

Using Structural Equation Modeling to Explore Saudi Consumers' Intentions Regarding Counterfeit Goods

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Although the Saudi Customs Department attempts to prevent the import and/or export of counterfeit goods more than 62 million counterfeit products, with a value of approximately US\$50 million, were confiscated at ports in Saudi Arabia over the past year in 2012. This paper focuses on the key antecedents of Saudi consumer attitudes toward counterfeit products, as well as the influence that these attitudes have on the Saudi behavioral intentions regarding these products. A 10 min pen and structured questionnaire was distributed to 520 subjects in Riyadh through a nonprobability, convenience-sampling approach to test the hypothesized relationships using structural equation model (SEM) test with maximum likelihood estimation. The empirical results from the structural model suggest that: Saudi consumer intentions to buy counterfeited products are influenced by perceived risk, subjective norm, price-quality inference, prior purchase of counterfeits, integrity, and personal gratification. The paper reinforces the mediator role that attitude plays in the relationship between these antecedents and behavioral intentions. Furthermore, a consumer's previous experience with consumption of counterfeits does not have a direct effect on behavioral intentions; only an indirect effect through attitude. This paper informs policy makers and brand managers about the main predictors of consumer's attitudes toward counterfeits. In this way, advertisements that are intended to discourage the consumption of counterfeits could use the perceived risk as their primary message.

Key Words: Attitudes, Consumer behavior, Counterfeiting, integrity, subjective norm, Saudi Arabia

Introduction

Counterfeiting is a deliberate attempt to deceive consumers by copying and marketing inferior goods by emulating the style, design, and packaging of more expensive elite brands and offering them at a lower price (McCluskey, 2001; Kotler & Keller, 2007; Veloutsou & Bian, 2008). Counterfeit goods are produced, distributed, and consumed at an alarming rate around the world. Despite legislation that has aimed to reduce the sale of counterfeit merchandise, industry leaders and designers worldwide are working with groups such as the International Anti-Counterfeiting Coalition (IACC) to protect others from copying their designs. Worldwide, the annual trade in counterfeit goods has reached US\$600 billion. A number of countermeasures have been developed to fight counterfeiting. The development of appropriate countermeasures requires an understanding of counterfeiting as a general phenomenon, as well as the reasons why people purchase counterfeit products. Due partly to increased consumer demand, counterfeiting has increased by over 10,000 percent over the past 20 years (Norum & Cuno, 2011).

Although the Saudi Customs Department attempts to prevent the import and/or export of counterfeit goods, the system is not as developed, organized, and reliable as it is in other countries. According to the director-general of Saudi Customs, more than 62 million counterfeit products, with a value of approximately US\$50 million, were confiscated at ports in Saudi Arabia over the past year in 2012. Technological advances have enabled counterfeiters to produce better copies of the products and the packaging (Haie-Fayle & Hubner, 2007). This has made detection more difficult and made it harder to differentiate counterfeits from genuine products. Aljazeera (May, 2013) recently reported that Saudi police raided a number of showrooms and warehouses that had been used for inventory and sales, resulting in the seizure of 55,000 containers of fake ink for Hewlett Packard printers, and more than 5000 fake laptop adapters. Also, in a key move to combat counterfeiting, authorities also confiscated equipment used to manufacture the fake products.

The focus of the highest-profile counterfeit investigations and prosecutions has been on luxury goods, such as handbags, which are commonly sold by street merchants and vendors at mall kiosks. The trade

in counterfeit luxury items has become a multi-million-dollar business for traffickers, largely due to the facts that counterfeit purses are commonly accepted in many societies and that counterfeiters have sophisticated strategies for evading state or federal agents (Amendolara, 2005). Because the luxury goods market is highly lucrative and growing extremely quickly, luxury designer brands have become counterfeiting targets (United Trademark & Patent Services, 2013).

Sharia law (Islamic law) applies to all matters in Saudi Arabia, regardless of whether they are civil or criminal. Saudi Arabia differs from many other countries in that all piracy and counterfeiting actions are addressed from both criminal and civil perspectives. The country's Trademark Law allows severe punishments for counterfeiting. According to Saudi law, the following offences are subject to imprisonment for up to one year and fine of between 50,000 and 1 million Saudi Riyals: Imitation or forgery of a registered mark that misleads the public; use of another company's trademark in bad faith; and offering counterfeit products for sale, or possession of such products with the intention of selling them. A victim of counterfeiting may also claim damages, although Saudi courts tend to be conservative and rarely award high damages. The law for repeat offenders provides for more stringent punishments, including closing the business for up to six months and media announcement of the judgment. Saudi Arabia has signed the Berne Convention for the Protection of Literary and Artistic Works, according to which the Saudi Arabian Copyright Law of 2003 states that any work enjoying protection in its country of its origin, shall be protected in Saudi Arabia to the same extent as in its home country. Despite these laws, counterfeiting represents an increasing problem for legitimate producers of globally branded products, ranging from computer software and pharmaceuticals to fashion merchandise. The focus of Saudi legislation is on deterring the suppliers and sellers of counterfeit goods, but not the consumers or the eventual purchasers of the goods, who face few legal ramifications. In recent years, however, the growth in trafficking of counterfeit goods has led to greater interest in understanding consumer behavior with regard to the purchase of counterfeit goods. Without the demand, there would be no need for the supply.

In an academic context, no studies have yet investigated this phenomenon in Saudi Arabia. A review of previous research has revealed some results that indicate a need for further investigation. Norum and Cuno (2011) argued that the quantitative designs of such studies do not allow further insights into determinants that the researcher was hitherto unaware of or into underlying mechanisms that could explain

consumers' intentions to purchase counterfeits. Furthermore, studies on the subject have been based on North American or South Asian consumers. Abbas (2013) argued that the outcomes of such research can also be influenced by the culture. It is clear that great care must be taken when extending the findings from studies conducted in developed countries such as the United States to countries such as Saudi Arabia. Nijssen et al. (1999) also questioned how valid it would be to apply the findings and models from large countries to smaller countries.

The present study attempts to address this gap by obtaining a better understanding of certain factors that affect consumer attitude towards counterfeit products in less developed countries, specifically Saudi Arabia. The study has two main objectives: the first is to test a model that integrates the main predictors of consumers' attitudes and behavioral intentions regarding counterfeits; the second is to help companies understand the main factors that influence consumer behavior toward counterfeits and to create effective anti-piracy strategies.

Theoretical Background

A consumer will be motivated to buy counterfeit products when the performance risks of doing so are low (Bamosy & Scammon, 1985). For example, a consumer may knowingly buy a counterfeit watch, but may not buy a counterfeit product that presents a high risk, such as auto parts or medicine. Furthermore, Wang et al. (2005) suggested that value consciousness has a positive influence on attitude towards purchasing a counterfeit product. Lichtenstein et al. (1990, p. 56) defined value consciousness as the "concern for paying lower prices, subject to some quality constraints".

Consumer attitude toward counterfeits

Attitude represents a positive or negative feeling toward something; in other words, the amount of affect (Fishbein & Ajzen, 1975). The attitude toward behavior "represents the person's general feeling of favorableness or un-favorableness for the behavior in question" (Ajzen & Fishbein, 1980, p. 285). Ajzen and Fishbein further explained that attitude towards behavior is the estimation of positive or negative self-evaluation regarding a certain behavior. This construct depends on whether behavior is esteemed positively or negatively. Attitude is "determined by a total set of accessible behavioral beliefs linking behavior to various outcomes and other attributes" (Ajzen & Fishbein, 1980, p. 283). In the present study, a consumer's evaluation of counterfeits is an important predictor of that individual's intention to buy a

counterfeit product, as well as how much agreement he or she will receive from his or her reference group regarding this behavior. In this way, the focus of the investigation becomes the factors that influence consumer evaluation of a counterfeit. Based on the literature review, the main predictors are presented below.

Price quality inference

The two main differences between a counterfeit and an original product, as perceived by a consumer, are lower prices and the lack of quality guarantees. Price and risk constructs are likely to be important factors regarding a consumer's attitude toward counterfeit products (Huang et al., 2004). Studies such as Cespedes et al. (1988) and Cordell et al. (1996) showed price difference to be an important variable when choosing a counterfeit. Consumers commonly believe that price level implies quality and is an important factor in consumer behavior (Chapman and Wahlers, 1999). In this sense, the tendency of consumers to believe that "high (low) price means high (low) quality" becomes even more important when little information is available regarding the product's quality or the consumer is unable to determine the product's quality (Tellis & Gaeth, 1990). As Huang et al. (2004) also argued, the fact that counterfeits are usually sold at lower prices suggests that the greater the price-quality relationship for the consumer, the lower that consumer's perception will be of the quality of the counterfeit product. Thus the following hypotheses can be proposed:

- *H1. A consumer who more strongly believes in the price-quality inference will have a more negative attitude toward counterfeit products.*

Risk aversion and perceived risk in counterfeits purchasing

Risk averseness is the propensity of a person to avoid taking risks and is commonly considered to be a personality variable (Bonoma & Johnston, 1979; Zinkhan & Karande, 1990). This psychological trait is an important characteristic with which to discriminate between buyers and non-buyers of a product category, especially a risky one (such as online shoppers and non-shoppers) (Donthu & Garcia, 1999). In terms of counterfeits, Huang et al. (2004) found a significant inverse relationship between risk averseness and attitude. Thus the following hypotheses can be proposed:

- *H2. Consumers who are more (less) risk-averse will have an unfavorable (favorable) attitude toward counterfeits.*

As H2 states, consumers feel that counterfeit products are sold with lower prices and poorer guarantees, which means that the risk variable is just as important as the price-quality inference. The concept of perceived risk, which is commonly used in the marketing literature, defines risk in terms of how consumers perceive the uncertainty and the adverse consequences of purchasing a service or product (Dowling & Staelin, 1994). Hence, consumers judge the likelihood of a problem occurring, and also the negative consequences of such a problem; this judgment will influence all stages of the consumer's decision-making process. Because the nature of these problems varies, the risk could include a range of components, including performance, social, financial, psychological, safety, and time/opportunity dimensions (Havlena & DeSarbo, 1991).

Albers-Miller (1999) found that the risk factor has a significant impact on the purchase of counterfeit products. A consumer may consider that the following points. Firstly, the product may not perform as well as an original equivalent, and the seller does not offer a warranty. Secondly, selecting a counterfeit product will not bring the best possible monetary gain. Thirdly, the product may not be as safe as the original. Fourthly, selecting a counterfeit product will negatively affect how others perceive the consumer. Finally, the consumer may waste time and/or effort and find it inconvenient to have to repeat a purchase due to the poor quality of the counterfeit. On this basis, the following hypotheses can be proposed:

- *H3. Consumers who perceive more (less) risk in counterfeits will have an unfavorable (favorable) attitude toward counterfeits.*

Integrity

A consumer who purchases a counterfeit product is not committing a criminal act. However, because participating in such a transaction supports an illegal activity (that is, counterfeit selling), a consumer's respect for the law might explain the degree to which he or she will engage in the purchase of counterfeits. Indeed, research has shown that the willingness of consumers to purchase counterfeit products is negatively related to their attitudes toward lawfulness (Cordell et al., 1996). Consumers with lower ethical standards are expected to experience less guilt when purchasing a counterfeit product (Ang et al., 2001). Instead, such consumers rationalize their behavior in order to reduce the cognitive dissonance of an unethical behavior. Based on this rationale, the following hypotheses can be proposed:

- *H4. Consumers who attribute more (less) integrity toward themselves will have an unfavorable (favorable) attitude toward counterfeits.*

Personal gratification

Personal gratification refers to a person's need for social recognition and a sense of accomplishment (Ang et al., 2001). The literature offers conflicting opinions regarding this point. Bloch et al. (1993) suggested that consumers who choose to purchase a counterfeit consider themselves to be less well off financially and less successful, less confident, and of lower status than those who do not buy counterfeit products. On the other hand, Ang et al. (2001) study indicated that personal gratification did not have a significant influence on consumer attitudes toward counterfeits. Due to this lack of consensus, the following hypotheses can be proposed:

H5. Consumers' sense of accomplishment will affect their attitude toward counterfeits.

Subjective norm

Subjective norm is a social factor that refers to the social pressure that a person feels to perform or not perform a given behavior (Ajzen, 1991). A consumer may be informationally susceptible when their choice is influenced by the expertise of others (for example, when the person in question does not have a lot of knowledge about the product category), or normatively susceptible, when he or she is primarily concerned about making an impression on others (Bearden et al., 1989). With regard to counterfeits, a consumer's friends and/or relatives can act as inhibitors or contributors to the consumption, depending on the degree to which they approve of the consumer's behavior. Therefore, the following hypotheses can be proposed:

- *H6. Consumers who perceive that their friends/relatives approve (do not approve) of their purchase of a counterfeit will have favorable (unfavorable) attitude toward counterfeits.*

Previous experience

Scholars have found that buyers of counterfeit products are different from non-buyers; the former tend to view such purchases as being relatively low-risk, and they trust stores that sell counterfeit products and do not consider such purchase to be unethical (Ang et al., 2001). Hence, the following hypotheses can be proposed::

- *H7A. Consumers who have already purchased (have never purchased) a counterfeit have more favorable (unfavorable) attitude toward counterfeits.*
- *H7B. Consumers who have already purchased (have never purchased) a counterfeit have more favorable (unfavorable) behavioral intentions toward counterfeits.*

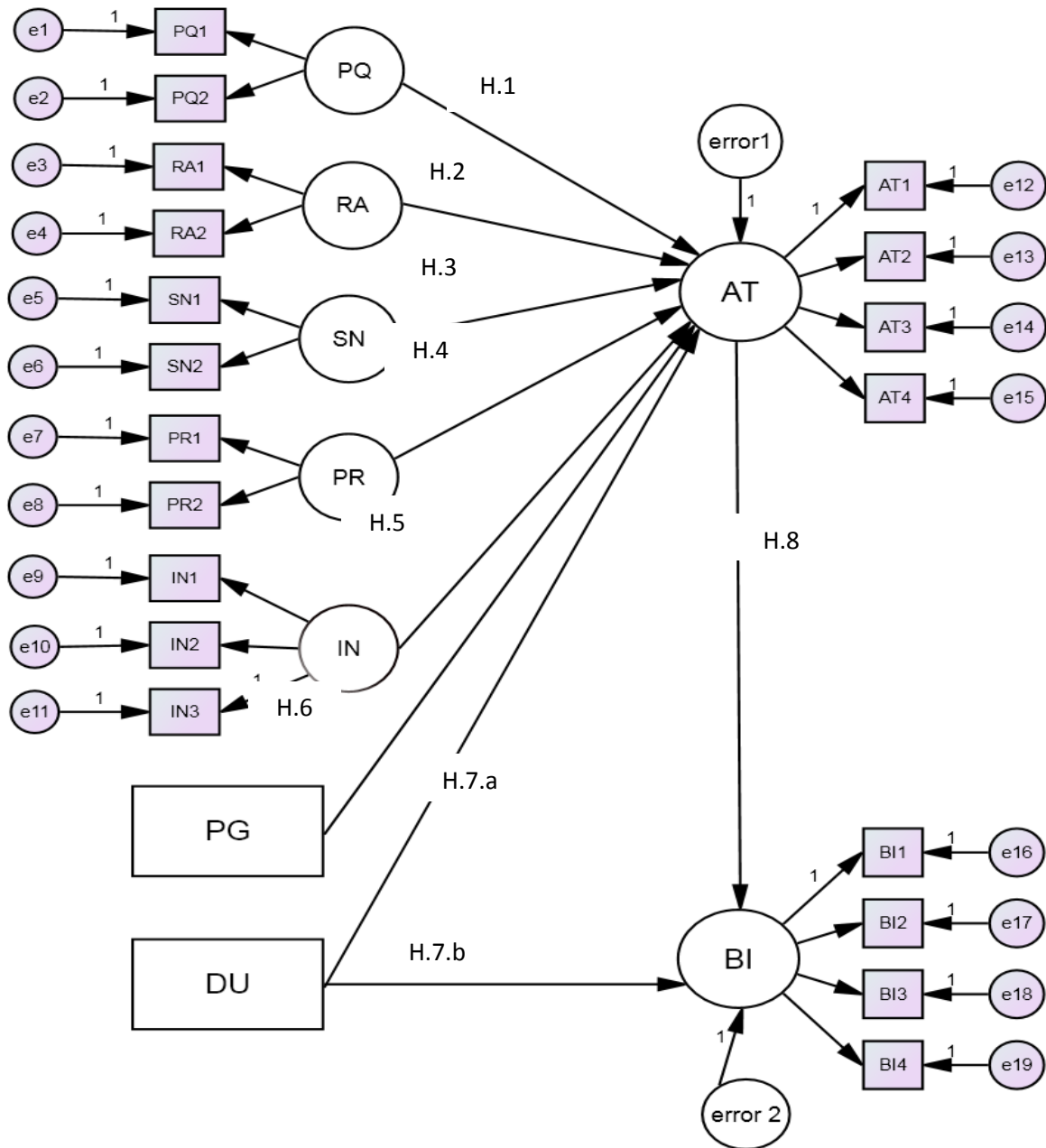
Behavioral Intentions

The marketing literature has examined the attitude-behavioral intentions link extensively. According to the theory of reasoned action, attitude is positively correlated with behavioral intentions, which is an antecedent of real behavior (Ajzen & Fishbein, 1980). Indeed, support has been found for this relationship (Kim & Hunter, 1993). In the context of counterfeits, therefore, the following hypotheses can be proposed:

- *H8: Consumers with more favorable (unfavorable) attitudes toward counterfeits will have more favorable (unfavorable) behavioral intentions toward these products.*

Theoretical Model

Based on the above theoretical background, which was adopted from Matos et al. (2007), Figure 1 shows the model that was proposed in the present study and submitted to empirical test.



Note: PQ – price quality; RA – risk averseness; SN – subjective norm; PR – perceived risk; IN – integrity; PG – personal gratification (observed variables); DU: dummy; AT – attitude; BI – behavioral intentions; for a matter of simplification, correlation paths among exogenous constructs are omitted.

Figure 1. Conceptual model for attitudes toward counterfeited products

Materials and Methods

The researcher conducted a survey of consumers in Riyadh, a city in Saudi Arabia, in the streets close to places where counterfeited products were being sold. The authors trained the interviewers to administer the survey instrument and instructed them to include people with different profiles in the sample, considering gender, age, income, and education. Researchers had to confront several challenges in Saudi Arabia, especially in terms of designing sampling procedures, as male strangers cannot legally or socially approach females. Because of these difficulties, researcher utilized a convenience sample. The questionnaire had to be translated from English to Arabic and use equivalent language. Two bilingual lecturers at the Al Imam language center translated the questionnaire into Arabic, employing the double-translation method to ensure the proper translation of the survey, both to avoid confusion or misinterpretation and also to make sure that the Arabic questionnaire accurately represented the English version (Hair et al., 2006).

The survey also included a question concerning whether participants had already purchased any counterfeited products. Data collection was conducted on weekend days. A total of 520 people responded to the survey and their answers were used in the data analysis. The authors used scales that had been validated in previous research to build the survey instrument. Table 1 summarizes the items that were used for each construct, as well as the sources upon which they were based. Participants responded to the items using Likert scales that ranged from 1 (completely disagree) to 7 (completely agree). The only scale to use a different format was behavioral intentions, which had anchors that ranged from 1 (very unlikely) to 7 (very likely). The study did not specify any particular counterfeit product. Questions used the general expression “counterfeited products” because the aim was to assess consumers’ overall attitudes toward counterfeited products. The collected data was coded and saved into SPSS version 20 and analyzed using AMOS version 14. After the data collection phase, the following aspects were analyzed: (1) descriptive statistics for both the scale items and the demographic variables; (2) detection of missing values and outliers; (3) linearity between the scale items; (4) dimensionality using exploratory factor analysis (EFA); (5) validity and reliability of the scale items using the internal consistency coefficient (Cronbach’s alpha), in addition to extraction of the composite

reliability and average variance, as suggested in the measurement literature (Fornell & Larcker, 1981; Gerbing & Anderson, 1988). Finally, the model parameters were estimated and interpreted.

Results

Descriptive analysis

Among the participants, 308 (59.2 percent) were male. Eighty-seven (16.7 percent) were aged between 21 and 25, 128 (24.6 percent) between 26 and 30, 228 (43.8 percent) between 31 and 40, and 77 (14.9 percent) were 41 or older. Three hundred and eighty-eight (74.6 percent) had completed high education. The largest group of participants (201, or 38.7 percent) said they had monthly income of up to SAR12,000 (equivalent to US\$3300), while 174 (33.5 percent) earned SAR4000–6000 per month, and 97 (18.7 percent) earned more than SAR15000 per month. Most of the participants (463, or 89 percent) affirmed that they had purchased a counterfeit product at some time. No significant differences were found between man mean and women, or between different ranges of age, education, or income.

The scale items presented means that varied from 2.67 (“My relatives and friends think I should buy counterfeited products”) to 6.77 (“I like people who have self-control”). In general, the means of the scale items indicate that respondents had unfavorable attitudes and low behavioral intentions toward counterfeited products. The data collection method (that is, personal interviews) meant that questionnaires did not have missing values because the interviewers were instructed to collect all the requested information from each participant. This data was submitted to the outlier analysis that Hair et al. (1998) suggested which involves computing the Mahalanobis distance and excluding cases that have significantly high values. Using this procedure, eight cases were excluded from the data set. These cases had lower means in those items that referred to perceived risk, and higher values in terms of the propensity to buy counterfeited products, when compared to the rest of the sample. The variance analysis showed significant differences in these means ($p < 0.05$). A linearity analysis was performed by checking the correlations between all of the items that used in the questionnaire. For items from the same construct, the highest value was 0.76 (for items bi1-bi2 from Table 1), which suggests that multicollinearity was not a problem.

Table 1. Descriptive statistics of the questionnaire items

	Scale	Mean	SD
Price quality inference (Lichtenstein et al., 1993, Huang et al., 2004)			
PQ1	Generally speaking, the higher the price of a product, the higher the quality	4.09	2.01
PQ2	The price of a product is a good indicator of its quality	3.99	1.78
PQ3	You always have to pay a bit more for the best	4.14	2.11
Risk averseness (Huang et al., 2004; Donthu and Garcia, 1999)			
RA1	When I buy something, I prefer not to take risks	6.11	1.77
RA2	I like to be sure the product is a good one before buying it	5.98	1.10
RA3	I don't like to feel uncertainty when I buy something.	5.91	1.12
Attitude toward counterfeited products (Huang et al., 2004)			
AT1	Generally speaking, buying gray-market goods is a better choice	3.22	1.43
AT2	There's nothing wrong with purchasing gray-market goods	3.18	1.44
AT3	Buying gray-market goods generally benefits the consumer	3.09	1.63
AT4	I like shopping for gray-market goods	3.11	1.73
AT5	Considering price, I prefer gray-market goods	3.09	1.19
Subjective norm (Ajzen, 1991)			
SN1	My relatives and friends approve of my decision to buy counterfeited products	3.75	2.01
SN2	My relatives and friends think that I should buy counterfeited products	2.67	2.11
Behavioral intentions (Zeithaml et al., 1996)			
Today, what are the chances that you. . .			
BI1	... Will buy a counterfeited product?	2.91	1.91
BI2	... Will recommend to your friends and relatives that they buy a counterfeited product?	2.89	1.09
BI3	... Will say favorable things about counterfeited products?	2.48	1.59
BI4	... Will consider a counterfeited product as a choice when buying something?	2.73	1.48
Perceived risk (Dowling & Staelin, 1994)			
PR1	The risk that I take when I buy a counterfeited product is high	5.66	1.48
PR2	Spending money on a counterfeited product might be a bad decision	6.01	1.56
PR3	Spending money on a counterfeited product is a bad decision	5.88	1.63
Integrity (Ang et al., 2001)			
INT1	I like people who have self-control	6.77	0.89
INT2	I admire responsible people	6.51	0.74
INT3	I consider it very important for people to be polite	6.57	0.79
INT4	I consider honesty as an important quality for one's character	6.11	1.01
Personal gratification (Ang et al., 2001)			
PG1	I always attempt to have a sense of accomplishment	6.33	0.88

Reliability and validity

After completing the EFA, internal consistency reliability to test uni-dimensionality was evaluated using Cronbach's alpha. Each construct shows acceptable Cronbach's alpha readings above 0.60 (Nunnally, 1978); although 0.70 as the accepted cut-off point (Hair et al., 2006), any value >0.60 is regarded as satisfactory (Hair et al., 2006; Nunnally, 1978). Regression weights found for each item when running each construct as a separate model as an indication of convergent validity. Items that had regression weights (that is, lambdas) lower than 0.50 from the scale and recalculated the Cronbach's alpha, composite reliability, and average variance extracted (AVE) were excluded. In conjunction with the value of the lambdas, checked the significance and variance of the item explained by the construct (that is, squared multiple correlation, SMC). Discriminant validity was

performed by comparing the shared variance of each pair of constructs with the average variance extracted in each pair (Fornell & Larcker, 1981). The square root of the AVE for any construct will be greater than the absolute value of the standardized correlation between that construct and any other construct in the analysis [$AVE > \text{correlation}^2$] (Fornell & Larcker, 1981).

Estimation of model parameters

Having completed the above scale refinement, the conceptual model with the remaining indicators has submitted to test (see Figure 1) using the maximum likelihood (ML) method and the generalized least squares (GLS) method. The results reveal that the fit indexes approximate acceptable levels using ML (GFI = 0.897; AGFI = 0.849; NFI = 0.881; CFI = 0.926; PACFI = 0.744; RMSEA = 0.055) and GLS (GFI = 0.936; AGFI = 0.868; NFI = 0.814; CFI = 0.811;

PACFI =0.742; RMSEA = 0.041), according to the measurement literature (e.g., Byrne, 2001). However, the chi-square parameter was significant in both methods ($p < 0.000$). Using the ML method, a value of 2.372 was obtained for the relative chi-square, which is within the acceptable range of 2 or 3 to 1 (Arbuckle, 1997).

Table 2 presents those results produced by the ML, which is the most frequently used method (Thompson, 2002). Considering the antecedents of attitudes, significant paths were found for perceived risk ($p < 0.000$), integrity ($p < 0.002$), personal gratification ($p < 0.012$), subjective norm ($p < 0.019$) and the dummy ($p < 0.015$), which provides support for H3, H4, H5, H6, and H7A, respectively. Only risk averseness was a non-significant antecedent ($p < 0.889$), which fails to support H2. Contrary to our expectations, the results showed a positive relationship between price-quality and attitude ($p < 0.009$), which fails to support H1.

The results of the study also revealed that attitudes toward counterfeits are most significantly affected by the following constructs: perceived risk ($\beta = -0.487$); dummy “have bought a counterfeit before or not” ($\beta = 0.331$), subjective norm ($\beta = 0.245$), integrity ($\beta = 0.157$), price-quality inference ($\beta = 0.149$), and personal gratification ($\beta = 0.109$). These variables – in

the above order – are the most important for explaining consumer attitudes toward counterfeit products. Attitude was found a significant ($p < 0.000$; $\beta = 0.891$), which supported H8, but that the dummy “have bought a counterfeit before or not” was not significant ($p < 0.502$; $\beta = 0.033$), which did not support H7b. This result shows a mediating effect of attitude in the relationship between a proxy of consumer previous experience with counterfeits, the dummy, and consumers’ intentions to buy a counterfeit product. Put another way, experience influences attitudes, which influence behavior.

An alternative model was tested in which constructs are modeled to influence both attitudes and behavioral intentions. Found that most variables have a significant effect on attitudes, they do not significantly affect behavioral intentions (that is, price-quality inference, subjective norm, perceived risk, integrity, dummy, and personal gratification), and only one variable (risk averseness) did not affect either. This finding can be viewed as an indication of parsimony in the original conceptualized model, while it also reinforces the mediating role of attitudes in the relationship between the key reviewed antecedents and the behavioral intentions. Table 2 shows the estimate, S.E, and each parameter’s C.R.

Table 2. Regression weight for hypotheses testing result

Relations		Regression weights	Standard errors	Standardized weights (β)	Critical ratios (t)	p	Asserted	
PQ	→	AT	0.119	0.046	0.149	2.586	0.009	yes
RA	→	AT	0.019	0.153	0.005	0.124	0.889	no
SN	→	AT	0.024	0.011	0.245	2.181	0.019	yes
PR	→	AT	-0.577	0.069	-0.487	-8.362	0.000	yes
IN	→	AT	-0.840	0.244	-0.157	-3.442	0.002	yes
DU	→	AT	1.133	0.177	0.347	6.401	0.000	yes
PG	→	AT	0.218	0.090	0.109	2.422	0.012	yes
AT	→	BI	0.866	0.081	0.891	10.691	0.000	yes
DU	→	BI	0.104	0.160	0.033	0.650	0.502	no

Notes: SMC: attitude = 0:741; behavioral intentions = 0:811.

Based on this finding, Table 2 can determine the results of each hypothesis through C.R. values if they accept it or reject the hypothesis. The only hypothesis to be rejected is H1-b; the other hypotheses are acceptable because they are above +/-1.96 C.R. In variable measured, (interest in foreign travel) is not strong enough because C.R is lower than 1.96.

Discussion

Despite worldwide growth in the gray market, research from a demand perspective remains scarce, as Huang et al. (2004) emphasized. The present paper has aimed to fill this void by investigating the key

antecedents of consumer attitudes toward counterfeits, as well as the influence that this attitude has on behavioral intentions toward these products. Based on recent marketing literature, the paper integrates two conceptual models. The first model was proposed and tested by Huang et al. (2004), who considered price-quality inference, price-consciousness, and risk averseness to be antecedents of consumer attitudes. The second model was proposed by Ang et al. (2001), who considered the antecedents of consumer attitudes to be social factors (that is, informative susceptibility and normative susceptibility) and personality factors (that is, value consciousness, integrity, and personal gratification).

The present study considered a combination of the factors presented in the two above-mentioned models as antecedents. A comparison of the two models reveals that two constructs are similar in content: price-consciousness and value consciousness; this explains the concern about paying lower prices, subject to some quality constraint (Lichtenstein et al., 1993). Ang et al. (2001) found that value-conscious consumers had more favorable attitudes towards piracy than their less value-conscious counterparts. However, the price-consciousness construct was not significant in Huang et al. (2004). The present research did not include this construct; although it does remain an interesting relationship for future studies to test. In the sense of combining factors from both models, subjective norm was considered to represent the social influence. The model in the present study also included a new construct to better explain the risk component, which was the risk that consumers perceive when buying a counterfeit. Neither of the two models presented above considered this variable. Perceived risk is more specific than risk averseness because, while the former deals with how much risk a consumer perceives when purchasing a counterfeit, the latter only indicates the consumer's propensity to take risks overall.

The results from the extended model showed that perceived risk was the most important variable for predicting consumer attitude toward counterfeits, followed by whether the consumer had previously purchase any counterfeit products, subjective norm, integrity, price-quality inference, and personal gratification. The finding that consumers who perceived greater risk in purchasing counterfeits had unfavorable attitudes toward such products is in line with previous research into perceived risk (e.g., Dowling & Staelin, 1994). Those consumers who had purchased counterfeit products previously had favorable attitude toward them. Consumers whose friends and relatives approve of their decision to purchase counterfeits had favorable attitudes; this result is consistent with the predictions of the theory of planned behavior (Ajzen, 1991). Consumers who considered values such as honesty, responsibility, and politeness to be important tended to have more negative attitudes toward counterfeits; this is also consistent with earlier studies (e.g., Ang et al., 2001, Cordell et al., 1996). However, those consumers who seek a sense of accomplishment tended to have positive attitudes about counterfeit products, in contrast with Ang et al.'s study, which found a positive but non-significant effect.

Finally, those consumers who considered price to be an indication of quality had favorable attitudes toward counterfeits, which contradicts the findings of Huang et al. (2004) and the prediction made in H1. In the case of the price-quality inference, where

hypothesized that consumers who considered that high price equates to high quality and low price equates to low quality would have unfavorable attitudes toward counterfeit products because of their inferior price. However, our results suggested that this was not the case, or at least that consumers who are used to purchasing counterfeits might apply the same rule within the gray market (that is, lower-priced counterfeits are perceived as being of lower quality than the higher-priced ones). This could be an important alternative explanation, especially considering that 89 percent of the respondents in the present study had purchased counterfeit products previously.

The risk averseness construct was the only one that did not have a significant influence on attitudes. This finding, which differs from Huang et al. (2004), is interesting considering that perceived risk was the most important predictor. One possible explanation for the finding is the difference in meaning between them and the ease with which respondents related the perceived risk items to the context of the research, after perhaps having found it difficult to do so in the risk averseness items. However, this difference should be considered in future investigations. Therefore, this paper makes important contribution by showing that the above-mentioned significant predictors of attitudes do not have a direct influence on consumer's behavioral intentions, even though attitudes and behavioral intentions are highly correlated in this study. This is evidence of the mediator role of attitude: the key constructs affect attitudes, which in turn affect behavioral intentions.

The relative importance of these predictors can also be of use to policy makers and managers of international brands. Such individuals should use perceived risk as the main appeal in messages intended to discourage the consumption of counterfeits. Also, those consumers who have purchased counterfeit products have more favorable attitudes toward such products than those who have not. This is a real threat for the original brands, because once consumers experiment counterfeits, they tend to have a favorable attitude and subsequently have positive behavioral intentions. However, the results of our study suggested that this experience does not have a direct effect on behavioral intentions. Thus, it is possible to influence the attitudes that consumers have toward counterfeit products through other variables, such as by influencing the (negative) perceived social acceptance that consumers would have when buying a counterfeit. This would be the practical implication that the significant effect of the construct subjective norm would have. One possible alternative could be to attempt to influence consumer personality traits, such as integrity, although it could be difficult. Also findings revealed that consumers who seek a sense of accomplishment in their lives had more favorable attitudes toward counterfeits. These consumers may

consume counterfeits as an opportunity to experiment product innovations, which can be particularly appropriate for electronic products.

Conclusions and Recommendations

The present study has contributed to the extant literature by testing and extending the key antecedents of consumer attitudes toward counterfeit products in less developed countries, specifically Saudi Arabia. The study has also highlighted the importance of each of these antecedents when predicting attitudes. The study also contributes in terms of its practical implications, considering the strategies with which managers can deal with the loss of loyalty among consumers, who instead turn to counterfeit products. Although this research tried to arrive at some conclusions but the questionnaire used a convenience sampling method, thus the sample could not be treated as representative of all the intention of the Saudi consumer. Second, this study has been conducted only in Riyadh. Therefore, future studies can be conducted in other parts of Saudi Arabia.

References

- Abbas, N. (2013). Theoretical Consideration: Internet Banking Acceptance in Kingdom Of Jordan. *International Journal of Business and Management Invention*, 2(5), 18-27.
- Abbas, A., Suleiman, A. & Almualla, A. (2013). *Using structural equation modeling for beginner*, Amman: Ithraa, Inc.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179-211.
- Ajzen, I. & Fishbein, M. (1980). *Understanding Attitudes and Predicting Social Behavior*, Prentice-Hall, Englewood Cliffs, NJ.
- Albers-Miller, N.D. (1999). Consumer misbehavior: why people buy illicit goods. *Journal of Consumer Marketing*, 16(3), 273-287.
- Ang, S.H., Cheng, P.S., Lim, E.A.C. & Tambyah, S.K. (2001). Spot the difference: consumer responses towards counterfeits. *Journal of Consumer Marketing*, 18(3), 219-235.
- Bagozzi, R. & Philips, L.W. (1982). Representing and testing organizational theories: a holistic construal, *Administrative Science Quarterly*, 27(3), 459-490
- Bagozzi, R.P., Gu` rhan-Canli, Z. & Priester, J.R. (2002). *The Social Psychology of Consumer Behavior*. Open University Press, Buckingham.
- Bearden, W.O., Netemeyer, R.G. & Teel, J.E. (1989). Measurement of consumer susceptibility to interpersonal influence. *Journal of Consumer Research*, 15(4), 473-481.
- Byrne, B.M. (2001). *Structural Equation Modeling With AMOS: Basic Concepts, Applications, and Programming*, Lawrence Erlbaum Associates, Mahwah, NJ.
- Bloch, P.H., Bush, R.F. and Campbell, L. (1993). Consumer 'Accomplices' in product counterfeiting; a demand side investigation. *Journal of Consumer Marketing*, 10(4), 27-36.
- Bonoma, T.V. & Johnston, W.J. (1979), "Decision making under uncertainty: a direct measurement approach, *Journal of Consumer Research*, 6(2), 177-191.
- Chapman, J. & Wahlers, A. (1999). Revision and empirical test of the extended price-perceived quality model, *Journal of Marketing Theory and Practice*, 7(3), 53-64.
- Cespedes, F.V., Corey, E.R. & Rangan, V.K. (1988). Gray markets: causes and cures, *Harvard Business Review*, 66(4), 75-83.
- Cordell, V., Wongtada, N. & Kieschnick, R.L. Jr (1996). Counterfeit purchase intentions: role of lawfulness attitudes and product traits as determinants, *Journal of Business Research*, 35(1), 41-53.
- Donthu, N. & Garcia, A. (1999). The Internet shopper, *Journal of Advertising Research*, 39(3), 52-58.
- Dowling, G.R. & Staelin, R. (1994). A model of perceived risk and intended risk-handling activity, *Journal of Consumer Research*, 21(1), 119-134.
- Fornell, C. & Larcker, D.F. (1981). Evaluating structural equation models with unobservable variables and measurement error, *Journal of Marketing Research*, 18(1), 39-50.
- Gerbing, D.W. & Anderson, J.C. (1988). Un updated paradigm for scale development incorporating unidimensionality and its assessment, *Journal of Marketing Research*, (25), 186-192.
- Haie-Fayle, L & Hubner, W. (2007). *Counterfeiting and Piracy: Fakes, Facts and Figures*, Organisation for Economic Cooperation and Development. The OECD Observer, (262), 9-12.
- Hair, J.F. Jr, Anderson, R.E., Tatham, W. & Black, W.C. (1998). *Multivariate Data Analysis*, 5th ed., Prentice Hall, Upper Saddle River, NJ.
- Havlena, W.J. & DeSarbo, W.S. (1991). On the measurement of perceived consumer risk, *Decision Sciences*, 22(4), 927-939.
- Huang, J.H., Lee, B.C.Y. & Ho, S.H. (2004). Consumer attitude toward gray market goods, *International Marketing Review*, 21(6), 598-614.
- International Anticounterfeiting Coalition (2005). *Facts on fakes*. Available: www.iacc.org/Facts.html (May 21, 2012).
- Norum, P. & Cuno, A. (2011). Analysis of the demand for counterfeit goods, *Journal of Fashion Marketing and Management*, 15(1), 27 – 40.
- Kotler, P & Keller, K. (2007); *Marketing Management* (12th Edition), Prentice Hall, Saddle River, NJ
- Kim, M.S. & Hunter, J.E. (1993). Relationships among attitudes, behavioral intentions, and behavior: a metaanalysis of past research, Part 2, *Communication Research*, 20(3), 331-364.
- Lichtenstein, D.R., Ridgway, N.M. & Netemeyer, R.G. (1993). Price perceptions and consumer shopping behavior: a field study, *Journal of Marketing Research*, 30(2), 234-245.
- McCluskey, L. (2001). Are Your Customers' Product Secure?, *Converting Magazine*, 19(3), 116-122.
- Tellis, G.J. & Gaeth, G.J. (1990). Best value, price seeking, and price aversion: the impact of information and learning on consumer choices, *Journal of Marketing*, 54, 34-45.
- Thompson, B. (2002). Ten commandments of structural equation modeling, in Grimm, L.G. & Yarnold, P.R. (Eds), *Reading & Understanding More Multivariate Statistics*, American Psychological Association, Washington, DC.
- United Trademark & Patent Services. (2013). *counterfeiting targets*, Retrieved from: http://www.legal500.com/firms/31_637/32031
- Veloutsou, C., & Bian, X. (2008). Consumers' attitudes regarding non-deceptive counterfeit brands in the UK and China. *Journal of Brand Management* 14(3), 211-222.
- Zeithaml, V.A., Parasuraman, A. & Berry, L.L. (1996). The behavioral consequences of service quality, *Journal of Marketing*, 60, 31-43.
- Zinkhan, G.M. & Karande, K.W. (1990). Cultural and gender differences in risk-taking behavior among American and Spanish decision makers", *The Journal of Social Psychology*, 131(5), 741-742.