brands, brand equity, consumer behavior, counterfeiting.

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## INTRODUCTION

Recently, counterfeiting of brand name goods appears to have increased, making counterfeiting a significant and growing problem worldwide as it occurs in both less- and well-developed countries.<sup>[1]</sup> Past research suggests that about one third of consumers would knowingly purchase counterfeit goods regardless of the potential consequences associated with counterfeit goods. Since demand is always the key driver of a market, a number of researchers have argued that consumer demand for counterfeit goods is one of the leading causes of the existence and upsurge in growth of the counterfeiting phenomenon.<sup>[2]</sup>

Many persons purchase branded goods for the purpose of demonstrating to others that they are consumers of the particular good. Names such as "Calvin Klein" and logos such as the LaCoste crocodile are displayed on the outside of clothes, and many consumers seem to value this display. This change in motives for consumption may have increased the amount of counterfeiting of trademarks.<sup>[3]</sup> By definition, counterfeits are those products bearing a trademark that is identical to, or indistinguishable from, a trademark registered to another party, thereby infringing the rights of the holder of the trademark. A counterfeit must copy a trademarked brand.<sup>[4]</sup> The International Anti Counterfeiting Coalition (IACC) estimates that 5-7 percent of world's trade is in illegitimate goods. Trade in counterfeit goods has reached \$600 billion annually on a worldwide basis. This problem has grown over 10,000 percent in the past 20 years, partly due to an increase in consumer demand.<sup>[5]</sup>

The highest profile counterfeit investigations and prosecutions have focused luxury goods.<sup>[5]</sup> Luxury brands are those whose ratio of functional utility to price is low while the ratio of intangible and situational utility to price is high. That is to say, price is not the prime issue for status consumers.<sup>[6]</sup> Luxury items are bought for what they mean, beyond what they are.<sup>[7]</sup> Thus, symbolism shapes the luxury character of a brand, enabling luxury brands to maintain status and demand premium prices.<sup>[6]</sup> Not only wealthy people consume status products; regardless of their economic level, consumers may desire to buy and display products that project an image of wealth, and people may use status symbols to denote belonging to a social class.<sup>[8]</sup>

Recently, luxury producers have found that the trend toward casual dressing has forced people to search for new ways to set themselves apart and express their personality. This shift has led to an increasing demand for luxury accessories such as belts, handbags, wallets and pens, which can be easily worn on casual dress days.<sup>[9]</sup> Counterfeit handbags are the most widely copied product. Kate

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Spade executives believe that the sales ratio of real bags to counterfeits is one-to-one. Indeed, counterfeit luxury items have become a multi-million dollar business for traffickers.<sup>[5]</sup>

Previous research has proposed a number of forms of deception, including deceptive and non-deceptive counterfeiting<sup>[10]</sup> and blur counterfeiting.<sup>[4]</sup> Deceptive counterfeiting is a situation in which the consumers are not aware of purchasing a counterfeit product at the time of the purchase. Non-deceptive counterfeiting refers to the practice of consumers knowingly purchasing counterfeit goods.<sup>[10]</sup> In many cases—especially in the luxury brand market—consumers are involved in non-deceptive counterfeiting.<sup>[9]</sup> The current research investigates the counterfeiting phenomenon in the context of non-deceptive counterfeiting to determine the role of product involvement and knowledge as well as the image of counterfeit goods in purchasing behavior of counterfeit branded products (CBP).

Since the special characteristics of luxury brands are prestige and rarity, it would seem that counterfeit goods may negatively affect the image of the original and, hence, the desire to own the original.<sup>[9]</sup> This research investigates whether the proliferation of counterfeit goods impacts the special equity of luxury brands. The other purpose of this study is to determine how consumers of true original products feel about their authentic goods when they see counterfeit goods. Do counterfeit luxury goods lead to reduced demand for authentic luxury goods and pose the risk of lowering the brand equity for authentic luxury good purchasers? By conducting this research, manufacturers and distributors of authentic luxury branded products will have a better understanding of the effects of counterfeiting on the demand for authentic luxury brands.

#### *Image of counterfeit and authentic luxury products*

By using status goods as symbols, individuals communicate meaning about themselves to their reference groups. Many consumers purchase luxury goods primarily to satisfy an appetite for symbolic meanings. Their results suggest that a status label or image associated with a product is frequently valued more than the product itself. Given that people desire to associate with the current social class position they are in or the class above them, they are more likely to buy branded products (BP) that convey affluence, wealth, and social class. Some consumers are motivated by a desire to impress others. With the ability to pay high prices, this form of consumption of luxury goods becomes a display of wealth.<sup>[2]</sup>

Although the product category has an obvious impact on purchase intentions, whatever their nature and price, all products sold under the same brand name share a symbolic identity and a core of values expressing the essence of that brand. More than other products, luxury items are bought for what they mean, beyond what they are.<sup>[7]</sup> Buying luxury brand products enables consumers to meet psychological needs by symbolizing a certain consumption pattern and portraying a specific social class or by communicating meaning about their self-image and enhancing their self-concept.<sup>[9]</sup> Consumers seek to benefit when purchasing a product/brand. These benefits lead to certain end states or values that consumers wish to achieve. In relation to CBPs, benefits are what consumers believe the CBPs can bring them.<sup>[2]</sup>

Numerous previous studies have demonstrated a positive relationship between perceived benefit and consumer decision making. Prior research reveals that consumers who willfully buy a CBP believe they are getting the prestige and quality<sup>[10]</sup> of the BP for a fraction of its price.<sup>[2]</sup> Based on the literature, the following hypothesis is proposed:

H1. Consumers' image of CBPs has a positive influence on the purchase intention of a CBP.

The involvement construct originates from the discipline of psychology. Involvement is the personal relevance of an object based on inherent needs, values and interests.<sup>[11]</sup> Therefore, involvement is understood as the importance, interest, attachment, and/or motivation manifested toward an object.<sup>[12]</sup> Consumer involvement is a widely known construct representing the importance of a product or service to a consumer.<sup>[13]</sup> Involvement is significantly related to product evaluations.<sup>[4]</sup> Several researchers have used product involvement to explain consumer behavior<sup>[12]</sup>. When consumers are not highly involved with the product, they make a decision based merely on situational variables, but when highly involved, the self-concept and consumption situation are determinant factors for the brand choice.<sup>[14]</sup>

Past research has established that the level of involvement determines the depth, complexity, and extensiveness of cognitive and behavioral processes during the consumer choice process. Therefore, product involvement is a central framework, vital to understanding consumer decision-making behavior as well as associated communications.<sup>[4]</sup>

The impact of involvement on purchase intentions is important for marketers to understand, and ample evidence suggests that involvement does impact behavior. In fact, one would expect an involvement measure to bear a strong relationship to purchase intent. Yet models for predicting

purchase intentions conflict, central cues related to brand beliefs, and attitudes are generally considered to exert the most immediate impact on purchase intentions under high involvement conditions.<sup>[3]</sup>

Past research suggests that, when product involvement is high, consumers have more motivation to devote cognitive effort to evaluating the true merits of a product; consumers neither desire nor are able to make a great deal of effort to process information in a low involvement situation.<sup>[15]</sup> Subjects with a low level of personal involvement with respect to a particular product should be less risk-averse in making purchase decisions.<sup>[16]</sup> Deliberative information processing involves the scrutiny of available information and an analysis of positive and negative features, such as costs and benefits.<sup>[4]</sup> Since CBPs are low grade BPs<sup>[9]</sup>, when product involvement is low, the differences between CBPs and BPs might not be easily recognized given consumers' lack of motivation, effort, and even capability in relation to processing information. Consequently, consumers' perceived image of a CBP and a BP might not differ significantly under these circumstances, which will lead to more favorable perceptions of the CBPs than the BPs.<sup>[2]</sup> This leads to our second hypothesis:

H2. A negative relationship exists between product involvement and consumers' perceived image of a CBP.

Consumers look for more personal, experimental, and symbolic gain in high involvement situations than they do in low involvement situations, rather than maximizing product functionality.<sup>[17]</sup> When product involvement is high, consumers are more likely to regard a CBP as a product of low price and low quality, meaning CBPs will not give the personal pleasure, excitement, and status desired by consumers. Thus, consumers will have a lower level of purchase intention of CBPs if product involvement is high.<sup>[2]</sup> Based on this, the third hypothesis is as follows:

H3. A negative relationship exists between product involvement and consumer purchase intention of a CBP.

#### *Product knowledge*

In previous research, consumer knowledge was categorized hierarchically in four levels: the product class, product form, brand, and model/features. The product class and the product form knowledge are both about product category information and are grouped together as "product knowledge". Product knowledge refers to information about product categories—either the most general category or subcategories stored in a consumer's memory.<sup>[18]</sup>

Prior knowledge is the information stored within memory. This construct is considered to be an important variable influencing consumer behavior and in many cases serves as a moderator.<sup>[12]</sup> Consumer product knowledge is a key characteristic that influences all phases of the decision process.<sup>[19]</sup> Consumers with various levels of product knowledge vary in their perceptions of a product.<sup>[4]</sup> Consumers with higher levels of product knowledge have better-developed and more complex schemata with well-formulated decision criteria. When they process information, less cognitive effort is required, and relevant knowledge structures can be activated automatically, enabling them to process more information.<sup>[20]</sup> Given better-developed and more complex schemata, consumers with higher levels of product knowledge have better cognitive capacity to evaluate comparative alternatives.<sup>[2]</sup>

Consumers with higher levels of product knowledge are more diagnostic and informed than those who have lower levels of product knowledge. Thus, the higher the level of product knowledge a consumer possesses, the less chance he/she will generate evaluation bias, with the result that knowledgeable consumers are likely to appreciate that CBPs are low-grade BPs. Self-perceived knowledge operates as a direct positive influencer of purchase intentions for original branded durable products.<sup>[21]</sup> In the context of non-deceptive counterfeiting, consumers with higher levels of product knowledge are able to evaluate CBPs more accurately and become less favorable and amenable to CBPs than to BPs. Thus, they should give less approval to the grade of CBPs and show less preference for CBPs.<sup>[2]</sup> Accordingly, the next pair of hypotheses is as follows:

H4. A negative relationship exists between product knowledge and consumers' perceived image of a CBP.

H5. A negative relationship exists between product knowledge and consumer purchase intention of a CBP.

#### *Mediation and moderator effects*

Mediation effects occur when an independent variable influences the dependent variable through its effects on or as a result of a mediator variable.<sup>[22]</sup> As stated in the previous sections, product involvement/product knowledge affects individual purchase tendency of a CBP according to how consumers perceive the CBP. Following this reasoning, this study proposes that the relationship

between product involvement/knowledge and purchase intention is mediated by consumers' perceived image of a CBP. Specifically, product involvement and product knowledge are the independent variables and image serves as the mediator variable.<sup>[2]</sup> Thus, the next pair of hypotheses is:

H6. The relationship between product involvement and purchase intention of CBP is mediated by consumers' perceived image of a CBP.

H7. The relationship between product knowledge and purchase intention of CBP is mediated by consumers' perceived image of a CBP.

This study also investigates the moderator effects of product involvement. Consumers in high product involvement situations process information differently from those in low product involvement situations.<sup>[23]</sup> The Elaboration Likelihood Model (ELM) posits that high product involvement tends to engender a "general route" to persuasion, in which consumers exert the cognitive effort required to evaluate the issue from relevant arguments presented to them. When product involvement is low, consumers care less about personal and experimental gains than when product involvement is high. Thus, in deciding what to buy, consumers more often use perceived benefit information in a high product involvement situation than in a low product involvement situation. In other words, the ways in which consumers apply the influence of their perceived image of CBPs to their purchase intention of CBPs depends on the consumers' level of product involvement.<sup>[2]</sup> Therefore, the following is hypothesized:

H8. When product involvement is high, the positive effect of perceived image on consumer purchase intention of a CBP is stronger than when product involvement is low.

#### *Research questions*

Successful BPs have the highest attractiveness level for counterfeiters. In fact, the most successful brands are the primary targets of counterfeiters. It is more than likely that if BPs did not attract consumers, they would not be counterfeited.<sup>[24]</sup> Since the special characteristics of luxury brands are prestige and rarity, it would seem that counterfeit goods may negatively affect the image of the original and hence the desire to own the original. Demand-side studies have indicated that consumers make non-deceptive counterfeit purchases.<sup>[9]</sup> This research, in addition to the previously stated hypotheses, seeks to answer the following questions:

RQ1: Does the proliferation of counterfeit goods impact the special equity of luxury brands?

RQ2: Do counterfeit luxury goods devalue the sense of owning authentic luxury goods?

RQ3: Do counterfeit luxury goods lead to reduced demand for authentic luxury goods?

RQ4: Do counterfeit luxury goods pose the risk of lowering the brand equity of authentic luxury purchasers?

## **MATERIALS AND METHODS**

### *Brand and product selection*

Previous studies have demonstrated that the demand for luxury accessories such as belts, handbags, wallets, and pens, which can be easily worn on casual dress days are increasing.<sup>[9]</sup> Moreover, sunglasses, handbags and watches are heavily counterfeited.<sup>[2]</sup> Therefore, the current research focused on original and counterfeit luxury branded products including handbags, belts, watches, sunglasses, and jewelry. In order to identify the ownership of counterfeit and original luxury brand names and develop a master list of luxury brands, two reference lists were used: the top 34 international luxury brands provided by International Research Institute on Social Change (RISC) in 1995<sup>[7]</sup> and the updated list of the top 40 international luxury brands in Hong Kong in 1998.<sup>[25]</sup> The luxury brand names from the two lists were used for pretesting the knowledge and awareness of those consumers who have at least one luxury branded product (handbag, belt, watch, sunglasses, or jewelry) (see Appendix). Brands that most consumers were not aware of were deleted from the two lists. In this way, the lists of luxury brands were reduced to a more manageable list containing the top 23 luxury brands.

### *Procedure and sample*

This study was conducted in Tehran, Iran. The authors chose four upscale shopping centers for data collection; all were located in the city. The fieldworkers at the entrance of the shopping centers invited every fifth shopper who passed to answer the questionnaire. The research proceeded over a 14-day period, including weekends, weekdays, and all hours that the shopping centers were open. A total of 340 questionnaires were collected from consumers in Tehran, but only 270 of them were useable. Table1 presents the sample profile.

Table 1: Sample Profile

| Variable              | Total cases | N   | (%)  |
|-----------------------|-------------|-----|------|
| <b>Gender</b>         |             |     |      |
| Male                  | 269         | 137 | 50.9 |
| Female                |             | 132 | 49.1 |
| <b>Age</b>            |             |     |      |
| 18-24                 | 269         | 61  | 22.7 |
| 25-44                 |             | 106 | 39.4 |
| 45-64                 |             | 73  | 27.1 |
| 65 +                  |             | 29  | 10.8 |
| <b>Education</b>      |             |     |      |
| AR/ASc/AAs            | 268         | 68  | 25.4 |
| BA/BSc                |             | 145 | 54.1 |
| MA/MS                 |             | 46  | 17.2 |
| PHD +                 |             | 9   | 3.4  |
| <b>Monthly Income</b> |             |     |      |
| -500,000              | 269         | 7   | 2.6  |
| 500,000-1,000,000     |             | 43  | 16.0 |
| 1,000,000-1,500,000   |             | 75  | 27.9 |
| 1,500,000-2,500,000   |             | 70  | 26.0 |
| 2,500,000-3,000,000   |             | 43  | 16.0 |
| 3,000,000 +           |             | 31  | 11.5 |

*Research instrument*

This research used a questionnaire for data collection. Respondents were asked about their purchase frequency of luxury brands and counterfeit goods over the past three years. They were also asked to provide more specific information about the counterfeit goods and authentic items they owned. The perceived image of respondents toward original luxury brands and counterfeit goods was measured by eight dominant dimensions of image. Measure was adopted from previous research.<sup>[9]</sup> In addition, consumers’ attitudes toward authentic and counterfeit luxury products were measured using an eight-item scale adopted from previous research.<sup>[9]</sup> The next section of the questionnaire was designed to measure the purchase intention, product knowledge, and product involvement, which were adopted from existing research with necessary adaptation. Specifically, this research used the Revised Personal Involvement Inventory<sup>[26]</sup> to measure product involvement. Product knowledge was measured using a four-item scale of knowledge.<sup>[27]</sup> Finally, purchase intention was assessed using a five-item scale developed by<sup>[28]</sup>, since this was the most up-to-date purchase intention scale with reported reliability. At the end of the questionnaire, the respondents were asked to provide information about their gender, age group, education, and level of income. After developing the questionnaire, the back translation method was used to test the validity of the instrument. The authors then verified that the measures represent all facets of the given constructs by assessing the content validity of the measures using C. H. Lawshe’s widely used method. Fifteen expert raters were asked to participate in assessing the content validity of the measures and rate the items as “useful” or “not necessary.” Content validity ratios (CVRs) were reported using Lawshe’s formula for each of the measures. As all reported CVRs were more than 0.49, the instrument passed the content validity test. To assess the reliability of the instrument, a pretest with 50 participants was conducted. The reported Cronbach’s alpha for each of the variables as well as for the overall instrument was over 0.7, indicating that the instrument was reliable for data collection.

**RESULTS**

Ownership of the top 23 luxury brand names was analyzed; the results are included in the Appendix. The majority of the sample owned only one authentic luxury branded item (36.3%) while 42.2% had four or more counterfeit branded products. All authentic luxury brand names were mentioned by at least one respondent, with the exception of Nina Ricci. However, for counterfeit luxury brand names, all of the respondents owned at least one item. The respondents were asked how frequently they had purchased authentic and counterfeit luxury brands over the past three years. All respondents had purchased at least one original over the past three years while nearly 59% had purchased just one counterfeit branded product. In addition, 5.9% of respondents had purchased originals more than seven times over the past three years and only 3.3% had purchased counterfeits more than seven times for the period.

Table 2: Paired sample t-tests for counterfeit/original luxury brands

| Variable            | Mean  | Std. Dev. | t      | Sig. (two-tailed) |
|---------------------|-------|-----------|--------|-------------------|
| Quality (C-O)       | 2.100 | 1.496     | 23.061 | .000              |
| Status symbol (C-O) | 1.144 | 1.505     | 12.494 | .000              |
| Price (C-O)         | 0.407 | 1.4749    | 3.827  | .000              |
| Durable (C-O)       | 2.178 | 1.191     | 2.035  | .000              |
| Exclusive (C-O)     | 1.371 | 0.083     | 24.813 | .000              |
| Common (C-O)        | 1.489 | 0.090     | 16.527 | .000              |
| Fun (C-O)           | 1.196 | 1.193     | 16.483 | .000              |
| Prestige (C-O)      | 0.859 | 1.242     | 11.372 | .000              |

1. Perceptions of original and fake luxury brands

To compare the responses for these variables, paired sample t-tests were conducted. The results indicated significant differences on all dimensions and showed that counterfeits were less favorably evaluated than originals (see Table 2).

Table 3: Predictors of inferiority of counterfeits

| variables               | $\beta$ | T      | Sig (p<0.05) |
|-------------------------|---------|--------|--------------|
| Image of counterfeit    | 0.281   | 3.691  | .000         |
| Image of original       | 0.011   | 0.165  | n.s          |
| Purchasing originals    | -0.125  | -1.666 | n.s          |
| Purchasing counterfeits | -0.446  | -4.796 | .000         |
| Owning originals        | 0.290   | 3.087  | .002         |
| Owning counterfeits     | -0.209  | -2.812 | .005         |
| Education               | 0.044   | 0.786  | n.s          |
| Income                  | -0.186  | -2.919 | .004         |

2. Inferiority of fake luxury brands

The respondents were asked if they believed counterfeit luxury brands were "inferior" compared to original luxury brands. The independent variables were "image of counterfeits", "image of originals", "education", "income", "ownership of counterfeits " and "ownership of originals", "purchase frequency of counterfeits", and "purchase frequency of originals".<sup>[9]</sup> The results are summarized in Table 3. The model was significant and explained 18% of the total variation in "counterfeits are inferior". As it can be seen in Table 3, "owning originals" and "image of counterfeit" had strong positive effects on the perception that counterfeits were inferior (p < 0.01). Also, "purchasing originals" and "purchasing counterfeits" had negative effects on the perception that counterfeits were inferior. Furthermore, those with higher incomes had a negative view of the perception that counterfeits were inferior.

Table 4: Predictors of "devalue"

| variables               | $\beta$ | t      | Sig (p<0.05) | Collinearity tolerance | Statistics VIF |
|-------------------------|---------|--------|--------------|------------------------|----------------|
| Image of counterfeit    | 0.386   | 5.282  | .000         | 0.552                  | 1.813          |
| Image of original       | -0.194  | -2.939 | .004         | 0.680                  | 1.471          |
| Purchasing originals    | 0.104   | 1.157  | n.s          | 0.368                  | 2.716          |
| Purchasing counterfeits | -0.384  | -5.540 | .000         | 0.614                  | 1.628          |
| Owning originals        | -0.460  | -5.086 | .000         | 0.360                  | 2.774          |
| Owning counterfeits     | .151    | 2.093  | .037         | 0.568                  | 1.761          |

Table 5: Predictors of brand equity

| variables               | $\beta$ | t      | Sig (p<0.05) | Collinearity tolerance | Statistics VIF |
|-------------------------|---------|--------|--------------|------------------------|----------------|
| Image of counterfeit    | -0.242  | -3.734 | .000         | 0.552                  | 1.813          |
| Image of original       | 0.571   | 9.773  | .000         | 0.680                  | 1.471          |
| Purchasing originals    | 0.281   | 3.542  | .000         | 0.368                  | 2.716          |
| Purchasing counterfeits | -0.139  | -2.261 | .025         | 0.614                  | 1.628          |
| Owning originals        | -0.019  | -0.231 | n.s          | 0.360                  | 2.774          |
| Owning counterfeits     | 0.034   | 0.528  | n.s          | 0.568                  | 1.761          |

3. Attitudes toward authentic and counterfeit luxury brands

Three indicators of attitude toward authentic and counterfeit luxury brands were examined: brand equity, devalue, and demand. To check the reliability, the standardized alpha was measured for brand equity and devalue, which yielded acceptable values of 0.857 and 0.753. Since, demand was measured by one item, no reliability test was necessary.

- *Do counterfeit goods devalue originals?* A linear regression analysis was conducted to see if "purchasing originals" and "purchasing counterfeit" luxury goods, "owning originals" and "owning counterfeits" luxury goods, and "image of originals" and "image of counterfeit" (independent variables) were possible predictors of the perception that counterfeits "devalue" the sense of ownership of original luxury goods (dependent variable). The results are reported in Table 4, which shows that all independent variables had a significant effect on the perception that counterfeits "devalue" the sense of ownership of original luxury goods, except for "purchasing originals". The strongest positive effect belonged to "image of counterfeit" while "owing originals" had the largest negative effect. The model explained 22% of the variation in the dependent variable.

- *Do counterfeits impact brand equity?* Another regression was conducted to determine whether "image of original", "image of counterfeits", "ownership of originals", "ownership of counterfeits", "purchase frequency of originals", and purchase frequency of counterfeits " (all independent variables)

had any significant effect on “brand equity”. This model accounted for 39% of total variation in “brand equity”. The results are shown in Table 5. The results indicated that, except for “owning originals” and “owning counterfeit”, all variables were significant in explaining the changes in “brand equity”. “Image of originals” ( $\beta = 0.571$ ) and “purchasing originals” ( $\beta = 0.281$ ) had positive effects on “brand equity”, while “image of counterfeit” ( $\beta = -0.242$ ) and “purchasing counterfeit” ( $\beta = -0.139$ ) had negative effects on “brand equity”.

4. Predictors of purchase intention of “counterfeit branded products”

Two independent variables (product involvement and product knowledge) and one mediator (image of counterfeit) were considered as the main predictors of purchase intention of CBP. The current study tested the proposed model fit to observe data using the SEM technique. Research model testing and analysis were conducted through three general approaches. First, the proposed model analysis was conducted using covariance and the most widely used maximum-likelihood estimation method with LISREL 8.8. Second, the model development strategy was followed using the model re-specification procedure, which aims to identify the source of misfit and then generate a model that achieves a better fit of data. Third, following the competing model strategy, three models with different hypothetical structural relationships were compared and tested against each other in order to determine the mediating role of image of counterfeit between independent variables and purchase intention of CBP, the ultimate dependent variable. The un-dimensionality in the scale development process is very important.<sup>[29]</sup> The absolute goodness-of-fit measures for the measurement models were conducted. After a series of modifications in the initial measurement model, the fit indices met the fit criteria. For the measurement model, the normal chi-square ( $\chi^2/df$ ) showed a value of 2.021, which falls within the acceptable ratio of less than 3.0 for  $\chi^2/df$  value. The TLI was 0.952, while the CFI was 0.957. The TLI and CFI are incremental fit indices, and these values have exceeded the recommended level of 0.90. The same is true for GFI as it was 0.902. For the badness-of-fit index, Root Mean Square Error of Approximation (RMSEA), the value of 0.068 was well below 0.08 while SRMR was 0.059—also below the threshold.

Table 6: Cronbach’s alpha, Composite Reliability and Average Variance Extracted

| Constructs           | Number of items | Cronbach’s alpha | Composite Reliability | AVE  |
|----------------------|-----------------|------------------|-----------------------|------|
| Product involvement  | 6               | 0.830            | 0.89                  | 0.81 |
| Product knowledge    | 4               | 0.755            | 0.77                  | 0.74 |
| Image of counterfeit | 6               | 0.771            | 0.79                  | 0.77 |
| Purchase intention   | 5               | 0.819            | 0.95                  | 0.91 |

A scale is deemed to have a reasonable internal consistency if the composite reliability (CR) value (for standardized estimates) is 0.6 or higher. Based on the results reported in Table 6, all indicators obtained good CR values, ranging from 0.77 (product knowledge) to 0.95 (purchase intention). Thus, the results proved that the constructs were highly reliable as they were very consistent in explaining the variances constituted in them. Average variance extracted— an estimate that calculates the average amount of variances in indicators accounted for by the underlying factor— should be 0.5 or greater to be reliable. Table 6 reveals that none of the variables had an AVE value below 50%. Therefore, it is conclusive to state that the constructs in the model were reliable as the measures of average variance extracted supersede the value typically outlined in the literature.

Table 7: Results of Average Variance Extracted and Squared Correlations of Each Construct

|                      | Product involvement | Product knowledge | Image of counterfeit | Purchase intention |
|----------------------|---------------------|-------------------|----------------------|--------------------|
| Product involvement  | 0.81                |                   |                      |                    |
| Product knowledge    | 0.08                | 0.74              |                      |                    |
| Image of counterfeit | -0.23               | 0.08              | 0.77                 |                    |
| Purchase intention   | -0.21               | -0.13             | 0.22                 | 0.91               |

Table 7 presents the results for discriminate validity. Discriminate validity was determined by the variance extracted value namely, whether or not it exceeds the squared inter-construct correlations associated with that construct. As evident in Table 7, the variance extracted of each construct was all above its squared correlation with other constructs. Except for the non-significant p-value, which is common when a sample size is larger than 200, all of the other displayed fit indices appeared to be superseding the cut-off values commonly suggested in the literature. As such, it can be concluded that the fit of the proposed model is reasonably good. Based on the path analysis of the proposed model, the coefficient value for each direct effect was calculated; the result is reported in Table 8.

Table 8: Hypotheses Testing: The Effects of independent variables on purchase intention of CBP

| Path | Hypothesized Direction | $\beta$ | significance | SE    | Critical Ratio | Supported |
|------|------------------------|---------|--------------|-------|----------------|-----------|
| H1.  | +                      | 0.221   | .000         | 0.041 | 6.812          | Yes       |
| H2   | -                      | -0.295  | .000         | 0.032 | -7.987         | Yes       |
| H3   | -                      | -0.008  | n.s          | 0.027 | -0.251         | No        |
| H4   | -                      | -0.040  | n.s          | 0.026 | -0.336         | No        |
| H5   | -                      | -0.305  | .000         | 0.038 | -8.432         | Yes       |

H1 predicts that the consumers’ perceived image of CBPs has a positive influence on the purchase intention of a CBP. With a significant path value from image of CBP to purchase intention of a CBP ( $\beta=0.221$ ,  $\text{sig}=0.000$ ), it can be inferred that hypothesis 1 was confirmed by the data. H2 states that product involvement should negatively relate to perceived image of a CBP. As evident in Table 8, the route from product involvement and consumers’ perceived image of a CBP yielded a significant value of 0.295 (SE=0.32), thereby supporting hypothesis 2. The third hypothesis predicts that product involvement has a negative effect on consumer purchase intention of a CBP. The insignificant path coefficient for this relation ( $\beta=-0.008$ ,  $t=-1.20$ ) indicates that this hypothesis was not supported by the data. H4 predicts that product knowledge and consumers’ perceived image of a CBP are negatively related. This hypothesis was also not supported by this study. However, the fifth hypothesis was confirmed. H5 predicts that product knowledge has a negative effect on consumer purchase intention of a CBP. Since the path coefficient for the link between product knowledge and consumer purchase intention of a CBP was  $-0.305$  ( $p<0.01$ ), it can be inferred that a negative relationship exists between product knowledge and consumer purchase intention of a CBP.

Hypotheses 6, 7, and 8 were predictions concerned with image of counterfeit goods as the mediating variable. The hypothesized full mediation model should be compared to a partial mediation model in which direct paths from the independent variables are added to the dependent variable.<sup>[30]</sup> For this purpose, the full mediation model was suggested to be taken as a baseline parameter. With this view, a partial mediation model was employed as an alternative model. A full mediation is confirmed when the chi square difference between the full mediation and partial mediation (alternative) model is not significant; the non-significant change difference implies that the change made to the proposed model (full mediation) did not significantly add to the improvement of the model’s overall fit. The results of this mediation test are presented in Table 9.

Table 9: The Overall Fit of the Full Mediation and Partial Mediation Model

|   | $\chi^2$ | df  | P<0.001 | $\chi^2/df$ | CFI   | RMSEA | SRMR  |
|---|----------|-----|---------|-------------|-------|-------|-------|
| Complete Mediation  | 1275.157 | 499 | 0.000   | 2.554       | 0.935 | 0.067 | 0.061 |
| Partial Mediation   | 1162.359 | 502 | 0.000   | 2.317       | 0.943 | 0.059 | 0.054 |
| Difference ( $\Delta$ ) between complete and partial mediation models | 112.798  | 3   | 0.000   | 0.037       | 0.008 | 0.008 | 0.007 |

As shown in Table 9, the fit of the partial mediation model produced large difference from that of the full mediation model. As the chi-square difference was 112.798, with 3 degrees of freedom, the associated p-value was significant ( $p=0.000$ ); thus, the additional paths generated in the full mediation model did cause a significant change to the overall fit of the original model. As such, for parsimonious reasons, the full mediation model was rejected and the partial mediation model proposed in this study was accepted.

Hypothesis 6 states that the relationship between product involvement and purchase intention of CBP is mediated by consumers’ perceived image of a CBP. As the path between image of counterfeit and purchase intention was significant with a value of 0.221 and the relationship between product involvement and image of counterfeit was also significant, it could be concluded that image of counterfeit is the mediator between product involvement and purchase intention. The coefficient path for this indirect relation was 0.057.

Based on hypothesis 7, the relationship between product knowledge and purchase intention of CBP is mediated by consumers’ perceived image of a CBP. The insignificant relationship between product knowledge and image of counterfeit meant that this hypothesis cannot be supported by the data.

Hypothesis 8 states that, when product involvement is high, the positive effect of perceived image of CBP on consumer purchase intention of a CBP is stronger than when product involvement is low. In order to investigate this hypothesis, the interaction model of “product involvement\*perceived image of CBP” was calculated. The interaction effect was  $-0.171$  and significant at the level of 0.01. Thus, the findings supported hypothesis 8.



## DISCUSSION

As the number of CBPs continues to increase in the marketplace worldwide, understanding the determinants of consumers who willingly purchase CBPs becomes more important to both academics and practitioners. In terms of ownership of authentic and counterfeit luxury brands, Bulgari and Gucci were among the more popular brands for originals. However, these brands were also among the popular counterfeit luxury brands, along with Burberry and Doele & Gabbana. This supports findings reported earlier in the literature review that the more successful and popular a brand name, the more likely it will have counterfeits.

More than half of the respondents (51.9%) did not believe that counterfeits decrease the demand for authentic luxury brand name products. Furthermore, 67.7% indicated that the value, satisfaction, and status of authentic luxury brand name products are not decreased by the availability of counterfeits. In addition, most respondents (69.9%) believed that authentic luxury branded products increase brand equity for authentic luxury good purchasers. These findings mean many customers are aware of key qualities and characteristics of authentic luxury brand names. The individuals who own more originals also believe that of authentic luxury brand names gives them personal satisfaction and helps them be admired, recognized, and accepted by others. Perhaps the more authentic products people own, the more familiar they are with the attributes and qualities of such products. The image of counterfeits and income were also two variables that differed significantly for the group of respondents who owned no originals and those who owned one or more originals. Thus, on average, the respondents who own original items had a more negative image of counterfeit luxury goods and had higher income levels.

The other objective of this study was to investigate direct relations between product involvement, product knowledge, image of counterfeits, and purchase intention in the context of non-deceptive counterfeiting. This research also investigated indirect effects—namely, whether relations between product involvement/product knowledge and purchase intention of CBPs are mediated by consumers' image of CBPs, and whether effects of consumers' image of CBPs on purchase intention are moderated by product involvement. In the context of nondeceptive counterfeiting, although product involvement demonstrated no direct effects on consumer purchase intention of CBPs, indirect effects have been reported. These findings imply that consumers may purchase CBPs willingly even in high production situations. In the future, it would be interesting to investigate whether usage situations moderate the relationship between product involvement and purchase intention of CBPs. The research results also suggest that it is necessary to say that, when product involvement is high, consumers are likely to have a generally negative image of CBPs. One possible suggestion we can offer for future research is that the current research only measured enduring product involvement but did not test or control situational product involvement.

The results of this study provide support to the proposition that product knowledge influences purchase intention of CBPs, but not to the proposed relationship between product knowledge and perceptions of CBPs. The results also support the proposition that perceived image of CBPs has a positive influence on purchase intention of CBPs. Thus, when consumers have a positive image of CBPs, they have more intention to buy the counterfeited products.

Future research should focus to answering additional questions: Do consumers perceive CBPs' brand personality to be the same as that of BPs? Can brand personality be transferred to CBPs? If so, to what extent and under what conditions? The other path for further research is to investigate the antecedents of brand image of CBPs, differences between brand image of CBPs and BPs, and how brand image (brand personality in particular) of BPs might influence consumer purchase behavior of CBPs. Thus, care should be taken in generalizing the results reported here until additional research verifies the findings across different groups of brands and different product categories.

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**Appendix**

Table A: Summary of luxury and counterfeit brand ownership

| Brand name                 | Number of originals owned by respondents (n =270) |             |             |            |             | Number of counterfeits owned by respondents (n = 270) |             |             |            |             |
|----------------------------|---|-------------|-------------|------------|-------------|---|-------------|-------------|------------|-------------|
|                            | None  | 1           | 2           | 3          | >=4         | None  | 1           | 2           | 3          | >=4         |
| <b>BULGARI</b>             | 232   | 38          | 0           | 0          | 0           | 225   | 45          | 0           | 0          | <b>0</b>    |
| <b>BURBERRY</b>            | 253   | 17          | 0           | 0          | 0           | 189   | 81          | 0           | 0          | <b>0</b>    |
| <b>CALVIN KLEIN</b>        | 249   | 21          | 0           | 0          | 0           | 230   | 40          | 0           | 0          | <b>0</b>    |
| <b>CARTIER</b>             | 262   | 8           | 0           | 0          | 0           | 262   | 18          | 0           | 0          | <b>0</b>    |
| <b>CHANEL</b>              | 228   | 33          | 9           | 0          | 0           | 248   | 19          | 3           | 0          | <b>0</b>    |
| <b>CHRISTIAN DIOR</b>      | 253   | 17          | 0           | 0          | 0           | 222   | 48          | 0           | 0          | <b>0</b>    |
| <b>COACH</b>               | 258   | 11          | 1           | 0          | 0           | 238   | 24          | 8           | 0          | <b>0</b>    |
| <b>DKNY</b>                | 262   | 8           | 0           | 0          | 0           | 225   | 44          | 1           | 0          | <b>0</b>    |
| <b>DOLCE &amp; GABBANA</b> | 253   | 17          | 0           | 0          | 0           | 218   | 50          | 2           | 0          | <b>0</b>    |
| <b>FENDI</b>               | 236   | 34          | 0           | 0          | 0           | 252   | 18          | 0           | 0          | <b>0</b>    |
| <b>GIANNI VERSACE</b>      | 248   | 19          | 1           | 2          | 0           | 229   | 40          | 1           | 0          | <b>0</b>    |
| <b>GIORGIO ARMANI</b>      | 254   | 16          | 0           | 0          | 0           | 234   | 36          | 0           | 0          | <b>0</b>    |
| <b>GIVENCHY</b>            | 253   | 17          | 0           | 0          | 0           | 250   | 20          | 0           | 0          | <b>0</b>    |
| <b>GUCCI</b>               | 229   | 40          | 1           | 0          | 0           | 186   | 71          | 12          | 1          | <b>0</b>    |
| <b>HERMES</b>              | 269   | 1           | 0           | 0          | 0           | 261   | 9           | 0           | 0          | <b>0</b>    |
| <b>LACOSTE</b>             | 270   | 0           | 0           | 0          | 0           | 227   | 43          | 0           | 0          | <b>0</b>    |
| <b>LOUIS VUITTON</b>       | 240   | 29          | 0           | 1          | 0           | 225   | 36          | 9           | 0          | <b>0</b>    |
| <b>NINA RICCI</b>          | 270   | 0           | 0           | 0          | 0           | 252   | 18          | 0           | 0          | <b>0</b>    |
| <b>OMEGA</b>               | 262   | 8           | 0           | 0          | 0           | 240   | 30          | 0           | 0          | <b>0</b>    |
| <b>PIERRE CARDIN</b>       | 253   | 17          | 0           | 0          | 0           | 235   | 26          | 9           | 0          | <b>0</b>    |
| <b>PRADA</b>               | 257   | 13          | 0           | 0          | 0           | 252   | 18          | 0           | 0          | <b>0</b>    |
| <b>ROLEX</b>               | 261   | 9           | 0           | 0          | 0           | 260   | 10          | 0           | 0          | <b>0</b>    |
| <b>YVES SAINT LAURENT</b>  | 260   | 10          | 0           | 0          | 0           | 236   | 34          | 0           | 0          | <b>0</b>    |
| <b>Total</b>               | <b>24.8</b>                                       | <b>36.3</b> | <b>20.7</b> | <b>4.4</b> | <b>13.7</b> | <b>0.7</b>  | <b>26.7</b> | <b>20.7</b> | <b>9.6</b> | <b>42.2</b> |