

**PERSONAL AND ENVIRONMENTAL FACTORS THAT INFLUENCE
CONSUMER COMPLICITY TO PURCHASE COUNTERFEIT GOODS**

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ABSTRACT

With the purchase of counterfeit goods increasing rapidly, it is critical for researchers and managers to have a conceptual framework to guide their thinking and actions. A model of consumer complicity is developed and examined that distinguishes between consumers willingness to purchase counterfeits based on *personal factors*—demographics, espoused values, and attitudes towards counterfeits; and *environmental factors*—their response to anti-counterfeiting actions and the shopping experience. A web survey was administered at three U.S. universities using two counterfeit products: movies and pharmaceuticals. The results suggest that both espoused values and attitudes towards counterfeits will determine a consumer's willingness to engage in the illicit product purchases. The perceived effectiveness of anti-counterfeiting tactics is shaped by the consumer's prior consumption patterns and espoused values. The results support the concept of a hedonic shopping experience for the consumer—where the buyer encounters a sense of adventure from obtaining an illegal item.

INTRODUCTION

Counterfeit products represent a growing problem within a wide range of global industries. The International AntiCounterfeiting Coalition (www.iacc.org), citing research conducted by the International Chamber of Commerce, estimates that \$350 billion worth of counterfeit goods are traded annually in the world economy. The Business Software Alliance estimates that 35% of the software installed in 2006 on personal computers (PCs) worldwide was obtained illegally, amounting to nearly \$40 billion in global losses due to software piracy. (*Fourth Annual BSA and IDC Global Software Piracy Study*, 2007) ¶1). The Motion Picture Association (MPA) in its study on piracy estimated that the major U.S. motion picture studios lost \$6.1 billion in 2005 to piracy worldwide (*The Cost of Movie Piracy* 2005, p. 4).

The Food and Drug Administration (FDA) does not give an estimate of the dollar losses attributed to counterfeit pharmaceuticals, but, states that, “the FDA has seen growing evidence of efforts by increasingly well-organized counterfeiters backed by increasingly sophisticated technologies and criminal operations to profit from drug counterfeiting at the expense of American patients” (*Combating Counterfeit Drugs: A Report of the Food and Drug Administration* 2004, p. i). The U.S. Customs and Border Protection reports that pharmaceuticals were 40% of import safety commodities seized in 2007. Other counterfeit products detained at the border that pose a safety risk to consumers were toothpaste, shampoo, food, batteries, extensions cords and light bulbs (*Intellectual Property Rights* 2007, p. 10). In May 2008, the customs authorities of the European Union (EU) claim a 17% increase counterfeit goods cases for 2007 with a 50% increase in the medicines sector. This trade block also reports a rise in non-traditional fake goods such as razor blades, creams for

personal hygiene, medicine, toys, and the like (2007 Custom Seizures of Counterfeit Goods, 2008, ¶1).

In 2007, the U.S. Customs and Border Protection reported that the value of goods seized in the U.S. for fiscal year 2007 increased by 27% from 2006. The top commodities seized in 2007 were footwear (40%), wearing apparel (14%), consumer electronics (8%), handbags/wallets/backpacks (7%), pharmaceuticals (6%), computers/hardware (5%), media (4%), sunglasses (2%), headwear (1%) (*Intellectual Property Rights*, 2007, p. 8). In 2008, the European Union accounts that 34% of their seizures were fake cigarettes with alarming increases (over 2006 data) of counterfeit cosmetics and personal care (+264%), toys (+98%), foodstuff (+62%), computer equipment (+62%) and medicines (+52%) (2007 Custom Seizures of Counterfeit Goods, 2008, ¶7). Clearly, the counterfeit business has encroached on selling their wares in non-traditional segments and policymakers need to address this trend in their public policy measures.

While the scope of the enforcement of intellectual property rights problem is worldwide, the sources of most counterfeit products can be traced to a few countries. The focus of counterfeit goods sources remain the Asian countries, especially The People's Republic of China and Hong Kong. China was the source for 80% of the value of goods seized by the U.S. Customs Service in 2007 and Hong Kong and Taiwan accounted for an additional 6% and 2% of the seized goods. In the EU, the 'China problem' represents 60% of the goods confiscated in this trade block where they also suspect transshipments by way of the United Arab Emirates and Tunisia in order to conceal the true country of origin for fake products (2007 Customs Seizure of Counterfeit Goods, 2008, ¶ 9).

Articles in the academic literature have addressed the "supply side" of

counterfeits by assessing the level of pirate activity (e.g., Green et al., 2002), and the level of international and host country enforcement of intellectual property rights (e.g., Chaudhry, 2006; Chaudhry, Cordell and Zimmerman 2005; Chaudhry and Walsh 1996). However, little research has been conducted on measuring the “demand side” of the problem—consumer willingness to purchase counterfeit goods. One study looked at the non-price determinants of intention to purchase counterfeit consumer goods and describes the lack of “demand side” consumer behavior research (Wee et al., 1995):

Apart from discussions on the legal issues relating to counterfeiting such as intellectual property rights, trademarks, and their infringements, most of the attention in the literature relates only to the supply dimension of the counterfeiting problem. . . . We believe that to help eradicate counterfeiting branded goods manufacturers must first discourage consumers from purchasing counterfeits (p. 20).

Some firms, such as Astra Zeneca, are introducing unique security labeling techniques that allow authentication of all packs of its pharmaceuticals in the supply chain. Astra Zeneca started its anti-counterfeiting initiative in April 2007, the so-called “Serialized Authentication Program.” The anti-counterfeiting labeling techniques have two features: a security seal that will reveal whether the package has been tampered with and a “2D matrix code” that enables an item to be tracked continuously in the supply chain. The next labeling technique that the firm plans to invent will allow a pharmacist at the point of purchase to discern whether the pharmaceutical is fake or genuine at the point of dispensing the product (*Protecting our Patients against Illegal Counterfeit Drugs*, 2008). Others firms, such as Louis Vuitton (LMVH) have sought legal redress and the world famous luxury brand was awarded a \$63 million judgment in a French court against EBay on June 30, 2008. Another case against EBay has been filed by Tiffany’s in the U.S. Richard Waters in the *Financial Times* reports that a French judge suggested that EBay should start to

require some type of certificate of authenticity and/or serial numbers to effectively determine the ‘genuine’ good (Waters, 2008).

A CONSUMER COMPLICITY MODEL

As will be discussed below, initial research suggests that several personal factors may affect *consumer complicity*—consumers’ willingness to purchase counterfeit goods—e.g., select demographics (e.g., age, income); espoused values (e.g., idealism, relativism, and collectivism); and attitude towards counterfeits (e.g., ethical concerns, use, quality). The consumers’ willingness to purchase fake goods may also be influenced by environmental factors—actions taken by others to reduce product counterfeiting (e.g., anti-piracy tactics, reducing price, social marketing communications) and the shopping experience itself (e.g., whether in a retail market or virtual). Figure 1 captures these variables in a conceptual framework.

This study examines how many of the intrinsic and extrinsic factors identified in Figure 1 influence consumers’ willingness to purchase fake goods in two product categories: movies and pharmaceuticals. The acceptance of non-deceptive purchases of counterfeit goods on the part of consumers significantly affects the intellectual property environment. Gaining a better understanding of how personal and environmental factors relate to consumers’ complicity to purchase fake goods will help managers deal more effectively with the global problem of counterfeiting.

Insert Figure 1 about here

Our research objectives are to examine the utility of the proposed model of consumer complicity by way of statistical techniques, and to provide practical guidance to managers regarding several key questions:

1. Do demographic variables, such as age and level of education, predict consumer complicity to purchase counterfeits?

2. Does a consumer's espoused values predispose them to condone (or refute) counterfeit purchases? If so, can we discriminate between consumers willing to purchase counterfeits based on either an ethical perspective (idealism vs. relativism) and/or cultural value (collectivism) that effects demand for counterfeits?
3. What variables shape consumer attitudes towards counterfeit merchandise – their ethical concerns, desired usage, product quality?
4. Can an organization successfully employ anti-counterfeiting tactics, price reductions, and social marketing efforts to decrease demand for counterfeit goods?
5. Does the shopping experience support a willingness to purchase fakes?

PERSONAL AND ENVIRONMENTAL FACTORS THAT INFLUENCE CONSUMER COMPLICITY

Consumer Demographics Linked to Complicity

A few studies have addressed whether demographic variables influence consumer complicity to buy fake goods. Nia et al. (2000) examined gender, age, ethnicity, occupation, level of income, previous ownership of counterfeits to discern whether counterfeits devalue the ownership of luxury brands. Prendergast et al. (2002) examined attitudinal differences between high and low spenders. This research reported that high spenders on pirated VCDs (Video CDs) place greater importance on quality and large supply in their purchasing decisions compared to low spenders. However, both groups are similarly indifferent when it comes to the ethical and legal issues involved in purchasing fake goods.

Wee et al. (1995) included age, household income, and education, and expected that purchasing patterns of fake goods would differ between age, level of education and income. The researchers found that only “attitude towards counterfeiting” appeared in the majority of their models as an explanatory variable in terms of predicting willingness to purchase counterfeit, and “age” could not be used as a segmentation variable. For one product, purchasing pirated software, “educational attainment,” was a significant factor. The other important variables used

to explain intentions to purchase counterfeit software were product quality, attitude towards counterfeiting, and purpose of the purchase. These authors' found that the higher the level of education, the more likely the respondent was willing to purchase counterfeit software.

While some demographic differences are associated with consumer complicity, the effect sizes have been small. This suggests the following:

- H1: Demographic variables (i.e., age, gender, race, education, occupation, income) will not meaningfully differentiate a consumer's willingness to purchase counterfeits.

Espoused Values Linked to Complicity

Cultural differences in attitudes and values may also contribute to consumer complicity to purchase counterfeit goods. In 1980, Donelson Forsyth in his "Taxonomy of Ethical Ideologies," developed an Ethics Perception Questionnaire (EPQ) designed to measure the assumption that desirable results can be obtained if the 'right' action is taken, that is idealism. For example, one of the statements is "[A] person should make certain that their actions never intentionally harm another even to a small degree." Triese, Wiegold, Conna and Garrison (1994) later used the scale to investigate the ethics in advertising in terms of idealism with successful results. The second part of the EPQ measures relativism -- "the degree to which a person's moral philosophy assumes that the propriety of actions should be judged on the basis of the context of time, culture and place rather than some set of universal moral rules" (Bruner, James, Hensel 2002, p. 233). One of the statements used to judge the degree of relativism is "[W]hat is ethical varies from one situation and society to another."

According to the *Journal of Commerce* (1999), Intellectual Property Rights (IPR) is a Western concept; in China intellectual property infringement is not seen as

morally wrong. In India, counterfeit pharmaceutical makers claim that the government believes it is more important to save lives than provide profits to the inventors of drugs (McNeil, 2000). The concept of collectivism has been used to provide an explanatory cultural variable that provides a distinction between eastern and western cultures. Husted (2000) and Marron and Steel (2000) found that a collectivist culture has a major role in determining the ethical decision-making in the purchase of a counterfeit good. In other studies, such as Swinyard et al. (1990) the cultural roots of collectivism were found to have a significant impact on the attitudes toward and purchasing decisions of counterfeit software. Wang et al. (2005) use the Chinese proverb, “He that shares is to be rewarded; he that does not, condemned,” as an illustration of how cultural beliefs can shape the individual attitude towards the ethical judgment of buying counterfeit software.

In terms of personal factors related to espoused values, we hypothesize the following relationships with consumer complicity to purchase fake products:

- H2: A higher level of idealism will negatively correlate with a consumer’s willingness to purchase counterfeits.
- H3: A higher level of relativism will positively correlate with a consumer’s willingness to purchase counterfeits.
- H4: A higher level of collectivism will positively correlate with a consumer’s willingness to purchase counterfeits.

Espoused Values—Correlations with Attitudes Towards Counterfeits and Environmental Factors

Hypotheses H2-H4 focuses on the relationship of espoused values to consumer complicity. We further propose (H5-H8) that there will be meaningful, significant relationships between espoused values and attitudes towards counterfeits, and espoused values and several environmental factors as stated below in H5-H8:

- H5: Idealism will correlate more strongly with ‘ethical concerns’ than relativism, and relativism will correlate more strongly with ‘ethical concerns’ than collectivism [both products].
- H6: Collectivism will correlate more strongly with ‘counterfeit product use’ than relativism, and relativism will correlate more strongly with ‘counterfeit product use’ than idealism [both products].
- H7: Idealism will correlate more strongly with ‘social marketing’ than relativism or collectivism.
- H8: Collectivism will correlate more strongly with ‘shopping experiences’ than relativism, and relativism will correlate more strongly with ‘shopping experiences’ than idealism [both markets and internet] .

Attitude towards Counterfeiting Linked to Complicity

Previous studies have reported that many consumers see purchasing a counterfeit good as a victimless crime. Tom et al. (1998) found that consumers are willing to purchase counterfeit goods for a variety of reasons that include perceiving the counterfeit to be as good as the authentic good; expressing an anti-big-business sentiment; and holding lax attitudes about the legal protection of intellectual property.

Based on previous research (for example, see Cordell et al. 1996, Kwong et al. 2003, Nia et al. 2000, Prendergast et al. 2002, Tom et al. 1998, Wee et al. 1995, and Wilke et al. 1999), we developed a list of attitude statements to determine consumer demand for pirated movies and/or pharmaceuticals with statements such as, “movie counterfeiting damages the movie industry,” “obtaining counterfeit pharmaceuticals is unethical,” and “I would obtain counterfeit movies from the internet” and “counterfeit movies have a similar quality to the legal version.” Overall, one of the previous researchers’ studies conclude that the consumer behavior exhibits a ‘halo/horn’ effect and they could discriminate their results from consumers who admitted to purchasing counterfeit goods versus someone who has not knowingly bought fake. Thus, we hypothesize the following:

- H9: A higher level of ethical concern (e.g., infringes on intellectual property rights, damages the industry and illegal) will negatively correlate with a consumer's willingness to purchase counterfeits [both products].
- H10: A higher level of experience with obtaining counterfeit goods (e.g., downloads from the internet) will positively correlate with a consumer's willingness to purchase counterfeits [both products].

Actions to Reduce Product Counterfeiting Linked to Complicity

Industry associations such as the Motion Picture Association of America (MPAA) and the Recording Industry Association of America (RIAA) are using social marketing tactics to elicit compliance of their intellectual property rights using role models, peer pressure, education, quality of the product, and a negative association of piracy to organized crime to change this destructive consumer behavior. Figure 2 represents a recent ad developed by movie industry advocates to instill a fear of legal prosecution for illegal downloads. However, Figure 3 reveals the cynical ad posted by bloggers on the web that was created to rebuke the original anti-piracy message. Managers must investigate whether using these tactics is effectively curbing demand.

 Insert Figures 2 and 3 about here

Given the growing use of social marketing techniques, we hypothesize the following:

- H11: A higher level of perceived effectiveness of social marketing techniques (e.g., using fear, role models, peer pressure, linkages to organized crime, and education), will negatively correlate with a consumer's willingness to purchase counterfeits [both products].

Shopping Experience Linked to Complicity

Since the "supply" of counterfeits is prevalent in many countries, the shopping environment is a factor to be considered. Consumers seem more tolerant of buying fake goods in certain shopping environments, such as in a flea market or a known counterfeit shopping district, such as Canal Street in New York City or "Silk Alley"

in Beijing. Moreover, a virtual counterfeit shopping environment is readily available on the Internet. Take the Replica Center, which blatantly informs consumers where they can purchase a fake Swiss Rolex watch, and provides “customer satisfaction reviews” and “testimonials” for the illicit dealers (www.replicacenter.com).

In one study addressing the cultural determinants of intentions to purchase counterfeits, Schuchert-Güler and Eisend (2003) found that German consumers on holiday were willing to purchase counterfeits as gifts. They make the point that the mood of the consumer on vacation, such as a sense of adventure, increases their willingness to purchase fakes as souvenirs. We investigated the concept of a ‘hedonic’ shopping experience in terms of the consumer enjoying the novelty of buying counterfeit goods through counterfeit market districts or the Internet. Babin, Darden, and Griffin (1994) found that emotions, such as a ‘hedonic shopping value’, played an important role in compulsive buying in a retail environment.

We hypothesize that consumers’ willingness to purchase fake goods stems from a hedonic shopping experience (e.g., time spent shopping for fake is enjoyable in the market or the internet). Thus:

- H12: A greater level of hedonic shopping experience will positively correlate with a consumer’s willingness to purchase counterfeits [both products].

RESEARCH METHODS

Research Design

A pre-test web survey was administered to 72 respondents to assess the psychometric properties of the instrument and examine the utility of the proposed model to predict consumer complicity. A variety of analyses were conducted to check on the reliability and validity of the measures and to examine the substantive topics on which the survey is based (Nunnally, 1967).

Sample Characteristics

Based on the results of the pre-test, we modified the instrument and created a web-based survey to be administered online. We then sampled consumers at three different universities located in New York, Oklahoma, and Pennsylvania. Each university identified a sponsor who, in collaboration with the authors, oversaw the study. Participation was voluntary and anonymous. A sample of 254 individuals out of the 329 respondents invited to participate completed the survey for a 77% response rate.

Demographic Variables

Survey respondents were asked to give their age, gender, level of education, annual household income, occupation, and race/ethnicity to determine if any demographic segmentation variables could be used to predict a consumer's willingness to engage in the illicit trade.

Scale Construction and Internal Consistency Estimates of Reliability

Based on the pre-test work, most survey items contained in the web-based survey were expected to become part of composite scales. After the data set was examined for appropriate treatment of missing data, the items within each survey area were analyzed using Principle Components factor analysis with Varimax Rotation. Factor analysis of the espoused values items indicated three clear factors – idealism, relativism, and collectivism -- accounting for 59% of the variation among the 14 items. Only one item had a factor loading on a second scale higher than its intended scale. Given the nature of the item (“I like to share with others”) we chose to eliminate it from its intended construct – collectivism. Idealism correlated .24 with relativism and .01 with collectivism. Relativism correlated .24 with collectivism. Sample items used in this research are presented in Appendix A.

There were two attitudes towards counterfeit products sections, one for movies and one for pharmaceuticals. Separate factor analyses were conducted; the results were similar, yielding three factors each: Ethical concerns, use, and quality. Two of the 12 items demonstrated no meaningful relationship to other items; these were not used in any scale construction (“Counterfeit movies [pharmaceuticals] provide a social benefit to society.” and “The risks and punishments for getting caught purchasing counterfeit movies [pharmaceuticals] are acceptable to me.”). The three factors for movies accounted for 72% of item variance; for pharmaceuticals, 76%. Ethical concerns movies correlated $-.43$ with movie use and $-.15$ with movie quality; Movie use correlated $.36$ with movie quality. Ethical concerns pharmaceuticals correlated $-.43$ with pharmaceuticals use and $-.28$ with pharmaceuticals quality; Pharmaceuticals use correlated $.51$ with pharmaceuticals quality.

There were 12 items that identified actions to reduce product counterfeiting. Three factors emerged: Anti-counterfeiting tactics, reduce price, and social marketing. These three factors accounted for 65% of the item variance and demonstrated clean factor loadings. Anti-counterfeiting tactics’ correlated $.22$ with reduced price and $.57$ with social marketing. Reduced price correlated $.05$ with social marketing.

Two additional scales were separately factor analyzed, each indicating a single factor: Market shopping (5 items, 74%) and Internet shopping (5 items, 66%). The items that were going to be used to form composite scales were correlated. The output matrix of correlations provided the raw data to calculate a Coefficient Alpha index of internal consistency and reliability (Nunnally, 1967). These are shown in Table 1. Scales were subsequently formed by taking the simple average of the items

designated as being in that scale. All scales demonstrated good (above .65) to excellent (above .80) internal consistency.

Insert Table 1 about here

Consumer Behavior

There were three self-report measures of complicity at the end of the survey: whether the respondent had ever purchased a counterfeit movie or a fake pharmaceutical and the frequency of obtaining counterfeit goods in a two-year time frame (answers ranged from 1=none to 6=more than 12).

STUDY RESULTS

The Role of Demographics

As hypothesized (H1), the relationships of the demographic items with the most of the other study variables were generally small and non-significant. Significant relationships are noted below (simple correlations, all $p < .05$). Younger students were more likely to have obtained a counterfeit movie (.19) and had frequently acquired counterfeit goods in the last two years (.17). Males were more likely to have obtained a counterfeit movie (.17) a counterfeit pharmaceutical (.16) and took the greatest pleasure in the market (.15) and Internet (.22) shopping experience than females. Overall, females were more likely to express greater idealistic values than males. There were no linear relationships of education or income to any study variable.

Asian or Pacific Islanders ($n = 37$) were significantly more likely to report having obtained a counterfeit movie (76%) than African Americans ($n=30$, 53%), Hispanic Origin ($n=22$, 50%), Native American ($n=9$, 33%), or Caucasian ($n=161$, 49%). Asian or Pacific Islanders and Caucasians reported significantly lower idealism values than the other three categories of ethnicity.

There were no linear relationships of any study variables with education level, income, or occupation. These results affirm Hypothesis 1 and we conclude that generic demographic segmentation to predict consumer behavior in the counterfeit trade is a weak approach.

The Role of Espoused Values

The Pearson product-moment correlations reported in Table 2 reveal the relationships among the different complicity variables and the espoused values: idealism, relativism, and collectivism. Three of the hypotheses [H2-H4] predicted relationships between values espoused and consumer willingness to purchase counterfeits (whether they had actually obtained a fake movie and/or pharmaceutical and the frequency of acquiring a counterfeit in the past two years). For H2, we predicted a negative correlation of idealism (e.g., a person's action should not harm another person) with consumer complicity to purchase fake goods. We found statistical significance for H2 with only 'frequency of purchasing a counterfeit.'

For H3, we expected a positive correlation between the construct of relativism (e.g., what is ethical varies from one situation and society to another) and complicity to obtain fake products. The results were counter to our hypotheses with respect to 'obtaining a counterfeit pharmaceutical'. Our logic argued that if a consumer is a relativist, he or she would condone the act of obtaining counterfeit goods in context of the situation. However, we observed the opposite.

For H4, we predicted a positive correlation between collectivism (e.g., I wish others can share with me, even if they do not own what they are sharing) and the complicity variable of purchasing either the counterfeit movie or pharmaceutical and the frequency of their actions. However, similar to the result for H2, we found support for this proposition in just one area, 'purchased a counterfeit movie.'

Insert Table 2 here

Interrelationships of Espoused Values to Complicity Variables

To test hypotheses H5-H8, it was necessary to perform a test of significance of the difference between dependent correlations following Cohen and Cohen (1983, p. 57). A # sign in Table 2 indicates that a correlation is significantly different than the correlation immediately to its right at $p \leq .05$ level of significance. The proposition for H5 predicts a hierarchy of correlations with idealism more strongly correlated with ethical concerns, then relativism and collectivism. Thus, in terms of these 3 categories of espoused values, we expected a different size of relationship with variables in the model. H5 was supported for both products with the exception of weak statistical support for collectivism. For example, the correlation for ethical concerns for movies was idealism (.37), relativism (.16) and collectivism (-.08).

In H6, we expected a change in the support of the relationship between counterfeit product use and the highest correlation with collectivism, then relativism and finally idealism. Given our previous discussion of these values, it seemed likely that a person with a high degree of collectivism would be complicit to the counterfeit trade. H6, was supported by correlations between movie use (.32) and pharmaceutical use (.23) with collectivism. However, our assumed hierarchy of relationships does not hold for both products.

Overall, H7 hypothesized that a consumer with a high degree of idealism will see the social marketing tactics tested in the survey to be more effective deterrents to stop the growth of the illicit trade. This hypothesis was supported as shown in Table 2 with idealism (0.36) the only espoused value that correlated with the composite index of social marketing. H8 assessed whether the espoused values influenced the hedonic shopping experiences (e.g., the sense of adventure while shopping for

counterfeits) of someone obtaining fake goods on the internet or the physical marketplace. The assumption centered on a stronger hedonic behavior for collectivists, then relativists and then idealists. The data support this assumption in both the market and Internet.

The Role of Attitude towards Counterfeits with Anti-Counterfeiting Tactics, Shopping Experience, and Complicity

Table 3 presents the correlations of attitude towards counterfeiting, with actions to reduce product counterfeiting, the shopping environment, and consumer complicity (Hypotheses H9—H12). Hypothesis 9 is supported; ethical concerns for both a counterfeit movie and pharmaceutical product have a negative correlation with the use of either a fake movie (-.32) or counterfeit pharmaceutical (-.23). Likewise, Hypothesis 10 is supported with a high correlation between previous use of counterfeit movies and pharmaceuticals, the shopping environment, and frequency of buying counterfeit goods. Those respondents with experience are willing players in this illicit market. These frequent consumers do not adhere to any type of ethical concerns for either product with negative correlations to movies (-.37) and pharmaceuticals (-.20).

The effectiveness of social marketing techniques in reducing a consumer's willingness to engage in counterfeit trade was explored. Hypotheses 11 was supported for movies (-.27), but not pharmaceuticals (-.06). Respondents did differentiate between the efficacies of anti-counterfeiting messages, such as fear, that can be directed towards movies versus pharmaceuticals. Given the unique nature of pharmaceuticals, this result upholds the current public policy concern of how to curb the growth of illegal prescription drugs. There was also a strong positive correlation between social marketing techniques and ethical concerns—these combined tactics can still be used to defer future consumers to engage in counterfeit trade.

Hypothesis 12 was supported with respect to the positive relationship between market and Internet shopping experiences and the intended use of either counterfeit movies or pharmaceuticals. Both the environmental factors of market and Internet shopping are a composite scales of 5 variables designed to gauge the hedonic consumer behavior that shapes their attitude (e.g., impulse purchases, sense of adventure). Table 3 is testimony to the justification that consumers make to rationalize their purchases of counterfeit goods.

Insert Table 3 about here

FUTURE RESEARCH—ADDRESSING DIFFERENT COUNTRY MARKETS

This study represents an initial analysis of a conceptual framework and scale items to create a standardized way for market researchers' to further investigate consumer complicity to purchase fake products. The growth of the counterfeit market is escalating and managers must curb this upward trend by developing anti-counterfeiting measures that will change a consumer's willingness to participate in this illegal activity.

The model presents factors such as espoused values and usage patterns that we would expect to shape consumer demand. However, the model includes other salient complicity variables, such as social marketing advertisements, anti-counterfeiting tactics, and the concept of a hedonic shopping experience to augment our understanding of illicit buyer behavior. The results suggest important interrelationships among several components of the framework, such as the relationship of different espoused values (idealism, relativism and collectivism) with product usage patterns, perceived effectiveness of social marketing, and the shopping experience. We are in the process of testing this model by way of Internet panel data

in Brazil, Russia, India and China to examine whether the complicity variables can be standardized to predict the behavior patterns of consumers in other country markets.

The intent of using two distinct counterfeit product categories, fake movies and pharmaceuticals, was a way to explore if one could a variable such as ‘ethical concerns’ would be product-relevant. One would expect a consumer to be more receptive to the risks involved with using a fake pharmaceutical or more supportive to the potential innovation rewards provided by this pharmaceutical industry. However, our data reveals that the ethical concerns for consumers’ that actively engage in counterfeit trade did not change by product category. This is a major concern for policymakers that are investigating the growth of fake products in ‘non-traditional’ goods, such as fake pharmaceuticals and food items. These national and supranational agencies, such as the World Health Organization (WHO) are just starting to use social marketing techniques, such as the use of fear in ad copy (one WHO slogan is “Counterfeit Drugs Kill,” portraying a snake encircling prescription medicines) to change negative consumer behavior. We plan to address the effectiveness of these types of social marketing techniques in future research.

REFERENCES

2007 Customs Seizures of Counterfeit Goods. (2007). Retrieved on June 30, 2008 from Europa Gateway to the European Union at <http://europa.eu/>.

Babin, Barry J., Darden, William R., and Griffen, Mitch. (1994). Work and/or Fun: Measuring Hedonic and Utilitarian Shopping Value, *Journal of Consumer Research*, 20, 644-56.

Business Software Alliance. (2007). *Fourth Annual BSA and IDC Global Software Piracy Study*. Retrieved from www.bsa.org on January 15, 2008.

Bruner, Gordon, James, Karen and Hensel, Paul. (2002). *Marketing Scales Handbook: A Compilation of Multi-Item Measures*. Chicago: American Marketing Association.

The Cost of Movie Piracy. Retrieved from www.mpaa.org/2006_05_03leksumm.pdf.

Chaudhry, P. (2006). Changing Levels of Intellectual Property Rights Protection for Global Firms: A Synopsis of Recent U.S. and EU Trade Enforcement Strategies, *Business Horizons*, 49/6, 463-472.

Chaudhry, Peggy, Cordell, Victor and Zimmerman, Alan. (2005). Modeling Anti-Counterfeiting Strategies in Response to Protecting Intellectual Property Rights in a Global Environment, *The Marketing Review*, 5, 59-72.

Chaudhry, Peggy E. and Walsh, Michael G. (1996). An Assessment of the Impact of Counterfeiting in International Markets: The Piracy Paradox Persists, *Columbia Journal of World Business*, 31/3, 34-49.

Cohen, J. and Cohen, P. (1983) *Applied Multiple Regression/Correlation Analysis for the Behavioral Sciences*, 2nd Ed., Hillsdale, NJ: Lawrence Erlbaum Associates.

Combating Counterfeit Drugs: A Report of the Food and Drug Administration. (2004). Retrieved on November 5, 2006 at www.fda.gov.

Cordell, Victor V., Wongtada, Nittaya and Kieschnick, Robert. (1996). Counterfeit Purchase Intentions: Role of Lawfulness and Product Traits as Determinants, *Journal of Business Research*, 35, 41-53.

Forsyth, Donelson R. (1980). A Taxonomy of Ethical Ideologies, *Journal of Personality and Social Psychology*, 39/1, 175-84.

Green, Robert T. and Smith, Tasman. (2002). Executive Insights: Countering Brand Counterfeiters, *Journal of International Marketing*, 10/4, 89-106.

Husted, B.W. (2002). The Impact of National Culture on Software Piracy, *Journal of Business Ethics*, 26/3, 197-211.

The Intricacies of Protecting Your Intellectual Property Rights in China. (1999). *Journal of Commerce*, 5, 3.

Kwong, Kenneth, Yau, Oliver, Lee, Jenny, Sin, Leo and Tse, Alan. (2003). The Effects of Attitudinal and Demographic Factors on Intention to Buy Pirated CDs: The Case of Chinese Consumers, *Journal of Business Ethics*, 47, 223-235.

Intellectual Property Rights. (2007). Retrieved on July 3, 2008 from www.cbp.gov.

The Negative Consequences of International Intellectual Property Theft. Retrieved in January 2005 from the International Anti-Counterfeiting Coalition at www.iacc.org.

Marron, D.B., Steel, D.G. (2002). Which Countries Protect Intellectual Property? The Case of Software Piracy, *Economic Inquiry*, 38/2, 159-174.

McNeil, Donald G. Jr. (2000). Selling Cheap 'Generic' Drugs, India's Copycats Irk Industry, *New York Times*, 1 December, 1.

Nia, Arghavan and Zaichkowsky, Judith Lynne. (2000). Do Counterfeits Devalue the Ownership of Luxury Brands? *Journal of Product & Brand Management*, 9/7, 485-497.

Nunnally, J. C. (1967) *Psychometric Theory*. New York: McGraw Hill.

Prendergast, Gerard, Chuen, Leung Hing and Phau, Ian (2002). Understanding Consumer Demand for Non-Deceptive Pirated Brands, *Marketing Intelligence & Planning*, 20/7, 405-416.

Protecting our Patients against Illegal Counterfeit Drugs. (2008). In-house company communication given to the researchers by a manager of Astra Zeneca on July 8, 2008.

Schuchert-Güler, Pakize and Martin Eisend. (2003). Non-Price Determinants of German Consumers' Inclination to Purchase Counterfeit Products, *Diskussionbeiträge des Fachbereichs Wirtschaftswissenschaft der Freien Universität Berlin*.

Swinyard, W.R., Rinne, H., Kau, A.K. (1990). The Morality of Software Piracy: A Cross-Cultural Analysis, *Journal of the Academy of Marketing Science*, 29/1, 16-35.

Tom, Gail, Garibaldi, Barbara, Zeng, Yvette, and Pilcher, Julie. (1998). Consumer Demand for Counterfeit Goods, *Psychology & Marketing*, 15/5, 405-417.

Treise, Debbie, Weigold, Michael, Conna, Jenneane and Garrison, Heather. (1994). Ethics in Advertising: Ideological Correlates of Consumer Perceptions, *Journal of Advertising*, 23, 59-69.

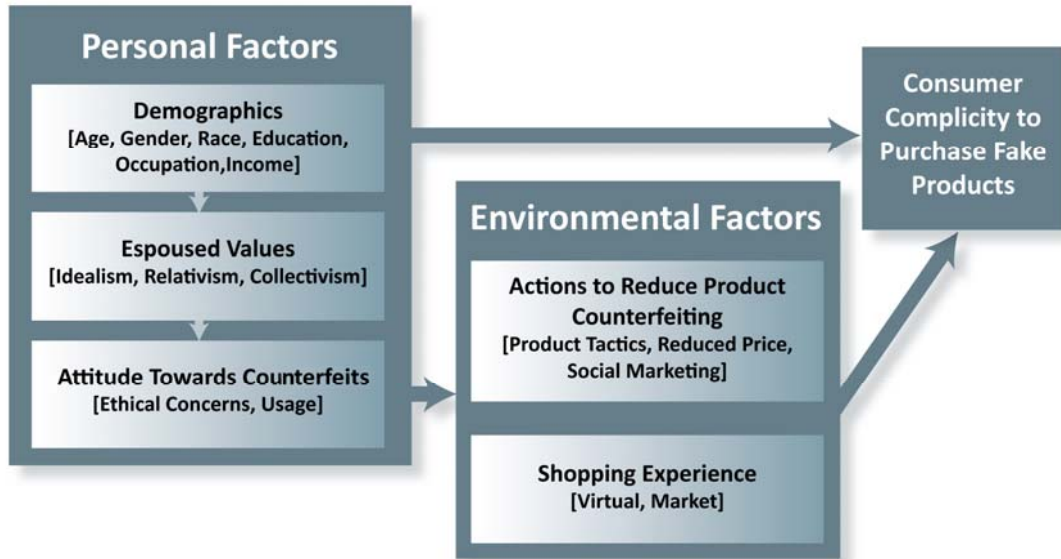
Wang, Fang, Zhang, Hongxia, Zang, Hengjia, and Ouyang, Ming. (2005). Purchasing Pirated Software: An Initial Examination of Chinese Consumers, *Journal of Consumer Marketing*, 22/6, 340-351.

Waters, Richard. (2008). Moment of Truth for EBay on Fake Luxury Goods, *The Financial Times*. Retrieved from www.ft.com on July 3, 2008.

Wee, Chow-How, Tan, Soo-Jiuan and Cheok, Kim-Hung. (1995). Non-Price Determinants of Intention to Purchase Counterfeit Goods, *International Marketing Review*, 12/6, 19-46.

Wilke, Ricky and Zaichkowsky, Judith Lynne. (1999). Brand Imitation and Its Effects on Innovation, Competition, and Brand Equity, *Business Horizons*, November-December, 9-17.

Figure 1. Conceptual Model of Consumer Complicity to Purchase Fake Products



Figures 2 and 3



Table 1. Internal Consistency Estimates for Complicity Variables

Variable	Mean	Std. deviation	Number of items	Coef. Alpha
Idealism	5.6	1.32	5	.89
Relativism	5.0	1.22	5	.73
Collectivism	3.5	1.37	3	.66
Movie Ethical Concerns	5.3	1.29	4	.77
Movie Use	3.1	1.71	4	.90
Movie Quality	3.3	1.60	2	.77
Pharmaceutical Ethical Concerns	5.4	1.26	4	.70
Pharmaceutical Use	2.0	1.41	4	.96
Pharmaceutical Quality	3.1	1.55	2	.86
Anti-counterfeiting Tactics	5.0	1.31	5	.84
Reduce Price	5.3	1.67	2	.88
Social Marketing	4.2	1.27	5	.79
Market Shopping	3.1	1.57	5	.91
Internet Shopping	2.4	1.36	5	.86

Note: N's ranged from 254 to 269 due to missing data. All items used 7-point scales (1 = strongly disagree, 7 = strongly agree)

Table 2. Correlations of Complicity Variables with *Espoused Values*

Complicity Variable	Idealism	Relativism	Collectivism
Purchased Counterfeit Movie	-.10	.08	.13*
Purchased Counterfeit Pharmaceutical	-.10	-.15*	-.05
Frequency of Purchasing a Counterfeit	-.15*	-.01	.09
Movie Ethical Concerns	.37**#	.16*#	-.08
Movie Use	-.27**#	.07#	.32**
Movie Quality	-.09	.02#	.22*
Pharmaceutical Ethical Concerns	.38**	.25**#	-.06
Pharmaceutical Use	-.27**#	-.09#	.23**
Pharmaceutical Quality	-.14*#	.08	.13*
Anti-counterfeiting Tactics	.43**#	.07	.04
Reduce Price	.10	.19**#	-.01
Social Marketing	.31**#	.08	.04
Market Shopping	-.18**#	.18**	.24**
Internet Shopping	-.22**#	.06#	.25**

* p<.05, two-tailed

**p<.01, two-tailed

p<.05, significant difference between two dependent correlations in adjacent columns

Table 3. Relationship of Attitudes Towards Counterfeits (Movies, Pharmaceuticals) with Environmental Factors (Reducing Counterfeiting and the Shopping Experience), and Consumer Complicity

Environmental Factors	Ethical Concerns – Movies	Ethical Concerns – Pharmaceuticals	Counterfeit Movie Usage	Counterfeit Pharmaceutical Usage
Anti-counterfeiting Tactics	.34**	.39**	-.25**	-.17**
Reduce Price	.14*	.18**	-.01	-.04
Social Marketing	.34**	.30**	-.27**	-.06
Market Shopping	-.28**	-.28**	.55**	.39**
Internet Shopping	-.22**	-.30**	.54**	.47**
Purchased Counterfeit Movie	-.32**	-.22**	.55**	.11
Purchased Counterfeit Pharmaceutical	-.19**	-.23**	.13	.26**
Frequency of Purchasing a Counterfeit	-.37**	-.20**	.53**	.15*

**r's above .13 are significant at $p < .05$, two-tailed

* r's above .17 are significant at $p < .01$, two-tailed

Appendix A: Complicity Survey Dimensions and Items

1. ***Espoused Values:*** **Idealism** - A person should make certain that their actions never intentionally harm another even to a small degree. **Relativism** - Codes of ethics should reflect cultural differences. **Collectivism** - He that shares is to be rewarded, even if it not theirs to share.
2. ***Attitudes Towards Counterfeits:*** **Ethical concerns** - Movie [Pharmaceutical] counterfeiting infringes on intellectual property rights. **Use** - I would encourage friends to obtain counterfeit movies [pharmaceuticals]. **Quality** - Counterfeit movies[pharmaceuticals] have a similar quality to the legal version.
3. ***Actions to Reduce Product Counterfeiting:*** **Anti-counterfeiting tactics** - Using special packaging and/or labeling techniques, such as a hologram. **Reduced price** - Offering a reduced price or rebate to meet the counterfeiter's price. **Social marketing** - Using the fear of legal prosecution to deter demand for the counterfeit good.
4. ***Shopping Experience:*** **Market** and **Internet shopping** - I would shop, not because I had to, but because I wanted to.