

Determinants of Consumer Willingness to Purchase Non-Deceptive Counterfeit Products

Irena Vida

This study offers insights into non-deceptive counterfeiting by focusing on consumers in a new EU member country. More specifically, consumers' inclination to purchase counterfeits at various price levels relative to retail prices of genuine branded products is examined, and the effects of various socio-economic and socio-psychological characteristics are explored. In reviewing the consumer behavior literature and recent empirical work, a conceptual model of consumer general willingness to purchase counterfeit products was developed. Using path analyses to test the system of structural relationships among the variables, inconsistent patterns of results were found across three classes of counterfeit products. Implications for management and further research are provided.

Key Words: counterfeit products, consumer unethical behavior, willingness to buy, Slovenia

JEL Classification: M31, M39

Introduction

Despite the efforts on the part of international trade organizations to deter counterfeiting practices, product counterfeiting represents a growing problem for legitimate producers of global branded products ranging from pharmaceuticals to computer software and fashion merchandise. Even in light of technological advancements facilitating recognition of genuine products and legal pressures on illegitimate buyers and sellers, corporations continue to incur billions of US dollars in lost sales annually due to this problem (2005 Commercial Piracy Report 2006; Harvey and Ronkainen 1985; Shultz and Saporito 1995; Stoettinger and Penz 2003).

According to some estimates, international trade in counterfeit products accounts for three to six percent of overall world trade, with trends indicating that the counterfeit product market is booming (2005 Commercial Piracy Report 2006; Delener 2000). Clearly, the consequences of

Dr Irena Vida is a Professor at the Faculty of Economics, University of Ljubljana, Slovenia.

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counterfeiting practices are not only economically devastating to manufacturers of genuine products and brands, but also affect hundreds of thousand of jobs, increase the cost of marketing legitimate products, and diminish brand equity and trademark owner reputation. Moreover, counterfeit trade may threaten consumer health and safety such as in the case of fake amphetamines and tranquilizers, and bogus birth control pills (Chakraborty, Allred, and Bristol 1996).

With counterfeit merchandise cutting across various industries in business-to-consumer and business-to-business markets in industrialized and emerging economies alike, trademark infringement cannot be ignored. Such illegal practices can be reduced by cutting into either of the two sides in the exchange: the supply side of counterfeits or the demand side for counterfeits. While the supply side of counterfeiting has received considerable attention in the literature, investigations focusing on the demand side are still scarce (Ang, Cheng, Lim, and Tambyah 2001; Bloch, Bush and Campbell 1993; Dubinsky, Nataraajan, and Huang 2005; Stoettinger and Penz 2003).

Generally, academic studies differentiate between two types of transactions involving fake products, i. e., deceptive and non-deceptive counterfeiting (Grossman and Shapiro 1988; Chakraborty et al. 1996). The former represents situations in which consumers believe they have purchased a genuine product when in fact it is a fake. On the other hand, the non-deceptive counterfeits refer to situations when consumers are fully aware (based on price, quality and the type of outlet from which the product is purchased) that they are buying a knock-off at the time of purchase.

This study focuses on the demand side of counterfeiting, examining consumer perceptions of non-deceptive counterfeiting in Slovenia, one of the most successful transitional economies among the new EU countries. There have been reports indicating that the production of fake labels, decals and packaging has become a virtual cottage industry in some Central, Southern and Eastern European (CSEE) markets, with imported fake products from the Far East adding to the problem (Al-Khatib, Robertson, and Lascu 2004). For instance, Mattel has lost millions from fake Barbie dolls made in Russia, and the Italian alcoholic beverages producer Martini & Rossi has sought to combat counterfeits through the court system in various CSEE countries (Crisp 1993; Delener 2000). While a wide range of products can be counterfeited, consumers knowingly engage in purchasing fakes particularly in some

product categories such as luxury fashion items and computer software. As a result, this research addresses various determinants of consumers' attraction to lower priced counterfeits in three product-categories, two fashion-oriented products (a branded T-shirt and a watch), and an item of software. More specifically, consumers' inclination to purchase these non-deceptive product counterfeits at various price levels relative to retail prices of genuine branded products are examined in this exploratory study.

Literature Review and Conceptual Framework for the Study

Various researchers have studied counterfeit practices, production and trade of illicit goods, i. e., illegal goods freely chosen by the consumer, and the demand side of counterfeiting. This includes criminologists, legal scholars, criminal psychiatrist and sociologists studying deviant behavior, as well as business and marketing scholars (Albers-Miller 1999; Dubinsky et al. 2005; Harvey and Ronkainen 1985). While the latter have in the last decade focused primarily on the supply side of counterfeiting, a renewed interest in empirical investigations of the demand side of counterfeiting practices seems apparent since the mid-1990's, after the renowned marketing scholar, Elisabeth Hirschman, had expressed the need for deeper explorations of the 'dark-side' of consumer behavior. In response, a special issue of *Psychology and Marketing* was published by Budden and Griffith (1996) to study aberrant and dysfunctional consumer behavior, including addictive and compulsive behavior, consumer fraud and shoplifting.

While various theories and models attempt to explain ethical behavior in a marketing context, studies specifically addressing determinants of illegal and inappropriate consumer behavior are scarce and scattered. For instance, Ferrell and Gresham's (1985) model suggests that the decision process individuals encounter when faced with an ethical issue (such as in the case of a non-deceptive counterfeit product purchasing dilemma) is affected by individual factors (e. g., knowledge, values, attitudes, and intentions), significant others (differential association and role set configuration) and opportunity (e. g., professional codes, rewards and punishments). Yet other researchers believe context specific frameworks are needed when examining determinants of individual illicit product purchases, such as in the case of software piracy (Simpson, Banerjee, and Simpson 1994).

Despite the paucity of theoretical guidance, literature in the field and

recent empirical studies seem to suggest that various individual characteristics and situational factors motivate people to willingly engage in misbehavior such as the purchasing of fake branded products (Dubinsky et al. 2005; Al-Khatib et al. 2004). Price advantages of counterfeits relative to genuine products play a major factor in consumer continuing demand for counterfeit products (Bloch et al. 1993; Schlegelmilch et al. 1998; Stoettinger and Penz 2003). Other factors underlying consumer counterfeiting behavior suggested in the literature include a) the penalty and sanctions associated with criminal behavior, b) direct or indirect social pressure (e. g., whether the person is conducting illegal behavior in the presence or absence of others), c) personality traits and characteristics of individuals, and d) the ability of participants to rationalize the behavior (Albers-Miller 1999; Ang et al. 2001; Simpson et al. 1994; Stratton et al. 1997).

Hence, against this background, we propose a conceptual model presented in figure 1, and explore consumer willingness to purchase fake products. This focal concept is similar to the concept of *willingness to pay*, which practitioners (market researchers, psychologists and economists) use in estimating demand for private and public goods and in designing optimal price schedules (Werterbroch and Skiera 2001, 3). In the economic literature, willingness to pay denotes the maximum price a buyer is willing to pay for a given quantity of a good (i. e., a ration-scaled measure of the subjective value the buyer assigns to the good). A consumer chooses an item from a set of alternatives for which a person's willingness to pay exceeds price the most. Similar dependent variables in examining consumer ethical issues were used in recent studies (e. g., De Pelsmacker, Driesen, and Rayp 2005; Stoettinger and Penz 2003). As is common in attitude models (Fishbein and Ajzen 1975), this construct measured the intention to purchase counterfeits and served as a proxy to predict behavior.

As several consumer behavior researchers suggest, consumers always balance monetary cost on the one hand and other types of costs on the other against perceived benefits, and there is no reason to believe that the case of consumers contemplating the purchase of a fake product over a genuine product would be different (Ang et al. 2001; Bloch et al. 1993). Hence, the willingness to purchase construct in our model refers to an individual's inclination to purchase counterfeits at various price levels relative to retail prices of genuine branded products.

Our conceptual model suggests that consumer willingness to purchase

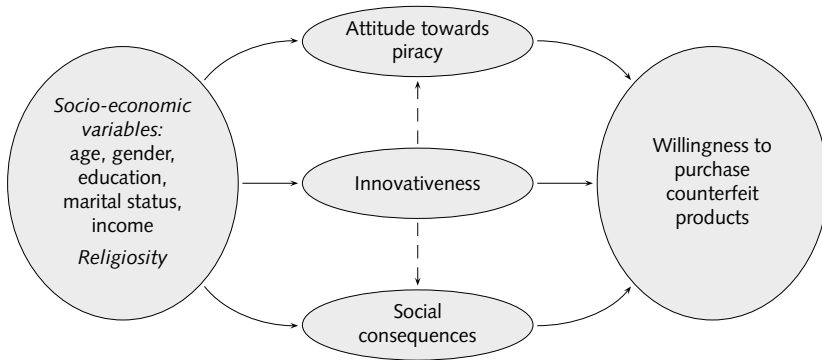


FIGURE 1 Conceptual model for the study

a fake product will be a function of three underlying factors previously identified in the literature, and believed to be category- (counterfeit products) rather than product- specific: a) a person's attitude towards piracy and counterfeiting, b) consumer innovativeness as a personality trait factor, and c) consumer perception of social consequences of purchasing and using fake products. In turn, these three factors are influenced by consumer demographics and religious beliefs, which only indirectly affect an individual's willingness to purchase counterfeits.

A *person's attitudes towards piracy* and counterfeiting in figure 1 refers to the degree people are able to rationalize counterfeiting practices with respect to the costs, pricing and quality of genuine vs. fake products. As Gellerman (1986) suggested, one way people tend to rationalize their behavior is by deciding that it is not really illegal or immoral. For example, people viewing counterfeiting simply as a result of original trade mark holders ripping off consumers by overpricing their products, would be more likely to purchase fakes (Schlegelmilch et al. 1998). Hence, positive attitudes towards counterfeiting are expected to be positively related to consumer willingness to purchase fakes.

An individual's *perception of social consequences* in our model is defined as consumer perception of the social risks involved in purchasing and using fake products. More specifically, the concept reflects an individual's attitude towards the social effects of knowingly purchasing fakes, i. e., the risk of being discovered to have purchased or used a fake product. As suggested by various authors, social pressure can lead people to either follow or break the rules, meaning that peer support of the (mis)behavior may either encourage participation or serve as its deter-

rent (Ang et al. 2001; Albers-Miller 1999). Therefore, consumers more concerned with the embarrassment potential of using fakes will be less willing to purchase them. This is consistent with Ferrell and Grisham's (1985) model of ethical behavior, which addresses the importance of reference groups, specifically peers in affecting a person's ethical behavior in their 'significant others' variable.

Consumer *innovativeness*, typically thought of as a personality trait underlying adoption of new products, was defined as an individual's predisposition to use novel, unconventional products and brands or engage in novel experiences rather than remain with previous choices and consumption patterns. The literature suggests that innovativeness is 'correlated positively with optimum stimulation level, independence, extraversion, impulsivity, risk taking, tolerance for ambiguity, inner-directed (vs. other-directed) social character, capacity for status, and is correlated negatively with dogmatism, need for structure, and need for clarity' (Steenkamp, Hofstede, and Wedel 1999, 56). Hence, more innovative consumers, who are willing to take risks by trying unfamiliar products, brands, restaurants and willing to engage in new experiences, are expected to be more willing to purchase fakes. Considering the research setting in this study (i. e., Slovenia), and the assumption that status and luxury goods (typically subject to counterfeiting) are novel to the majority of consumer segments in CSEE transitional economies (e. g., Reardon et al. 2005; Rojšek 2001), the construct of innovativeness may be particularly relevant to investigations of counterfeiting behaviour in a given research context. In previous work, Stoettinger and Penz (2003) used two related constructs to model the demand for counterfeiting in two countries, i. e., Fashion involvement index and Readiness to take risks. They found that the impact of these determinants varies, based on the prices differential between original and counterfeit product, and on the product as well as the country investigated.

Therefore, we hypothesize that consumer willingness to purchase counterfeit products is influenced by their attitudes towards counterfeit products, perceptions of social consequences, and by their innovativeness with regard to new products in general. In turn, these three factors are influenced by consumer demographics and religious beliefs. As most ethical behavior models and empirical studies suggest, factors endemic to the individual such as age, gender, educational, marital status and income, as well religious beliefs will impact a person's ethical dilemmas (i. e., willingness to purchase a counterfeit product) directly or indirectly

(Al-Khatib et al. 2004; Dubinsky et al. 2005; Ferrell and Grisham 1985; Simpson et al. 1994; Stoettinger and Penz 2003).

Not only do we hypothesize in our conceptual model that the three socio-psychological constructs directly affect an individual's willingness to purchase fakes, but we also postulate that innovativeness influences the other two factors, i. e., attitudes towards piracy and perceptions of social consequences. Consistent with the literature reviewed earlier, more innovative people are believed to have a greater ability to rationalize particular behavior (i. e., positive attitude towards piracy) and they are less prone to conform to what is considered socially desirable in a given cultural environment (i. e., perceptions of social consequences).

Research Methodology

The proposed conceptual model in figure 1 was investigated on a convenience sample of 223 consumers in the advanced transitional CSEE economy of Slovenia. The selected country offers an interesting site for this kind of research for the following reasons: a) a lack of research investigating consumer ethical issues in transitional economies (Al-Khatib et al. 2004); b) purchasing of pirated goods continues to represent a problem, particularly in the category of pirated software (e. g., Lu 2006; Milinković 2004); c) considering the size of the country, the results tender a reasonable external validity of the study. As part of their study program, senior undergraduate and part-time MBA students at two major universities were asked to administer the survey in their local communities and at work. A self-administered survey was utilized as a data collection methodology.

The questionnaire was divided into four parts and was based on the existing knowledge of counterfeiting, established measures in the literature (e. g., Bloch et al. 1993; Kecskes and Wolf 1993; Raju 1980; Stoettinger and Penz 2003) and self-constructed measures. Five point Likert-type scales were used to measure socio-psychological constructs and respondents' willingness to purchase a fake at various prices levels. The scales were anchored by '1 = strongly disagree' and '5 = strongly agree'. Demographic questions consisted of open and close-ended questions. On the average, it took respondents approximately 12 minutes to complete the survey.

As for demographic characteristics of our respondents, our sample consisted of 61.8% female respondents with an average age of 28.33 years (SD of 13.37). Less than a quarter of the sample (23.3%) had attained col-

TABLE 1 Sample characteristics by gender

Characteristic	Men	Women
<i>Number</i>	85 (38.5%)	136 (61.6%)
<i>Average age (standard deviation)</i>	26.1 (13.0)	29.5 (13.7)
<i>Education</i>		
College graduate	20.7%	25.9%
Not a college graduate	79.3%	74.1%
<i>Status</i>		
Partnered	29.9%	43.6%
Single	70.1%	65.4%
<i>Net monthly income</i>		
Below national average	63.2%	62.6%
Above national average	36.8%	37.4%

lege education, and 36.75% of the respondents were married or shared a household with a partner. Table 1 shows sample characteristics by gender. For two-thirds of the respondents, their net monthly income was lower than the average net monthly income in Slovenia.

Data Analyses

Analyses of data were performed in two steps. First, all Likert-scale type statements were factor analyzed and alpha estimates computed to obtain reliable measures of the constructs in the model. Second, path analysis was run to test the system of structural relationships among the variables, and examine the determinants of consumer willingness to purchase counterfeit products.

Consistent with the model in figure 1, the variables consisted of four constructs, five socio-economic variables, and three measures of consumer willingness to purchase fake goods. The four constructs included attitudes towards purchasing counterfeit goods, perceived social consequences of purchasing fake goods, innovativeness and religiosity. The three measures of consumer willingness to purchase fake goods were: a) consumer willingness to purchase a fake Lacoste shirt (wTP_s), b) willingness to purchase counterfeit software (wTP_c), and c) willingness to purchase a fake Rolex watch (wTP_w). Each wTP item consisted of three 5-point scales measuring consumer willingness to purchase a counterfeit merchandise if it were priced below the price of the genuine brand

TABLE 2 Construct measures

Construct (source)	Description	(1)	(2)
WTP <i>shirt</i> (WTP_s) (Stoettinger et al. 2003)	Willingness to purchase a counterfeit Lacoste shirt at various price levels relative to prices of genuine branded products.	3	0.91
WTP <i>software</i> (WTP_c) (Stoettinger et al. 2003)	Willingness to purchase counterfeit PC software at various price levels relative to prices of genuine branded products.	3	0.92
WTP <i>watch</i> (WTP_w) (Stoettinger et al. 2003)	Willingness to purchase a counterfeit Rolex watch at various price levels relative to prices of genuine branded products.	3	0.93
Attitudes towards piracy	Attitudes towards counterfeiting – ability to rationalize counterfeiting with respect to costs, pricing and quality of genuine vs. fake products.	6	0.70
Social consequences	Consumer perception of social risks involved in purchasing and using fakes.	4	0.73
Innovativeness (Raju 1980)	Consumer predisposition to novel and different products, brands and experiences	5	0.80
Religiousness (Kecskes and Wolf 1993)	Deep rooted religious beliefs.	5	0.93

NOTES Column headings are as follows: (1) number of items, (2) Cronbach's Alpha.

at a 20, 40 and 60 percent lower price. Table 2 lists the constructs, the sources of measures, conceptual definitions, the number of items pertaining to each construct and the associated reliability measure. For all four constructs, the Cronbach's alphas are within the prescribed range of Nunnally's (1978) alpha requirement for psychometric scales (0.70 or greater).

In the second stage of analyses, path analysis was run to test the system of structural relationships. We ran three separate models, one for each product specific measure of consumer willingness to purchase fake goods. Each model was specified as a recursive system with six exogenous variables x_i and four jointly dependent endogenous variables Y_i . The exogenous variables included the religiosity construct and the five socio-economic variables, and the endogenous variables included consumer attitudes towards piracy, perceived social consequences, the innovativeness construct and a willingness to purchase construct. The five socio-economic variables tested in the model were age, sex, education, partnered status, and income. Due to the broad range of respondents'

age and the consequently large variance, a logarithm of age was used. Since the observations of other socio-economic categories were found unevenly distributed in the sample, they were converted to binary variables (Bollen 1989).

The three models were identical in their set up, replacing WTP_s (a counterfeit branded T-shirt) in the first model with WTP_c (counterfeit software) in the second model, and with WTP_w (a counterfeit branded watch) in the third model. Basic identification rules followed guidelines provided by Kaplan (2000) and Bollen (1989). As several of the variables were dichotomous, a polychoric correlation matrix was computed using the PRELIS software (Joreskog and Sorbom 1996), and all estimations were performed using Weighted Least Squares option in the LISREL 8 software.

Findings and Discussion

Consistent with traditional reporting of results when using covariance analysis, we first report on the fit measures of the three models (WTP_s , WTP_c and WTP_w), and then discuss the findings of the path analyses. The measures of fit across the three models are adequate (see table 6). As a standard measure of fit, the chi-squares (ranging between 113 and 327) are provided. They were significant (at $p < 0.001$), which is consistent with the fact that correlation rather than covariance matrices were used in the estimation. Bollen (1989) suggests using additional measures of fit, which are also provided in table 6. These measures (i. e., GFI, AGFI, RMSEA, RMR) are within an acceptable range for all three models of WTP . We then examined the variance in WTP explained in each model. The amount of variance in WTP was calculated using a measure of squared multiple correlations for the structural equations, indicating that model 1 (counterfeit shirt) performed best since significant variables in the model explained 38 percent of the variance, followed by model 3 (counterfeit watch) with 24 percent of variance and model 2 (counterfeit software) with 14 percent of variance explained.

Next, results of the path analyses are discussed in three sections, following the conceptual model in figure 1 from left to right. For each section, the findings for each of the three models (WTP_s , WTP_c and WTP_w) are presented. Table 3 reports on the results of the first section, specifying standardized total effects of socio-economic variables and the religiosity construct on consumer attitudes towards piracy, perceived social consequences and consumer innovativeness. The results indicate that religios-

TABLE 3 Standardized total effects of socio-economic variables and the construct of religiosity on consumer attitudes, social consequences and innovativeness

	(1)	(2)	(3)	(4)	(5)	(6)
<i>Model 1: WTP T-shirt</i>						
Attitudes towards piracy	-0.25*	-0.19	-0.21†	-0.06	0.31	-0.17
Social consequences	0.09	-0.12	0.06	0.10	0.13	-0.10
Innovativeness	-0.20*	0.15	-0.05	-0.05	-0.02	0.16
<i>Model 2: WTP software</i>						
Attitudes towards piracy	-0.17*	-0.06	-0.23*	0.32	0.25	0.10
Social consequences	0.18*	-0.31	0.05	-0.37	0.18	-0.33
Innovativeness	-0.05*	0.19	-0.06	-0.07	-0.24	0.29
<i>Model 3: WTP watch</i>						
Attitudes towards piracy	-0.15†	-0.11	-0.19	0.17	0.30	0.02
Social consequences	0.09	-0.40	0.07	-0.32	0.28†	-0.33
Innovativeness	-0.07	0.09	-0.11	-0.09	-0.20	0.31

NOTES Column headings are as follows: (1) religiosity, (2) age, (3) sex, (4) partner, (5) education, (6) income. * $p < 0.001$. † $p < 0.01$.

ity was a significant predictor of respondents' attitudes toward piracy in all three models, with the two variables being negatively related. As expected, more religious people were less able to rationalize the existence of costs involved, pricing and quality of fakes than their less religious counterparts. Religiosity seemed to have impacted the perception of social consequences in the case of pirated software (with more religious people more concerned by the embarrassment potential of being discovered), but not in the case of branded fashion products (a T-shirt and a watch). The effect of religiosity on innovativeness was significant in two models, i. e., for the T-shirt and for computer software, but not in the model of willingness to purchase a fake Rolex.

Contrary to our expectations, other socio-economic variables had little effect on the three socio-psychological variables in our conceptual model, with the exception of *gender* influencing respondents' attitudes towards piracy when modeling data for T-shirt and computer software, and the level of *respondents' education* on perceived social consequences when modeling consumer willingness to purchase a fake Rolex watch. In both models 1 and 2, men had significantly more positive attitudes towards counterfeiting practices and were better able to justify their existence than the females in the sample. This finding is consistent with the

TABLE 4 Standardized total effects of innovativeness on consumer attitudes and social consequences

<i>Model 1: WTP T-shirt</i>	Attitudes towards piracy	0.19*
	Social consequences	-0.29*
<i>Model 2: WTP software</i>	Attitudes towards piracy	0.00
	Social consequences	-0.19*
<i>Model 3: WTP watch</i>	Attitudes towards piracy	0.00
	Social consequences	-0.19*

NOTE * $p < 0.001$

evidence obtained in a recent study of buyers vs. non-buyers of a pirated music CD in Asia (Ang et al. 2001). Furthermore, in model 3 (WTP watch) only, education had a positive and significant effect on the respondents' attitudes towards social consequences of buying and using a knock-off product, with more educated respondents being more concerned with the social consequences of being discovered should they engage in an illicit behavior.

Focusing on the central part of our conceptual model in figure 1, we not only hypothesized that the three socio-psychological constructs directly affect consumer willingness to purchase fakes, but also postulated that innovativeness influences the other two factors, i. e., attitudes towards piracy and perceptions of social consequences. Table 4 shows the results of this part of the analysis for all three measures of consumer willingness to purchase counterfeit merchandise. The results indicate a negative and strong relationship between innovativeness and respondents' perception of social risks involved in purchasing and using fake products in all three models, i. e., counterfeit T-shirt, computer software and a fake Rolex watch. This is consistent with the existing knowledge of the associations between personality traits and actual adoption behavior (for a review, see Rogers 1983). Early adopters of novel products have been frequently (though not always) found to have higher ability to deal with abstractions and cope with uncertainty and risk, and they are less fatalistic and dogmatic (Steenkamp et al. 1999). The discussion of adoption behavior in a given research context is particularly relevant as status brands, commonly subject to counterfeiting, represent novelty to the majority of consumers in (even advanced) transitional economies (Reardon et al. 2005; Rojšek 2001; Steenkamp and Burgess 2002).

Moreover, findings of the first model indicate that more innovative

TABLE 5 Standardized total effects of consumer attitudes, innovativeness and social consequences on willingness to purchase fakes

	Attitudes towards piracy	Social consequences	Innovativeness
<i>Model 1: WTP T-shirt</i>	0.27*	-0.54*	0.04
<i>Model 2: WTP software</i>	-0.02	-0.03	0.36*
<i>Model 3: WTP watch</i>	0.14*	-0.38*	0.24*

NOTE * $p < 0.001$.

people not only care less about the social consequences, but also have a stronger ability to justify counterfeiting practices. On the other hand, results presented in table 4 indicate that consumer innovativeness has no bearing on respondents' attitudes towards piracy in models 2 in 3.

Finally, in the last section, we focus on direct effects of consumer attitudes towards piracy, innovativeness, and perceptions of social consequences on respondents' willingness to purchase fakes regardless of the product class involved (figure 1). Standardized effects of consumer attitudes, innovativeness and social consequences on willingness to purchase fakes are presented in table 5 for all three models. The hypothesized effects of consumer attitudes towards piracy and perceptions of social consequences on willingness to purchase fakes are confirmed when modeling data for respondents' willingness to purchase a counterfeit T-shirt and a watch (models 1 and 3), but not their willingness to purchase counterfeit computer software (model 2). This means that respondents with greater ability to rationalize illicit behavior and weaker perceptions of social risks involved in purchasing and using fakes are more willing to purchase pirated branded fashion products, but no more willing to buy pirated software. Results in table 5 also indicate that consumer innovativeness is significantly and positively related to consumer willingness to purchase counterfeit software and a branded counterfeit watch but not his/her willingness to purchase a fake branded T-shirt.

Conclusions and future research

This study sought to generate some insights into non-deceptive counterfeiting by focusing on consumers in an advanced CSEE economy and a new EU member country. In reviewing the consumer behavior literature and recent empirical studies, we identified several socio-economic variables and religiosity that influence consumer attitudes towards counterfeiting, their innovativeness and perceptions of social risks of the illicit

behavior, i. e., socio-psychological constructs which, in turn, affect consumer willingness to purchase fakes. Our conceptual model was thought of as generalizable across product categories for which consumer willingness to purchase was measured, i. e., a fake branded T-shirt, a fake branded watch and pirated computer software. Our results, however, do not support this conjecture, as models 1, 2 and 3 do not show consistent results across the three product classes.

The findings of modeling a fake T-shirt data indicate that consumer willingness to purchase this product is a function of religiosity and gender (indirect effects through attitudes for both variables and through innovativeness for religiosity), and a function of respondents' attitudes towards piracy and their perceptions of social consequences. In model 1, consumer innovativeness had only an indirect effect through the other two socio-psychological variables. Despite the somewhat similar product class in the third model (a pirated branded fashion product, i. e., Rolex watch), the indirect effects of religiosity and socio-economic variables on the WTP watch were different (i. e., impact of religiosity through the attitudes only and education through social consequences variable) as were the indirect effects of innovativeness (influenced the social consequences only – rather than both central constructs as in model 1). Furthermore, the differences pertained to the direct effects on WTP as-unlike in the WTP shirt model – all three socio-psychological constructs had a significant impact on the endogenous WTP watch variable.

Yet another pattern of results can be seen when modeling WTP pirated computer software. In model 2, the indirect effects of exogenous variables were somewhat similar to those in model 1 (WTP shirt) with religiosity influencing WTP through all three socio-psychological variables and gender through the attitudes only. The indirect effect of innovativeness (through social consequences) represents a pattern of influences which is closer to that of model 3. Unlike in models 1 and 3, consumer innovativeness was the only socio-psychological variable with a direct effect on consumer WTP pirated computer software.

Overall, we can conclude that the patterns of findings, while inconsistent across the three product classes, seem more coherent for WTP pirated fashion products (models 1 and 3) than in the case of a counterfeit computer software. These findings suggest, consistent with previous research (Chakratborty et al. 1996; Stoettinger and Penz 2003) that consumer illicit behavior tends to be product specific.

Since this study represents a preliminary attempt at studying factors

TABLE 6 Measures of fit

	Model 1	Model 2	Model 3
Chi-square (<i>df</i>)	326.9	166.7	113.1
Goodness of fit index (GFI)	0.98	0.99	0.99
Adjusted goodness of fit index (AGFI)	0.96	0.98	0.99
Root mean square error of approximation (RMSEA)	0.23	0.16	0.12
Root mean square residual (RMR)	0.12	0.09	0.07
Standardized RMR	0.088	0.08	0.06

underlying consumer counterfeiting behavior in a novel cultural environment relative to existing empirical research (which was conducted mainly in the US, Europe and Asia), our findings should be interpreted with caution. Future studies should further examine the role of product specificity in consumer illicit behavior, and possibly examine other psycho-sociological constructs to increase the explained variance of the models. Our findings indicate that studying direct and indirect effects of consumer innovativeness, in particular, should yield fruitful results.

The effect of religiosity and demographic variables on the socio-psychological variables used in this study (which were believed to indirectly effect consumer WTP fakes) were often (though not unequivocally) found to be related to consumer illicit behavior in previous research (Ang et al. 2001; Dubinsky et al. 2005; Simpson et al. 1994; Schlegelmilch et al. 1998). Considering the inconsistent pattern of our results in modeling consumer willingness to purchase fakes across the three product classes, future studies should examine the direct and indirect impact of these variables in consumer counterfeit buying behavior.

As the countries of Central, Southern and Eastern Europe (CSEE) continue to make progress in their evolving market economies, international marketers and investors will have an increasing need for understanding behavioral patterns and attitudes of CSEE consumers, particularly in view of the reportedly increasing volume of counterfeiting practices in the region (Al-Khatib et al. 2004; Delener 2000). As a result of dynamic changes in the external environment, consumers in CSEE transitional economies have been experiencing not only a growing economic stratification of their societies, but also altered hierarchies of consumer values, standards and purchasing patterns (Nasierowski 1996; Vida and Fairhurst 1998). Some of these changes include erratic switches between higher-status foreign and often lower-priced domestic products (e. g.,

Reardon et al. 2005; Vida and Dmitrović 2001). It is our contention that any strategy aimed at managing the counterfeit problem should include ways to reduce the demand for counterfeits. In order to accomplish this, managers need to have a strong cognizance of the most effective means of communication to be directed at the right target audience. Studies such as this one can facilitate this understanding.

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