

**How Do Consumers Make Their Purchase  
Decisions Between Genuine and Counterfeit Products?**

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## **ABSTRACT**

### **HOW DO CONSUMERS MAKE THEIR PURCHASE DECISIONS BETWEEN GENUINE AND COUNTERFEIT PRODUCTS?**

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This study sought to provide a theory driven model to explain how consumers make their purchasing decisions between genuine products and products they know are counterfeit. The influences of Goal-Driven Theory, Morality, and Prospect Theory were included as purchase decisions considerations. To measure their influence, while accounting for product attributes, purchasing decisions were assessed in choice sets as provided by Discrete Choice Experiment. Results found support for using Goal-Driven Theory and Prospect Theory to explain consumer purchasing decisions between genuine and counterfeit products. Morality was not a significant factor in the findings. Theoretical contributions and Managerial implications are discussed.

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## 1.0 INTRODUCTION TO THE STUDY

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Counterfeit consumption is the “unauthorized reproduction of goods protected by an intellectual property right” (House of Commons Canada, 2007). This is a growing phenomenon, as 59% to 70% of the North American population have engaged in this behaviour (Nia & Zaichkowsky, 2000; Walthers & Buff, 2008). This study focuses on understanding how consumers make their purchase decisions in choosing between genuine products and products they know are counterfeit.

Findings from this study seek to set the stage for curbing counterfeit demand by illustrating what consumers find important in their purchasing decisions between genuine and counterfeit products. For counterfeit consumption, explanations of purchasing behaviour are sought in theories on goal-driven consumption, price, and attitude theory. Specifically, this research focused on the Theory of Goal-Driven Consumption (GDC), Prospect Theory, and the influence of morality.

GDC argues that consumers make their purchasing decisions with an intentional purpose known as a goal, where the act of consumption is a goal fulfillment mechanism (Bagazzo & Dholakia, 1999). Goals are defined as the “*abstract benefits sought by the consumer that are available through the features of a product class that offer fulfillment*” (Huffman & Houston, 1993, pg.191). Goals are composed of function and symbolic topography (Ligas, 2000). Functional goals are fulfilled by maximizing a product’s utility through its product attributes. Symbolic goals use the symbolic meaning that consumers embed into the products to serve the purpose of either value-expressive goals and/or social-adjustive goals (Shavitt, Lowrey & Han, 1992).

Wilcox, Kim, and Sen (2009) were the first to apply GDC to counterfeit consumption. They found that symbolic goals (specifically, value-expressive goals) influence consumer decisions between genuine and counterfeit products. Additionally, high and low value-expressive goals were impacted differently by morality on purchase intention. The first objective of this thesis research was to replicate Wilcox, Kim, and Sen's (2009) findings.

In the context of counterfeit consumption, the attitudinal literature has identified that consumer's moral stance on counterfeit consumption is an important predictor of consumption between genuine and counterfeit purchases (Cordell, Kieschnick & Wongtada, 1996; Harvey & Walls, 2003; Matos, Ituassu & Rossi, 2007; Furnham & Valgeirsson, 2007; Kwong, et al. 2009; Swami, Chamorro-Premuzic & Furnham, 2009; Tan, 2002). Higher morality is held by consumers who abstain from such purchases (Cordell, Kieschnick & Wongtada, 1996; Furnham & Valgeirsson, 2007; Harvey & Walls, 2003; Tan, 2002). In fact, morality has been found to be best predictor of counterfeit purchases compared to perceived value and previous experience (Premuzic & Furnham, 2009). But morality does not impact all market segments the same way (Wilcox, Kim & Sen, 2009), which suggests a moderating role in some consumer segments. The second objective of this research was to confirm whether or not morality moderates consumer purchasing decisions for consumers who hold high and low value-expressive goals.

Across all product categories, price remains one of the most recognized motivations for purchasing counterfeits (Rutter & Bryce, 2008; Cordell, Kieschnick, & Wongtada, 1996). Consumers who purchase counterfeit goods are particularly concerned with price (Schlegelmilch & Stottinger, 1999). To understand counterfeit consumption, it is

important to understand how consumers conceptualize and evaluate price in regular purchasing decisions. In regular purchasing situations, consumers form price expectations referred to as a 'reference price' (Kalwani, Yim, Rinne, & Sugita, 1990; Lattin & Bucklin, 1989). Reference price is used as an evaluation criterion, where consumers compare their reference price to real life prices. Prospect Theory suggests that reference price is used to assess the subjective gain or loss from the transaction, which directly impacts the purchasing decision (Lichtenstein, Netemeyer & Burton, 1990; Thaler, 1983; 1985). Prospect Theory suggests that the relationship between losses and gains is asymmetrical, as consumers weigh losses greater than gains. Reference price is used differently by consumer segments, which suggests differences in reference price for consumers who purchase counterfeit products versus those who abstain from such purchases. The third objective of this research was to assess whether consumers hold asymmetric price effects, and whether their reference price impacts their preference for genuine products.

Counterfeit consumption is still a new area of research leading to several literature gaps (Staake, Thiesse & Fleisch, 2009). Specifically, there is a gap in the literature not only for theory driven and replication research; there is also a need for more rigorous research. Therefore, the fourth objective of this research was to meet the need for more rigorous research by providing the methodological contribution of using Discrete Choice Experiment (DCE) to test purchasing choices and confirm previous findings.

Four hypotheses were developed to reflect the study's first three research objectives. A Discrete Choice Experiment was conducted using 246 Guelph citizens (mainly University of Guelph students). To accomplish the fourth research objective, participants completed

a DCE-based online questionnaire composed of a value-expressive scale, morality construct, and reference price. The focal product category was watches, which are known to be sensitive to gender preference counterfeit purchases. The DCE assessed functional, symbolic and product attributes.

Data was analyzed using Multinomial Logit Models and Linear Regression. The resulting findings demonstrated that value-expressive goals and price impact consumer purchasing decisions between genuine and counterfeit products. However, morality failed to exhibit a significant impact on value-expressive goals and purchasing decisions.

The primary academic contribution of this research is a theoretical model that integrates a random utility model with a behavioural addition by including Goal-Drive Consumption Theory and Prospect Theory. GDC and Prospect Theory provide useful frameworks to understand how consumers make their decisions between genuine and counterfeit products. Findings hint at the possibility that GDC and Prospect Theory could displace the use of attitude constructs in explaining purchasing behaviour.

The primary managerial contributions of this research are its implications for branding and pricing. Importantly, brand was not always a significant attribute in the choice sets. This finding has to be interpreted with caution as it may be product and population specific. However, it suggests that industry is failing to communicate a brand's value and goal fulfillment qualities to consumers. This is supported by literature indicating that there are a growing number of consumers holding beliefs that counterfeit versions are equal to genuine products (Walthers & Buff, 2008).

With regard to price, an asymmetric price effect was confirmed. Many companies have wholesalers for their products, who also have the ability to control pricing. This study cautions against marketers/manufacturers losing control of their product's price, as it could become a disadvantage at later stages. Industry needs to consider short-term versus long-term financial goals in their pricing strategies, and make sure they do not seek short-term profits at the expense of long-term security.

## 2.0 LITERATURE REVIEW

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### 2.1 COUNTERFEIT CONSUMPTION – WHY THE CONCERN?

Counterfeit consumption is a growing phenomenon, with studies estimating that 59% to 70% of the North American population has engaged in this behaviour (Canadian Anti-Counterfeiting Network, 2007; Nia & Zaichkowsky, 2000; Walthers & Buff, 2008). The increase has been said to stem from both increased production and demand (Canadian Anti-Counterfeiting Network, 2007; Staake, Thiesse & Fleisch, 2009; Walthers & Buff, 2008; WHO, 2006). This study focuses on understanding the increased demand. More specifically, what do consumers consider in making their purchasing decisions between genuine products and products they know are counterfeit?

Counterfeit products are defined as the “unauthorized reproduction of goods protected by an intellectual property right” (House of Commons Canada, 2007). Counterfeit consumption is not limited to one product or brand category, and occurs in both deceptive and non-deceptive purchasing situations (Allred, Bristol, Chakraborty, & Sukhdail, 1997; Grossman & Shapiro, 1988). Counterfeit consumption is an important purchasing behaviour to study as it has societal and industry implications. The Canadian Anti-Counterfeiting Network (2007) and the World Health Organization (2006) have identified the associated societal implications from counterfeits to include public health and safety, tax evaluation, job loss, and lack of enforced intellectual property laws. The Canadian Anti-Counterfeiting Network (2007) and the International Anti-Counterfeiting Coalition (2005) have identified the managerial implications to include brand equity loss, revenue loss, negative customer associations, and the loss of incentive for market innovation.

Therefore, it is imperative to understand how consumers make their purchasing decisions in order to subsequently curb counterfeit consumption.

Insight into why consumers purchase counterfeit goods is still in its infancy and, as a result, studies in this research area are descriptive in nature (Staake, Thiesse & Fleisch, 2009). The literature has highlighted that younger, less educated, and lower social status groups are more likely to purchase counterfeit products (Casola, Kemp & Mackenzie, 2009; Kwong, Yu, Leung & Wang, 2009; Rutter & Bryce, 2008; Swami, Chamorro-Premuzi & Furnham, 2009). Research on the impacts of attitude found that morality had the greatest predictive value on counterfeit purchases (Swami, Chamorro-Premuzi & Furnham, 2009). A positive attitude towards counterfeit products has a positive impact on counterfeit consumption, but at a lesser perceived value (Nia & Zaichowsky, 2000; Walthers & Buff, 2008). Research on past purchase experience with counterfeit products has found that any counterfeit purchase positively impacts future purchase intention (Matos, Ituassu & Rossi, 2007; Nia & Zaichowsky, 2000; Swami, Chamorro-Premuzic, & Furnham, 2009; Walthers & Buff, 2008). Purchase experience also positively impacts consumer attitudes towards counterfeit products. Product attributes, such as brand presence and prominence along with price, impact the purchase decision (Cordell, Kieschnick & Wongtada, 1996; Rutter & Bryce, 2008; Tan, 2002; Wilcox, Kim & Sen, 2009). In most cases, each of these components of the purchasing decision has been studied separately, and without a theoretical framework.

The literature needs to further explore how consumers make their purchasing decisions within a theoretical framework. For counterfeit consumption, explanation of purchasing behaviour can be sought in theories on attitude, goal-driven consumption, and price

theory. Attitudinal theories state that attitudes drive purchasing behaviour, goal-driven theories state that goals influence purchasing behaviour by influencing how consumers evaluate products, and price theories state that price influences purchasing behaviour.

Ultimately, this research seeks to understand the rise of counterfeit consumption by providing a theory driven model that explains how consumers make their purchasing decisions between genuine and counterfeit products and testing aspects of this model.

The literature review will commence by introducing counterfeit consumption and the various factors that impact this behaviour. Subsequently will be a review of GDC literature as it applies to counterfeit consumption. Within this section a detailed review of how symbolic and functional goals are used by consumers in their purchase decisions. Price and the impact of Prospect Theory are reviewed under the functional goals section of GDC. Lastly, morality and its influence on counterfeit consumption are discussed.

## **2.2 COUNTERFEIT CONSUMPTION**

The following sub-sections will focus on demographics and other influences in order to highlight the general trends and findings on counterfeit consumption.

### ***2.2.1 Socio-Demographics***

The demographics of counterfeit purchasing consumers have been documented by the marketing and consumer studies literature. Age has been found to contribute a small effect size, accounting for 6-14% of the variance (Casola, Kemp & Mackenzie, 2009; Swami, Chamorro-Premuzic & Furnham, 2009). Swami, Chamorro-Premuzic, and Furnham (2009) used a larger population sample (237) from the city of London, ranging from 17 to 89 years of age, and found that age accounted for 14% of the variance for

willingness to purchase counterfeit products. Swami, Chamorro-Premuzic, and Furnham (2009) measured purchase intention with the methods developed by Furnham and Valgeirssons (2007). Furnham and Valgeirssons's (2007) method measures counterfeit purchase intention by presenting participants with a list of products (e.g. pens, watches, bags, toiletries, etc.), and then asking them to rate their willingness to purchase counterfeit versions of each product on a likert scale. Casola, Kemp, and Mackenzie (2009) found that age only accounted for 6% of the variance when measuring purchase intention by asking participants to rate how unacceptable it is to purchase black market goods. Casola, Kemp, and Mackenzie's (2009) participants were comprised of 51 students from the University of Canterbury and 29 participants from the general public who ranged from 15 to 68 years of age. The variability of purchase intention based on age may be due to the fact that younger consumers view counterfeit products to be more acceptable and, as a consequence, are more likely to purchase counterfeit goods than older consumers (Casola, Kemp & Mackenzie, 2009; Rutter & Bryce, 2008; Swami, Chamorro-Premuzic & Furnham, 2009; Tan, 2002).

Consumers who have attained higher education tend to see the negative impact of counterfeit consumption on society and, as a result, are less likely to engage in this behaviour (Kwong, et al. 2009). Likewise, consumers coming from wealthy households are less likely to purchase counterfeit goods. Rutter and Bryce (2008) found that the highest portion of counterfeit consumers came from the lowest household income brackets.

Age, education, and income are interrelated variables. The older a consumer is, the higher education and income they are likely to have: on the other hand, the more educated a

consumer is, the higher the income they are likely to have. These generalizations have to be carefully interpreted, as to not overshadow other segments of counterfeit consumers, as illustrated by Nia and Zaichkowsky (2000) who found that 59% of higher income Canadians have purchased at least one counterfeit product within the last 3 years.

Culture has become an increasingly studied factor, as researchers are finding that consumers from different cultures hold different beliefs and norms which impact counterfeit consumption behaviours (Singhapakdi, Rawwas, Marta & Ahmed, 1999; Kwong, et al. 2009).

### ***2.2.2 Attitudinal Beliefs and Experience with Counterfeits***

In examining counterfeit consumption, previous research has identified a circular relationship between attitudes, experience, and willingness to purchase counterfeit products. Attitudes towards, experience with, and willingness to purchase counterfeits are separate but interrelated constructs, where changes in one impact the other two. Studies have found that previous experience with counterfeits, irrespective of satisfaction, impacts consumer willingness to purchase counterfeit products positively (Matos, Ituassu & Rossi, 2007; Nia & Zaichowsky, 2000). Swami, Chamorro-Premuzic and Furnham, (2009) found that experience with counterfeits accounts for 10% of the variance for willingness to purchase counterfeit products. Consumers who have never purchased counterfeits tend to hold negative attitudes towards counterfeit products and believe that individuals who buy and sell counterfeits are criminals (Walthers & Buff, 2008). This consumer group also tends to feel that genuine products are fairly priced and that the quality of the genuine product is superior to the counterfeit version, thus leading to a lower willingness to purchase counterfeits (Walthers & Buff, 2008; Nia & Zaichowsky,

2000). This is in contrast to consumers with experience purchasing counterfeit products, who hold positive attitudes towards counterfeit consumption by believing that buyers of counterfeits are not criminals, and that genuine products are overpriced and counterfeit products are of equal quality to genuine products (Walthers & Buff 2008; Nia & Zaichkowsky, 2000).

When assessing how these attitudes have changed over the past decade, Walthers and Buff (2008) found that current American university students believed more readily that genuine products are overpriced, the quality of the counterfeit is equal to that of legitimate products, and that they could easily afford the counterfeit version. Additionally, Walthers and Buff (2008) found that there is a significant disparity in consumer beliefs that selling, but not purchasing, counterfeits is a criminal offence. This finding implies that there is a growing societal trend in the marketplace with today's consumers expecting firms to follow ethical standards that they need not follow themselves. Collectively, these attitudes and beliefs are impacting consumer behaviour by creating a social climate that is accepting of counterfeit purchasing, making it more likely for the consumer to engage in this behaviour if their belief system is aligned.

### **2.3 THE THEORY OF GOAL-DRIVEN CONSUMPTION**

Given that the market for counterfeit products relies on consumers' desire for genuine products, insight into why consumers purchase any product is relevant. This research adopts a rational behaviour paradigm to understand consumption. GDC argues that consumers make their purchasing decisions with an intentional purpose known as a goal, where the act of consumption is a goal fulfillment mechanism (Bagozzi & Dholakia,

1999). Huffman and Houston (1993) define a consumption goal as the “abstract benefits sought by the consumer that are available through the features of a product class that offer fulfillment” (pg. 191). Consumption can be seen as a problem-solving situation, where the consumer must choose the best option (a.k.a. product) to fulfill a particular goal. It should be noted early on that the application of GDC in the marketing and consumer studies literature has yet to be sufficiently tested by researchers.

The categorization of consumption goals has evolved from Fournier’s (1991) summarization of the various roles that products play in consumers’ lives to Ligas’ (2000) creation of two main goal categories. Fournier (1991) summarizes the various roles that products play in consumers’ lives into three categories: functional benefits, experiential opportunities, and assisting in establishing an identity. Products that provide functional benefits do so by fulfilling a necessary function, facilitating control over the environment, and solving an externally-based problem. Products that provide experiential opportunities do so by providing sensory pleasure, comfort, aesthetic enjoyment, and entertainment. Products that aid in establishing an identity do so by facilitating expression of the self and individuality, providing links to family and childhood, as well as being the embodiment of past experiences, relationships, and the self. Fournier (1991) did not intend for these categories to be mutually exclusive, nor product specific, as the role that products take is dependent on the individual’s use of the product.

Ligas (2000) summarized Fournier’s (1991) categories into two meaning systems that act as purchasing goals for consumers: functional product meaning goals and symbolic product meaning goals (hereafter referred to as functional goals and symbolic goals). Functional goals are fulfilled by maximizing a product’s utility through its product

attributes, such as its physical characteristics and features. Symbolic goals use the symbolic meaning that consumers embed into the product to serve the purpose of being value-expressive and/or social-adjustive (Shavitt, Lowrey & Han, 1992). Value-expressive goals serve to enable self-expression, while social-adjustive goals serve to gain group acceptance.

When talking about symbolic goals, a distinction needs to be made between functional and symbolic goal topography versus utilitarian and hedonic topography. Functional and utilitarian definitions overlap, as both relate to a product's utility, effectiveness, practicality, and helpfulness (Ligas, 2000; Voss, Spangenberg & Grohmann, 2003). However, a distinction can be found when comparing symbolic and hedonic definitions. Symbolic goals focus on consumers using the embedded product meaning, while hedonic topography focus on a product being fun, exciting, and thrilling (Shavitt, Lowrey & Han, 1992; Voss, Spangenberg, & Grohmann, 2003). To summarize, utilitarian and hedonic topography relates to how consumers experience the product, while functional and symbolic topography relates to how a product and its attributes are used by the consumer.

Lawson (1997) proposed a four-level hierarchy that guides consumer purchasing decisions, starting with Principle Level Goals (personal values), and followed by Program Level Goals (chosen activity), Product Acquisition Level Goals (chosen product), and Brand Acquisition Level Goals (chosen brand). For an applied example of the goal hierarchy, consider a consumer's goal of living a healthy life (Principle Level Goal). This desire may manifest into the goal to be fit through exercising (Program Level Goal), which leads the consumer to decide to purchase a gym membership (Product Acquisition Level Goal), specifically a GoodLife Fitness™ membership (Brand

Acquisition Level Goal). Lawson's (1997) four-level goal hierarchy provides the theoretical basis for the GDC assumption of top-down cognitive processing of consumer decisions.

Within the goal hierarchy, Lee and Ariely (2006) argue that consumers adopt a problem-solving approach to their purchasing decisions that consists of two choice levels, the product class and brand choice. This is further distinguished by goals that are set before and after the decision to make a purchase has been made. The decision to purchase within a product class occurs *prior* to having made the decision to make a purchase, whereas the decision of brand choice occurs *after* the decision to make a purchase has been made. Lee and Ariely (2006) found that consumers hold well-defined principal goals, while holding less concrete subordinate goals. These findings suggest that consumers make their brand choice as the shopping experience progresses. Furthermore, the decision to purchase counterfeits may not be well defined and occurs as the opportunity presents itself. This leads to greater justification for using Discrete Choice Experiment (DCE) to simulate a purchasing decision, as it allows the consumer to consider purchases as they are presented, much like a real-life purchasing situation.

The process by which consumers assess product attributes was elaborated by Barsalou (1991), who proposed that consumer goals are represented in cognitive frames. Cognitive frames are loosely organized clusters of knowledge which, upon activation, contain a collection of attributes relevant for goal fulfillment. In the example of a consumer's goal to go on vacation, the vacation cognitive frame contains information regarding relevant attributes, such as location, transportation, activities, price, etc. Each attribute is then

linked to sub-option clusters. For example, the attribute transportation is associated with the sub-options of plane, bus, and car.

Attribute levels are an important component of purchasing decisions, as consumers assign either a positive or negative evaluation to each attribute level according to how that particular level enables goal fulfillment. An example of a product attribute that serves a functional goal is price, and its attribute levels could be inexpensive, average, or costly, to which consumers will assign a favourable or unfavourable evaluation. Consumers use the collective product attribute evaluations to make one final evaluation regarding how the product will fulfill their functional and/or symbolic goal. Comparisons between various products are used to make the ultimate purchasing decision. Attribute combinations that are more in line with a consumer's ideal fit are more likely to be purchased (Higgins, Idson, Freitas, Spiegel & Molden, 2003).

Even after the purchase decision, goals are important as consumers evaluate the product based on post-purchase goal fulfillment. Heitmann, Lehmann, and Herrmann (2007) found that products which lead to goal attainment also lead the consumer to experience decision and consumption satisfaction, as well as loyalty to the brand.

## **2.4 APPLYING THE THEORY OF GOAL-DRIVEN CONSUMPTION TO COUNTERFEIT CONSUMPTION**

The following sections will review symbolic and functional goals as they pertain to counterfeit consumption.

### ***2.4.1 Symbolic Goals***

GDC is important to consider in counterfeit consumption, as counterfeit consumption 1) occurs when the counterfeit product is able to fulfill a consumer's goal, whether it be functional and/or symbolic, and 2) is considered at the brand level. GDC identifies an attribute's ability to offer goal fulfillment as the key factor in consumer considerations for purchasing counterfeit over genuine products.

Symbolic goals are particularly relevant to counterfeit consumption because consumers mainly purchase counterfeit products that are branded. Brands generally communicate personality, values, as well as social status (Dubois & Paternault, 1995). Therefore, symbolic goal fulfillment is dependent on consumers ascribing meaning to the counterfeited brands. While brands facilitate symbolic goal fulfillment, it is important to note that consumers are able to express themselves through the consumption of other product attributes, such as product features, colour, style, etc. Counterfeit products generally try to mimic the entire product design, thereby enabling goal fulfillment through a collection of product attributes.

Symbolic purchases, whether value-expressive or social-adjustive goals, are dependent on the individual consumer and the social context in which the product is consumed (Ligas, 2000). An example of a consumer expressing value-expressive and social-adjustive goals through a product can be illustrated through the purchase of a Gucci™ watch. The consumer may purchase the Gucci™ watch because the brand reflects their personality (value-expressive goal fulfillment), and/or because it is a status symbol used to gain acceptance into a higher social group (social-adjustive goal fulfillment). Value-expressive and social-adjustive goals are separate, but not mutually exclusive constructs,

as products can serve to fulfill either one or both goals (Shavitt, 1989). The focus of this paper will be on the value-expressive construct, as Wilcox, Kim, and Sen (2009) found that value-expressive and social-adjective goal constructs work opposite to each other. Therefore, this study will use high and low value-expressive groups for parsimony. Additionally, Wilcox, Kim, and Sen (2009) found that consumers holding high and low value-expressive goals were impacted differently by the morality construct on their purchase intentions of branded products, making the value-expressive goal construct of particular interest for examining counterfeit consumption. In this study, Wilcox, Kim, and Sen's (2009) study and findings will be further elaborated upon in the 'Value-Expressive Symbolic Goals' and 'Morality' sections of this paper.

#### *2.4.1.1 Value-Expressive Symbolic Goals*

Products can serve a symbolic goal by giving consumers a medium for self-expression (value-expressive goal) (Shavitt, 1989; Shavitt, Lowrey, & Han, 1992). Value-expressive goals are fulfilled through the communication of one's beliefs, attitudes and values, in which the consumption of a product enables self-expression (Katz, 1960). Shavitt (1990) captured consumer quotes about using products for value-expressive goal fulfillment. Value-expressive participant quotes focus on the values represented by the product:

*"It represents a solemn and sacred vow between two people who love each other." (Wedding ring)*

*"It symbolizes all our lives here. We should live by what it stands for." (Country flag)*

Wilcox, Kim and Sen (2009) did a multiple-part study to assess how the value-expressive construct influences consumer's willingness to purchase counterfeit products. The first part of the study assessed how the value-expressive goals and morality constructs interact to influence a participant's willingness to purchase counterfeit products. Value-expressive scores were measured in the context of luxury purchases using a 4-item measure, and morality was measured as a 4-item semantic differential scale. Willingness to purchase was measured by asking 79 undergraduate students to come up with their favourite luxury fashion brands and then rate, on a 7-point likert scale, their willingness to purchase counterfeit versions. The correlation between value-expressive goals and morality was found to be low ( $r=-.22$ ). Results failed to find significance for value-expressive goals to be a positive predictor of purchase intention. However, the interaction between morality and value-expressive goals was found to be significant. Two regression slopes were then run, one for a high and one for a low value-expressive function. Results illustrated that morality was a positive predictor of purchase intention for the high value-expressive function, but failed to be significant for the low value-expressive function.

In the second part of the study, Wilcox, Kim, and Sen (2009) assessed whether the relationship between value-expressive goals and morality would hold given the presence versus absence of a brand logo. This study used only female students as their participants to assess Louis Vuitton™ purses. The results from the second part of the study found a greater effect of morality on purchase intention when a product had a logo than when the logo was absent.

In general, Wilcox, Kim, and Sen (2009) found that consumers high in value-expressive goals failed to exhibit a preference for, and willingness to, purchase genuine products

compared to consumers low in value-expressive goals. Moral beliefs regarding counterfeits negatively moderated participants high in value-expressive goals on their willingness to purchase luxury counterfeit brands.

Wilcox, Kim, and Sen (2009) was the first study to apply symbolic goals to counterfeit consumption, but it had several methodological limitations. Limitations regarding symbolic goals and willingness to purchase counterfeits are discussed below, while limitations regarding the morality construct are discussed in the 'Morality' section of this paper.

Wilcox, Kim, and Sen (2009) asked students to come up with their favourite luxury fashion brands and then rate, on a 7-point likert scale, their willingness to purchase counterfeit versions. This method of testing a consumer's likelihood to purchase counterfeit luxury products is limited, as it does not get the consumer to imitate a realistic purchasing consideration, which is normally product specific and dependent on multiple attribute levels. This means that consumers were not evaluating price, product specific attributes, nor choosing between genuine versus counterfeit versions. The method chosen to assess willingness to purchase was unrealistic at best, which brings to question the reliability of the results. Additionally, asking participants to recall luxury brands does not stimulate the participants to recall counterfeit products that they may actually buy. These methodological limitations need to be addressed in order confirm the effects found and provide support for external validity.

#### *2.4.1.2 Brand Symbolism*

Branding is important to consider separately because, as previously stated, consumers purchase counterfeit products for their brand name not just their low price. Brand

symbolism is the symbolic expression of a concept embodied in the product, which is used by the consumer to satisfy their needs for self-expression (Bhat & Reddy, 1998). The visual representation of brands (i.e. name, logo, colours, etc.) is the embodiment of the brand symbolism. Brands are viewed to be a company's most valued asset as it carries the relationship between the company and consumer through its symbolic meaning (Zaichkowsky, 2006). The symbolic meaning is strengthened when more market segments understand and believe in a common brand meaning. In general, brand symbolism is important to some consumer segments. Consumers who are literate in the symbolic meaning of brands are more likely to purchase products for the symbolic meaning rather than the utility of the product (Frost & O'Cass, 2002; Cordell, Kieschnick & Wongtada, 1996).

Brand symbolism is of interest to counterfeit consumption as consumers generally buy branded products in non-deceptive purchasing situations. Genuine branded products carry social status and personality qualities, while the same cannot be said for counterfeited versions. Gino, Norton, and Ariely (2010) conducted a study to assess consumer attitudes about themselves and others when wearing genuine and counterfeit sunglasses. The study revealed that wearing genuine versus counterfeit sunglasses impacted consumers' perceptions of the sunglasses, as well as their perceptions of self and judgment towards others' behaviours. Wearing genuine sunglasses led to a stronger positive perception of the self and the sunglass brand, as well as a stronger negative perception for those wearing counterfeit sunglasses. The reverse effects were found for participants wearing the counterfeit versions. Therefore, buying and using counterfeit products is desired when, and dependent on, others perceiving the counterfeit product to be genuine.

Ultimately, in order for a product to fulfill a consumer's symbolic goal, it must carry some meaning, the brand must be present, and others must believe that the product is genuine. Counterfeit products are able to fulfill these criteria when the counterfeited products closely resemble an original recognizable brand, thereby allowing others to generalize the original brands qualities onto the imitator (Loken, Ross & Hinkle, 1986; Dubois & Paternault, 1995). This thesis research will examine the importance of brand symbolism in purchasing decisions of genuine versus counterfeit products by assessing brand as a product attribute in the DCE choice sets.

#### ***2.4.2 Functional Goals***

Consumers who purchase products to fulfill functional goals, do so for the product's practical combinations of attribute levels. It is important to note that even products purchased for symbolic goal fulfillment offer the consumer some functional goal fulfillment qualities. In counterfeit purchasing situations, consumers are purchasing counterfeit products for their ability to meet both symbolic and functional goals. Most counterfeit consumers are particularly concerned with the functional attribute of price, as they are constrained by their budgets (Schlegelmilch & Stottinger, 1999). The functional attribute of price will be assessed under Prospect Theory, which helps to explain how consumers evaluate the presented price in contrast to their price expectations. The product attributes of price, functionality, and performance risk are all considered in making purchasing decisions between genuine and counterfeit products. The following sub-sections will elaborate on each.

#### 2.4.2.1 Price

In counterfeit purchasing decisions, across all product categories, price is one of the most frequently identified motivations for purchasing counterfeit versions (Cordell, Kieschnick & Wongtada, 1996; Rutter & Bryce, 2008; Tan, 2002). Whether consumers have tight budgets or simply do not wish to spend more money than they deem necessary, consumers of counterfeit products are choosing not to surpass a specific financial threshold to purchase legitimate products. To understand counterfeit consumption, it is important to understand how consumers conceptualize and evaluate price in regular purchasing decisions.

In regular purchasing situations, consumers form price expectations or ‘reference prices’ (Kalwani, Yim, Rinne & Sugita, 1990; Lattin & Bucklin, 1989). Reference prices are used as a purchasing heuristic, where preconceived price expectations are compared to real-life prices in order to evaluate the value of the purchase. Prospect Theory suggests that consumers use reference prices to assess the *subjective* purchase utility, which directly impacts the purchasing decision (Lichtenstein, Netemeyer & Burton, 1990; Thaler, 1983; Thaler, 1985). Support for the concept of subjective utility is found in the literature, as Bei and Simpson (1995) have found that the likelihood to purchase a product increased when consumers *perceived* greater utility from the transaction.

Reference price is individual specific, and is not static in consumers’ minds. Studies investigating purchasing situations where the price is lowered and then subsequently increased have found an adverse effect on future purchasing decisions once a lower price has been introduced (Kalwani & Yim, 1992; Doob, Carlsmith, Freedman, Landauer & Saleng, 1969). The adverse effect is attributed to consumers adopting a lower reference

price once a lower price is introduced. Consequently, when a product's price returns to its original amount, the consumer reference price is not adjusted accordingly, and the original amount is coded by the consumer as being more than they are willing to pay. While reference price is impacted by the depth of the promotional price, this effect is not found in situations of minimal discounts, such as 5% discounts (Kalwani & Yim, 1992). Reference price is also impacted by the frequency of which consumers are exposed to the price promotion, frequency in which the brand is promoted, and the economic conditions constraining consumer's budgets (i.e. inflation, higher unemployment) (Kalwani & Yim, 1992; Kalwani, et al. 1990).

For further explanation of how price impacts consumer purchasing decisions, Prospect Theory suggests that consumers evaluate decisions subjectively from a reference point in terms of losses and gains. Additionally, Prospect Theory suggests that the relationship between losses and gains is asymmetrical, as consumers weigh losses greater than gains, and, as a consequence, exhibit loss aversion in purchasing situations. This has an important implication for counterfeit consumption because, if reference price is subjective to consumers, then the subjective gains and losses vary between consumer segments.

Reference price may be an important differential when assessing consumers who purchase genuine versus counterfeit products. It could be reasoned that consumers who purchase counterfeit products more frequently have lower reference prices and, as a result, interpret the differences between their lower reference prices and genuine product prices as a loss. By nature of being loss averse, consumers with lower reference prices exhibit loss aversions and are less likely to purchase genuine products. In contrast,

consumers who purchase genuine products have reference prices that are more in line with real-life genuine product prices, and are less likely to experience aversion to potential price discrepancies. Furthermore, while a counterfeit version offers the genuine consumers a potential 'gain' through its lower price, the possibility of the product breaking could be enough of a 'loss' to activate loss aversion behaviour. Whether this is considered by consumers remains to be another area requiring future analysis. This thesis research will seek confirmation for the presence of an asymmetric price effect, and the relationship between reference price and percent of genuine products chosen, as reasoned by Prospect Theory.

Prospect Theory aids in explaining phenomena that could otherwise be misattributed. For example, it is known that consumers who purchase counterfeit goods are particularly concerned with price. Schlegelmilch and Stottinger (1999) found that the price difference between genuine and counterfeit products is negatively related to consumer willingness to purchase genuine products. Where there was at least a 40% price difference, consumers were significantly more willing to purchase counterfeits. While the price difference between genuine and counterfeit products could be the reason for the impact on willingness to purchase, it is more likely that this effect could be attributed to how consumers evaluate price based on their individual reference price. Prospect Theory is more likely to occur in real-life purchasing situations, as consumers must use price expectations from memory to evaluate the presented price and value of the counterfeit purchase.

Prospect Theory has managerial implications considering the current shopping environment. Modern Canadian consumers have multiple avenues from which to

compare and choose products, such as one store versus another, concrete versus virtual stores, and shopping centres versus flea-markets. Additionally, there are many post-holiday seasons (e.g. Boxing Day, Boxing Week, Black Friday, etc.) and smart phone applications (e.g. ShopSavvy allows consumers to find the best bargains in their geographical area) which offer the modern consumer access to price discounts at many points throughout the year. Each of these avenues exposes the consumer to a different price that is lower than the average genuine price. Some of these prices have been artificially deflated for momentary incentives, but, nonetheless, lower the consumers reference price for future genuine purchases.

In an age where consumers are price sensitive and exposed to a substantial amount of bargains, the potential effects on the average consumer's reference prices for genuine products could be that the reference price is artificially lowered to a detrimental amount. This may lead some consumers to purchase counterfeit products as a way to cope with the difference between their lower reference price and genuine prices. From a brand management standpoint, lowering prices could mean that short-term sales are realized to the detriment of longer-term profits.

It is important not to generalize findings to all consumers, as not all consumers are driven to purchase genuine products below their reference price. Ovchinnikov (2010) found that, although a larger portion of consumers are willing to purchase products lower than their reference price, there exists a consumer segment who are unwilling to purchase products under their reference price due to beliefs about inferior product quality. While consumers may be motivated to purchase counterfeit products over genuine ones for financial reasons, the decision to purchase genuine over counterfeit products may be motivated by

nonfinancial reasons, such as personal beliefs, hold value-expressive goals, and one's morality stance.

#### *2.4.2.2 Product Functionality and Performance Risk*

When purchasing genuine products, price is seen to reflect the quality of a product and authenticity, as well as the value a consumer can expect to receive from the transaction (Staake, Thiesse & Fleisch, 2009; Marcketti & Shelly, 2009). Products naturally contain financial risk (risk of losing money) and performance risk (risk of the product not working), which in counterfeit purchases could offset the perceived purchase value derived from the lower cost. To yield the highest utilitarian value for the consumer, a product should perform the desired function at a low performance risk and at less than their reference price.

Consumers assess whether a product is functional at the time of purchase as they interact with the product. This is in contrast to performance risk, which is unknown at the time of purchase. Consumers infer performance risk for genuine products through a brand's reputation, the availability of warranties, and price. Counterfeit products lack the traditional forms of performance risk indicators and must use price alone to infer performance risk.

The lack of accurate information during the purchasing decision and inferior quality of counterfeits means that consumers take on greater performance risk. Tan (2002) has found that the awareness of financial, social and performance risk negatively influences purchases of counterfeit products, in that order of respective impact. However, consumers of counterfeit products justify their behaviours by holding beliefs that a higher price does not indicate a higher quality product and lower performance risk, thereby mitigating the

perceived presence of financial, social and performance risk (Matos, Ituassu & Rossi, 2007; Phau & Teah, 2009). This is reflected by findings illustrating that, while most of the public believes that counterfeit products are inferior to genuine ones, there is a growing belief in the population that counterfeits are a good 'value' for the price they can be obtained at (Rutter & Bryce, 2008). These findings suggest two possible reasons for this trend: 1) consumers no longer care about performance risk, or 2) they believe performance risk to be minimal in counterfeit products. To gain greater understanding into this phenomenon, this thesis research will mimic real-life purchasing decisions and assess consumers' willingness to take on performance risk by coding products as being either genuine or counterfeit.

## **2.5 THE IMPACT OF MORALITY ON COUNTERFEIT CONSUMPTION**

Attitudinal theories suggest that attitudes impact purchasing behaviours. In the context of counterfeit consumption, the attitudinal literature has identified a consumer's moral stance on counterfeit consumption to be an important predictor of consumption between genuine and counterfeit purchases (Cordell, Kieschnick & Wongtada, 1996; Harvey & Walls, 2003; Matos, Ituassu & Rossi, 2007; Furnham & Valgeirsson, 2007; Kwong, et al. 2009; Swami, Chamorro-Premuzic & Furnham, 2009; Tan, 2002). Therefore, this thesis research will assess the impact of attitudes on GDC. Specifically, does morality influence the purchasing decisions of consumers who hold high and low value-expressive goals?

The consumption of counterfeit products can be framed as a social ethics issue, in which the choice to consume becomes a question of one's morality. In this context, morality refers to the perception of whether consuming counterfeit products supports illegal activities. If they purchase counterfeit products, this reflects their lack of respect for the

law. Consumers who purchase counterfeit products tend to have lower scores of morality and integrity than those who abstain from such purchases (Cordell, Kieschnick & Wongtada, 1996; Harvey & Walls, 2003; Matos, Ituassu & Rossi, 2007; Furnham & Valgeirsson, 2007; Kwong, et al. 2009; Swami, Chamorro-Premuzic & Furnham, 2009; Tan, 2002).

Swami, Chamorro-Premuzic and Furnham (2009) studied the predictors of willingness to purchase counterfeit goods in the English population (ages 17 to 89), using the Furnham and Valgeirsson (2007) measure of willingness to purchase counterfeit products. Swami, Chamorro-Premuzic and Furnham (2009) found that even when Age, Material Happiness, Perceived Value and Previous Experience with counterfeit products were taken into account, the 'Law and Order' construct remained the best predictor of willingness to purchase counterfeit products. Law and Order was measured in a 4-item scale with questions, such as 'I would strengthen the law against counterfeit sales people'. The Law and Order construct accounted for 32% of the willingness to purchase variance. Law and Order had more than twice the predictive value of the second best predictor, Age, which accounted for 14% of the variance.

While morality influences purchasing decisions, one study has found that it does not impact all market segments in the same manner. Wilcox, Kim and Sen (2009) found that the interaction effect of morality on the value-expressive function is significant on the counterfeit consumption of branded products, but not for the social-adjustive function. The impact of morality on purchasing decisions was greater on consumers who held high value-expressive goals than consumers who held low value-expressive goals. Using a 3-item semantic differential scale (morality, ethical, and sincere), Wilcox, Kim, and Sen

(2009) measured participant's morality towards counterfeit products. This research will use Tan's (2002) morality questionnaire which has been used on a much larger population (approximately 400 versus 76 students), and found to have a higher Cronbach Alpha than Wilcox, Kim, and Sen's (2009) semantic differential scale (Cronbach Alpha of 0.85 versus 0.79). Additionally, when assessing consumer's willingness to purchase counterfeit products, this research will measure willingness to purchase using DCE. This is an improvement on Wilcox, Kim, and Sen (2009), who showed participants two bags, one branded and one not, and then asked for willingness to purchase on a 7-point likert scale. DCE is a superior method to test willingness to purchase because it is product specific. It also mimics realistic purchasing situations where multiple products are considered in a binary purchasing scenario and attribute trade-offs are made. Wilcox, Kim and Sen's (2009) results suggest that morality has a moderating effect on counterfeit consumption for some consumer segments. This research will seek to replicate Wilcox, Kim and Sen's (2009) results by using a more rigorous measurement of morality and willingness to purchase counterfeit products.

Explanations for why morality would impact participants high in value-expressive could include the fact that consumers holding value-expressive goals are more concerned about their personal values which, when moral in nature, means that purchasing counterfeit products violates their expression of self. Insight into this phenomenon may be found in a recent study on locus of control and counterfeit consumption, as one could argue that consumers high in value-expressive have greater internal locus of control. Hume and Maldonado (2005) have found that consumers with an internal locus of control (perception that reward/punishment is determined by one's own efforts) tend to have

higher moral scores and ethical judgments than those with an external locus of control (perception that reward/punishment determined by external powers). The negative association between morality and willingness to purchase counterfeits may be explained by consumers' rationalization of social costs and benefits, as well as the perceived control in a given situation. External locus of control may act as a justification for why it is acceptable to purchase counterfeit goods, i.e. "I don't have enough money and that is out of my control, so I can take control of the situation by purchasing counterfeit products."

## 3.0 RESEARCH OBJECTIVES AND HYPOTHESES

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### 3.1 LITERATURE GAPS

Counterfeit consumption is still a new area of research in the marketing and consumer studies literature leading to several literature gaps (Staake, Thiesse & Fleisch, 2009). Studies in this area have focused on piracy, the consumption of luxury goods, and/or identifying the determinants of counterfeit consumption. Methodologically, these studies have tended to be descriptive in nature, use non-validated scales, and inaccurate willingness to purchase measures. Due to the shortage of rigorous research done in this field, there is a gap in the literature left for theory application and replication, as well as more rigorous methodology.

This research will address two literature gaps. The first is the need for theory driven and replication research. This will be addressed by confirming the findings of Wilcox, Kim, and Sen (2009) under the GDC framework, as well as originally applying Prospect Theory to the price attribute. The second is the need for more rigorous research. This will be addressed by using DCE to test GDC's application to the counterfeit consumption literature, in addition to using a rigorous measure of morality. Addressing these literature gaps will aid in achieving the overall objective of this study, which is to understand how consumers make their purchasing decisions between genuine and counterfeit products. The literature gaps are elaborated upon in the following sub-sections.

#### ***3.1.1 The Need for Theory Driven and Replication Research***

Wilcox, Kim, and Sen (2009) were the first researchers to apply GDC to counterfeit consumption. The sample population was American students, and the measures used

were limited, as previously discussed. To provide external validity to the findings of Wilcox, Kim, and Sen (2009), this study will try to replicate their research findings using a different population and measures.

Prospect Theory will be applied to counterfeit consumption in order to explain how consumers evaluate price in their purchasing decisions between genuine and counterfeit products. Schlegelmilch and Stottinger (1999) have found that the price discrepancy between genuine and counterfeit products is negatively related to a consumer's willingness to purchase genuine products. Schlegelmilch and Stottinger (1999) found that a 40% difference in price is the tipping point for consumers to purchase counterfeit versions. The assumption in this finding is that the relationship between price discrepancy and willingness to purchase counterfeits is symmetrical. Prospect Theory suggests that consumers weigh gains and losses differently according to their individual reference and place more weight on losses than gains. If Prospect Theory is correct, there should be an asymmetrical relationship present between price discrepancy and willingness to purchase counterfeits. This research seeks to find if there is an asymmetric price effect in the context of consumer counterfeit purchases.

### ***3.1.2 The Need for Rigorous Research***

Wilcox, Kim, and Sen (2009) was the first, and only, study to apply GDC to counterfeit consumption. The study was descriptive in nature and had several methodological limitations. Questions regarding the validity of findings stem from the measurement limitation of asking students to come up with luxury brand names and then rate their willingness to purchase counterfeit versions on a likert scale. This method failed to account for product specificity and attribute trade-offs. As a result, replication using more

sophisticated methodology is needed to confirm the relationship between symbolic goals and counterfeit consumption, in order to provide support for external validity.

Previous studies on counterfeit consumption used questionnaire measures, specifically likert scales, leading to the opportunity of applying DCE choice sets to the study of counterfeit consumption. Real-life purchasing situations are often complex, as consumers make trade-offs between product attributes. To account for different choice sets and the attribute trade-offs that consumers make, as well as to mimic a realistic shopping experience, this research will use DCE to assess the influence product attribute have on purchasing choices. GDC sets the context that goal fulfillment is achieved via a consumer's positive assessment of product attributes, while DCE offers the platform to analyze product attributes within the context of genuine versus counterfeit product purchasing decisions. This study contributes to the literature by assessing if previous counterfeit relationships hold in choice sets. Additionally, GDC and DCE will be applied to counterfeit consumption for the first time.

## **3.2 HYPOTHESES**

Four hypotheses have been developed for this thesis research, based on the preceding literature review and analysis.

### ***3.2.1 Hypothesis 1***

Consumers purchase luxury products for the fulfillment of symbolic goals, ultimately for it symbolic expression. Wilcox, Kim and Sen (2009) have made a connection between symbolic goal topography and willingness to purchase counterfeits. Using their methods, results showed that the value-expressive construct is related to genuine purchases. This study adopts different methodology but expects to find the same relationship. It is

expected that participants high in the value-expressive will choose genuine products a greater portion of the time, compared to participants low in value-expressive.

*Hypothesis 1)*

*It is hypothesised that participants high in value-expressive are more likely to purchase genuine products than participants low in value-expressive.*

**3.2.2 Hypothesis 2**

Morality has been shown to relate to counterfeit purchasing behaviour, with consumers high in morality abstaining from counterfeit purchases (Cordell, Kieschnick & Wongtada, 1996; Harvey & Walls, 2003; Matos, Ituassu & Rossi, 2007; Furnham & Valgeirsson, 2007; Kwong, et al. 2009; Swami, Chamorro-Premuzic & Furnham, 2009; Tan, 2002). Morality does not impact all consumer segments the same way, as Wilcox, Kim, and Sen (2009) found a link between morality and value-expression goals on willingness to purchase genuine versus counterfeits. This research seeks to replicate the Wilcox, Kim, and Sen's (2009) finding that morality moderates consumer purchasing decisions only when consumers hold high value-expressive purchasing goals. Changes to methodology will include a different morality scale and testing method for willingness to purchase between genuine and counterfeits products.

*Hypothesis 2)*

*Morality will moderate value-expressive goals in the consumer choice of genuine products.*

### ***3.2.3 Hypothesis 3***

When consumers choose to satisfy functional goals, price becomes one of the most important product attributes considered in the purchasing decision. While price is generally seen to reflect quality and product performance, consumers try to optimize their consumption choices by obtaining the highest utility from the choices present. For some consumers, the highest utility means the lowest price.

Schlegelmilch and Stottinger (1999) studied how differences in price discrepancy correlated with consumption behaviour. Their results showed that the greater the difference between reference price and actual price, the less likely the consumer was to purchase a genuine product and therefore the more likely they were to purchase the counterfeit version. This research will expand on Schlegelmilch and Stottinger's (1999) findings by incorporating Prospect Theory's view that consumers weigh losses and gains differently when making purchasing decisions. Prospect Theory suggests that consumers place more weight on losses than gains and, as a result, show loss avoidance. The disparity between the losses and gains creates an asymmetric price effect. This research will assess the asymmetric price effect using individual reference prices to code for the price discrepancy between genuine and counterfeit products. It is expected that the slope for positive and negative price discrepancy are skewed, with the slopes for negative price discrepancy being steeper.

Additionally, this research will assess the differences in reference price between consumer's tendencies to purchase genuine products. It is expected that lower reference prices are negatively related to genuine purchases (i.e. because of the lower reference

price, counterfeit consumer's code genuine prices as a loss due to the higher negative price discrepancy).

*Hypothesis 3a)*

*It is hypothesised that an asymmetric price effect will be found; price effect will be steeper for losses relative to gains.*

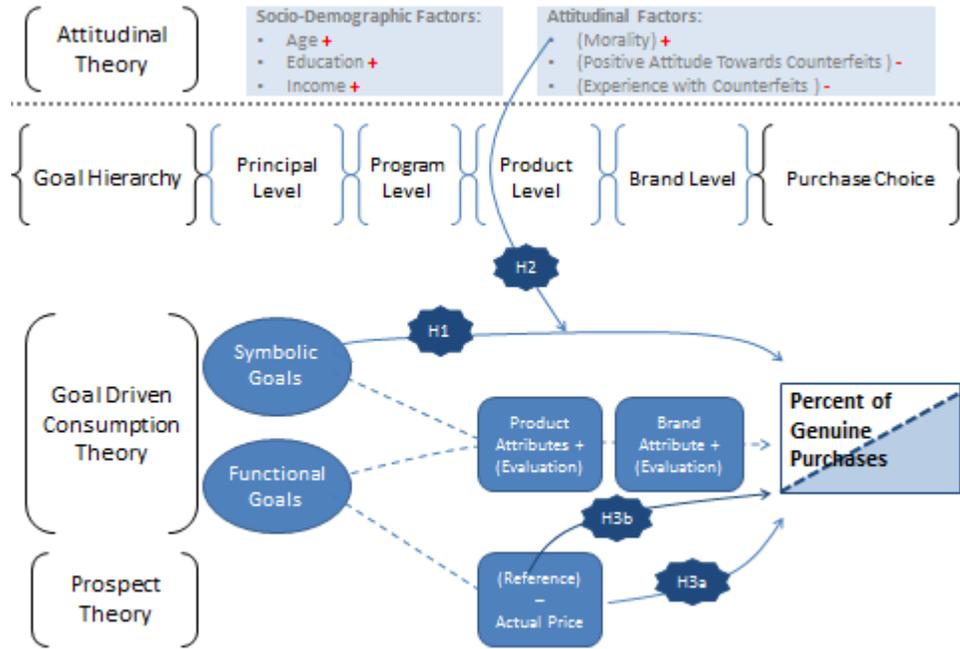
*Hypothesis 3b)*

*It is hypothesised that a positive relationship will be found between reference price and genuine purchases.*

### **3.3 CONCEPTUAL MODEL**

The model presented, Figure 1, illustrates the various components and hypotheses outlined above. It distinguishes between subjective and objective components. Subjective components are individual specific and are presented in brackets. Objective components are presented without brackets and are factors that companies have control over. The proposed model incorporates components from Goal-Drive Consumption Theory, Prospect Theory, and Attitudinal Theory. More specifically, symbolic and functional goals as well as the goal hierarchy are incorporated from GDC, asymmetric price effect and reference price are incorporated from Prospect Theory, and the influence of morality is incorporated from Attitudinal Theory. Each theory is applied to a different component of the model which separately and collectively impact consumer purchasing decisions. Although Figure 1 is a comprehensive model, only a portion of it will be tested in this thesis research. The solid paths will be tested. The dotted paths will not be tested.

Figure 1 Exploring Consumer Purchasing Decisions of Genuine/Counterfeit Items



### 3.4 CONSTRUCT DEFINITIONS

#### 3.4.1 Value-Expressive

Grewal, Mehta, and Kardes (2004) first operationalized value-expressive goals as the extent to which a product reflects a consumer’s self-image, self-identity, and self-concept, in the context of car purchases. Wilcox, Kim, and Sen (2009) adapted the operationalization and generalized it to the extent that a product is able to aid the consumer to express, define and communicate ones self-image and self-identity, in the context of luxury purchases. This study uses the Wilcox, Kim, and Sen (2009) operationalization of value-expressive goals, but generalizes it to the context of general purchases.

### ***3.4.2 Morality***

This study applies Tan's (2002) operation of morality as being a composition of cognitive judgment and moral reasoning that consumers make when purchasing pirated goods. This study changes the context to be specific to counterfeit consumption.

### ***3.4.3 Reference Price***

Reference price is the average price a consumer expects to pay for a genuine watch. Reference price is asked with specific reference to pre-selected brands, which are then later tested in the DCE choice sets.

### ***3.4.4 Purchase Behaviour***

Purchasing behaviour is operationalized as the percent of genuine products consumers choose in the DCE choice sets. Purchasing behaviour is a relative number, expressed as a percentage. The DCE allows the consumer to engaging a more realistic decision by accounting for attribute trade-offs, consider products within choice sets, and make purchasing decisions in a binary situation. As a result, DCE choice sets are more realistic measures of future purchase intention than likert scales.

## **4.0 RESEARCH METHODOLOGY**

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### **4.1 INTRODUCTION**

This research adopts a Discrete Choice Experiment, as it is the most appropriate tool to assess how consumers make their purchasing decisions while taking into account the trade-offs made between product attributes. DCE has a high external validity, as it reflects a realistic purchasing situation and simulates real purchasing behaviour. Real-life purchasing situations are often complex, as consumers make trade-offs between one product attribute over another, and the DCE is able to accurately capture these. Additionally, high correlation has been reported between stated preferences and actual choices (Louviere et al. 2000).

The desired respondents for this study are young adults across a range of ages in order to capture a range of morality scores. Young adults are of interest in this thesis research because, as proposed by the literature review, they are more likely to purchase counterfeit products due to their lower age, education, and access to capital. The desired group will be captured by targeting university students at both the undergraduate and graduate levels, as well as young adults shopping in a local mall.

### **4.2 PRE-TESTS**

#### ***4.2.1 Product Category Selection Pre-test***

In order to pick the product to be used in the DCE, three female and three male University of Guelph graduate students were interviewed to identify the types of counterfeit products and brands they have knowingly purchased in the past and would

consider purchasing again. From the interviews, watches were identified as the best product category for both genders. Watches were one of the only product categories that both genders had reported purchasing counterfeit versions off and would consider purchasing counterfeit versions again.

#### ***4.2.2 Product Attribute and Brand Section Pre-test***

A pre-test was performed with ten undergraduate and graduate University of Guelph students to order to identify the appropriate product attributes and brands to be used in the DCE. Fifteen watch attributes were generated, which were then tested using a Best-Worst scenario questionnaire. From the Best-Worst results, five product attributes were selected for the DCE (face shape, face material, strap material, date display, and water resistance). Four brands were selected (Roots™, CK™, DKNY™, Guess™) from a list, which ranged from lower to higher end brands that students would typically purchase.

#### ***4.2.3 Full Study Pre-test***

The full study was completed by sixteen undergraduate and two graduate University of Guelph students to confirm the ease of understanding and completing the online survey. The average participant was able to complete the survey in 10 to 15 minutes. The two graduate students gave commentary as they completed the survey. Results from this pre-test were satisfactory, no changes were needed.

## 4.3 MAIN STUDY

### *4.3.1 Sample and Sample Size*

The population sample of this research was a convenience sample of University of Guelph students and young adult shoppers at a major Guelph shopping centre (Stone Road Mall). Data collection at the University of Guelph was used to access both undergraduate and graduate students. Data collection at Stone Road Mall was used to target consumers as they were shopping. The population at Stone Road Mall were primarily students. During the data collection phase at the mall, participants were not limited to students in order to gather a wider range of age and morality scores. While 72 participants are recommended using the sample size formula, a total of 286 surveys were collected to provide more generalizability.

### *4.3.2 Measurement Instrument*

Data was collected using an online questionnaire which consisted of two components, a survey and DCE component. The survey components were developed from previously sourced questionnaires. The questionnaire measured demographics, value-expressive goals, morality score, and past purchases of counterfeit products. Participants were also asked whether they had purchased a watch for themselves in the past. The DCE portion was based on the watch product category and assessed functional, symbolic and product attributes.

Details concerning the specific measures are in section 4.4. A sample of the questionnaire can be found in the appendix. Incentives for completing the survey were: (1) for a selection of students, part of the course credit, and (2) for all participants, a \$50 draw

which all participants had an equal chance of winning. The winner was contacted once all the data had been collected.

#### ***4.3.3 Procedure***

Data was collected in three stages, the first stage collected online surveys from University of Guelph students who had to participate in the survey as part of a course component, the second stage collected surveys using laptops stations set up in a high traffic spot at the University of Guelph, and the third stage collected surveys using laptops stations set up in Stone Road Mall over a May weekend. The data collection phase lasted two months, from April to May 2011.

#### ***4.3.4 Confirmation of Participant Sample***

In order to ensure that the participants who completed the survey at various points in time and location were not fundamentally different in the Value-Expressive Goals and Morality scores 3 t-tests were run with the respondent sub-groups: 1) students on campus, 2) students at the mall, and 3) other participants at the mall. The two student groups were similar in the in Value-Expressive Goals and Morality scores ( $t=-1.63$ ,  $p>0.05$ ;  $t=-1.87$ ,  $p>0.05$ ). The first and second student groups were similar to the other participants at the mall in their Value-Expressive Goals and Morality scores ( $t=-.71$ ,  $p>0.05$ ;  $t=-1.62$ ,  $p>0.05$ ;  $t=0.93$ ,  $p>0.05$ ; and  $t=0.32$ ,  $p>0.05$ ). The t-test results were not significant for all groups on both constructs, confirming that fundamentally the groups are equal and can be analyzed as one aggregate group.

## **4.4 MEASURES: CONSTRUCTS AND ITEMS**

### ***4.4.1 Demographic***

Demographics gathered covered in this study were participant's gender, age, education, and study discipline.

### ***4.4.2 Symbolic Goals: Value-Expressive Measure***

The Value-Expressive Goal construct was comprised of 4 items, measured using a 7-point likert scale (Strongly Disagree, Disagree, Somewhat Disagree, Neither, Somewhat Agree, Agree, Strongly Agree). The items measured were: 1) "I purchase products that reflect the kind of person I see myself to be", 2) "I purchase products to help me communicate my self-identity", 3) "I purchase products that help me express myself", and 4) "I purchase products that help me define myself". Items were adapted from a questionnaire used by Wilcox, Kim, and Sen (2009), who adapted the questionnaire from Grewal, Mehta, and Kardes (2004). An average value-expressive goal score was calculated from the four items. After the data was collected, this scale was tested for reliability. The Cronbach's alpha for Value-Expressive Goals was 0.72.

### ***4.4.3 Morality Construct***

To test a participant's morality, a scale developed by Tan (2002) for pirated software was adapted to counterfeit consumption. The Moral Judgment construct is comprised of 4 items, measured using a 7-point likert scale (Strongly Disagree, Disagree, Somewhat Disagree, Neither, Somewhat Agree, Agree, Strongly Agree). The items are: 1) "In my opinion, the act of buying counterfeit goods rather than the original one is wrong", 2) "In my opinion, it is morally wrong to buy counterfeit goods", 3) "One should always consider

the moral implications before buying counterfeit goods”, and 4) “There are moral reasons against buying counterfeit goods”. An average score was calculated, which was used as the construct score. Tan (2002) reported a Cronbach’s alpha of 0.85. After the data was collected, this scale was tested for reliability. The Cronbach’s alpha for Morality was 0.82.

#### ***4.4.4 Past Counterfeit Consumption and Satisfaction***

Past counterfeit consumption was measured through a dichotomous (yes or no) question: “Have you ever knowingly purchased counterfeit products in the past?”

Consumer satisfaction with counterfeit products was assessed using a Disconfirmation questionnaire, as studies have found that disconfirmation has the greatest impact on consumer satisfaction (Oliver, 1980; Oliver & Swan, 1989a, 1989b). Disconfirmation was measured using 2 items and a 7-point likert scale (Much Less Than Expected, Less than Expected, A Little Less Than Expected, As Expected, A Little More Than Expected, More Than Expected, Much More Than Expected): 1) “The problems (i.e. breaking, not functioning the way I would like, etc.) that I have encountered with counterfeit products have been”, and 2) “The benefits (i.e. function, enjoyment, etc.) that I have experienced with counterfeit products have been”. The Disconfirmation questionnaire R ranges from 0.84 to 0.86, according to Burner II, James, and Hensel (2001).

#### ***4.4.5 Past Watch Purchases***

To test whether consumers had purchased a watch for themselves in the past, participants were asked a dichotomous (yes or no) question: “I have purchased a watch for myself in the past.”

#### ***4.4.6 Discrete Choice Experiment***

DCE assessed a gender neutral product, a watch, as determined in a pre-test and confirmed by previous studies on counterfeit versions of products that consumers are willing to purchase (Furnham & Valgeirsson, 2007; Swami, Chamorro-Premuzic & Furnham, 2009). Reference prices for genuine watches were assessed prior to presenting the DCE choice sets. Reference price is measured by asking consumers the maximum and minimum they expect to pay within a range for this product category. Consumers were presented with a scroll down option of intervals of ten, starting with 'less than \$20' to 'more than \$200'. From the data collected, an average was calculated and used as the reference price.

Participants were presented with 16 choice sets which each contained three product options plus one option to purchase none. All options were presented with a picture (gender specific) and a description of attributes. The pictures used were of genuine watches specific to the brand presented. Digital alterations were used when the watch needed to be modified to match the attributes. Participants were then asked to choose which they would buy given the presented options.

The watch options presented had various functional, symbolic and product attributes. The functional attributes and associated levels were: 1) price (\$20/\$50 for counterfeit products and \$100/\$150 for genuine products), and 2) product type (genuine/counterfeit). The symbolic attribute and associated levels was brand (Guess<sup>TM</sup>/CK<sup>TM</sup>/DKNY<sup>TM</sup>/Roots<sup>TM</sup>). In addition, watch attributes were included to control for their effects in the choice. Watch attributes and associated levels chosen included: 1) face material (gold/stainless steel), 2) face shape (round/square), 3) strap

material (gold/stainless steel/leather/rubber), 4) date display (yes/no), and 5) water resistance (yes/no). To control for order effect, 16 choice sets were rotated using a Latin Square.

## **5.0 DATA ANALYSIS**

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### **5.1 DATA MANAGEMENT**

The dataset was filtered by deleting respondents who consistently chose the same response for a majority of answers and/or had only responded to 2 or less of the 16 DCE choice sets. The data was screened for missing variables using SPSS. Missing data was replaced with item means, which was then used to calculate the construct score. While 286 surveys were collected, a total of 246 usable surveys were used in the analysis.

### **5.2 DESCRIPTIVE STATISTICS OF RESPONDENTS**

An analysis of the sample demographics showed good gender representation: 57.9% female and 42.1% male participants. The majority of participants were completing undergraduate degrees (53%) and the second largest group was completing graduate degrees (28%). A little more than half of the participants (57%) had knowingly purchased counterfeits in the past. Of these participants, when asked to rate the problems and benefits experienced with counterfeits based on their expectations, participants reported that the problems were slightly lower and the benefits were slightly higher than their expectations.

78% of the participants had purchased a watch for themselves in the past; this high purchase incidence suggests that the DCE product choice mimics a realistic purchasing situation. The average reference price for a watch was \$110.67. In the DCE portion of the analysis, participants chose genuine products 29% and counterfeit products 18% of the time available. This is a relative number, as participants were at times presented with

more than one type of product, making it impossible for them to choose genuine or counterfeit products 100% of the time.

With regard to the measured constructs, participants were on average a bit high in the Value-Expressive Goal scale (M=5.15, SD=1.06) and a bit low in their Morality scores (M=3.94, SD=1.54). This means that on average consumers are more likely to hold Value-Expressive Goals, while at the same time have lower relative scores of Morality. See Table 1 for the descriptive statistics.

*Table 1 Descriptive Statistics*

	Mean	SD
Age	26.815	10.805
Value Expressive (7point scale)	5.155	1.064
Morality (7point scale)	3.940	1.542
Average Reference Price	110.671	42.136
Percent of Genuine Chosen	29.4%	17.1
Percent of Counterfeit Chosen	18.7%	15.3

### 5.3 MULTINOMIAL LOGIT MODELS

Two separate Multinomial Logit Models were run to test hypotheses 1, 2, and 3a. Separate models needed to be run because the price attribute was tied to the type of product attribute in the choice set (\$20 and \$50 for counterfeit, and \$100 and \$150 for genuine) in the choice set. This created an artificial correlation between the two attributes thereby violating the measurement parameters (attributes cannot be correlated). As a result, the two models were unable to be reconciled. This means that there may be some minimal interaction effects not accounted for in the models (effects of price in the value-

expressive goals and morality model), however this should be minimal and should not impact the overall significance of the results.

### *5.3.1 Hypothesis 1*

In the first model (testing hypotheses 1 and 2), the dependent variable was the participant's choice in each choice set and the independent variables were effect-coded attributes (Brand, Face Shape, Face Material, Strap Material, Date Display, Water Resistance, and Type of Product), in addition to two computed variables: Value-Expressive Goal\* Genuine Product Choice and Value-Expressive Goal\* Morality \* Genuine Product Choice.

The dependent variable in this model is the respondent's choice between the three purchase options as presented in the 16 choice sets. The fourth option, no purchase, was excluded from the analysis because what was of interest in this thesis research was how consumers made their purchase decisions between genuine and counterfeit products. Generally, the responses captured in the no purchase option are due to unobserved heterogeneity, for example outside attributes being considered by the respondent and individual preference. As such, this information was not vital for the proposed model (Figure 1), and, as a consequence, was not used in the analysis. The reason why the no purchase option was included in the DCE, even though it was not going to be used in the analysis, was to prevent respondents from being forced to make a purchase decision that would otherwise be invalid in a real-life purchasing situation.

The attributes which significantly impacted participants' purchase decisions were: Product Type (genuine versus counterfeit), Brand (Gucci™ versus DKNY™), Face Shape (square versus round), Face Material (stainless steel versus gold), Strap Material

(vinyl versus gold, stainless steel, and leather), Date Display (available or not), and Water Resistance (yes or no). Of these attributes, genuine product choice (whether the product was genuine or counterfeit) had the greatest impact on increasing the likelihood of a participant to choose the genuine product. The attributes which significantly interacted with genuine product choice were Face Shape (square versus round) and Strap Material (vinyl versus gold and stainless steel). See Table 2 for a summary of results.

*Table 2 Multinomial Logit Results Model 1- Part 1*

Attributes	$\beta$	S.E.	t-Value	p-Value
Brand DKNY	0.114	0.04	2.830	0.005
Brand CK	-0.075	0.042	-1.771	0.077
Brand Roots	0.023	0.042	0.573	0.567
Face Shape Round	0.150	0.023	6.433	0.000
Face Material Gold	-0.152	0.024	-6.444	0.000
Strap Material Gold	0.169	0.039	4.361	0.000
Strap Material Stainless Steel	-0.121	0.042	-2.861	0.004
Strap Material Leather	-0.243	0.043	-5.6	0.000
Date Display No Date Display	0.151	0.023	6.65	0.000
Water Resistance Not Water Resistant	0.136	0.023	5.842	0.000
<b>Genuine Product Choice</b>	<b>0.341</b>	<b>0.025</b>	<b>13.494</b>	<b>0.000</b>
Brand DKNY*Genuine	-0.002	0.038	-0.043	0.970
Brand CK*Genuine	-0.032	0.039	-0.815	0.420
Brand Roots*Genuine	-0.067	0.038	-1.778	0.075
Face Shape Round*Genuine	0.043	0.022	1.970	0.049
Face Material Gold * Genuine	-0.030	0.022	-1.348	0.180
Strap Material Gold*Genuine	0.081	0.037	2.217	0.027
Strap Material Stainless Steel*Genuine	-0.098	0.039	-2.524	0.012
Strap Material Leather*Genuine	0.028	0.041	0.686	0.490
Date Display No*Genuine	-0.006	0.024	-0.267	0.790
Water Resistance Not*Genuine	-0.008	0.022	-0.359	0.720

To test hypothesis 1, the interaction between Value-Expressive Goal and Genuine Product Choice were tested for its significance by creating a new variable from

multiplying each construct. The Multinomial Logit Model showed that this interaction significantly impacted respondents' choices ( $t=3.55$ ,  $p<0.00$ ), thus providing support for hypothesis 1. See Table 3 for the results.

*Table 3 Multinomial Logit Results Model 1- Part 2*

	Attributes	$\beta$	S.E.	t-Value	p-Value
Hypothesis 1	<b>VE x Genuine Product Choice</b>	<b>0.082</b>	<b>0.023</b>	<b>3.554</b>	<b>0.000</b>
Hypothesis 2	<b>VE x Morality x Genuine Product Choice</b>	<b>0.008</b>	<b>0.013</b>	<b>0.649</b>	<b>0.516</b>

To exemplify how consumer utility for purchase choice is impacted, an equation was created from the Multinomial Logit Model 1. Beta coefficients from Table 2 Part 1 and Part 2 were used for variables which were not static (watch attributes are constant and as a result excluded from the equation). The selected beta coefficients for the utility equation are bolded in the tables.

The utility equation for genuine purchases is:

$$Utility = 0.341 * Genuine\ Product\ Choice + 0.082 * Value-Expressive * Genuine\ Product + 0.008 * Value-Expressive * Morality * Genuine\ Product\ Choice$$

When solving the equation, high value-expressive goals are coded as 1 and low value expressive goals were coded as -1, and genuine products are coded as 1 in the Genuine Product Choice. The three-way interaction portion of the equation is ignored for illustrating hypothesis 1 only. The following two examples illustrate how the utility values were solved.

Example for solving equation in high value-expressive goals:

$$\text{Utility} = 0.341 * 1 + 0.082 * 1 * 1$$

$$\text{Utility} = 0.417$$

Example for solving equation in low value-expressive goals:

$$\text{Utility} = 0.341 * 1 + 0.082 * -1 * 1$$

$$\text{Utility} = 0.267$$

The results of the utility equation for the two-way interaction are provided in Table 4. Utility results further illustrate that consumers high in value-expressive goals are 1.5 times more likely to purchase genuine products than consumers low in value-expressive goals.

*Table 4 Two-Way Interaction Between Value-Expressive and Type of Product on Purchase Choice*

Type of Product	VE	Utility
Genuine	High	0.417
Genuine	Low	0.269

### **5.3.2 Hypothesis 2**

To test hypothesis 2, the interaction between Value-Expressive Goal, Morality, and Genuine Product Choice was tested for significance by creating a new variable from multiplying each construct. The Multinomial Logit Model showed that the three-way interaction failed to significantly impact consumer choices ( $t=0.649$ ,  $p>0.05$ ). Results failed to providing support for hypothesis 2. Refer to Table 3 for the results.

To exemplify how consumer's utility for purchase choice is impacted, the utility equation noted earlier was solved for all three betas. When solving the equation, high value-

expressive goals are coded as 1 and low value expressive goals are coded as -1, high morality is coded as 1 and low morality as coded as -1, and genuine products are coded as 1 in the Genuine Product Choice. The results of the utility equation for the three-way interaction are provided in Table 5.

*Table 5 Three-Way Interaction Between Value-Expressive, Morality, and Type of Product on Purchase Choice*

Type of Product	VE	Morality	Utility
Genuine	High	High	0.425
Genuine	High	Low	0.409
Genuine	Low	High	0.277
Genuine	Low	Low	0.261

While the model results showed that the three-way interaction was not significant, the utility equation shows that the results are in the right direction. When participants were high in value-expressive goals, irrespective of morality, the utility to purchase genuine products was greater than when participants are low in value-expressive goals. High value-expressive goals coupled with high morality yielded the highest utility to purchase a genuine product. This is followed by high value-expressive goals coupled with low morality, low value-expressive goals coupled with high morality, and the lowest utility went to low value-expressive goals coupled with low morality. Results hint that a three-way interaction exists, but this study failed to find support for its existence.

### **5.3.3 Hypothesis 3a**

A Multinomial Logistic Model was run to test whether an asymmetric price effect is present between gains and losses (hypothesis 3a). The dependent variable was the participant's choice, and the independent variables were effect-coded attributes (Brand,

Face Shape, Face Material, Strap Material, Date Display, Water Resistance, and Type of Product), plus two computed variables: Price Gain (participant's reference price minus presented price) and Price Loss (participant's reference price minus presented price). The attributes which significantly impacted the participant's decision to purchase a watch included: Brand (Gucci™ versus DKNY™, Gucci™ versus Roots™), Face Shape (square versus round), Face Material (gold versus stainless steel), Strap Material (vinyl versus gold, stainless steel, leather), Date display (available or not), and water resistance (yes or no). Participants were significantly impacted by both price gain and price loss. However, there was an asymmetric price effect found as the impact of price loss was greater than price gain. If participants were presented with a price gain, they were more likely to purchase the genuine product. However, if presented with a price loss they were twice as less likely to purchase the genuine product. Hypothesis 3a was supported as results found an asymmetric price effect. See Table 6 for the summary of results.

*Table 6 Multinomial Logit Results Model 2*

Attributes	$\beta$	S.E.	t-Value	p-Value
Brand DKNY	0.127	0.038	3.312	0.001
Brand CK	0.013	0.039	0.358	0.720
Brand Roots	-0.090	0.04	-2.25	0.025
Face Shape Round	0.122	0.023	5.378	0.000
Face Material Gold	-0.133	0.022	-6.003	0.000
Strap Material Gold	0.245	0.038	6.442	0.000
Strap Material Stainless Steel	-0.227	0.042	-5.478	0.000
Strap Material Leather	-0.252	0.043	-5.885	0.000
Date Display No Date Display	0.16	0.023	7.11	0.000
Water Resistance Not Water	0.122	0.023	5.357	0.000

Resistant				
<b>Price Gain</b>	<b>0.281</b>	<b>0.053</b>	<b>5.327</b>	<b>0.000</b>
<b>Price Loss</b>	<b>-0.591</b>	<b>0.101</b>	<b>-5.862</b>	<b>0.000</b>

## 5.4 LINEAR REGRESSION

### 5.4.1 Hypothesis 3b

A linear regression was run to test hypothesis 3b and to assess whether reference price differed across the percent of times consumers choose genuine products. The percent of genuine products chosen by participants was the dependent variable and the participant's reference price was the independent variable. Results support hypothesis 3b, as a significantly positive relationship was found between participant reference prices and the percent of times they chose genuine products ( $\beta=0.381$ ,  $P>0.000$ ). The regression showed that reference price accounted for 14.5% of the percent of genuine products chosen variance ( $R^2=0.145$ ). Results illustrate that the higher the reference price, the greater the likelihood of making the decision to purchase genuine over counterfeit products. See Table 7 for a summary of results.

*Table 7 Linear Regression Results of Percent of Genuine Choices on Reference Price*

	$\beta$	S.E.	t-Value	p-Value
Constant	.122	.28		
Percent of Genuine Choices	.002	.000	6.454	$P>0.000$

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## 6.0 DISCUSSION

This discussion section will begin with summarizing the implications for GDC, followed by summarizing the implications for Prospect Theory. Subsequently, an updated model of consumer decisions is presented as per the thesis results. Lastly, there will be a discussion of theoretical and managerial implications, as well as limitations and direction for future research.

### 6.1 GOAL DRIVEN CONSUMPTION THEORY

GDC states that consumers evaluate attributes according to their goal fulfillment qualities. Using DCE, this study was able to assess how participants evaluate attributes in their purchasing decisions, while taking into account participants' value-expressive goals and morality. When purchasing a watch, participants considered most watch attributes to be important in their decisions with the exception of brand. Brand was not always considered important in the purchasing decisions. The most important attribute in the purchasing decision was whether the product was genuine or counterfeit. This had the greatest individual weight in consumers' considerations. In general, participants preferred genuine watches over counterfeit ones.

This study sought to replicate the findings from Wilcox, Kim, and Sen (2009) using a different methodology. Results were only able to partially replicate the findings from Wilcox, Kim, and Sen (2009). This study confirmed that participants with high value-expressive goals were more likely to purchase genuine product than participants with low value-expressive goals. This means that the strength of the symbolic goals impact participants preference for genuine products over counterfeit versions. This goes beyond

consumers abstaining from purchasing counterfeit products simply because counterfeits are not available, as consumers made the conscious decision to avoid counterfeits due to their goal fulfillment needs. Furthermore, external validity was provided for using GDC in the context of counterfeit consumption.

When assessing the effects of morality on value-expressive goals and decisions, this study failed to replicate the findings of a significant three-way interaction as found in Wilcox, Kim, and Sen's (2009). The discrepancy between the two studies could stem from differences in methodology and/or population samples. Future studies would need to confirm whether or not morality is able to impact value-expressive goals on genuine product type.

Collectively the findings suggest that value-expressive goals have a greater influence over purchasing decisions than the often cited attitudinal construct, morality. It may be that when consumers form goals, they use and embed their attitudes in goal creation, thereby reducing the predictive power of a single attitude.

## **6.2 PROSPECT THEORY**

This study goes beyond identifying price as a motivation for consumers purchasing counterfeit products, by explaining *how* price is interpreted by consumers to influence the purchasing decision. GDC states that price is an attribute of functional goals that serves the objective of saving money, otherwise known as increasing acquisition utility. In this study, Prospect Theory was used to explain how the price attribute is assessed by consumers within a GDC framework. Price deserves to be mentioned separately as it is one of the most frequently cited reasons for purchasing counterfeit products, and consumers hold very specific beliefs about price and quality which impact their

purchasing decisions (Cordell, Kieschnick, & Wongtada, 1996; Rutter & Bryce, 2008; Tan, 2002).

How consumers evaluate price is dependent on their individual reference price which they use to code the observed prices as either a gain or a loss. Prospect Theory aids in this explanation by saying that, even accounting for individual reference price, consumers code losses more heavily than gains (i.e. asymmetric price effect), making consumers loss averse. Findings from this study support this explanation of purchasing behaviour in the context of genuine and counterfeit watches.

More importantly, the asymmetric price effect holds true when accounting for individual reference prices. Findings confirmed that reference price is positively related to the percent of genuine purchases, as higher reference prices lead to greater genuine purchases. In the context of a shopping experience, this means that individuals with higher reference prices are less likely to experience loss aversion in their shopping experience and, as a consequence, are more likely to purchase genuine products. This could account for why and how individuals code gains and losses, ultimately making them more likely to purchase a genuine or a counterfeit product.

Consider a situation where two consumers have different reference prices, one with a reference price of \$120 and the other with a reference price of \$70. In their shopping experience they encounter five watches with prices ranging from \$25 to \$150. When presented with these prices, the individual with the higher reference price (\$120) has only two incidences where he or she experiences price loss and loss aversion and, as a consequence, the purchase choice will be based on other watch attributes. This consumer won't have to compromise his or her standards for a counterfeit product nor be tempted

to buy counterfeit versions for price incentive. This is in contrast to the individual with the lower reference price (\$70), who would experience price loss and loss aversion in four incidences. As a consequence this consumer may be tempted by counterfeit products because the price for counterfeit products would seem more attractive. Table 8 illustrates the disparity of loss aversion experiences between these two consumers.

*Table 8 Example of Shopping Experience Between Consumers with Different Reference Prices*

<b>Presented Watch Price</b>	Individual 1 (reference price: \$120)		Individual 2 (reference price: \$70)	
	<i>Price Gain</i>	<i>Price Loss</i>	<i>Price Gain</i>	<i>Price Loss</i>
<b>\$25</b>	\$95	0	\$45	0
<b>\$50</b>	\$70	0	\$20	0
<b>\$75</b>	\$45	0	0	\$-5
<b>\$100</b>	\$20	0	0	\$-30
<b>\$125</b>	0	\$-5	0	\$-55
<b>\$150</b>	0	\$-30	0	\$-80

As previously mentioned, consumers live in a purchasing environment where they are constantly being exposed to low prices and bargains, as well as have access to counterfeit products. The implication from this is that as companies use sales promotion techniques to gain short-term sales, they could be contributing to the creation of lower reference prices which drive consumers to seek cheaper alternatives. In some cases, this would lead to counterfeit consumption if the consumer's symbolic goals allow it.

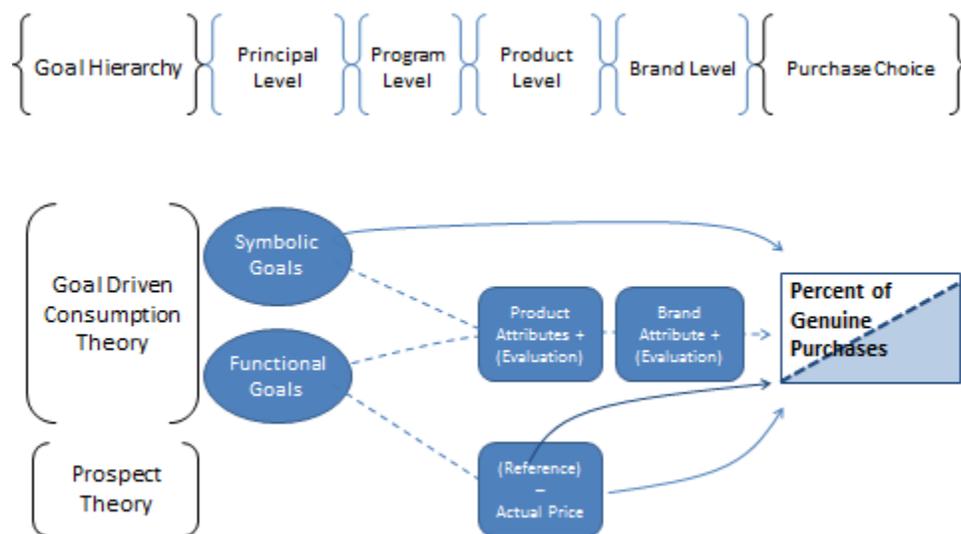
Companies need to understand consumer reference prices in their respective product categories to be able to price products accordingly throughout the entire year. Additional research should be directed towards identifying the factors that increase a consumer's

reference price, thereby allowing some companies to run ‘damage control’ campaigns once a consumer segment has adopted unrealistically low reference prices.

### 6.3 UPDATED MODEL

This study sought to add insight into how consumers make their decisions to choose between genuine and counterfeit products. This was achieved by examining the impact of value-expressive goals and morality on consumer’s purchasing decisions, as well as by examining how consumers code prices according to their individual reference price, as per GDC, Attitudinal Theories, and Prospect Theory respectively. This thesis research has demonstrated that value-expressive goals and price impact consumer purchasing decisions between genuine and counterfeit products. Morality failed to exhibit a significant impact on value-expressive goals and purchasing decisions. The model of how consumers make their purchase decisions must therefore be revised. See Figure 2 for the updated version.

*Figure 2 Consumer Purchasing Decisions of Genuine/Counterfeit Items*



## 6.4 THEORETICAL CONTRIBUTIONS

The theoretical model presented in this thesis is based on a random utility model, which has been integrated with a behavioural addition by including GDC and Prospect Theory. In a random utility model, it is assumed that consumers are rational and have certain preferences for products. Under this assumption, DCE elicits consumers' assumptions in the choice sets. In contrast, a behavioural addition suggests that consumers are a bit irrational in their preferences. Consumer preferences can be context specific, which the DCE captures in the choice sets. Under a standard random utility model, asymmetric preference prices should not have existed. Under the proposed model, which integrates random utility with both GDC and Prospect Theory, asymmetric prices are able to exist. Therefore, this research has contributed an integrated model that can be used in future research.

Goal Driven Consumption Theory has not been tested using DCE, results showed that GDC manifested in consumer choice. GDC and Prospect Theory provide useful frameworks to understand how consumers make their decisions between genuine and counterfeit products. Morality's impact on purchasing decisions failed to hold up in choice sets while accounting for the influence of value-expressive goals and product attributes. Findings hint at the possibility that GDC and Prospect Theory could displace the use of attitude constructs in explaining purchasing behaviour. Additionally, there is the possibility for Prospect Theory to be better integrated into GDC with the development of an appropriate instrument to measure symbolic and functional goals simultaneously. Future research would be needed to confirm that the proposed model (Figure 2) can be generalized to different product categories and populations.

## 6.4 MANAGERIAL IMPLICATIONS

### *6.4.1 Implications for Brand Equity*

In this brand context, the participants did not weigh brand as an important attribute in the choice sets. This raises the question of why the participants weren't using brand as a purchasing heuristic. If brands are supposed to be a vehicle of communication from the company to the consumer, then there may be a communication breakdown occurring. Industry may be failing to communicate the value and goal fulfillment qualities of their products to the consumer. This is manifested by a growing number of consumers who hold beliefs that genuine products are overpriced and counterfeit versions are equal to genuine products in value (Walthers & Buff, 2008). Therefore, the results of this research have to be interpreted with caution, as findings may be brand and population specific. Future research would need to confirm the applicability of the results.

While the majority of these participants were students, it could be argued that this population is tomorrow's consumers. Given that the average participant was 26 years old, these participants should have well developed purchasing heuristics and this study may have captured their purchasing decision processes at this stage. If the product attribute of brand isn't being considered in the purchasing heuristic at this stage in these consumers' lives, then it means that brands do not offer adequate information about the goal fulfillment qualities of the products and, as a consequence, brand is not being considered in the decision making process. This raises questions about what impact this type of decision making would have as participants move into other lifestyle segments throughout their lives.

The implications for industry are that industry will need to think about how to best position their brands, and provide optimal value and goal fulfillment qualities through the brand. Consumers may need to be better educated about brand value and brand symbolism in order to curb counterfeit consumption. Furthermore, as the results showed, the decision to stay away from counterfeit products is not based on price incentives. Therefore, industry needs to focus on leveraging non-price product attributes, such as brand, to deter counterfeit consumption.

#### ***6.4.2 Implications for Price Management***

It appears that industry is encouraging a detrimental purchasing environment by seeking short-term sales gains at the expense of long-term security. When the industry entices consumers to purchase genuine products through price discounts, in order to sell off high volumes, they do so at their own expense by assisting consumers to establish lower reference prices. Price as a product attribute is complex to manage because as it is reduced, it creates an incentive for consumers to purchase the product. However, after it reaches a low threshold, it becomes a deterrent to future purchases. This is complicated by the fact that price is interpreted differently based on consumers' individual reference prices.

In today's environment, many companies have wholesalers for their products who also have the ability to control pricing. This study cautions against losing control over marketer/manufacturer prices, as it could become a disadvantage at later stages. Apple™ is a good example of a company that keeps its product prices stable across all distribution channels. This is a good strategy in today's consumer environment, as its pricing consistency educates the consumer about the reference price they should hold for its

products, and eliminates the ability for wholesalers to negatively impact the company's future sales.

### ***6.4.3 Educating the Public***

It is indisputable that there is a need to curb counterfeit consumption given its impact on society and industry. However, purchasing counterfeit products is currently not illegal and consumers are aware of this. Currently the onus falls on the individual consumer to moderate his or her own purchasing behaviour. Leaving the 'regulation' of counterfeit consumption in the hands of consumers may not be an appropriate strategy, as it has already led to its increased demand. Therefore, consumers need to be further educated to curb the demand of counterfeit products. It is likely that industry will need to take the lead in educating consumers and to push for more government control in order to curb demand. Industry can educate consumers using a variety of methods, such as informing consumers about the value of purchasing genuine products, providing them with the means to spot counterfeit versions of their products and illegitimate retailers, and educating them about the negative societal implications of counterfeit consumption. Research regarding which of these approaches would be most effective is minimal at this point, and further research in this direction is needed.

## **6.5 LIMITATIONS**

Methodological limitations of this study primarily stem from the fact that price was tied to the type of product (\$20 and \$50 for counterfeit, and \$100 and \$150 for genuine) in the DCE for more realistic choice sets. Therefore, the two Multinomial Logit Models weren't able to be reconciled into a single model. Future research would need to randomize both

price and type of product, at the expense of a realistic purchasing situation, to see if results can be duplicated within a comprehensive model.

Furthermore, this research has demonstrated that there is a need in the literature for a comprehensive scale to test both functional and symbolic goals simultaneously. This study's findings suggests that such an endeavour could be very fruitful for marketing and consumer studies researchers, as GDC could displace the use of attitude constructs to explain purchasing behaviour. It is important to be mindful of the fact that functional and symbolic goal constructs could be problematic due to how they overlap. One problem that could occur is the creation of too many sub-groups stemming from the various functional and symbolic goals combinations.

## **6.6 FUTURE RESEARCH**

This study found that Goal-Driven Consumption Theory and Prospect Theory are useful paradigms to understand how consumers make decisions to purchase between genuine and counterfeit products. Symbolic goals influence purchasing decisions independent of consumer attitudes, as value-expressive goals positively influence consumer's preference for genuine products. Prospect theory, as operationalized by reference prices, is another tool to explain how genuine versus counterfeit prices are considered in purchasing decisions. Lower reference prices are related to lower genuine purchases and, as the number of loss aversive situations increase in the shopping experience, the preference for genuine products is reduced. The revised model (Figure 2) of purchasing decisions between genuine and counterfeit products incorporates the current thesis findings. Future research could be extended to test the applicability of the model with different populations, product categories, and shopping contexts.

This study has proposed a model for understanding consumer purchasing decisions between genuine and counterfeit products. The proposed model can be used in future research to further our understanding of this decision-making process through a theory driven paradigm. As mentioned above, there is a need for a comprehensive scale to test both functional and symbolic goals simultaneously which would be helpful in GDC driven research. Once the above concerns regarding the scale have been addressed, the next steps for theory development would be to manipulate consumer goals and see if the manipulation leads to changes in willingness to purchase genuine over counterfeit products in different purchasing contexts. With regard to industry implications, the research findings hint that in order to curb the demand for counterfeit products, industry will need to take a lead in educating consumers about their products and consistently manage consumers' price expectations.

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## 8.0 APPENDIX

### 8.1 Consent Form



## **Consent to Participate in Research**

Date: 03/11/2011

**Study Name:** MCS Purchasing Decisions

You are asked to participate in a research study conducted by Tatiana Astray, M.Sc. Candidate, Dr. Towhidul Islam, from the Marketing and Consumer Studies Department at the University of Guelph. Results from this study are to contribute to a Masters If you have any questions or concerns about the research, please feel free to contact the main point of contact for this study Tatiana Astray, M.Sc. Candidate ([tastray@uoguelph.ca](mailto:tastray@uoguelph.ca)); or alternatively the principal investigator Dr. Towhidul Islam ([islam@uoguelph.ca](mailto:islam@uoguelph.ca)).

**Purpose of the Study:** To better understand how consumers make their purchasing decisions. Course Credit: If you are in MCS 1000 or MCS 2020, as part of your course you can obtain course credit by writing about a journal article or partaking in a research study and writing about your experiences doing so. By doing one these, you can earn up to 3% of your final mark. If you are interested in participating in a research study for course credit, you are invited to participate in this one. All the information regarding how to do the journal article, and writing about your experience in a research study are available on your courselink. At the end of the questionnaire, a link will be provided to you to fill out your information to ensure that you get your course credit. This information is kept separate from the questionnaire data, and is used to help track who took the questionnaire. Procedure: If you volunteer to participate in this study, we would

ask you to do the following things: answer some questions regarding your opinions, as well as look at some products and make hypothetical purchasing decisions.

**Potential risks and discomforts:** You may feel uncomfortable answering questions regarding your opinions; however these feelings should be minimal as the questions are not meant to be personal.

**Potential benefits to participants and/or society:** By participating in this study, you may become more aware of your own purchasing decision. Additionally, findings from this study could add to academic literature regarding how consumers make their purchasing decisions.

**Confidentiality & Anonymity:** Every effort will be made to ensure confidentiality of any identifying information that is obtained in connection with this study. No IP addresses will be collected in this study. However, the server that hosts this questionnaire is based in the USA, therefore absolute anonymity cannot be guaranteed since the laws in some countries may permit access to the data. Once the data has been collected, it will be kept in a safe and secured database for the purposes of data analysis until the end of the project, at which point all data will be destroyed.

**Using a public computer:** If you are filling out the online survey on a public computer, you can help to ensure confidentiality by taking the following precautions to clear all private data from the computer you are using to respond to the survey:

1. Clear the browsing history
2. Clear the cache

3. Clear the cookies
4. Clear the authenticated session
5. LOG OFF

If you are using Internet Explorer, the first 4 steps can be accomplished by going to Tools and selecting Delete Browsing History. Your application may have a similar system.

**Participation and withdrawal:** You can choose whether to be in this study or not. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind. You can withdraw at any point of the questionnaire by closing the internet browser. No questionnaire answers will be kept if this occurs, as a survey must be submitted to be officially recorded. You may exercise the option of removing your data from the study. You may also refuse to answer any questions you don't want to answer and still remain in the study. More specifically, all answers are automatically set to 'decline to answer', and may stay as such if you would prefer not to answer a question. The investigator may withdraw you from this research if circumstances arise that warrant doing so.

**Rights of Research Participants:** You may withdraw your consent at any time and discontinue participation without penalty. You are not waiving any legal claims, rights or remedies because of your participation in this research study. This study has been reviewed and received ethics clearance through the University of Guelph Research Ethics Board. If you have questions regarding your rights as a research participant, contact: Director, Research Ethics Telephone: (519) 824-4120, ext. 56606 University of Guelph

E-mail: [sauld@uoguelph.ca](mailto:sauld@uoguelph.ca) 437 University Centre Fax: (519) 821-5236 Guelph, ON  
N1G 2W1

**Consent for research participation:**

*I have read the information provided for the study “MCS Purchasing Decisions” as described herein. My questions have been answered to my satisfaction, and I agree to participate in this study. By clicking this button, you have read and give your consent to participate in this online survey.*

(NEXT PAGE)

## 8.2 Online Questionnaire

Gender:  Female  
 Male

The following questions are about your beliefs and attitudes. Answer the following questions by selecting the best number that reflects your beliefs to the presented statement. Please note that it may take a few seconds to load between questions.

I purchase products that reflect the kind of person I see myself to be	Strongly Disagree	Disagree	Somewhat Disagree	Neither	Somewhat Agree	Agree	Strongly Agree
	1	2	3	4	5	6	7
I purchase products to help me communicate my self-identity	Strongly Disagree	Disagree	Somewhat Disagree	Neither	Somewhat Agree	Agree	Strongly Agree
	1	2	3	4	5	6	7
I purchase products that help me express myself	Strongly Disagree	Disagree	Somewhat Disagree	Neither	Somewhat Agree	Agree	Strongly Agree
	1	2	3	4	5	6	7
I purchase products that help me define myself	Strongly Disagree	Disagree	Somewhat Disagree	Neither	Somewhat Agree	Agree	Strongly Agree
	1	2	3	4	5	6	7
In my opinion, the act of buying counterfeit goods rather than the original one is wrong	Strongly Disagree	Disagree	Somewhat Disagree	Neither	Somewhat Agree	Agree	Strongly Agree
	1	2	3	4	5	6	7
In my opinion, it is morally wrong to buy counterfeit goods	Strongly Disagree	Disagree	Somewhat Disagree	Neither	Somewhat Agree	Agree	Strongly Agree
	1	2	3	4	5	6	7
One should always consider the moral implications before buying counterfeit goods	Strongly Disagree	Disagree	Somewhat Disagree	Neither	Somewhat Agree	Agree	Strongly Agree
	1	2	3	4	5	6	7
There are moral reasons against buying counterfeit goods	Strongly Disagree	Disagree	Somewhat Disagree	Neither	Somewhat Agree	Agree	Strongly Agree
	1	2	3	4	5	6	7

Consider that you are interested in purchasing a wrist watch such as Guess, DKNY, CK or Roots:

What is the maximum you would expect to pay for a watch?  
 Scroll down option:  
 Less than \$20(min)(intervals of ten)\$200 or more(max)

What is the minimum you would expect to pay for a watch?  
 Scroll down option:  
 Less than \$20(min)(intervals of ten)\$200 or more(max)

In the following section, you will be provided with 16 watch choice sets. In each choice set, you will be offered a description of different watch features and their levels. Please indicate which of the watches you would buy in each choice set. You may also choose none of the watches. (16 choices were presented)

				
<b>Watch Features:</b>	<b>Choice 1</b>	<b>Choice 2</b>	<b>Choice 3</b>	<b>None</b>
<b>Brand</b>	Roots	CK	Guess	
<b>Purchase Price</b>	\$20	\$100	\$50	
<b>Type of Product</b>	Counterfeit	Genuine	Counterfeit	
<b>Face Shape</b>	Square	Round	Round	
<b>Face Material</b>	Stainless Steel	Stainless Steel	Gold	
<b>Strap Material</b>	Stainless Steel	Gold	Leather	
<b>Date Display</b>	Yes	No	No	
<b>Water Resistant</b>	No	Yes	Yes	

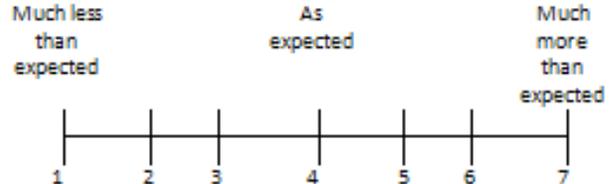
	Choice 1	Choice 2	Choice 3	None
If you had to buy one of the following, which would you choose?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

In this last section, you will be asked about your beliefs and attitudes. Answer the following questions by selecting the best number that reflects your beliefs to the presented statement.

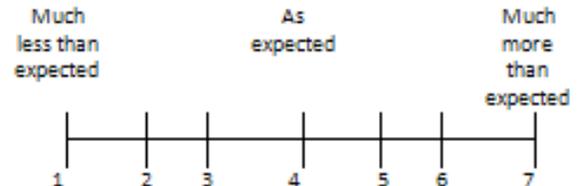
- Have you ever knowingly purchased counterfeit products in the past?
- Yes
  - No
  - Decline to answer

If you answered no, skip the following two questions. If you answered yes, proceed. If you answered yes to having purchased counterfeit products, please answer the following question.

The problems (i.e. breaking, not functioning the way I would like, etc.) that I have encountered with counterfeit products have been



The benefits (i.e. function, enjoyment, etc.) that I have experienced with counterfeit products have been



- I have purchased a watch for myself in the past?
- Yes
  - No
  - Decline to answer
  -

Age: \_\_\_\_\_

- Decline to answer

Education Level:

- High school
- College
- First Year of Undergraduate Degree
- Second Year of Undergraduate Degree
- Third Year of Undergraduate Degree
- Fourth Year of Undergraduate Degree
- Graduate University
- Other: \_\_\_\_\_
- Decline to answer

What did you major in? \_\_\_\_\_

- Decline to answer