The impact of brand image and product knowledge on the purchase of counterfeit brand

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Abstract

Purpose – Counterfeiting has become a significant economic phenomenon. Increased demand for counterfeit branded products (CBPs) makes the study of determinants of consumers CBPs purchase behaviour more worthwhile than ever before. Existing studies have largely neglected brand influence on consumer purchase behaviour of CBPs. This research seeks to examine the impact of perceived brand image, direct and indirect effects (mediator and moderator effects) of product involvement and product knowledge on consumer purchase intention of counterfeits in the context of non-deceptive counterfeiting.

Design/methodology/approach – The current study tests the conceptual model and hypotheses developed based on the existing literature. Four focus groups (ranging from six to eight participants in each group) are used to construct the research instrument. The conceptual model and hypothesis are tested using hierarchical regression analyses with survey data from 321 consumers in the UK.

Findings – This research is the first in the literature on counterfeits to establish that perceived brand personality plays a more dominant role in explaining consumers' purchase intention of CBP than other influential factors (e.g. benefit and product attribute). Involvement/knowledge has no significant influence on counterfeit purchase intention. Evidence of involvement as a moderator does not exist. Brand image is not a mediator of the effects of involvement/knowledge on purchase intention.

Research limitations/implications – This research only investigates one brand of one product category (watches) in the context of non-deceptive counterfeiting, although this has not prevented the emergence of significant results.

Practical implications – The results of this study hold important implications for both practitioners and academics. They help to alert practitioners to the factors that truly affect consumer proneness of CBPs, for example, brand personality. For academics, they demonstrate that brand influence should not be further ignored in the study of consumer behaviour in relation to CBPs.

Originality/value – This research is one of the few which investigate CBP not only as a product but, more importantly, also as a brand – a counterfeit brand.

Keywords Counterfeiting, Brand image, Consumer behaviour, United Kingdom

Paper type Research paper

Introduction

Counterfeit products are those bearing a trademark that is identical to, or indistinguishable from, a trademark registered to another party and infringe the rights of the holder of the trademark (Chaudhry and Walsh, 1996; Kapferer, 1995;

Grossman and Shapiro, 1988a, b). Counterfeiting has existed for a long time (Clunas, 1991), yet the phenomenon has only been a serious concern for legitimate manufacturers since the 1970s (Harvey and Ronkainen, 1985). It is estimated that the value of counterfeit goods in the global market grew by 1,100 per cent between 1984 and 1994 (Carty, 1994; Blatt, 1993). The International Chamber of Commerce states that counterfeits account for 8 per cent of world trade (Freedman, 1999). Globally, the sales of counterfeit products are estimated to be about $300 billion (Gentry *et al.*, 2006). Clearly, counterfeiting has become a significant economic phenomenon in the last two decades (Bian and Moutinho, 2009).

Despite the fact that selling and manufacturing counterfeits are considered to be crimes in some countries, for example, the US and the UK (Hopkins *et al.*, 2003; Bush *et al.*, 1989), past research suggests that about one-third of consumers would knowingly purchase counterfeit goods (e.g. Phau *et al.*, 2001; Tom *et al.*, 1998) regardless of the potential consequences associated with counterfeits. Since demand is always the key driver of a market, a number of researchers have argued that consumer demand for counterfeits is one of the leading causes of the existence and upsurge in growth of the counterfeiting phenomenon (Bian and Veloutsou, 2007; Gentry *et al.*, 2001; Ang *et al.*, 2001; Bamossy and Scammon, 1985). A number of researchers (e.g. Penz and Stöttinger, 2003; Wee *et al.*, 1995; Bloch *et al.*, 1993) have called for investigation of consumer behavior and counterfeits. Nevertheless, the academic literature displays a strong focus on the supply side, while that of the demand side – why consumers knowingly buy counterfeits – still appears to be scarce (Penz and Stöttinger, 2005). The limited number of studies which searched for answers to why consumers knowingly purchase counterfeits mainly examined variables such as perceived price benefit (Bloch *et al.*, 1993; Albers-Millers, 1999), psychographic characteristics (Wee *et al.*, 1995; Cordell *et al.*, 1996; de Matos *et al.*, 2007), product features (Wee *et al.*, 1995; Cordell *et al.*, 1996), demographic variables (Phau *et al.*, 2001; Tom *et al.*, 1998), and social influences (Ang *et al.*, 2001; de Matos *et al.*, 2007). When looking at theoretical concepts that explain why consumers purchase counterfeits, traditional profiling approaches based on psychographic variables seemed to fall short in their explanatory power (Penz and Stöttinger, 2008). Moreover they have failed to take underlying brand aspects into account, regardless of the fact that the decision to buy counterfeit branded products (CBPs) not only represents a product choice decision, but also presents a brand decision (Eisend and Schuchert-Güler, 2006). Thus, consumer research that focuses on symbolic aspects of CBPs is required to fruitfully advance research in this area (Penz and Stöttinger, 2008).

This paper attempts to take a fresh look at the demand side of counterfeiting. The current research aims to investigate the effects of self-assessed product knowledge, product involvement, and consumers' perceived brand image of CBPs, as well as the interaction between these variables on consumer purchase intention of CBPs. It is worth highlighting at this juncture that, in contrast to previous research, for example, Wee *et al.* (1995), Nia and Zaichkowsky (2000) and Albers-Millers (1999), who examined counterfeits from a product perspective only, this research is one of the few studies which brings brand aspects into the investigation of counterfeits. Inclusion of brand aspects in the current study is considered to be a significant contribution to the literature, given that, if branded products did not attract consumers, counterfeiting

would not be an issue (Cordell *et al.*, 1996; Bloch *et al.*, 1993). Therefore, this research is to measure consumers' perceptions of CBP as a product, and also as a brand – a counterfeit one – which results in providing a deeper insight into the causes of consumer proneness of CBPs from an academic perspective. From a managerial perspective, a more comprehensive understanding of the determinants of counterfeit purchase will contribute to the literature and may help marketers set up more refined and more effective marketing strategies. Differing to Penz and Stöttinger (2008), and Bian and Veloutsou (2007) which investigate the need for research on the relationship differences between counterfeit models and their counterparts, the original brand models, this research provides a platform for more conceptual and theoretical research on the study of symbolic and expressive brands/benefits/needs effects on behaviour in counterfeits related research settings.

Counterfeiting appears in different forms, as deceptive, non-deceptive (Grossman and Shapiro, 1988a), and blur counterfeiting (Bian, 2006). With deceptive or blur counterfeiting, the consumer is either not aware or unsure of the fact that he/she is purchasing a counterfeit rather than the original product and cannot be held accountable for this behavior. This work limits its scope to non-deceptive counterfeiting, where consumers intentionally purchase counterfeits (Grossman and Shapiro, 1988a). The choice of the non-deceptive counterfeit context is considered important, as only under these circumstances might consumers' perceptions of counterfeits reflect their demand for these products.

After presenting the theoretical background, we describe our research methods and results. We then discuss our research findings and explore their implications for management and for future research. Finally, we examine the limitations of our study.

Theoretical background and hypotheses
Brand image
Since it was first introduced formally into the marketing discipline by Gardner and Levy (1955), communication of a brand image to a target segment has been regarded as an important marketing activity. Particularly, it became commonplace in consumer behaviour research from the 1980s (Dobni and Zinkhan, 1990). The trend has never faded ever since. Nevertheless, brand image has been assigned different meanings from the day it was introduced into the marketing discipline. Conventionally, brand image was defined differently according to different research focus (Reynolds and Gutman, 1984), due to lack of a firm base or foundation on which the concept can be built (Dobni and Zinkhan, 1990). Researchers tend to use brand image and other brand related constructs interchangeably, for example, brand identity. Aaker (1996) cautioned against a "brand image trap" in brand identity and brand management literature and illustrated that brand image and brand identity are different concepts, although both of them are drawn from associative network theory. "Brand identity is a unique set of brand associations that the brand strategist aspires to create or maintain" (Aaker, 1996, p. 68), it represents what the brand stands for and implies a promise to customers from the organisation's members, whereas brand image is "how a brand is perceived by consumers" (Aaker, 1996, p. 71), which stands for the set of brand associations in consumer memories. This study adopts Aaker's (1996) brand image definition.

Brand image is important because it contributes to the consumer's deciding whether or not the brand is the one for him/her (Dolich, 1969) and it influences consumers' subsequent buying behaviour (Johnson and Puto, 1987; Fishbein, 1967), thereafter brand equity (Biel, 1992). A well-communicated brand image should help to establish a brand's position, insulate the brand from competition, enhance the brand's market performance, and therefore plays an integral role in building long-term brand equity (Aaker and Keller, 1990; Keller, 1993; Park *et al.*, 1991; Feldwick, 1996; Park and Srinivasan, 1994). The product attributes, the benefits/consequences of using a brand, and brand personality are the three key components of the brand image (Plummer, 2000, 1985). The following provides conceptualization of these constructs as well as related hypotheses.

Brand personality
The brand personality factor enables a consumer to express his/her own self (Hem and Iversen, 2002; Aaker, 1999) or specific dimensions of the self (Kleine *et al.*, 1993). It serves as a symbolic function and helps consumers differ from or integrate themselves with others (Keller, 1993). It also projects the brand's values and creates an image of the brand's typical user (de Chernatony and McDonald, 1998), which might be the ideal image of the consumer. This brand information may actually encourage the use of a given brand as a self-expressive device by consumers who hold a similar position and want to present a similar image or ideal self (Malhotra, 1988).

Previous research suggests that favourable brand personalities are a central driver of consumer preference and usage (e.g. Freling and Forbes, 2005), as consumers are more likely to associate them with a desired group, or ideal self-image (Aaker, 1997; Lefkoff-Hagius and Mason, 1993). There has been little research conducted as to whether or not the brand personality of an original brand can be transferred to CBP, or how and to what extent brand personality is transferred to CBP. However, as symbolic attributes are captured by brand name, and by its nature CBP is not only a product, but more importantly it is a brand – a counterfeit one that bears a brand name of an original branded product, it is rational to assume that existing brand theory can be applied to CBP. Thus, the authors predict that when CBPs are perceived to process positive and favourable brand personalities they are more likely to be purchased. The following hypothesis is proposed.

H1. The level of consumers' favourableness to the brand personality of a CBP has a positive relationship to the purchase intention of a CBP.

Perceived product attributes
Product attributes can be categorized in a variety of ways (Myers and Shocker, 1981). Keller's (1993) broad view of product attribute notion suggests that attributes are those descriptive features that characterize a product. Stokmans' (1991) narrow view indicates that a product can be viewed as a bundle of intrinsic and extrinsic attributes, or as a bundle of perceived attributes. The intrinsic attributes of the product are information cues directly linked to the product, and the extrinsic attributes are information cues, which are indirectly connected to the product (Stokmans, 1991). This notion is consistent with a number of previous studies (e.g. Romaniuk, 2003; Holden, 1993). The current research takes the narrow view of product attributes suggested by Stokmans (1991).

The consumer uses perceived attributes in the decision-making process (Puth *et al.*, 1999). A positive relationship between linkage of the brand and perceived product attributes and brand choice/preference has been found by many researchers since the 1960s (e.g. Nedungadi, 1990; Cohen, 1966; Axelrod, 1968): the research indicates that the more positive the consumers' perceptions of the product attributes of a specific brand are, the more chance there is of the branded product being purchased. This research therefore proposes the following.

H2. Consumers' perceptions of product attributes have a positive influence on the purchase intention of a CBP.

Perceived benefits

Perceived benefit is what consumers think the product can do for them (Keller, 1993); it is associated with perception of product attributes and brand personality. In relation to CBPs, benefits are what consumers believe the CBPs can bring them. Benefits are what consumers seek when purchasing a product/brand (Kotler, 1999; Puth *et al.*, 1999). These benefits lead to certain end states or values that consumers wish to achieve (Kotler, 1999; Belch and Belch, 1995; Peter and Olson, 1994; Mowen, 1993; Aaker *et al.*, 1992).

Numerous previous studies have demonstrated a positive relationship between perceived benefit and consumer decision making (e.g. Cho *et al.*, 2002; Bove and Johnson, 2000; Mai and Ness, 1997; Dodge *et al.*, 1996). Prior research reveals that consumers who wilfully buy a CBP believe they are getting the prestige (e.g. Ang *et al.*, 2001; Tom *et al.*, 1998; Bloch *et al.*, 1993) and quality (Grossman and Shapiro, 1988a) of the BP for a fraction of its price (Tom *et al.*, 1998). Based on the literature, the proposed hypothesis is as follows:

H3. Consumers' perceptions of benefits have a positive influence on the purchase intention of a CBP.

Product involvement

The involvement construct originates from the discipline of psychology. Pioneered by Sherif and Cantril (1947), involvement is described as the state of an organism when presented with any stimulus which is ego-central, or when any stimulus is either consciously or subconsciously related to the ego. In marketing, the concept appears to be more complex, Cohen (1983, p. 325) states that there may well be "1,000 great ideas" on the concept of involvement. Product involvement is commonly defined as a consumer's enduring perceptions of the importance of the product category based on the consumer's inherent needs, values, and interests (e.g. de Wulf *et al.*, 2001; Mittal, 1995; Zaichkowsky, 1985). Product involvement has been extensively used as an explanatory variable in consumer behavior (Dholakia, 1998, 1997). It has been established that the level of involvement determines the depth, complexity and extensiveness of cognitive and behavioral processes during the consumer choice process (e.g. Chakravarti and Janiszewski, 2003; Kokkinaki, 1999; Kleiser and Wagner, 1999; Laurent and Kapferer, 1985; Houston and Rothschild, 1978). Therefore, product involvement is a central framework, vital to understanding consumer decision-making behavior and associated communications (Chakravarti and Janiszewski, 2003; Fill, 1999).

Research shows that when product involvement is high, buyer decision processes are thought to proceed through extended decision making, a series of sequential stages involving information search and evaluation of criteria (Browne and Kaldenberg, 1997; Celsi and Olson, 1988); consumers neither wish nor are able to exert a great deal of effort to process information in a low involvement situation (Chung and Zhao, 2003). Thus, when product involvement is high, consumers are more likely to put in more effort and are more capable of evaluating CBPs as opposed to their counterparts, the original branded products (BPs), in the context of non-deceptive counterfeiting. Deliberative information processing involves the scrutiny of available information and an analysis of positive and negative features, of costs and benefits (Fazio, 1990). Since CBPs are low grade BPs (Nia and Zaichkowsky, 2000; Penz and Stöttinger, 2003), when product involvement is high, there is a chance of consumers being able to distinguish the difference between a CBP and a BP, develop different perceptions of a CBP as opposed to a BP, and show less preference for the CBP than the BP. On the other hand, when product involvement is low, the differences between CBPs and BPs might not be easily recognized, due to consumers' lack of motivation, effort and even capability in relation to processing information. Consequently, consumers' perceived brand 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. Therefore, existing research, as well as applied findings, leads to the first hypothesis regarding the effects of product involvement on consumers' perceptions of CBPs.

H4. There is a negative relationship between product involvement and consumers' perceived brand 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 maximising product functionality (Soloman *et al.*, 1985). Since, when product involvement is high consumers are more likely to regard a CBP as a product of low price and low quality, 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. On the other hand, consumers are more likely to purchase a CBP if they are not seeking a personal indulgence. Based on this, this research proposes the following hypothesis.

H5. There is a negative relationship between product involvement and consumer purchase intention of a CBP.

Product knowledge
Consumer product knowledge has been recognized as a characteristic that influences all phases in the decision process (Bettman and Park, 1980). Consumers with various levels of product knowledge differ in their perceptions of a product (Laroche *et al.*, 2003; Baker *et al.*, 2002; Blair and Innis, 1996). Consumers with higher levels of product knowledge have better-developed and more complex schemata with well-formulated decision criteria (Marks and Olson, 1981). When they process information, less cognitive effort is required and relevant knowledge structures can be activated automatically, and they are able to process more information (Alba and Hutchinson, 1987).

This research argues that, given better-developed and more complex schemata, consumers with higher levels of product knowledge have better cognitive capacity to evaluate comparative alternatives. This idea agrees with Kempf and Smith (1998), who suggest, that 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 (Berger *et al.*, 1994). 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 and to the grade of CBPs and show less preference for CBPs. Accordingly, this research attempts to test the following hypotheses:

H6. There is a negative relationship between product knowledge and consumers' perceived brand image of a CBP.

H7. There is a negative relationship between product knowledge and consumer purchase intention of a CBP.

Mediation and moderator effects
While the main effects proposed previously may exist, this study further predicts that indirect effects (mediation effect and moderator effect) between these variables exist as well. Mediation effects occur when an independent variable influences the dependent through its effects on or as a result of a mediator variable (Baron and Kenny, 1986). In this current study, previous sections have that established product involvement/knowledge affects consumers' perceived brand image of a CBP; the consumer perceived brand image of a CBP affect purchase intention. That is, the ways in which product involvement/product knowledge affect individual purchase tendency of a CBP depend on how consumers perceive the CBP. Following this reasoning, this study proposes, that the relationship, between product involvement/knowledge, and purchase intention, is mediated, by consumer perceived brand image, of a CBP. Specifically, product involvement and product knowledge are the independent variables and brand image serves as the mediator variable. These predictions are reflected in *H8* and *H9*.

H8. The relationship between product involvement and purchase intention of CBP is mediated by consumers' perceived brand image of a CBP.

H9. The relationship between product knowledge and purchase intention of CBP is mediated by consumers' perceived brand image of a CBP.

In addition to the proposed mediation effects, this study also tests for moderator effects of product involvement. A moderated relationship occurs when a relationship is found to hold for some categories of a sample but not others (Bryman and Cramer, 1999). The search for moderated relationships is important as it allows research to avoid inferring that a set of findings pertains to a sample as a whole, when in fact it only really applies to a portion of that sample (Bryman and Cramer, 1999; Baron and Kenny, 1986).

Research in persuasion has consistently reported that consumers in high product involvement situations process information differently from those in low product involvement situations (Nkwocha *et al.*, 2005). The Elaboration Likelihood Model (ELM) posits that high product involvement tends to engender "general route" to persuasion, in which consumers exert the cognitive effort required to evaluate the issue from relevant arguments presented to them. In a high product involvement situation, consumers tend to focus more on highly diagnostic cues such as attribute and performance information/benefit to evaluate products. In contrast, low product involvement induces a "peripheral route" to persuasion in which consumers evaluate products based on some superficial analysis of readily available and salient cues in the stimuli presented to them, such as price and brand name. Additionally, when product involvement is low, consumers care less about personal, experimental gain than when product involvement is high. Thus, in deciding what to buy, consumers use perceived product attribute, performance/benefit, and brand personality information more in a high product involvement situation than in a low product involvement situation. That is, the ways in which consumers apply the influence of their perceived brand image of CBPs to their purchase intention of CBPs will depend on the consumers' level of product involvement. Therefore, the following is hypothesized:

H10. When product involvement is high, the positive effect of perceived brand image (product attribute, benefit/consequence, and brand personality) on consumer purchase intention of a CBP is stronger than when product involvement is low.

Conceptual framework
To summarize, the current study develops hypotheses for and tests the model presented in Figure 1. In developing the conceptual model, this article begins with a discussion of selected variables that contribute to consumer purchase intention, and within this context, explains how these variables may directly associate with each other. This study also attempts to show that brand image may serve as a mediating link between product involvement/product knowledge and purchase intention, and that product involvement may be a moderator that affects the relationship between brand image and purchase intention in the context of non-deceptive counterfeiting.
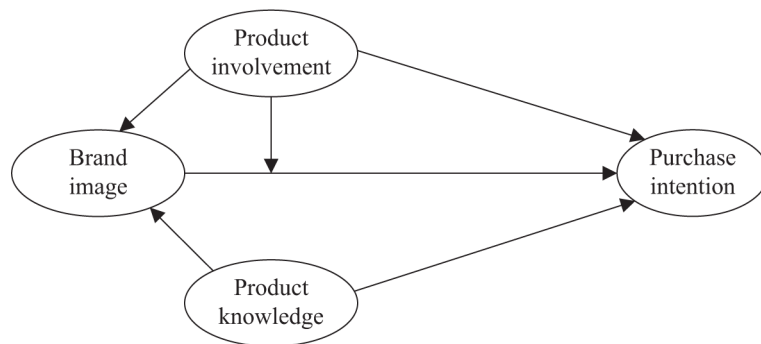
Figure 1.
Hypothesized relationships between product involvement, product knowledge, brand image of CBP and purchase intention of CBP

Method

Brand selection

This research investigates counterfeit Rolex watches. This study focuses on this brand because Rolex is a well-known and long-established brand, and thus familiar to the target respondents. This brand is on the list of the most counterfeited brands (Poulter, 2006) and the counterfeits of this brand are available (provided by Glasgow Trading Standards) for use as stimuli. Additionally, Rolex is on the list of International Luxury Brands (Dubois and Paternault, 1995), which is likely to induce a wide range of involvement levels and knowledge level across individuals.

Procedure and sample

This study was conducted in Glasgow, UK. The reasons for the choice of Glasgow are because the UK is perceived to be one of the main recipients of counterfeits in the world (Kay, 1990), and counterfeits are widespread in Glasgow according to the Trading Standards officials. The first author contacted, by mail, 20 randomly selected supermarkets from a list of supermarkets located in Glasgow, to request help in studying consumer purchase behavior of CBPs. Four supermarkets gave permission and provided full support to the researcher for data collection. Two of the supermarkets are relatively small and are located in residential areas. The other two are medium-sized stores with minimum daily sales of over £35,000. One supermarket is located in a shopping centre and is perceived as a relatively expensive supermarket, with the other one being located at the edge of the city and being well known for its low price strategy.

The first author and eight trained fieldworkers collected the data at the supermarket entrances rather than in the supermarkets to avoid length-biased sampling (Nowell and Stanley, 1991). The researcher/fieldworkers invited every tenth shopper who passed the data collection points to participate in the study. In order to avoid respondent bias, the research proceeded over a 14-day period that included weekends and weekdays, as well as covering all of each supermarket's opening hours.

Taking into consideration that not every consumer has experienced counterfeits (*Anti-Counterfeiting Group Survey Report*, 2004) this research adopted a stimulus-based approach, rather than a memory-based method. Specifically, before asking participants to fill out the research questionnaire, the researcher/fieldworkers presented the CBP samples provided by the Trading Standards to respondents for examination. According to the Trading Standards officials, the CBP samples were confiscated from an open market place and were low grade CBPs. A stimulus-based approach ensured both that the respondents were all familiar with the examined CBPs and also that the largest possible sample size was attainted. In addition, the incentive method (a box of chocolates worth around £2.50) recommended by previous researchers (e.g. Aaker *et al.*, 1997; Wiseman *et al.*, 1983), and the gaze and touch method suggested by Hornik and Ellis (1988), as well as the appealing expression recommended by Hornik (1982) were adopted to improve the response rate. All the extra effort is deemed to minimize research bias.

The sample consists of 430 consumers in Glasgow: of those, 321 of the responses are useable (approximately 75 per cent useable rate). A total of 56.4 per cent are male and 43.6 per cent are female. Some 58.8 per cent of the participants have an educational attainment lower than degree level, with 26.8 per cent having a bachelor's degree and

14.4 per cent having a Master's degree or higher. The age breakdown of the sample is: 21.2 per cent, under 20 years old, 24.3 per cent, between 21 and 30, 19.6 per cent, between 31 and 40, 20.2 per cent, between 41 and 50, and 14.6 per cent, 51 and above. Table I presents the sample profile.

Research instrument
The explanatory constructs in our model of purchase intention of CBPs include product involvement, product knowledge, and brand image. All involved constructs were measured using five-point Likert scales (1 = strongly disagree, 5 = strongly agree). Apart from the measure of brand image, which was developed by the first author of this paper, the rest of the scales utilized to measure involved constructs were all adopted from existing research with necessary adaptation. Specifically, this research used the Revised Personal Involvement Inventory proposed by McQuarrie and Munson (1992) to measure product involvement, due to this measure's widely tested validity. Smith and Park's (1992) knowledge scale was used to measure product knowledge, on account of this scale's commonality and reported satisfactory reliability (e.g. Li *et al.*, 2002; Biocca *et al.*, 2001). Finally, purchase intention was assessed using a five-item scale developed by Spears and Singh (2004), since this was the most up-to-date purchase intention scale with reported reliability.

Given that there are few well-established measures of the brand image concept, this study required that the authors devise a new set of items for each brand using four focus groups (ranging from six to eight participants in each group). Focus group is an appropriate method because this method is superior to other methods for the study of group understandings (Bloor *et al.*, 2001); using focus groups for preliminary exploration of certain topic areas is most useful in those fields where survey planning is most difficult because relatively little is known (Vaughn *et al.*, 1996); focus groups

Variable	Total cases	*n*	(%)
Gender			
Female	321	181	56.4
Male		140	43.6
Age			
− 20	321	68	21.2
20-29		78	24.3
30-39		63	19.6
40-49		65	20.2
50 +		47	14.6
Education			
High-school	320	105	32.8
HND/HNC		77	24.1
BA/MA		86	26.9
Others		52	16.3
Household income			
− 9,999	303	63	20.8
10-24,999		90	29.7
25-39,999		74	24.4
40 +		76	25.1

Table I.
Sample profile

can be used to access the everyday language of research subjects (Bloor *et al.*, 2001); they can help to elicit a more interactive response from the participants (Fern, 2001).

The first author recruited the participants through existing social networks. She considered and took into account balance of gender, age group, income, and social class, with the aim of achieving a sample that represents the research population. The participants had an average age of 44 (ranging from 18 to 72), with an average household income of £27,859; 52 per cent were male. To stimulate discussion, the researcher presented counterfeit Rolex watches to participants for examination first, and then encouraged the participants to speak out on the traits that came to mind when thinking about the examined counterfeit Rolex watches. She then asked them to judge the relevance of the preliminary list of brand image items she had generated from a combination of sources (e.g. previous research on counterfeiting, product packages and advertisings of the Rolex watches, and Aaker (1997) personality scale). An hour and a half of each focus group discussion was tape-recorded, transcribed and double coded. Content analysis was utilized to analyze the data, with 28 items of brand image extracted for counterfeit Rolex watches for further study.

To ensure that the participants had the same understanding of the terminology, the cover page provided the definition of counterfeiting. The cover page also informed the participants that one-third of British people knowingly purchase CBPs. The aim of this information was to encourage participants to provide truthful information, since this technique can facilitate the respondent's admission of potentially embarrassing behavior (Churchill, 1999).

Following Diamantopoulos *et al.*'s (1994) suggestion, this study conducted two separate pre-tests of the research instrument. The researcher also recruited three academic researchers who were not directly involved with the design of the questionnaire to look for technical errors in the first pre-test. After revision, the researcher used a pre-test sample of 40 consumers recruited from the four selected supermarkets following the general agreement that the pre-test sample should be as similar as possible to the target population (Churchill, 1999; Oppenheim, 2000). The second pre-test examined the mode of administration, individual questions and their sequences (Bolton *et al.*, 1990). The test did not reveal any major flaws of the survey instrument. The final sample of this research did not include the pre-test subjects. Overall, the pre-tests helped to ensure that the respondents understood these items and could provide meaningful responses.

Principal Component Analysis (PCA) was used to condense the information obtained in relation to brand image of counterfeit Rolex watches, as PCA is often preferred as a method for data reduction (Preacher and MacCallum, 2003). Varimax rotation reveals seven factors (all eigenvalues are greater than one), which account for 64.71 percent of the overall variance. The results indicate a clear three-component structure (see Table II). Specifically, the seven factors cluster into three groups, brand personality (excitement personality two items and competence personality nine items), product attribute (general product attribute five items and functional attribute three items), and benefit/consequence (satisfaction benefit three items and image benefit four items, and functional benefit two items).

To test for reliability and validity of all adopted scales and extracted factors, the researchers conducted Principle Factor Analysis (PFA) and Cronbach Alpha analysis (Pearson Correlation analysis if applicable). PFA is used here because it is the

No.	Items	Factor label			Counterfeit Rolex				
			1	2	3	4	5	6	7
1	It is expensive. CR	General product attribute		0.63					
2	The packing is good. CR			0.65					
3	The watch is waterproof. CR			0.78					
4	It is Swiss-made. CR			0.81					
5	The materials are good. CR			0.67					
6	I can get the size I want. CR	Functional attribute					0.69		
7	They have the style I like. CR						0.72		
8	The product is practical. CR						0.72		
9	This product can bring you fun	Satisfactory benefit				0.60			
10	The quality of the product merits the price					0.69			
11	In buying this product, you get value for money for the status					0.67			
12	The product is a statement of your self-image	Image benefit			0.48				
13	This product brings you exclusivity				0.58				
14	This product can make you attract other people's attention				0.76				
15	This product can bring you prestige				0.82				
16	You can throw it away after a while	Functional benefit							0.85
17	This product may not function well								0.67
18	Cheerful	Excitement						0.78	
19	Young							0.87	
20	Independent	Competence	0.57						
21	Reliable		0.79						
22	Hardworking		0.80						
23	Secure		0.81						
24	Successful		0.85						
25	For leader		0.81						
26	Confident		0.71						
27	Glamorous		0.60						
28	Classic		0.79						
	KMO			0.89					
	Cumulated variance explained per cent			64.71					
	Eigenvalue		8.16	2.70	2.38	1.49	1.24	1.13	1.03
	Per cent of variance		29.12	9.63	8.50	5.33	4.41	4.05	3.66
	Cronbach Alpha		0.92	0.79	0.75	0.66	0.70		
	*Pearson correlation is reported, and significant at 0.01 (two-tails)							0.57*	0.31*
	Per cent of non-redundant residuals with absolute values greater than 0.05			23					

Note: Only factor loadings > 0.04 are reported

Table II.
Counterfeit Rolex brand image factors

commonly preferred method when the goal of the analysis is to detect structure (Cliff and Caruso, 1998). The results reveal that all scales are uni-dimensional and reliable with the present data, with the exception of the extracted satisfactory benefit factor, which has a Cronbach's a of 0.66 (see Table III). However, the lower value of the Cronbach's a might be caused by the small number (three) of items involved; it is therefore considered acceptable. The researchers then calculated factor scores and computed the average ratings for the multiple item scales of other constructs.

Results

The direct effects and proposed mediation effects are assessed simultaneously. Hypotheses are tested with a series of hierarchical regression analyses suggested by previous studies (e.g. Baron and Kenny, 1986; MacKinnon, 1993; MacKinnon et al., 2002). The application of hierarchical regression analysis in this study is also because this data analysis technique is one of the common means of detecting mediating and moderating effects (e.g. Perry and Morris, 2005; Jex and Thomas, 2003; Stigler et al., 2005). Results are presented in Table IV (product involvement results) and Table V (product knowledge results). In both tables, the first group of models (a) examine the relationship between the independent variable and the mediators (brand image). A separate regression equation is used for each extracted brand image related factor. The second group of regression models (β) examine the relationship between the proposed mediators (brand personality, attribute and benefit) and the outcome variable. The third group of regression models (τ) look at the relationships between the independent variables and the outcome variable.

   H1 predicts that the perceived brand personality of a CBP should positively relate to consumer's purchase intention of the counterfeit version of a luxury brand. The results partially support H1 (competence: $\beta = 0.342$, $p < 0.01$; excitement: $\beta = 0.064$, $p > 0.05$), as only one dimension of brand personality significantly influences consumer purchase intention of counterfeit Rolex watches. It should be mentioned the personality appears to have the greatest positive effect on the model, judging by its

Counterfeit Rolex Constructs	No. of items	Reliability results	PFA results Variance	Factor	KMO
Product involvement	10	0.91[*]	59%	1	0.90
Product knowledge	4	0.77[*]	60%	1	0.71
Purchase intention	5	0.95[*]	84%	1	0.89
Competence (personality)	9	0.92[*]	N/A		
Excitement (personality)	2	0.57[**]	N/A		
General product attribute (product attribute)	5	0.79[*]	N/A		
Functional attribute (product attribute)	3	0.70[*]	N/A		
Functional benefit (benefit)	2	0.31[**]	N/A		
Satisfactory benefit (benefit)	3	0.66[*]	N/A		
Image benefit (benefit)	4	0.75[*]	N/A		
No of responses	321				

Note: [*] Cronbach Alpha # Pearson Correlation is significant at the 0.01 level (two-tailed) n – 321

Table III.
Reliability and validity
analysis results

larger beta value in comparison with other variables. These results provide empirical support for the critical role played by the perceived brand personality of a CBP in consumer purchase decisions.

The second hypothesis predicts that statistical analysis should illustrate that CBP-prone consumers are more likely to possess more positive product attribute perceptions of a CBP. In general, the results reveal that functional product attribute is, indeed, a positive, statistically significant predictor of the purchase intention of counterfeit Rolex ($\beta = 0.12$, $p < 0.01$), but not general product attribute ($\beta = 0.08$, $p > 0.05$). The level of impact of the perceived functional attributes on consumer purchase behavior comes after the brand personality and benefit, judging by its smaller beta value.

H3 predicts that consumers who consider purchasing CBPs are also pursuing perceived benefits, as they do with the consumption of other products. The results provide partial support for this hypothesis. The Rolex model shows that benefit-related factors – satisfactory benefit ($\beta = 0.13$, $p < 0.01$) – is a significant predictor of the purchase intention; functional benefit and image benefit are not, however. The more a subject believes he/she will obtain satisfaction (e.g. value for money) by purchasing a counterfeit Rolex, the more likely that he or she will make the purchase. This finding is consistent with that of Nia and Zaichkowsky (2000). The exclusion of the functional

	Estimate a	Sig	Estimate β	Sig	Estimate τ	Sig
Mediators						
Competence	0.008	0.880	0.342	0.000[*]	N/A	
Product attribute	−0.058	0.300	0.079	0.158	N/A	
Image benefit	0.016	0.766	0.053	0.349	N/A	
Satisfaction benefit	0.092	0.098	0.131	0.018[*]	N/A	
Functional attribute	−0.017	0.759	0.118	0.034[*]	N/A	
Excitement	−0.005	0.930	0.064	0.255	N/A	
Functional benefit	−0.035	0.527	−0.105 (0.060)	N/A		
Outcome variable						
Purchase intention	N/A		N/A		0.08	0.152

Note: [*]$p < 0.05$

Table IV.
Regression analysis of relationships between product involvement, perception, and purchase intention

	Estimate a	Sig	Estimate β	Sig	Estimate τ	Sig
Mediators						
Competence	−0.049	0.380	0.342	0.000[*]	N/A	
Product attribute	−0.110	0.049[*]	0.079	0.158)	N/A	
Image benefit	−0.009	0.875	0.053	0.349	N/A	
Satisfaction benefit	−0.007	0.894	0.131	0.018[*]	N/A	
Functional attribute	0.028	0.618	0.118	0.034[*]	N/A	
Excitement	−0.058	0.303	0.064	0.255	N/A	
Functional benefit	−0.002	0.975	−0.105	0.060	N/A	
Outcome variable						
Purchase intention	N/A		N/A		0.086	0.123

Note: [*]$p < 0.05$

Table V.
Regression analysis of relationship between product knowledge, perceptions, and purchase intention

benefit and image benefit in the model indicate that they not the drivers for consumer CBPs purchase behavior. In fact, consumers might not expect that the counterfeit version of Rolex watches will fool their peers, or afford fake prestige; neither do they expect good performance.

H4 predicts that product involvement will be negatively related to consumers' perceived brand image of counterfeits. The results in Table IV suggest no support for this hypothesis. None of the coefficients (*a*) on brand image related factors is statistically significant at the level of $p < 0.05$. These results indicate consumers' perceived brand image of a CBP do not vary significantly with different level of product involvement. The fifth hypothesis examines a negative relationship between product involvement and consumer purchase intention of CBPs. The results reject this hypothesis ($\beta = 0.08$, $p > 0.05$), suggesting that product involvement has no significant effect on consumer purchase intention of CBPs.

H6 proposes a negative relationship between product knowledge and consumers' perceived brand image of a CBP. Table V reveals a partial support for this hypothesis. Product knowledge is negatively associated with consumers' perceptions of product attribute ($\beta = -0.110$, $p < 0.05$), but is unrelated to brand personality and perceived benefit related factors. That is, consumers with better product knowledge are more likely to consider a CBP as a low-grade product in terms of general product attribute (e.g. bad packing, sub-quality material). Nevertheless, the results do not suggest that consumers with better product knowledge are less likely to perceive positive brand personality, image benefit, functional benefit and functional attributes than consumers who are less knowledgeable about a product. *H7* predicts that product knowledge would be negatively related to consumer purchase tendency of a CBP. The coefficient suggests a rejection of this hypothesis ($\beta = 0.086$, $p > 0.05$) (see Table V τ), which indicates that consumers who are knowledgeable about a product may also purchase CBPs.

A mediator variable is one that is both a product of the independent variable and a cause of the dependent variable. Mediation analysis identifies which intermediate variables are responsible for an intervention's effect. Bryman and Cramer (1999) assert that one is able to gain some explanatory leverage on the bivariate relationship if it is found that a test variable acts as a mediator variable. According to MacKinnon *et al.* (2002) and Baron and Kenny (1986), four conditions are needed to show evidence of mediation. First, the independent variable is related to the outcome variable (τ). Second, the independent variable has a statistically significant effect on the presumed mediator (*a*). Third, the hypothesized mediator is associated with the outcome variables (β). Finally, when the proposed mediator is entered into a regression equation after the independent variable, the mediated effect ($a\beta$) is statistically significant, but the regression weight for the independent variable should be reduced either significantly or to zero.

In the case of mediation effects related to the independent variable of product involvement, the research results demonstrate that the independent variable is not significantly related to the outcome variable, or to any of the proposed mediators (see Table IV); as a result, the first two conditions necessary for mediation effect are not met. Therefore, there is no need to conduct further mediation effect tests. The mediation *H8* is not supported. Although product knowledge is significantly associated with one of the proposed mediators (product attribute, $\beta = -0.110$,

$p < 0.05$), nevertheless, this mediator does not appear to have a significant influence on the outcome variable. In addition, product knowledge is not significantly associated with the outcome variable either (see Table V τ). Thus, the first and the third conditions of mediator effect are not met. Consequently, the mediation *H9* is rejected.

To test the moderating effects of product involvement, the moderator is dichotomized at the neutral point of the five-point scale. The results of the moderating effects of product involvement are shown in the regression presented in Table VI. None of the interactions of low involvement with perception related factors is significant ($p < 0.05$), which means that the effect of consumers' perceptions of a CBP on purchase intention for low involvement product situation are no different than they are for high involvement ones. Therefore, the results show no evidence that product involvement can moderate the effects of consumers' perceptions of CBPs on their purchase intention. These findings reject *H10*.

Discussion

As the amount 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. The major objective of this study is to investigate direct relations between the three most exploratory constructs of consumer behavior (product involvement, product knowledge and brand image) and purchase intention in the context of non-deceptive counterfeiting. Additionally, this research also investigates indirect effects, namely whether relations between product involvement/product knowledge and purchase intention of CBPs are mediated by consumers' perceptions of CBPs, and whether effects of consumers' perceptions of CBPs on purchase intention are moderated by product involvement. The results of this study are discussed as follows.

In the context of non-deceptive counterfeiting, product involvement has neither direct nor indirect effects on consumer purchase intention of CBPs. These findings

Variable	Std. e	Std. B	T	Sig.
(Constant)	0.063		23.638	0.000
Competence	0.062	0.414	5.839	0.000
Product attribute	0.063	-0.001	-0.017	0.987
Image benefit	0.068	0.039	0.498	0.619
Satisfaction benefit	0.062	0.059	0.824	0.411
Functional attribute	0.063	0.078	1.072	0.285
Excitement	0.063	0.153	2.110	0.036
Functional benefit	0.062	-0.167	-2.349	0.019
Low involvement	0.090	-0.036	-0.688	0.492
Low involvement × competence	0.093	-0.107	-1.501	0.134
Low involvement × product attribute	0.090	0.128	1.750	0.081
Low involvement × image benefit	0.091	-0.007	-0.090	0.928
Low involvement × satisfactory benefit	0.090	0.093	1.303	0.194
Low involvement × functional attribute	0.091	0.032	0.436	0.663
Low involvement × excitement	0.089	-0.111	-1.532	0.126
Low involvement × functional benefit	0.091	0.100	1.403	0.162

Note: [a]Dependent variable: counterfeit Rolex intention

Table VI.
Regression model of purchase intention of CBPs

imply that consumers may purchase CBPs willingly even in high production situations. One possible explanation for these results could be that consumer purchase behavior of CBPs may vary according to different usage situations, as consumers might buy different versions (counterfeit or legitimate) of a brand for different usage situations or purposes (Bian, 2006). For example, they might buy a CBP for use at home, but buy a legitimate branded product for use in public places. Thus, 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 unnecessary to say that when product involvement is high, consumers are likely to have general negative perceptions of CBPs product attribute, benefits, and even brand personality. These findings are more than a little surprising. The authors have to admit that this research failed to find sound explanation from any existing theoretical framework that the researchers are aware of, particularly in explanation of perceived brand personality and image benefit of CBPs. One possible explanation we can offer is that the current research only measured enduring product involvement but did not test or control situational product involvement. These results highlight the complexity of consumer behavior related to CBPs. In view of this, a premise the authors would like to make here is that the counterfeiting phenomenon is a new research setting where existing behaviour, branding, brand management literature developed without the presence of counterfeits should be tested and validated. The most obvious questions calling out for answers are: Do consumers perceive CBPs' brand personality as the same as that of BPs'? Can brand personality be transferred to CBPs? If so, to what extent, and under what conditions?

The results of this study provide no support to the proposition that product knowledge influences purchase intention of CBPs, but partial support to the proposed relationship between product knowledge and perceptions of CBPs. There is evidence that more knowledgeable consumers are more likely to have less favorable perceptions of general product attributes of CBPs. Nevertheless, the support appears to be marginal. In addition, it is important to note that despite evidence of statistical significance, the regression coefficient is relatively small and thus the magnitude of the effects reported here are small. Product knowledge does not appear to have significant influence on other perception related factors. Additionally, it is difficult to draw conclusions about the direction of causality here, particularly in the relationship between self-assessed product knowledge and reported purchase intention.

These results can be interpreted in the light of the fact that with advancements in watch technology, the accurate time-telling function of watches is no longer difficult to achieve. In other words, in terms of telling the time, counterfeit watches can be similar to their counterpart original branded watches. The more knowledgeable the person is about watches, the more he or she is aware of this fact. As a result, although more knowledgeable consumers can judge the attribute differences between the two versions of one brand, and therefore perceive less positive perceptions of product attributes of a counterfeit watch, they may believe in that functionally the counterfeit watch might perform not much different to the legitimate counterpart. As a result, even knowledgeable consumers also purchase counterfeit watches.

Three out of seven dimensions of the brand image construct appear to be significantly influential to consumers purchase intention of CBPs, with the personality

related dimension having the largest coefficient, which indicates the greatest explanatory power on consumer purchase tendency of CBPs. For the first time in the literature on counterfeits, research findings provide empirical evidence to support the commonly accepted notion that CBP-prone consumers are seeking the positive brand personality associated with BPs. More importantly, this research is also the first to establish that perceived brand personality plays a more dominant role in explaining consumers' purchase intention of CBP than other influential factors (e.g. benefit and product attribute). Nia and Zaichkowsky (2000) report that both counterfeit owners and non-CBP owners perceive satisfactory benefit related to CBPs. This research moves one step forward by suggesting that there is more chance that non-CBPs owners will knowingly purchase CBPs in the future if they perceive the CBPs to be satisfactory.

The results also hold important implications for marketers of BPs and policy makers. First, regardless of it having been reported that improving consumers' knowledge of BP is a means commonly adopted by BPs owners to hamper CBPs (Green and Smith, 2002), this study's findings advise against devoting resources to improving consumers' knowledge of a product with an aim to curb demand for CBP. This is because, while it is not necessary to say that consumers who are more knowledgeable are less CBPs- prone, at the same time they do not process less favourable perceptions of CBPs than less knowledgeable consumers. Second, marketers of BPs should be aware that consumers purchase both CBPs and BPs under high product involvement situation, but for different usage situations. Therefore, any effort putting in to improve product involvement with an aim to curbing CBPs will end up with a fruitless result.

Third, one course of action that firms can take to address counterfeiting is to conduct marketing campaigns to stress brand personality differences between CBPs and BPs. As suggested by Bian and Moutinho (2009) marketing campaigns could meet with remarkable success if they took the approach of highlighting the negative personality of the typical users, brand endorsers, company employees and CEO of the companies of CBPs, as these people are regarded as the directly influential factors on consumer perceived brand personality (Aaker, 1997).

Finally, as functional benefit in the current study refers to "disposability" and "functionality" meaning "acceptable performance with short but acceptable length of product life" and "can be thrown away without too much concern about the financial loss involved", thus, the research finding is in fact suggesting that the more likely it is that consumers believe that the CBPs are disposable, the more chance there is that they are going to buy them. "High level of disposability" and "only a fraction of the price of the original luxury branded product" are two kinds of characteristic possessed by the counterfeits only, which the BPs cannot ever achieve. This appears to be a real challenge faced by the BPs manufacturers. To win this campaign from this particular aspect, this research would suggest that marketers/strategists of the BPs manufacturers should think about directing consumer consumption. For example, they could emphasize the benefits and sense related to "go for one which is really good, rather than for ten sub-quality products". They should integrate anti-counterfeiting campaigns with a Corporate Social Responsibility Scheme. The image that needs to be established for the BPs should be "genuine", "green" and "long-lasting".

Integrating environmental protection and anti-counterfeiting tasks, policy makers can help to educate the public by informing them about the environmental concern caused by a massive amount of disposable goods. This device might be more effective

if the policy makers could provide the public with some solid figures in relation to how many disposables can be generated per head in a lifetime, the scope of environmental concerns caused by the counterfeit manufacturing process, as well as the consumption of counterfeits.

Surprisingly and interestingly, the research results of the current study reject the majority of our research hypotheses. On the one hand, rejections of the proposed hypotheses, which were developed, based on previous literature might be an indication that CBPs bring in new challenges to existing theoretical work established over years in the context of lack of CBPs presence. On the other hand, research limitation might also attribute to the rejections, for example, not taking into account of consumption situation. Clearly, there is still a long way to go before we achieve any sound understanding of counterfeit-related behaviour. Considering the important role played by brand image in the purchase tendency of CBP, what have yet to be explored are 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 behaviour of CBPs. Future research should replicate the current study with other widely counterfeited brands, in an effort to test the applicability of the current research findings in other contexts. Given that it is still not quite clear whether the overall consumers' perceptions of BP are affected or not after the entry of CBPs, a before-after experimental design with control would enable researchers to observe the potential change in perceptions of BPs as a result of the entry of CBPs. This type of design has been used by a number of previous studies in the study of brand extension (e.g. Diamantopoulos *et al.*, 2005; Morrin, 1999) due to its high level of control in accounting for extraneous factors, which can assist in enhancing the internal validity of the research (Calder *et al.*, 1981).

Finally, it should be remembered that this research only investigated one brand of one product category (watches) in the context of non-deceptive counterfeiting: determinants of purchase intention of CBPs. Marketers endeavor to project distinguishable brand identity for their brand in order to make their brand to standout from crowd (de Chernatony and McDonald, 1998). It is likely that consumers perceive different brands to have different brand image. In addition, the products investigated in this study are less visible than other products, for example clothes, sunglasses or handbags, which are also heavily counterfeited. Moreover, only one version of CBP was used as stimulus. In reality, a BP might have a range of counterfeit versions available in the market place (Gentry *et al.*, 2001). Consumers' perceptions of these counterfeit versions might differ. Thus, care should be taken in generalizing the results reported here until additional research verifies the findings across different brand and different product categories.

References

Aaker, D.A. (1996), *Building Strong Brands*, The Free Press, New York, NY.

Aaker, D.A. and Keller, K.L. (1990), "Consumer evaluation of brand extension", *Journal of Marketing*, Vol. 54, January, pp. 27-41.

Aaker, D.A., Batra, R. and Myers, J.G. (1992), *Advertising Management*, 4th ed., Prentice-Hall, Englewood Cliffs, NJ.

Aaker, D.A., Kumar, V. and Day, G.S. (1997), *Marketing Research*, 6th ed., John Wiley & Sons, New York, NY.

Aaker, J.L. (1997), "Dimensions of brand personality", *Journal of Marketing Research*, Vol. 34, August, pp. 347-56.

Aaker, J.L. (1999), "The malleable self: the role of self-expression in persuasion", *Journal of Marketing Research*, Vol. 36 No. 1, pp. 45-57.

Alba, J.W. and Hutchinson, J.W. (1987), "Dimensions of consumer expertise", *Journal of Consumer Research*, Vol. 13 No. 4, March, pp. 411-54.

Albers-Millers, N.D. (1999), "Consumer misbehavior: why people buy illicit goods", *The Journal of Consumer Marketing*, Vol. 16 No. 3, pp. 273-83.

Ang, S., Cheng, P., Lim, E. and Tambyah, S. (2001), "Spot the difference: consumer responses towards counterfeits", *Journal of Consumer Marketing*, Vol. 18 No. 3, pp. 219-35.

Anti-Counterfeiting Group Survey Report (2004), *Why Should You Care about Counterfeiting?*, available at: www.a-cg.com/guest_frames.html (accessed 11 September 2006).

Axelrod, J.N. (1968), "Attitude measures that predict purchase", *Journal of Advertising Research*, Vol. 8 No. 1, pp. 3-17.

Baker, T., Hunt, J.B. and Scribner, L.L. (2002), "The effect of introducing a new brand on consumer perceptions of current brand similarity: the roles of product knowledge and involvement", *Journal of Marketing Theory and Practice*, Vol. 10 No. 4, Fall, pp. 45-57.

Bamossy, G. and Scammon, D. (1985), "Product counterfeiting: consumers and manufacturers beware", *Advances in Consumer Research*, Vol. 12 No. 1, pp. 334-40.

Baron, R.M. and Kenny, D.A. (1986), "The moderator-mediator variable distinction in social psychological research: conceptual, strategic, and statistical considerations", *Journal of Personality and Social Psychology*, Vol. 51 No. 6, pp. 1173-82.

Belch, H.W. and Belch, M.A. (1995), *Introduction to Advertising and Promotion: An Integrated Marketing Communications Perspective*, 3rd ed., Irwin, Boston, MA.

Berger, I.E., Ratchford, B.T. and Haines, G.H. Jr (1994), "Subjective product knowledge as a moderator of the relationship between attitudes and purchase intentions for a durable product", *Journal of Economic Psychology*, Vol. 15 No. 2, June, pp. 301-14.

Bettman, J.A. and Park, C.W. (1980), "Effects of prior knowledge and experience and phase of the choice process on consumer decision-making processes: a protocol analysis", *Journal of Consumer Research*, Vol. 7 No. 3, December, pp. 234-48.

Bian, X. (2006), "An examination of factors influencing the formation of the consideration set and consumer purchase intention in the context of non-deceptive counterfeiting", University of Glasgow, Glasgow, unpublished PhD thesis.

Bian, X. and Moutinho, L. (2009), "An investigation of determinants of counterfeit purchase consideration", *Journal of Business Research*, Vol. 62, pp. 368-78.

Bian, X. and Veloutsou, C. (2007), "Consumers' attitudes regarding non-deceptive counterfeit brands in the UK and China", *Journal of Brand Management*, Vol. 14 No. 3, pp. 211-22.

Biel, A. (1992), "How brand image drives brand equity", *Journal of Advertising Research*, Vol. 32 No. 6, November/December, pp. RC6-RC12.

Biocca, F., Li, H. and Daughety, R.M. (2001), "Experiential e-commerce: relationship of physical and social presence to consumer learning, attitudes, and decision making", paper presented at the Presence Conference, Philadelphia, PA, May.

Blair, M.E. and Innis, D.E. (1996), "The effects of product knowledge on the evaluation of warranted brands", *Psychology and Marketing*, Vol. 13 No. 5, pp. 445-56.

Blatt, J. (1993), "Battling counterfeit products on the US side of the Pacific Rim", *The International Computer lawyer*, Vol. 1 No. 13, pp. 32-3.

Bloch, P., Bush, R. and Campbell, L. (1993), "Consumer 'accomplices' in product counterfeiting", *Journal of Consumer Marketing*, Vol. 10 No. 4, pp. 27-36.

Bloor, M., Frankland, J., Thomas, M. and Robson, K. (2001), *Focus Groups in Social Research*, Sage Publications, London, Thousand Oaks, CA and New Delhi.

Bolton, R.N., Chapman, R.G. and Zych, J.M. (1990), "Pretesting alternative survey administration design", *Applied Marketing Research*, Vol. 30 No. 3, pp. 8-13.

Bove, L.L. and Johnson, L.W. (2000), "A customer-service worker relationship model", *International Journal of Service Industry Management*, Vol. 11 No. 5, pp. 491-511.

Browne, B.A. and Kaldenberg, D.O. (1997), "Conceptualizing self-monitoring: links to materialism and product involvement", *Journal of Consumer Marketing*, Vol. 14 No. 1, pp. 31-44.

Bryman, A. and Cramer, D. (1999), *Quantitative Data Analysis: With SPSS Release 8 for Windows: A Guide for Social Scientists*, Routledge, London and New York, NY.

Bush, R., Bloch, P. and Dawson, S. (1989), "Remedies for product counterfeiting", *Business Horizon*, Vol. 32 No. 1, January-February, pp. 59-65.

Calder, B.J., Phillips, L.W. and Tybout, A.M. (1981), "Designing research for application", *Journal of Consumer Research*, Vol. 8 No. 9, pp. 197-207.

Carty, P. (1994), "Fake's progress", *Accountancy*, Vol. 114 No. 1216, December, pp. 44-6.

Celsi, R.L. and Olson, J.C. (1988), "The role of involvement in attention and comprehension processes", *Journal of Consumer Research*, Vol. 15 Vol. 2, September, pp. 210-24.

Chakravarti, A. and Janiszewski, C. (2003), "The influence of macro-level motives on consideration set composition in novel purchase situations", *Journal of Consumer Research*, Vol. 30 No. 2, September, pp. 244-58.

Chaudhry, P.E. and Walsh, M.G. (1996), "An assessment of the impact of counterfeiting in international markets: the piracy paradox persists", *Columbia Journal of World Business*, Vol. 31 No. 3, Fall, pp. 34-49.

Cho, Y., Im, I., Hiltz, R. and Fjermestad, J. (2002), "The effects of post-purchase evaluation factors on online vs offline customer complaining behavior: implications for customer loyalty", *Advances in Consumer Research*, Vol. 29 No. 1, pp. 318-26.

Chung, H. and Zhao, X. (2003), "Humour effect on memory and attitude: moderating role of product involvement", *International Journal of Advertising*, Vol. 22 No. 1, pp. 117-44.

Churchill, G.A. (1999), *Marketing Research: Methodological Foundations*, 7th ed., The Dryden Press, London.

Cliff, N. and Caruso, J.C. (1998), "Reliable component analysis through maximizing composite reliability", *Psychological Methods*, Vol. 3 No. 3, pp. 291-308.

Clunas, C. (1991), *Superfluous Things: Material Culture and Social Status in Early Modern China*, University of Illinois Press, Urbana, IL.

Cohen, J.B. (1983), "Involvement and you: 1,000 great ideas", *Advances in Consumer Research*, Vol. 10 No. 1, pp. 325-8.

Cohen, L. (1966), "The level of consciousness: a dynamic approach to the recall technique", *Journal of Marketing Research*, Vol. 3 No. 2, May, pp. 142-8.

Cordell, V., Wongtada, N. and Kieschnick, L. (1996), "Counterfeit purchase intentions: role of lawfulness attitudes and product traits as determinants", *Journal of Business Research*, Vol. 35 No. 1, January, pp. 41-53.

de Chernatony, l. and McDonald, M.H.B. (1998), *Creating Powerful Brands in Consumer, Service and Industrial Markets*, Butterworth-Heinemann, Oxford.

de Matos, C.A., Ituassu, C.T. and Rossi, C.A. (2007), "Consumer attitude toward counterfeits: a review and extension", *Journal of Consumer Marketing*, Vol. 24 No. 1, pp. 36-47.

de Wulf, K., Odekerken-Schröder, G. and Lacobucci, D. (2001), "Investments in consumer relationships: a cross-country and cross-industry exploration", *Journal of Marketing*, Vol. 65 No. 4, pp. 33-51.

Dholakia, U.M. (1997), "An investigation of the relationship between perceived risk and product involvement", *Advances in Consumer Research*, Vol. 24 No. 1, pp. 159-67.

Dholakia, U.M. (1998), "Involvement-response models of joint effects: an empirical test and extension", *Advances in Consumer Research*, Vol. 25 No. 1, pp. 499-506.

Diamantopoulos, A., Reynolds, N. and Schlegelmilch, B. (1994), "Pretesting in questionnaire design: the impact of respondent characteristics on error detection", *Journal of Market Research Society*, Vol. 36 No. 4, pp. 295-313.

Diamantopoulos, A., Smith, G. and Grime, I. (2005), "The impact of brand extensions on brand personality: experimental evidence", *European Journal of Marketing*, Vol. 39 Nos 1/2, pp. 129-49.

Dobni, D. and Zinkhan, G.M. (1990), "In search of brand image: a foundation analysis", *Advances in Consumer Research*, Vol. 17 No. 1, pp. 110-19.

Dodge, H.R., Edwards, E.A. and Fullerton, S. (1996), "Consumer transgressions in the marketplace: consumers' perspectives", *Psychology & Marketing*, Vol. 13 No. 8, December, pp. 821-35.

Dolich, I.J. (1969), "Congruence relationships between self images and product brands", *Journal of Marketing Research*, Vol. 6 No. 1, February, pp. 80-4.

Dubois, B. and Paternault, C. (1995), "Observations: understanding the world of international luxury brands: the dream formula", *Journal of Advertising Research*, Vol. 35 No. 4, pp. 69-75.

Eisend, M. and Schuchert-Güler, P. (2006), "Explaining counterfeit purchase: a review and preview", *Academy of Marketing Science Review*, Vol. 12, pp. 1-26.

Fazio, R.H. (1990), "Multiple processes by which attitudes guide behavior: the mode model as an integrative framework", in Zabba, M.P. (Ed.), *Advances in Experimental Social Psychology*, Vol. 23, Academic Press, New York, NY, pp. 75-109.

Feldwick, P. (1996), "What is brand equity anyway, and how do you measure it?", *Journal of the Market Research Society*, Vol. 38 No. 2, pp. 85-104.

Fern, E.F. (2001), *Advanced Focus Group Research*, Sage, Thousand Oaks, CA, London and New Delhi.

Fill, C. (1999), *Marketing Communications: Contexts, Contents and Strategies*, 2nd ed., Prentice-Hall Europe, London.

Fishbein, M. (1967), "Attitude and the prediction of behavior", in Fishbein, M. (Ed.), *Attitude Theory and Measurement*, John Wiley & Sons, New York, NY, pp. 477-92.

Freedman, H. (1999), "Chinese copycats are leaving international brands fit to be tied", *Forbes*, Vol. 163, April, pp. 48-54.

Freling, T. and Forbes, L. (2005), "An examination of brand personality through methodological triangulation", *Journal of Brand Management*, Vol. 13 No. 2, November, pp. 148-62.

Gardner, B. and Levy, S. (1955), "The product and the brand", *Harvard Business Review*, March-April, pp. 33-9.

Gentry, J.W., Putrevu, S. and Shultz, C.J. (2006), "The effects of counterfeiting on consumer search", *Journal of Consumer Behaviour*, Vol. 5 No. 3, pp. 245-56.

Gentry, J.W., Putrevu, S., Shultz, C.J. and Commuri, S. (2001), "How now, Ralph Lauren? The separation of brand and product in a counterfeit culture", *Advances in Consumer Research*, Vol. 27 No. 1, pp. 258-65.

Green, R.T. and Smith, T. (2002), "Executive insights: countering brand counterfeiters", *Journal of International Marketing*, Vol. 10 No. 4, pp. 89-106.

Grossman, G. and Shapiro, C. (1988a), "Foreign counterfeiting of status goods", *Journal of Economics*, Vol. 103 No. 1, February, pp. 79-100.

Grossman, G. and Shapiro, C. (1988b), "Counterfeit-product trade", *American Economic Review*, Vol. 78 No. 1, March, pp. 59-75.

Harvey, M.G. and Ronkainen, I.A. (1985), "International counterfeiters: marketing success without the cost and the risk", *Columbia Journal of World Business*, Vol. 20 No. 3, Fall, pp. 37-45.

Hem, L.E. and Iversen, N.M. (2002), "Decomposed similarity measures in brand extensions", *Advances in Consumer Research*, Vol. 29 No. 1, pp. 199-206.

Holden, S.J.S. (1993), "Understanding brand awareness: let me give you a c(lue)", *Advances in Consumer Research*, Vol. 20 No. 1, pp. 383-8.

Hopkins, D., Kontnik, L. and Trunage, M. (2003), *Counterfeiting Exposed – Protecting Your Brand and Customers*, John Wiley & Sons, New York, NY.

Hornik, J. (1982), "Impact of pre-call request form and gender interaction on response to the mail survey", *Journal of Marketing Research*, Vol. 19 No. 1, pp. 144-51.

Hornik, J. and Ellis, S. (1988), "Strategies to secure compliance for a mall intercept interview", *Public Opinion Quarterly*, Vol. 52 No. 4, Winter, pp. 539-51.

Houston, M.J. and Rothschild, M.L. (1978), "Conceptual and methodological perspectives on involvement", *Proceedings of Educators of American Marketing Association*, pp. 184-7.

Jex, S.M. and Thomas, J.L. (2003), "Relations between stressors and group perceptions: main and mediating effects", *Works & Stress*, Vol. 17 No. 2, pp. 158-69.

Johnson, M.D. and Puto, C.P. (1987), "A review of consumer judgement and choice", in Houston, M. (Ed.), *Review of Marketing*, American Marketing Association, Chicago, IL, pp. 236-92.

Kapferer, J-N. (1995), "Brand confusion: empirical study of a legal concept", *Psychology & Marketing*, Vol. 12 No. 6, pp. 551-69.

Kay, H. (1990), "Fake's progress", *Management Today*, July, pp. 54-9.

Keller, K.L. (1993), "Conceptualizing, measuring, and managing consumer-based brand equity", *Journal of Marketing*, Vol. 57 No. 1, January, pp. 1-22.

Kempf, D.S. and Smith, R.E. (1998), "Consumer processing of product trial and the influence of prior advertising: a structural modelling approach", *Journal of Marketing Research*, Vol. 35 No. 3, August, pp. 325-38.

Kleine, R.E., Klein, S.S. and Kernan, J.B. (1993), "Mundane consumption and the self: a social-identity perspective", *Journal of Consumer Research*, Vol. 3 No. 3, December, pp. 327-43.

Kleiser, S.B. and Wagner, J.A. (1999), "Understanding the pioneering advantage from the decision maker's perspective: the case of product involvement and the *status quo* bias", *Advances in Consumer Research*, Vol. 26 No. 1, pp. 593-7.

Kokkinaki, F. (1999), "Predicting product purchase and usage: the role of perceived control, past behavior and product involvement", *Advances in Consumer Research*, Vol. 26 No. 1, pp. 576-83.

Kotler, P. (1999), *Marketing Management: Analysis, Planning, Implementation, and Control*, Prentice-Hall, Englewood Cliffs, NJ.

Laroche, M., Bergeron, J. and Goutaland, C. (2003), "How intangibility affects perceived risk: the moderating role of knowledge and involvement", *Journal of Services Marketing*, Vol. 17 No. 2, pp. 122-40.

Laurent, G. and Kapferer, J-N. (1985), "Measuring consumer involvement profiles", *Journal of Marketing Research*, Vol. 22 No. 1, February, pp. 41-53.

Lefkoff-Hagius, R. and Mason, C. (1993), "Characteristics, beneficial, and image attributes in consumer judgements of similarity and preference", *Journal of Consumer Research*, Vol. 20 No. 1, pp. 100-10.

Li, H., Daugherty, T. and Biocca, F. (2002), "Impact of 3-D advertising on product knowledge, brand attitude, and purchase intention: the mediating role of presence", *Journal of Advertising*, Vol. 31 No. 3, Fall, pp. 43-57.

MacKinnon, D.P. (1993), "Analysis of mediating variables in prevention intervention studies", in Beatty, A.C.a. L.A. (Ed.), *Scientific Methods in Prevention and Intervention Research*, NIDA, Washington, DC, pp. 127-53.

MacKinnon, D.P., Lockwood, C.M., Hoffman, J.M., West, S.G. and Sheets, V. (2002), "A comparison of methods to test mediation and other intervening variable effects", *Psychological Methods*, Vol. 7, pp. 83-104.

McQuarrie, E.F. and Munson, J.M. (1992), "A revised product involvement inventory: improved usability and validity", *Advances in Consumer Research*, Vol. 19 No. 1, pp. 108-15.

Mai, L.-W. and Ness, M. (1997), "Consumers' perceptions of mail-order speciality foods", *Journal of Marketing Management*, Vol. 13 No. 7, pp. 705-24.

Malhotra, N.K. (1988), "Self-concept and product choice: an integrated perspective", *Journal of Economic Psychology*, Vol. 9 No. 1, March, pp. 1-28.

Marks, L.J. and Olson, J.C. (1981), "Toward a cognitive structure conceptualization of product familiarity", *Advances in Consumer Research*, Vol. 8 No. 1, pp. 145-50.

Mittal, B. (1995), "Comparative analysis of four scales of consumer involvement", *Psychology & Marketing*, Vol. 12 No. 7, pp. 663-82.

Morrin, M. (1999), "The impact of brand extensions on parent brand memory structures and retrieval processes", *Journal of Marketing Research*, Vol. 36 No. 4, pp. 517-25.

Mowen, J.C. (1993), *Consumer Behavior*, 3rd ed., Macmillan, New York, NY.

Myers, J. and Shocker, A. (1981), "The nature of product-related attributes", in Sheth, J. (Ed.), *Research in Marketing*, Vol. 5, JAI Press, Greenwich, CT, pp. 211-36.

Nedungadi, P. (1990), "Recall and consumer consideration sets: influencing choice without altering brand evaluations", *Journal of Consumer Research*, Vol. 17 No. 3, December, pp. 263-76.

Nia, A. and Zaichkowsky, J. (2000), "Do counterfeits devalue the ownership of luxury brands?", *Journal of Product & Brand Management*, Vol. 9 No. 7, pp. 485-97.

Nkwocha, I., Bao, Y., Johnson, W.C. and Brotspies, H.V. (2005), "Product fit and consumer attitude toward brand extensions: the moderating role of product involvement", *Journal of Marketing Theory and Practice*, Summer, pp. 49-61.

Nowell, C. and Stanley, L.R. (1991), "Length-biased sampling in mall intercept surveys", *Journal of Marketing Research*, Vol. 28 No. 4, November, pp. 475-9.

Oppenheim, A.N. (2000), *Questionnaire Design, Interviewing and Attitude Measurement*, New Edition, Continuum, London and New York, NY.

Park, C. and Srinivasan, V. (1994), "A survey-based method for measuring and understanding brand equity and its extendibility", *Journal of Marketing Research*, Vol. 31 No. 2, May, pp. 271-88.

Park, C., Milberg, S. and Lawson, R. (1991), "Evaluation of brand extension: the role of product-level similarity and brand concept consistency", *Journal of Consumer Research*, Vol. 18 No. 2, September, pp. 185-93.

Penz, E. and Stöttinger, B. (2003), "Brands and counterfeits – what do they have in common?", paper presented at the European Marketing Academy Conference, May.

Penz, E. and Stöttinger, B. (2005), "Forget the 'real' thing – take the copy! An explanatory model for the volitional purchase of counterfeit products", *Advances in Consumer Research*, Vol. 32 No. 1, pp. 568-75.

Penz, E. and Stöttinger, B. (2008), "Original brands and counterfeit brands – do they have anything in common?", *Journal of Consumer Behaviour*, Vol. 7, pp. 146-63.

Perry, V.G. and Morris, M.D. (2005), "Who is in control? The role of self-perception, knowledge, and income in explaining consumer financial behaviour", *The Journal of Consumer Affairs*, Vol. 39 No. 2, pp. 299-311.

Peter, P.J. and Olson, J.C. (1994), *Understanding Consumer Behavior*, McGraw-Hill/Irwin, Burr Ridge, IL.

Phau, I., Prendergast, G. and Chuen, L.H. (2001), "Profiling brand-piracy-prone consumers: an exploratory study in Hong Kong's clothing industry", *Journal of Fashion Marketing and Management*, Vol. 5 No. 1, pp. 45-55.

Plummer, J.T. (1985), "How personality makes a difference", *Journal of Advertising Research*, Vol. 24 No. 6, December/January, pp. 27-83.

Plummer, J.T. (2000), "How personality makes a difference", *Journal of Advertising Research*, Vol. 40 No. 6, November/December, pp. 79-83.

Poulter, S. (2006), "Cheap and chic fakes snapped up by the smart set", *Daily Mail*, April 28, p. 28.

Preacher, K.J. and MacCallum, R.C. (2003), "Repairing Tom Swift's electric factor analysis machine", *Understanding Statistics*, Vol. 2 No. 1, pp. 13-43.

Puth, G., Mostert, P. and Ewing, M. (1999), "Consumer perceptions of mentioned product and brand attributes in magazine advertising", *Journal of Product & Brand Management*, Vol. 8 No. 1, pp. 38-49.

Reynolds, T.J. and Gutman, J. (1984), "Advertising is image management", *Journal of Advertising Research*, Vol. 24 No. 1, February-March, pp. 27-38.

Romaniuk, J. (2003), "Brand attributes – 'distribution outlets' in the mind", *Journal of Marketing Communications*, Vol. 9 No. 2, June, pp. 73-92.

Sherif, M. and Cantril, H. (1947), *The Psychology of Ego Involvement*, Wiley, New York, NY.

Smith, D.C. and Park, C.W. (1992), "The effects of brand extensions on market share and advertising efficiency", *Journal of Marketing Research*, Vol. 29 No. 3, August, pp. 296-313.

Soloman, M.R., Surprenant, C., Czepiel, J.A. and Guttman, E.G. (1985), "A role theory perspective on dyadic interactions: the service encounter", *Journal of Marketing*, Vol. 49 No. 1, pp. 99-111.

Spears, N. and Singh, S. (2004), "Measuring attitude toward the brand and purchase intentions", *Journal of Current Issues and Research in Advertising*, Vol. 26 No. 2, pp. 53-66.

Stigler, M.H., Kugler, K.C., Komro, K.A., Leshabari, M.T. and Klepp, K.I. (2005), "AIDS education for Tanzanian youth: a mediation analysis", *Health Education Research: Theory & Practice*, November, pp. 1-11.

Stokmans, M. (1991), *The Relative Importance of Product Attributes: Consumer Decision Theories in New-Product Development*, Delft University Press, Delft.

Tom, G., Garibaldi, B., Zeng, Y. and Pilcher, J. (1998), "Consumer demand for counterfeit goods", *Psychology & Marketing*, Vol. 15 No. 5, August, pp. 405-21.

Vaughn, S., Schumm, J.S. and Sinagub, J. (1996), *Focus Group Interviews in Psychology and Education*, Sage Publications, Thousand Oaks, CA.

Wee, C., Tan, S-J. and Cheok, K-H. (1995), "Non-price determinants of intention to purchase counterfeit goods", *International Marketing Review*, Vol. 12 No. 6, pp. 19-47.

Wiseman, F., Schafer, M. and Schafer, R. (1983), "An experimental test of the effects of a monetary incentive on cooperation rates and data collection costs in central-location interviewing", *Journal of Marketing Research*, Vol. 20 No. 4, November, pp. 439-42.

Zaichkowsky, J.L. (1985), "Measuring the involvement construct", *Journal of Consumer Research*, Vol. 12 No. 3, December, pp. 341-52.

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