Black Markets: Empirical studies into the economic behaviour of the black market consumer.

A Thesis submitted in partial fulfilment of the requirements for the Degree of Master of Arts in Psychology at the University of Canterbury by Luca C. Casola.

University of Canterbury
2007
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ABSTRACT

Most attempts by governments to reduce black market activity target the supplier rather than the consumer. The current thesis, however, sees reducing the willingness of the consumer to buy such goods as crucial in reducing the market. Over three studies, I examined variables that affected consumers buying from black markets and their perceptions of black markets. Study 1 (80 participants) confirmed the hypothesis that when the need to buy from a black market was for survival it would be considered more acceptable than to save money or to buy luxury goods. Study 1 further showed it was less acceptable to buy from the black market when the victim resulting from the purchase of the good was identified as an individual, rather than an organisation or society. Age and the gender of the consumer were also significant predictors of the rating of acceptability. In Study 2, 65 participants completed a series of computer simulated scenarios to measure the price they would pay for different black market goods. Results indicate that the price participants were willing to pay for black market goods varied according to who the victim was (individual, organisation or society) and the participant’s age and gender. Finally, in Study 3, 64 participants completed a similar task to Study 2, but some participants were informed about the true cost of black markets. Results confirmed the previous findings as well as indicating that the type of crime committed to procure the good and whether they saw information about the true cost of the markets also affected the price they would be willing to pay. The thesis concludes with suggestions for reducing black market activity.
CHAPTER ONE

INTRODUCTION

Black markets are defined as “all economic activities that contribute to the officially calculated (or observed) gross national product but are currently unregistered” (Schneider & Enste, 2000 p.78). Commonly, the term “black market” describes any economic activity involving the illegal sale and purchase of any good or service. The term “black market” is used because such transactions are unlawful and therefore metaphorically are conducted in the dark or out of the sight of the law. Other names for such activities are “shadow economies” and “underground economies” (Schneider & Enste, 2000, p.77). Examples of these markets would be any good or service deemed by legislature to be illegal to provide, such as illicit drugs, stolen goods, goods or services supplied illicitly to avoid taxation (e.g. cigarettes) or licensing (e.g. guns) (refer to Table 1.1 for comprehensive taxonomy) (Schneider & Enste, 2000). The placement of restrictions on the provision or production of goods and services therefore define black markets. Nevertheless, despite these restrictions, black markets are currently present in any known economy. It would in fact appear that prohibition, price control and rationing are direct precursors to the development of a black market (Smithies, 1984).
Table 1.1: A taxonomy of all underground economic activity.

<table>
<thead>
<tr>
<th>Illegal Activities</th>
<th>Monetary Transactions</th>
<th>Non-monetary Transactions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Trade in stolen goods; drug dealing and manufacturing; prostitution; gambling; smuggling; fraud (including copyright infringements).</td>
<td>Barter: drugs; stolen goods, smuggling, etc.</td>
</tr>
<tr>
<td>Tax Evasion</td>
<td>Tax Evasion</td>
<td>Produce or growing drugs for own use.</td>
</tr>
<tr>
<td>Legal Activities</td>
<td>Unreported income from self-employment; Wages, salaries and assets from unreported work related to legal services and goods</td>
<td>Theft for own use.</td>
</tr>
<tr>
<td></td>
<td>Employee discounts, fringe benefits.</td>
<td>All do-it-yourself work and neighbour help.</td>
</tr>
</tbody>
</table>

Adapted from Schneider & Enste (2000, p.79).

1.1 Black Markets: An Elusive Phenomena

Due to their nature, black market activities are difficult to identify and measure. When discussing black markets, one must remember that all measures of it are based on estimates and vary accordingly. For instance, in 1981, Sir Lawrence Airey, Chairman of the English Board of Inland revenue, estimated that the national black economy accounted for approximately 7.5% of GNP (Smithies, 1984). However, the English Institute of Fiscal Studies disputed such figures and argued that on the basis of the Family Expenditure Survey the black economy was only 2 to 2.5% of the GNP (Smithies, 1984). Professor Feige of Wisconsin University later attacked this IFS estimate. Based on his own measurements, Feige argued that the black economy could reach up to 15% of the country’s income (Smithies, 1984). Estimates of New Zealand’s and the worldwide black market activity continue to vary greatly to this day. For more comprehensive information on the topic, well beyond the scope of this
thesis, refer to Giles (1999), who offers the differing views of a number of authors on defining and estimating such markets. Also included are estimates of the size of black markets in New Zealand. In sum, the measurement of black market activity is an inaccurate process. Nonetheless, black economies are an economic fact and according to the literature (Schneider & Enste, 2000; Giles, 1999) there is a strong indication that they are increasing in extent and are very widespread (Refer to Table 1.2, Table 1.3 and Figure 1.1).

Figure 1.1: Estimated size of the black market (Giles, 1999).
Table 1.2: Size of black markets in various developing, transition and OECD countries (Average over 1990-1993).

<table>
<thead>
<tr>
<th>Developing countries</th>
<th>Size of black market as % of GDP</th>
<th>Transition economies</th>
<th>Size of black market as % of GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa</td>
<td></td>
<td>Central Europe</td>
<td></td>
</tr>
<tr>
<td>Nigeria</td>
<td>68-76%</td>
<td>Hungary</td>
<td>20-28%</td>
</tr>
<tr>
<td>Egypt</td>
<td>68-76%</td>
<td>Bulgaria</td>
<td>20-28%</td>
</tr>
<tr>
<td>Tunisia</td>
<td>39-45%</td>
<td>Poland</td>
<td>20-28%</td>
</tr>
<tr>
<td>Morocco</td>
<td>39-45%</td>
<td>Romania</td>
<td>9-16%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Slovakia</td>
<td>9-16%</td>
</tr>
<tr>
<td>Central and</td>
<td></td>
<td>Czech Rep.</td>
<td>9-16% and grandparents</td>
</tr>
<tr>
<td>South America</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Guatemala</td>
<td>40-60%</td>
<td>Former Soviet</td>
<td></td>
</tr>
<tr>
<td>Mexico</td>
<td>40-60%</td>
<td>Union countries</td>
<td></td>
</tr>
<tr>
<td>Peru</td>
<td>40-60%</td>
<td>Georgia</td>
<td>28-43%</td>
</tr>
<tr>
<td>Panama</td>
<td>40-60%</td>
<td>Azerbaijan</td>
<td>28-43%</td>
</tr>
<tr>
<td>Chile</td>
<td>25-35%</td>
<td>Ukraine</td>
<td>28-43%</td>
</tr>
<tr>
<td>Costa Rica</td>
<td>25-35%</td>
<td>Belarus</td>
<td>28-43%</td>
</tr>
<tr>
<td>Venezuela</td>
<td>25-35%</td>
<td>Russia</td>
<td>20-27%</td>
</tr>
<tr>
<td>Brazil</td>
<td>25-35%</td>
<td>Lithuania</td>
<td>20-27%</td>
</tr>
<tr>
<td>Paraguay</td>
<td>24-35%</td>
<td>Latvia</td>
<td>20-27%</td>
</tr>
<tr>
<td>Colombia</td>
<td>25-35%</td>
<td>Estonia</td>
<td>20-27%</td>
</tr>
<tr>
<td>Asia</td>
<td></td>
<td>OECD countries</td>
<td>Size of black market as % of GDP</td>
</tr>
<tr>
<td>Thailand</td>
<td>70%</td>
<td>Greece</td>
<td>24-30%</td>
</tr>
<tr>
<td>Philippines</td>
<td>38-50%</td>
<td>Italy</td>
<td>24-30%</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>38-50%</td>
<td>Spain</td>
<td>24-30%</td>
</tr>
<tr>
<td>Malaysia</td>
<td>38-50%</td>
<td>Portugal</td>
<td>24-30%</td>
</tr>
<tr>
<td>South Korea</td>
<td>38-50%</td>
<td>Belgium</td>
<td>24-30%</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>13%</td>
<td>Sweden</td>
<td>13-23%</td>
</tr>
<tr>
<td>Singapore</td>
<td>13%</td>
<td>Norway</td>
<td>13-23%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Denmark</td>
<td>13-23%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ireland</td>
<td>13-23%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>France</td>
<td>13-23%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Netherlands</td>
<td>13-23%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Germany</td>
<td>13-23%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Great Britain</td>
<td>13-23%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Japan</td>
<td>8-10%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>United States</td>
<td>8-10%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Austria</td>
<td>8-10%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Switzerland</td>
<td>8-10%</td>
</tr>
</tbody>
</table>

Adapted from Schneider & Enste, 2000, p. 80
Table 1.3: Growth of black markets relative to GNP in selected West European countries and the United States, 1960-1995.

<table>
<thead>
<tr>
<th>Country</th>
<th>Size of Black Market</th>
<th>Increase in Black Market</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sweden</td>
<td>2%</td>
<td>16%</td>
</tr>
<tr>
<td>Denmark</td>
<td>4.5%</td>
<td>17.5%</td>
</tr>
<tr>
<td>Norway</td>
<td>1.5%</td>
<td>18%</td>
</tr>
<tr>
<td>Germany</td>
<td>2%</td>
<td>13.2%</td>
</tr>
<tr>
<td>United States</td>
<td>3.5%</td>
<td>9.5%</td>
</tr>
<tr>
<td>Austria</td>
<td>0.5%</td>
<td>7%</td>
</tr>
<tr>
<td>Switzerland</td>
<td>1%</td>
<td>6.7%</td>
</tr>
</tbody>
</table>

Adapted from Schneider & Enste (2000, p. 81)

1.2 Eliminating Black Markets

Typically, efforts targeted at eliminating black markets focus on the supplier. This focus is clearly shown by the tougher legal penalties imposed on sellers compared to buyers and by the nature of police operations in the field (1Prof. J.Finn, personal communication, February 19, 2007).

1.2.1 Current Strategies in New Zealand

When attempting to eliminate black markets, targeting people who supply goods to black markets is often a more economically viable and a simpler process for the courts and society than is eliminating the demand for black market goods. For example, while statutes within the New Zealand Crimes Act state that the punishment for selling stolen goods is equal to that for purchasing such goods, something different actually happens in the Courts (Prof. J.Finn, personal communication, February 19, 2007). In fact, judges in New Zealand currently impose harsher sentences for

---

1. Professor Jeremy Finn, University of Canterbury, Qualifications MA, LLB (Hons) (Cant), PhD (Canterbury), Barrister and Solicitor of the High Court of New Zealand.
professional receivers of black market goods (individuals who purchase with the intent of reselling) compared to the sentences imposed for the actual theft of the goods (Prof. J.Finn, personal communication, February 19, 2007). On the other hand, the bottom end consumer if pursued in the courts, often receives the lightest punishment (Prof. J. Finn, personal communication, February 19, 2007).

An example of the low number of receivers taken to court is found in the 2006 New Zealand official yearbook (Registrar General, 2006). Here it is reported that the number of convictions for burglaries stands at 6409 and the number of convictions for theft at 14275. Not all of these burglaries have been committed to obtain goods, nor for reselling the goods. However, the reported number of convictions for receiving stolen property is 2732, which is 13.2% of the total burglaries and thefts committed in N.Z. When factoring in that a percentage of these would relate to professional receivers rather than bottom end consumers, this conviction rate appears relatively low. Hence, law enforcement agencies including the courts prioritise prosecuting suppliers rather than the consumer.

Another example of such disparity relates to the laws regulating intellectual property. In New Zealand, while it is illegal to sell or manufacture pirated goods, consumers cannot be pursued criminally (although they may be sued civilly) (Prof. J.Finn, personal communication, February 19, 2007). This shows how legislation in this sector has once again focused its deterrence on suppliers rather than consumers.
1.2.2 A New Approach

As long as a demand for an illegal product or service exists, there will be a supply. An example is prostitution, a service that has existed since the beginnings of recorded history and has outlasted many laws, regulations and legislative consequences aimed at its elimination.

Many authors (Ray, 1981; Sheley & Bailey, 1985) have argued that an effective policy aimed at reducing black markets should target consumers as well as suppliers. Ray (1981) argued that an important key to curb black markets lies in changing social values and arousing social conscience within consumers. Sheley and Bailey (1985) also argued that policy changes should target consumers as well as suppliers and that policy potentials include reducing motivation to buy, threat of sanction, moral appeal and interfering with opportunity.

The economic law of supply and demand explains why it is necessary to target consumers as well as the supplier. Principles of economics have been used before to examine black markets. For instance, Ray (1981) argued that economic principles broadly apply to black markets. In reference to the supply curve principle, Ray (1981) stated, in allusion to black markets concerning necessities (e.g. food) that although such a curve will lie to the left of the normal supply curve, the principles still apply. According to the economic principle of supply and demand, a decrease in supply, by making the good scarcer, will cause a rise in price (Stiglitz, 1993). In a black market, such a decrease in supply can also be caused by an increase in government restrictions or greater enforcement of restrictions. These factors directly remove suppliers from
the market (e.g. supplier is caught & sent to prison) or indirectly force them to leave the market as they no longer deem it safe to trade in.

In addition, a rise in the price of goods in black markets, like any market, will occur in response to the elevated cost in producing or obtaining the good, increased distribution costs and an elevated risk premium. According to the economic supply curve, the consequent rise in price will directly increase propensity to supply more goods to a market and the willingness to enter the market to supply the good (Stiglitz, 1993). According to these principles of economics, although regulations and enforcement result in a short term decrease in supply, the price of the good will soon increase. Once the price has risen, the higher perceived monetary utility of such a black market operation will lure new suppliers into the ring, therefore renewing supply.

A real world example of this prediction from economic theory is found in the records that the English Courts kept during and after the First World War. During the First World War, a food shortage in England forced the government to implement a ration system and price regulations on essential food items: milk, sugar, eggs and meat (Smithies, 1984). As the food shortage progressed, black markets developed that provided these goods but at a higher price than regulations granted. When widespread awareness of this phenomenon became known, the judiciary began applying harsher sentences to those proved guilty of selling goods on the black market (Smithies, 1984). However, according to official records, the number of individuals successfully prosecuted did not fall because of the stiffer penalties (Smithies, 1984). The tighter
regulations did not affect the sale of restricted goods. Indeed, it appears that black markets are somewhat immune to legal penalties.

From the economic principles outlined above, one might argue that an effective means of reducing black markets would be to reduce the number of consumers. The resulting decrease in demand should ensure a decrease in price and, in turn, the perceived gain derived from supplying the markets. Nonetheless, to date, most countries have tried to reduce black markets by creating tougher penalties and enforcement policies targeting suppliers (Sheley & Bailey, 1985).

This thesis aims to identify variables that influence consumer participation in a black market. Knowledge of these variables might assist in reducing the willingness of consumers to participate in black markets, and in reducing the size of the market itself.

1.3 Areas of Black Markets Under Scrutiny.

As discussed, black markets cover a large number of economic activities that include drugs, stolen goods, goods that require licensing, counterfeit products and products derived from poaching. In New Zealand, the media has highlighted a variety of black markets. Generally, a large market for stolen goods exists that includes all types of products (e.g. Reuters New Zealand, 2005). Furthermore, stories have appeared in the media about poaching activities involving goods such as paua, crayfish (e.g. Reuters New Zealand, 2006c), kauri and rimu wood (e.g. One News, 2006a) and greenstone (e.g. Reuters New Zealand, 2006b). In addition, pirated goods such as copied movies, music and computer software have occupied the headlines (e.g. Reuters New Zealand,
2006a), as has counterfeit clothing and other accessories (watches, sunglasses, wallets) (e.g. One News, 2007). My studies will include all of these cited categories.

Although the sale of illegal drugs is highlighted in the media almost daily, drugs will not be explored in my studies. This omission was made because the relation between drug addiction and crime has already been widely researched (French et al, 2004) and would be difficult to control for as an isolated variable in the context of black markets. Homemade alcohol and home-grown tobacco are excluded for the same reasons. Although black markets offering the sale of illegal firearms have recently been covered by the media (One News, 2006b), they will not be included because they only represent a very small fraction of New Zealand black market activity (Registrar General, 2006). Black markets that are operated to avoid paying taxes will also be excluded because this field has already been widely researched in disciplines such as psychology (Elfers, 1999), economics (Mittone, 2006) and sociology (Welch et al., 2005).

In summary, I will investigate black markets dealing in stolen, poached and counterfeit goods available in New Zealand. This selection will allow for research that is pertinent to contemporary local society. The criticism that the obtained results will only be valid for a portion of black markets is in no way denied; however, the field of black markets appears too large and varied to be studied as a whole and is beyond the scope of this thesis. I hope future studies will be conducted to address different categories in this field.
1.4 Previous Research on the Black Market Consumer

The literature addressing black market consumers is exceptionally limited. After an extensive literature search, only two papers were identified as directly relevant. In the first, a paper by Sheley & Bailey (1985), the authors collected data from interviews and questionnaires. The subjects identified the types of stolen merchandise they would buy and their attitudes towards buying from black markets. Sheley & Bailey conducted this research to assist US agencies in the development of new anti theft policy. Although Sheley & Bailey identified motivation, freedom from threat of sanctions, moral freedom and opportunity as individual and interactive factors contributing to the purchase of stolen goods, only one predictor, moral belief, was identified as possessing practical policy implications.

Secondly, in 2005, the Organized Crime Task Force, a United Kingdom Government Organization focusing on contraband tobacco, alcohol and other smuggled goods in Northern Ireland (Bryce & Rutter, 2005) commissioned the study “Fake nation? A study into an everyday crime”. This study measured consumer attitudes toward the black market sale of pirated DVDs, music, digital games and fashion items. A number of significant findings emerged:

1.4.1 Attitudes and Behaviour

The study showed that consumption of fake goods is fairly common across the UK (34% of respondents indicated they had bought a counterfeit product). Furthermore, counterfeit goods were available through a variety of locations and networks (car boot sales, markets, pubs & clubs).
1.4.2 Motivations and Justifications

The cost of fake goods was also a key driver for the purchase of fake goods. Thirty five percent of respondents justified their purchases because the goods were cheaper. However, black market purchases were often based on economic decisions other than to save money. For example 56% of respondents purchased a fake DVD because they wanted to see it as soon as possible. Lastly, respondents (21%) indicated that fake goods often meet expectations.

1.4.3 Risks and Consequences

Overall the study showed that the public are aware that counterfeiting and piracy impacts on the public purse (e.g. producers do not pay tax on counterfeit goods) and that they have a good appreciation of the consequences that counterfeiting and piracy has for legitimate business. A degree of ambivalence was found in regard to the dangers of some fake goods.
1.4.4 Further Findings

The study also examined new and previous strategies aimed at curbing the purchase of pirated products. Results indicated that campaigns highlighting the link between piracy and organized crime, the negative effects of these markets on local business and jobs, and the fact that manufacturers of such products do not pay taxes would be an effective way in changing attitudes. Furthermore, the study indicated that law enforcement action against the producers of fake products is sending out an effective message and prosecuting producers of counterfeit goods would be an effective way of changing attitudes towards such goods. Finally, previous campaigns have made an impact with forty-seven percent of respondents having seen a previous campaign launched in the UK concerning links between DVD piracy and organised crime. Finally, of the respondents who had seen anti-pirating campaigns, 42% had changed their attitudes towards fake goods.

1.5 Theoretical Explanations

Consumer psychology may offer an insight into black market economics. On the topic of sustainability, Olander & Thorgersen (1995) argued that a consumptive act is determined by people’s perceived needs (need/want distinction), opportunities and financial abilities. Such a model might explain regular black market participation and why in certain situations (wars & other catastrophes) individuals participate in such markets and cease when the extreme circumstances are over. Olander & Thorgersen argued for an economically based discussion that looks at environment and circumstances rather than personal characteristics in determining consumption. Simply, consideration of environment and circumstances is enough to predict consumption. Nonetheless, as in Bryce & Rutter’s, (2005) British study, Olander &
Thorgersen implied that attitudes and motivations may come into play when purchasing from the black market.

There are a number of similarities and links between black markets and the field of tax evasion (Schneider & Enste, 2000). Firstly, like tax evasion, the penalties incurred from purchasing from black markets are small and rarely result in incarceration. Secondly, black market services are directly related to, if not sometimes driven by, tax evading motives (e.g. private tuition is a possible means for teachers to raise their income but not their tax bill). Thirdly, the same rules that govern the decision on whether to cheat on your taxes (benefit vs. risk) may be involved in the decision of whether to buy non-essential items from black markets.

Explanations of tax evasion behaviour vary depending on the approach adopted. The rational choice theory (Allingham & Samo, 1972) explains tax evasion as people evaluating and contrasting the expected outcomes of cheating on their taxes or reporting them honestly. This model factors in the chances of being caught and the magnitude of the consequences for being caught. If the chances of getting caught are low while the rewards are high, people will evade paying taxes. Elffers (1999) however argued that according to the rational choice model almost everybody should evade taxes; however, this does not occur. Consequently, a large number of adaptations to the model have been proposed. These include either broadening the concept of the expected outcome, utilising a subjective probability of being caught rather than an objective one, or providing more options in the model for the taxpayer to choose from (Elffers, 1999).
Tax evasion has also been studied in respect to personal characteristics of people who do and do not evade taxes. That is, why in the same circumstances some individuals evade taxes while others will not. Within this field two classes of characteristics are distinguished, personality traits and attitude towards paying taxes. Nonetheless, such approaches do not adequately explain why an individual will evade in some cases but not in others.

Finally, one last approach, which appears to be more of an integrated model is Effer’s (1991) three-threshold model, where it is assumed that for an individual to cheat on taxes he or she must go through three stages. First, the taxpayer must have the will to evade (related to attitude and personality); if they have the will then there must also be the opportunity to evade. Finally, the person must not be deterred by the possibility of being caught; this last stage possibly determined by the rational choice model (Effer, 1991).

Another field of study, which may help provide some theoretical insight into consumer participation in black markets, is the literature on protected values (Baron, 1995; Baron, 1997; Baron & Spranca 1997; Irwin & Baron, 2001; Ritov & Baron, 1999; Baron & Leshner, 2000). Protected values are those values that people think should not be traded off with other values (Baron & Spranca, 1997), where a value “is used to mean utility, that is, the measure of desirability that decisions are meant to increase” (Baron & Leshner, 2000, p. 183). Baron and Spranca (1997) argue that these protected values directly relate to the rules governing actions rather than consequences. Some examples are decisions concerning natural resources, human
lives and human rights, where no amount of money can substitute for the protected value (Baron & Leshner, 2000).

Baron (1999) argued that consumers have moral opinions in regards to the goods and the services they purchase. When a particular product violates their moral values, consumers may abstain from buying such a product. For example, a consumer may not purchase makeup tested on animals. Baron (1999) measured participants' moral values in respect to hypothetical product choices. Included were scenarios that offered the participant the chance to save money when purchasing a product with features that may be considered immoral. For example, participants were asked their views on purchasing a copied word processor program for a computer; whether they would purchase it at the same price, with a 5% discount, with a 25% discount, for free or whether they would not purchase it under any circumstances. Only 25% of the respondents indicated they would not purchase it under any circumstances. Reluctance to purchase goods that are considered immoral by the consumer may be related to the fear of contagion or association where individuals do not want to be associated with goods they consider immoral (Rozin & Singh, 1999).
1.6 The Present Study

As mentioned above, the aim of this thesis is to isolate variables that affect the acceptability and willingness to buy from black markets. The current thesis is important for several reasons. Firstly, as noted, research into black market consumers is almost non-existent. Secondly, black markets are increasing worldwide (Schneider & Enste, 2000). Furthermore, not only do black markets make up a discernible portion of national GNPs (Smithies, 1984) but also criminal groups often use the profits to further their criminal activities (Bryce & Rutter, 2005). Hence, the current thesis has the potential to assist in the reduction of crime generally.

1.6.1 The Dependent Variables

Two dependent variables are measured throughout the studies. The first study measures how acceptable participants perceive different black market scenarios to be. The second and third studies measure the willingness of participants to partake in simulated black market scenarios.

The acceptability of black markets is measured by participants reading scenarios of black markets and rating how acceptable they perceive it is to buy from them. Willingness to participate requires a more sophisticated means of measurement. Frank (2005) argued that monetary reward is often sufficient to induce people to choose a course of action different from a moral action. That is, before someone does something immoral they expect a greater monetary reward. Frank applied this to job selection, but the principle can be applied to the current study of black markets.
In Studies 2 and 3, willingness to participate is measured by the "price" of morality. This is accomplished by determining the amount of monetary saving at which participants will be willing to make a black market purchase. By comparing the different monetary savings between different purchases on the black market, the variables making individuals more or less willing to participate can be determined.

1.7 Hypotheses

1.7.1 Need

In respect to black markets, Olander and Thorgersen's (1995) consumption theory explains historical reports of black markets developing in times of need and ceasing when they are over (Smithies, 1984). This cycle indicates that the acceptability and feasibility of black markets might depend on need or wants, that is, if the good for sale is a necessity or a luxury. The first variable to be explored is therefore the "need or want" motivating an individual to buy from a black market.

Theoretical work addressing differences between luxury and necessity is best epitomised by Maslow's (1970) work. Here Maslow proposes that human needs are organised in a hierarchy and that only after we satisfy our most basic needs can we then move to satisfy higher ones. Maslow distinguishes between deficiency needs and growth needs. While the first refers to physiological needs, the latter consist of psychological needs. The first physiological need described by Maslow consist of basics such as breathing, food, water and sleep. Once these are satisfied the individual will attempt to fulfil his safety needs consisting of entries such as the security of his or her body, of employment, of morality etc. The next level to be satisfied involves love and belonging and includes entries such as friendship and family. Further up the
hierarchy is esteem, comprising entries such as self-esteem, confidence and achievement. Finally, according to Maslow, once all the physiological needs are met, the individual may then attempt to fulfil the psychological need of self actualization, which includes creativity, spontaneity and again morality. According to this hierarchy, an individual will prioritize basic needs such as eating to higher ones such as morality. Therefore, a person will be likely to buy from a black market for a basic survival need at the expense of morality. On the other hand, once an individual has fulfilled his or her basic needs, they will attempt to fulfil higher order needs that include morality; therefore people will be less likely to participate in black markets selling non-necessities.

The first study will therefore explore the effect of the nature of the item for sale (need or necessity) on the rated acceptability of a given black market. Three needs or wants are identified: “Survival” indicates the extreme need of purchasing a necessity good on the black market to avoid death. “Couldn’t otherwise afford” refers to purchasing on the black market because the good could not be afforded via the legal channels (although such a good is not a necessity). Finally, “To save money” identifies a desire to purchase on the black market solely to save money on the costs.

**Hypothesis 1: When motivated by need, participation in black markets will be rated as more acceptable compared to when motivated by wants.**

**1.7.2 Victim**

Black markets are often described as victimless crimes. However, if a crime is perceived as victimless, does that mean that it is permissible? Hence the question is
posed: Is willingness to participate in black markets affected by who is identified as a victim? Smigel (1972) surveyed people to identify whom they would be more likely to steal from. Overall, participants felt less guilty stealing from large businesses, followed by the government and lastly from small businesses. Could the same principles apply to the crime of black market purchases? To answer this question, the role that the victims resulting from a black market has in determining acceptability and willingness to participate in black markets is explored. In the studies, three groups of victims are identified: Individuals, Organisations and Society. “Individuals” refers to the victimisation of distinct individuals or families by black markets; an example being black markets that deal in goods stolen in burglaries of private homes. The second victim group, “Organizations”, refers to black markets that victimise companies and organizations, such as black markets that deal in goods stolen during burglaries of business premises. Finally, “Society”, refers to black markets that victimise all of society by dealing in goods derived from activities such as poaching.

**Hypothesis 2: Individuals will be more accepting and willing to purchase goods from the black market when they perceive the victim resulting from it as an organization, followed by society and finally by those victimising individuals.**

**1.7.3 Type of crime**

DVD manufacturers have used short film segments, which are presented on DVDs destined for rental, to compare pirating movies to stealing DVDs, in an attempt to dissuade the public from such behaviours.
People are able to judge the perceived seriousness of different types of crimes. Early research showing how different crimes are rated as more or less serious is found in Sellin & Wolfgang's (1964) "The measurement of delinquency". Practical implications deriving from such research lie firstly in providing a foundation to models of criminal law (Herzog, 2004), as well as in helping prioritise which crimes necessitate rehabilitation (Davis & Kemp, 1994). Since Sellin and Wolfgang's work, a number of studies worldwide have examined the topic of the perceived seriousness of crimes. Overall, regardless of geographical, social and cultural boundaries people perceive violent crime as the most serious (Herzog, 2004).

Davis and Kemp (1994) conducted a study that required participants to rate the seriousness of 25 crimes identified by either labels or vignettes. Results suggested that a social consensus existed on the perceived seriousness of these crimes as well as a strong positive correlation between the perceived seriousness of crimes and the average sentences imposed by New Zealand courts. Clements et al. (2006) argued that concern for victims of a crime is dependant on the nature of the crime. According to their research, concern for victims of violent crime is higher than concern for victims of property crime, which in turn is higher than for victims of "culpable" crimes (e.g. drug users).

Herzog (2004) also conducted a study exploring variability in perceived seriousness of a crime between social groups. He tested differences between Arab people and Jewish people in their perception of male violence against female intimate partners. Participants rated the seriousness of a number of depicted crimes. One of the findings of his study indicates that the Arab social group, who has a higher statistical incidence
of committing violent crimes against their partners, also reported more permissive attitudes towards those crimes.

My study will therefore examine the role that the nature of the crime committed to procure the goods on sale has in determining willingness to participate in a black market.

**Hypothesis 3: Individuals will be less willing to buy black market goods that are derived from more serious crime.**

**1.7.4 Value of the Item for Sale**

The New Zealand Crime’s Act judges the severity of a crime in terms of the monetary value the crime derives (Prof. J.Finn, personal communication, February 19, 2007). For example, a person found guilty of stealing an item of the value of $2000 will receive a harsher penalty compared to a person convicted of stealing an item of the value of $200 (Prof. J.Finn, personal communication, February 19, 2007). There is a common belief amongst the public that more serious crimes are harder to deter compared to minor offences (McFatter, 1982). The above differences in legislation are therefore supported from a deterrent point of view.

Study 2 will test if the value of the good for sale affects the willingness of participants to buy black market goods. Differences may be due to either the deterrent effect of the differences in legislation or to the fact that more serious crimes are harder to deter. Therefore, the percentage of monetary saving at which participants will be willing to
purchase goods of different values will be compared. I aim to determine if there is a difference based on the original value of the good.

**Hypothesis 4: Willingness to purchase goods from the black market will vary depending on the original value of the good.**

**1.7.5 Age**
Most research indicates that risk taking diminishes with age (McDaniel & Zuckerman, 2003; Bromiley & Curley, 1992; Palsson, 1996). Because participating in black markets involves the risk of capture and facing legislative consequences, it is plausible to assume that willingness to participate will therefore diminish with age. Research based on statistic evidence also indicates that crime rates decline with age (Hirschi & Gottfredson, 1983; Stattin & Magnusson, 1991). Statistics derived from court records show that the number of criminal convictions in New Zealand declines with increased age (Registrar General, 2006). Because it is a crime to participate in black markets, it is therefore logical to predict that black market participation should decline with age.

**Hypothesis 5: Acceptability and willingness to participate in black markets will decline with age.**

**1.7.6 Gender**
The rate of imprisonment for males in New Zealand is significantly greater than that for females (Registrar General, 2006). Research on gender differences confirms this pattern (Blickle, 1996; Haynie & Armstrong, 1996) and indicates that males are more
likely to undertake criminal activities compared to their female counterpart. Such a contrast may be related to the fact that males are greater risk takers than females, a finding that has been replicated in a vast amount of research into risk taking (McDaniel & Zuckerman, 2003; Fagley & Miller, 1990; Heaven, 1991; Arch, 1993). Therefore, a significant difference is expected between the genders in their willingness to participate in black markets where males will be more willing to participate compared to their female counterparts. It cannot be predicted at this stage that such differences will be found in the ratings of acceptability of black markets.

**Hypothesis 6: Males will be more willing to purchase goods on the black market than females.**

**1.7.7 Income**

Carmichael (2005) found that people’s income predicted incarceration; individuals with low-incomes were more likely to be in prison compared to high-income individuals. A note must be made here to acknowledge that other factors might come into play in determining such an income effect (e.g. a high income individual may be able to afford a better lawyer). Nonetheless, in combination with Olander and Thorgersen’s (1995) theory that stated that a consumptive act is determined by need, it is plausible to assume that individuals with lower incomes will be more likely to participate in black markets compared to individuals with higher incomes.

**Hypothesis 7: Individuals with lower incomes will be more accepting and willing to purchase black market goods.**
1.7.8 Education

Bukenya (2005) used county-level data in Alabama and found correlates between a number of socio-economic and demographic variables and crime trend. He argued that amongst other factors, education level has a strong influence on crime trend. Furthermore, assuming that individuals with a higher level of education will receive higher paying jobs, in combination with Olander and Thorgesen’s (1995) consumption theory predicting that a consumptive act is determined by need, it is plausible to assume that individuals with lower levels of education will be more accepting and willing to buy from black markets.

Hypothesis 8: Individuals with lower educational achievements will be more accepting of black markets.

1.7.9 Modifying Individuals’ Willingness to Participate in Black Markets

Initially, Study 1 and Study 2 test whether the victim resulting from the obtainment of the good on sale and the type of crime to procure such goods affects the perception of acceptability and willingness to purchase black market goods. Significant findings obtained for any of the above variables can be utilised to attempt to modify people’s willingness to participate in black markets. Making people aware of the real crime behind black markets or the victims of black markets could curb such behaviour. In Study 3, any variable found to affect participation can be used in awareness campaigns.

Hypothesis 9: It is possible to modify an individual’s willingness to buy from the black market.
CHAPTER TWO

STUDY 1: EXPLORING VARIABLES THAT MAY AFFECT THE PERCEPTION OF ACCEPTABILITY OF BLACK MARKETS: NEED, VICTIM AND DEMOGRAPHICS.

2.1 Method

2.1.1 Design

The study utilised a $3 \times 3 \times 2 \times 2$ design, with repeated measures on the first two factors, to analyze whether differences exist between the 3 needs and the 3 groups of victims under scrutiny and whether the gender of the agent within the scenario and the gender of the participant affected the rating of acceptability.

2.1.2 Participants

A total of 80 participants, 36 males ($M_{age} = 30.22$, $SD = 15.4$) and 38 females ($M_{age} = 24.42$, $SD = 9.5$) (6 participants did not disclose gender in the demographic section) volunteered for a study entitled “Perception of acceptability of black markets”. Participants were recruited in equal numbers from the University of Canterbury, New Zealand and from the general population. Participants from the general public were recruited in four different malls of the local city, which represented 4 different socio-economic levels as indicated by land values. Fifty-one respondents were students, while the occupations of the rest widely varied. The overall age range was between 15 and 68 years of age, with a mean of 27 and a $SD$ of 13.1. Once recruited, they were each offered chocolate bars as an expression of gratitude for their participation.
2.1.3 Consent

A standardized information sheet detailing the study and explaining the participants’ rights was presented to each participant. This stated that participation was anonymous, strictly voluntary and could be withdrawn at any time. Furthermore, to ensure anonymity participants would not be identified with their data. A copy of the information sheet is provided in Appendix A.

2.1.4 Questionnaire

The questionnaire began with brief instructions and descriptions of the options.

The questionnaire was divided into two sections: a “scenarios” section and a “demographic” section. In the “scenario” section, nine black market scenarios were described. Participants were asked to rate each scenario in terms of how acceptable they perceived it was for the agent in the scenario to make a purchase from the black market. Participants circled a value between 1 and 7 on a rating scale where a score of 1 corresponded to “completely acceptable”, a score of 4 was “reasonably acceptable”, and a score of 7 was “not at all acceptable”. All scenarios are presented in Figure 2.1.

In the first three scenarios the need of the consumer was always survival. In Scenario 1 the victim was an individual; in Scenario 2 the victim was an organization and in Scenario 3 the victim was the consumer’s society. In Scenarios 4, 5 and 6 the need of the consumer was always to save money. In scenario 4 the victim was an individual, in Scenario 5 it was an organization and in scenario 6 it was society. In Scenarios 7, 8 and 9 the need was always that they couldn’t otherwise afford the goods. In Scenario 7 the victim was an individual, in Scenario 8 it was an organization and in Scenario 9 it was society.
Half the questionnaires included scenarios in which the consumer was depicted as a male while in the other half they were female. The only difference between these two groups was the gender of the names and of the pronouns utilised. The order of presentation of the scenarios varied per participant according to a Latin Square design. The "demographic" section of the questionnaire (see Appendix B) asked participants to fill in their age, gender, occupation and income.

The scenarios were written to ensure the wording was as balanced as possible. Care was taken to ensure that the different options only varied in the gender of the agent depicted in the scenario, who was identified as the victim of the black market, and the need of the agent participating in the black market.

2.1.5 Procedure

Participants were instructed to read the consent form and the instruction sheet and then complete both sections of the questionnaire. The questionnaire was completed and returned immediately. Once all tasks were completed, participants were again thanked, debriefed and rewarded for their participation. All data gathered was analysed via Statistica.
In the days following the Tsunami in Indonesia, isolated places have a food scarcity. Ragu has no food to feed his family. He has been approached by black market dealers who have offered him food in exchange for money. Considering the food has been procured from the burglary of a private home, how acceptable do you think it is for Ragu to buy such food? (Circle a number)

1 2 3 4 5 6 7
Completely acceptable Reasonably acceptable Not at all acceptable

Following a revolution in Nigeria, food scarcity has meant that Arib and his family are starving. He has been approached by black market dealers who have offered him food in exchange for money. Considering such food has been procured illegally from the stocks of a large Nigerian food company, how acceptable do you think it is for Arib to buy such food? (Circle a number)

1 2 3 4 5 6 7
Completely acceptable Reasonably acceptable Not at all acceptable

Kaleb is a merchant in Kabul whose family is starving as a result of food scarcity consequent to the invasion by the U.S. army. He has been approached by black market dealers who have offered him food in exchange for money. Such food has been procured illegally from government stocks destined to be spread amongst the population. How acceptable do you think it is for Kaleb to buy such food? (Circle a number)

1 2 3 4 5 6 7
Completely acceptable Reasonably acceptable Not at all acceptable

Jonathan is a successful company manager with a passion for rock climbing. He has recently been approached by black market dealers and has been offered a range of ropes and other climbing equipment at half their retail value. Considering such goods were procured by breaking into a private home, how acceptable do you think it is for Jonathan to buy such equipment? (Circle a number)

1 2 3 4 5 6 7
Completely acceptable Reasonably acceptable Not at all acceptable

Anthony is a successful businessman with a passion for music. He has recently been approached and offered a number of music CDs at half their retail price. Considering that such CDs have been stolen from a large international music company, how acceptable do you think it is for Anthony to buy such equipment? (Circle a number)
Matmu is an Iraqi lawyer who has been recently approached by black market dealers and has been offered food which has been illegally obtained from government stocks destined to be spread amongst the general population. Although Matmu is well able to procure and pay for food via legal markets, accepting the offer would allow him to save around 50% of the sum he would otherwise require. How acceptable do you think it is for Matmu to buy such food? (Circle a number)

Wendy has been approached and has been offered expensive label clothing at a price equal to half of what it is worth at the local stores. Assuming that Wendy could not otherwise afford such goods and that she is aware that these goods have been procured from the burglary of a private home, how acceptable do you think it is for Wendy to buy such equipment? (Circle a number)

Michael is a student with a passion for music who has been approached and offered state of the art electronic stereo equipment at half the price it sells for in the local stores. Assuming that Michael could not otherwise afford such equipment, and that he is aware that the goods have been stolen from a large international electronic manufacturer, how acceptable do you think it is for Michael to buy such equipment? (Circle a number)

Tony is celebrating his 50th birthday by inviting to dinner all of his friends and relatives. He has been approached by black market dealers and offered large quantities of (illegally) poached crayfish at about 50% of their retail value. Considering Tony could not otherwise afford crayfish for everyone, how acceptable do you think it is for Tony to buy such goods? (Circle a number)

Figure 2.1: Scenarios presented in the questionnaire.
2.2 Results

Descriptive statistics were calculated on ratings of acceptability of each scenario presented in the questionnaire. The average rating for each scenario showed that only scenarios depicting the need as "survival" reached a rating of between "reasonably acceptable" and "completely acceptable". All other scenarios received an average higher rating indicating that participation is viewed as non-acceptable (Presented in Figure 2.2).

![Figure 2.2: Average rating of acceptability by all participants for each individual scenario (refer to the Questionnaire section for a description of each need and victim group within each scenario). Note: Higher ratings indicate less acceptability.](image)
2.2.1 Analysis of variance

A 2 (gender of participant) X 2 (gender of agent) X 3 (need/wants of agent) X 3 (victim) ANOVA with repeated measures on the last two factors was performed. The effect of participant gender was non-significant, $F(1, 71) = 1.83, p = .18$.

The effect of the gender of the agent was found to be statistically significant, $F(1, 71) = 4.22, p = .04$. Overall, when the agent was a male ($M = 5.55, SD = 0.20$) participation was rated as less acceptable than if the agent was a female ($M = 4.94, SD = 0.22$).

Statistically significant main effects of the "need" conditions $F(2, 142) = 113, p = 0.01$ and the "victim" conditions $F(2, 142) = 19.34, p = .01$ were found. As shown in Table 2.1 a post-hoc analysis (Tukey Honestly Significance Test) indicated that when the victim was an organization ($M = 4.9, SD = 0.16$), society ($M = 5.26, SD = 0.16$) or an individual ($M = 5.56, SD = 0.16$) the acceptability of purchasing from a black market were all significantly different from each other. Post hoc Tukey HSD test also revealed that "survival" ($M = 3.9, SD = 0.18$) was significantly different from the other needs of "to save money" ($M = 5.97, SD = 0.17$) and "could not otherwise afford" ($M = 5.85, SD = 0.17$), although these last two did not differ from one another (Shown in Table 2.2).

No significant interaction effect was found between need and victim, $F(4, 284) = 1.86, p = .11$ (See Figure 2.3).
Figure 2.3: The effect of need and victim on the ratings of acceptability of participation in a black market.

Table 2.1: Tukey HSD test exploring for differences between the “victim” conditions.

<table>
<thead>
<tr>
<th>Victim</th>
<th>Society</th>
<th>Organization</th>
<th>Individual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Society</td>
<td>.006*</td>
<td>.005*</td>
<td></td>
</tr>
<tr>
<td>Organization</td>
<td>.000*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Individual</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes: * denotes significance
Table 2.2: Tukey HSD test exploring for differences between the “need” condition.

<table>
<thead>
<tr>
<th>Need</th>
<th>Survival</th>
<th>Save money</th>
<th>Luxury</th>
</tr>
</thead>
<tbody>
<tr>
<td>Survival</td>
<td>.000022*</td>
<td>.000022*</td>
<td></td>
</tr>
<tr>
<td>Save money</td>
<td>.745165</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Luxury</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes: * denotes significance

However, an interaction was found between the effects of the gender of the agent and the gender of the participant, $F(1, 71) = 4.35, p = .041$. A Tukey HSD test showed that significant differences appeared only between the ratings of female participants depending if the agent depicted in the scenario was a female or a male (means and $SD$ provided in Figure 2.4). Results indicate that female participants viewed transactions where the consumer was portrayed as a male as particularly unacceptable.

No other significant interactions were found. Lastly, the overall interaction effect was non-significant, $F(4, 284) = .09, p = .98$. 

35
2.2.2 Correlations

Correlations were calculated between the ratings of acceptability for each participant averaged over the nine scenarios and the demographic variables. As shown in Table 2.3, a significant positive correlation was found between participant age and the average rating of unacceptability of all scenarios \( r = .24, p < .05 \). Results indicate that older participants rated black markets as less acceptable. No further statistically significant correlations were observed between demographic variables and these average acceptability values. When an ANOVA was performed no significant differences were found between students and non students and their average rated degree of acceptability towards black markets \( F(1, 73) = .27, p = .61 \).
Table 2.3: Correlation matrix between ratings of acceptability and demographic variables. Marked correlations (*) are significant at \( p < .05 \).

<table>
<thead>
<tr>
<th>Variable</th>
<th>Average acceptability of all scenarios</th>
<th>M/F scenario</th>
<th>Age</th>
<th>Gender</th>
<th>Occupation</th>
<th>Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average acceptability of all scenarios</td>
<td>1.00</td>
<td>-.23</td>
<td>.24*</td>
<td>-.18</td>
<td>-.04</td>
<td>.23</td>
</tr>
<tr>
<td>M/F scenario</td>
<td>1.00</td>
<td>.05</td>
<td>-.12</td>
<td></td>
<td>-.01</td>
<td>.13</td>
</tr>
<tr>
<td>Age</td>
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<td>.31*</td>
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<td>Gender</td>
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<td></td>
<td></td>
<td></td>
<td>-.04</td>
<td>-.24*</td>
</tr>
<tr>
<td>Occupation</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.10</td>
</tr>
<tr>
<td>Income</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.00</td>
</tr>
</tbody>
</table>

2.3 Summary

The results revealed several statistically significant factors contributed to a person’s reported perception of acceptability of black markets. Participants viewed black markets that victimise individuals as the least acceptable, followed by those victimising society and finally those against organizations. Another factor that appears to be involved in determining a person’s perception of acceptability of black markets is whether the need/want moving them to participate is related to survival. Also females rated purchasing from a black market as more acceptable when the agent was also a female. No such difference was found amongst male participants. Lastly, a correlation was found between age and the acceptability of purchasing from a black market where acceptability decreased as age increased.
CHAPTER THREE

STUDY 2: EXPLORING THE EFFECTS OF VICTIM IDENTITY, PRICE AND PARTICIPANT GENDER ON WILLINGNESS TO BUY GOODS IN A BLACK MARKET.

3.1 Introduction

Study 1 revealed relationships between the ratings of the acceptability of black markets with the nature of the victim and the agent’s motive to participate. The present study continued the investigation into black markets by finding the “price” of the black market. The study also revisits the effect of the nature of the victim, explores the effect of a good’s value, and again investigates the effect of participant gender on willingness to buy from a black market. Participants were presented a series of scenarios and given the choice to purchase a good from the black market or from legal origins. The dependent variable was the price at which the participant was willing to buy from the black market. The influence of demographic variables such as age, occupation, and income were also analysed.

The major difference between Study 1 and Study 2 is that while the first asked participants about their perception of acceptability of a given black market, the latter aimed to do this indirectly. I constructed an experimental task that would find the price at which the participant would switch to the black market. I postulated that the less acceptable participation was, the less the participant would be willing to pay for a black market good. I utilized an adaptive threshold finding method to locate the value for each scenario at which the participant would agree to participate in the black
market. It is also important to note that while Study 1 asked participants to rate the behavior of others, Study 2 looks directly at the behavior (although hypothetical) of the participant.

3.2 Method

3.2.1 Design

The study utilised a 2 (participant gender) X 3 (victim) X 3 (value of good) factorial design with repeated measures on the last two factors.

3.2.2 Participants

A total of 65 participants took part in the study. However, participants who omitted responses or did not follow instructions were later excluded. Also, participants who were willing to participate in a black market when no incentives were presented were also excluded. Such data is suspicious as one can think of no plausible reason for which one would take the risk of buying a good illegally when it is available at the same price legally. Overall the responses of 53 participants were utilised. Of these the age ranged between 18 and 57 years, with a mean of 25.45 and a $SD$ of 10.45.

Because in Study 1 no significant differences were found between students and non-students, all participants in Study 2 were recruited at the local university campus. They were directly approached outside the University of Canterbury’s central library and rewarded for their participation with two $1 dollar lottery tickets each. The study took approximately seven minutes to complete.
3.2.3 Procedure

The Study had two sections. Section one was run on a portable computer, and section two was completed on paper.

Section one:

Section one was run with a program written on a Turbo Pascal compiler (Borland, 1987). The program presented the participant a hypothetical scenario that had two purchasing options. One option presented the opportunity to buy a good from the black market whereas the other offered the same good via legal channels. Participants were required to select which option they would pursue to purchase the good. Each item was presented in conjunction with its price and its legal and illegal origin (view Figure 3.1 for screen-shots and Table 3.1 for details).

The initial price of the good that was offered to participants was the same in the black market and the legal options. Participants were asked to choose between purchasing from the black-market or a legal alternative. If the participant chose the “legal means”, the value of the good in the black market option was lowered by 50%. This reduction was repeated until and if the participant chose to purchase from the black market. If this occurred, the new value of the black market good was determined by the function: \( \textit{(current black market price + previous black market price)} / 2 \). If the participant chose the legal option when this new price was presented, the next new black market option was once again calculated by the function \( \textit{(previous black market price + new black market price)} / 2 \). If the legal choice was made again then the function \( \textit{(last black market price accepted + new black market price)} / 2 \) was used. For each good the participant made eight responses. By the eighth response an estimate of
the cut off value at which the participant would opt for the illegal channel had been obtained.

Figure 3.1: Screenshots of Section One of the experimental procedure.

After the eighth response, participants were presented with the next scenario which offered a different good to purchase. This cycle was repeated nine times, each time with a different good. Each good was drawn from the three different “victim” groups
and from one of the three groups of legal good prices. The victim groups were an individual, society, an organization, and the price groups were the expensive ($1000), the average ($500) and the cheap ($50) range. In total, three goods were presented for each price range and each victim group, adding up to a total of nine combinations. The list of goods, their victim and their value is presented in Table 3.1. The order of presentation of the goods was randomised using a Latin square design.

**Table 3.1: Illegal goods with corresponding victims presented in Study 2. The value of their legal counterparts are also presented.**

<table>
<thead>
<tr>
<th>Product offered</th>
<th>Victim</th>
<th>Legal Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stolen Personal Computer</td>
<td>Individual</td>
<td>$1,000</td>
</tr>
<tr>
<td>Furniture made from illegally harvested Kauri</td>
<td>Society</td>
<td>$1,000</td>
</tr>
<tr>
<td>Counterfeit clothing</td>
<td>Organization</td>
<td>$1,000</td>
</tr>
<tr>
<td>Stolen TV</td>
<td>Individual</td>
<td>$500</td>
</tr>
<tr>
<td>Punga Tree</td>
<td>Society</td>
<td>$500</td>
</tr>
<tr>
<td>Counterfeit Watch</td>
<td>Organization</td>
<td>$500</td>
</tr>
<tr>
<td>Stolen DVD</td>
<td>Individual</td>
<td>$50</td>
</tr>
<tr>
<td>Illegally harvested Greenstone</td>
<td>Society</td>
<td>$50</td>
</tr>
<tr>
<td>Pirated DVD</td>
<td>Organization</td>
<td>$50</td>
</tr>
</tbody>
</table>

**Section 2**

In Section 2 participants were asked to provide demographic information on paper. They were asked to fill out their age, gender, occupation, income and highest educational achievement.
3.3 Results

Responses were converted into percentages of their original values to obtain a standardized unit of measurement. Overall, only three participants (all females) refused to buy at any point from the black market. All other participants as the price decreased and, for at least one good, opted for the black market channel. An additional analysis of refusals is offered below.

3.3.1 Analysis of Variance

A 2 (gender of participant) x 3 (victim) x 3 (value of good) ANOVA with repeated measures on the last two factors was performed. Again participants plainly discriminated amongst the three “victim” conditions, $F(2,102) = 21.70, p = .001$ (refer to Figure 3.2). A post-hoc Tuckey HSD test revealed that significant differences existed when the victim was presented as either an organisation, society or an individual (presented in Table 3.2).

However, the repeated measures analysis of variance showed that no significant differences were present between the three conditions of the “good’s value”, $F(2, 102) = 1.34, p = .26 \text{ ns}$ (refer to Figure 3.3). It is however interesting to note that for all of the three conditions the mean value at which participants opted to buy from the black market was between 34% and 37% of the legal channels price, indicating that this could well be a broad constant for all of the price ranges. Of course, although the percentage is similar for all three groups of differently valued goods, the monetary saving for each group of items is different and for items of higher value a larger degree of monetary saving is necessary to warrant participation.
A comparison between male and female participants, shows significant differences in preference between these two groups $F(1,51) = 6.29, p < .01$. Females ($M = 27.58, SD = 4.79$) needed a greater discount in price than males ($M = 44.43, SD = 4.7$) to choose the black market option (refer to Figure 3.4).

Figure 3.2: Effect of victim on percentage of legal price paid if buying from the black market.
Figure 3.3: Effect of a good’s value on percentage of legal price that would be paid if buying from the black market.

Table 3.2: Tukey HSD test exploring for differences between the “Victim” conditions.

<table>
<thead>
<tr>
<th>Victim</th>
<th>Individual</th>
<th>Organization</th>
<th>Society</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual</td>
<td>.000104*</td>
<td>.048201*</td>
<td></td>
</tr>
<tr>
<td>Organization</td>
<td></td>
<td></td>
<td>.000338*</td>
</tr>
<tr>
<td>Society</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: * denotes significance

There were no significant interactions between the value of the good and gender $F(2, 102) = .019, p = .98$ ns, between the origins of the good and gender $F(2, 102) = 1.2, p$
= .28 ns, nor between the value of the good and its origins $F(4, 204) = 1.60, p = .17$ ns. Finally, there was no significant interaction between the gender of the participant, the victim and the value of the good $F(4, 204) = .13, p = .97$ ns.

3.3.2 Correlations

A negative correlation ($r = -.35, p < .05$) was found between age and the price individuals were willing to pay for a black market good. As age increased participants were not willing to purchase from the black market unless a greater price discount was offered. No other significant correlations were found with any demographic variables.

3.3.3 Additional Analysis of Complete Refusals to Participate

An exploratory analysis revealed an interesting pattern amongst responses indicating complete refusal to purchase individual goods. After conducting an Analysis of Variance (with the same parameters as the above analysis) on this set of data we observed a pattern similar to the one observed for the main analysis (Refer to Table 3.3 for the data).

The number of participants that completely refused to purchase at least one item from the black market varied significantly depending on the victim resulting from the procurement of the good $F(2, 102) = 40.46, p = .001$ (Refer to Table 3.3).

Also, the number of participants refusing to participate was significantly different depending on the value of the good $F(2, 102) = 8.12, p = .001$ (Refer to Table 3.3).
Furthermore, a significant interaction effect was found between the value and the origins of the good $F(4, 204) = 3.61, p = .001$. Such interaction indicates that depending on the victim (individual, society or organisation) resulting from the procurement of the good, the effect of the good’s value on refusals vary (Refer to Table 3.3).

**Table 3.3: Number of complete refusals to participate in a black market transaction depending on the legal value of the good and on the victim resulting from the transaction (out of 53 participants).**

<table>
<thead>
<tr>
<th>Value</th>
<th>Individual</th>
<th>Society</th>
<th>Organisation</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>$1,000</td>
<td>30</td>
<td>22</td>
<td>9</td>
<td>61</td>
</tr>
<tr>
<td>$500</td>
<td>20</td>
<td>15</td>
<td>5</td>
<td>40</td>
</tr>
<tr>
<td>$50</td>
<td>14</td>
<td>13</td>
<td>5</td>
<td>32</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>64</strong></td>
<td><strong>50</strong></td>
<td><strong>19</strong></td>
<td></td>
</tr>
</tbody>
</table>

**3.4 Summary**

Several statistically significant findings emerged from the data. When placed in the position of being able to purchase black-market goods from different sources, participants varied in the price they were willing to pay. As in Study 1, participants paid more to purchase from black markets that victimised organizations, followed by those that targeted society and lastly those against individuals. The hypothesis that highly valued goods would require greater incentive for purchase was not supported when the dependent variable was measured as the ratio of the black market price over
its legal counterpart. Nonetheless, when an additional analysis examining complete refusal to participate was performed, significant differences appeared. As in Study 1, age was found to negatively correlate with the price participants were willing to pay for a black market good. Finally, females paid a lower price in for black market goods compared to males.
CHAPTER FOUR


4.1 Introduction

Studies 1 and 2 showed that participants were less likely to partake in a black market if the victim was a person rather than an organization. Study 3 aimed to further test variables determining the acceptability of buying from a black market, as well as to test if it is possible to modify a person's willingness to participate in such black market through education. Study 3 supplies participants with information about the harmful effect of black markets on individuals or organizations and tests whether this reduces people's willingness to buy black market goods.

The present study measured the percentage of savings needed to warrant participation in a black market over three experimental conditions. In the first condition, participants read an information sheet that outlined the losses organizations suffered because of the stolen and counterfeited goods offered on the black market. In the second condition, a different group of participants read an information sheet that outlined how individuals were harmed by black markets. In the third, control condition, participants did not read anything. All groups then completed a questionnaire that was similar to that used in Study 2.

A possible limitation of Study 2 concerned the potential of confounding the victim variable with the nature of the crime (poaching, stealing or counterfeiting). Recent campaigns by DVD manufacturers aimed at reducing piracy have emphasized that
pirating such products is equivalent to stealing them, and currently, all rental DVDs released since 2005 include this advertisement message in their opening. Study 3 therefore included the origin of the good (stolen or counterfeit) as a manipulated variable.

4.2 Method

4.2.1 Design

The study utilised a 2 (gender of participant) x 3 (experimental group) x 4 (value of goods) x 2 (origins of goods) design with repeated measures on the last two factors.

4.2.2 Participants

A total of 64 participants, 33 males ($M_{age} = 24.5$, $SD = 7.3$) and 31 females ($M_{age} = 25$, $SD = 11.78$) were recruited for this study. The overall age of the participants ranged between 18 and 73 years ($M_{age} = 24.7$, $SD = 9.73$). Data from four participants was excluded from the data analysis because they did not respond according to instructions.

All participants were recruited at the University of Canterbury, New Zealand. They were approached outside the central library and given information about the purpose of the study. Once recruited, they were each offered one dollar instant scratch-and-win lottery tickets that presented chances to win up to $10,000. The time required to complete the study did not exceed 20 minutes.
4.2.3 Procedure

Participants were randomly allocated to one of three conditions: the "Control" condition, the "Organization = Victim" condition and the "Individual = Victim" condition. Participants who were assigned to the Organization = Victim condition read information that informed them about the losses organizations suffer due to their products being stolen or counterfeited. In the Individual = Victim condition, participants read an information sheet that presented the true victims of the crime committed against organizations as individuals (see Figure 4.1 and Figure 4.2 for a copy of each of the information sheets). Participants assigned to the control group moved directly to the next stage of the study.

The next stage of the experiment was conducted on a lap-top and followed the same procedure as outlined in Study 2. The program was slightly modified to suit the new experimental design (Refer to Figure 4.3 for screenshots). A cut-off price was found that indicated when the participant opted for the black-market and age and gender of participants were recorded.
Buy a product that is copied or stolen from an organization and you are far from committing a victimless crime. Scratch the surface and you'll discover how such crime affects a wide range of people.

It affects, firstly, everyone whose livelihood relies on the sale of the legitimate product, from film technicians to retail staff, script writers to independent shop keepers. It hurts every one at the level that unpaid taxes on such products could have gone into the health and the education system. So criminals are pocketing your cash, providing a lower grade product, paying no taxes and often claiming benefits while taking business away from other people who are trying to earn an honest living.

A University of Otago Marketing Department study has found that retail crime costs New Zealand about $580 million annually - $1.59 million a day. This costs each kiwi household more than $400 per year in higher prices, as retailers pass on their losses to the consumer.

When someone believes that his crime is limited to an impersonal organization he doesn't realise that in European countries alone, 100,000 jobs have been lost due to the manufacture, distribution and sale of counterfeit goods.

The costs to countries whose products are pirated and counterfeited include:

- Loss of potential exports and loss of potential employment.
- Discouragement of research and development.
- Loss of taxation and excise revenue.
- Enforcement costs falling on the community.

The costs to those countries in which piracy and counterfeiting occur include:

- Loss of opportunity for foreign investment because of a suspicion that the investment will be damaged by counterfeit activity.
- Loss of foreign exchange and employment.
- Discouragement of intentiveness.
- Loss of taxation and excise revenue.

In addition there are also costs in human terms:

- Consumers pay too much for product believing it to be genuine when in fact it is counterfeit.
- Consumers are duped into purchasing inferior product, which may not be as durable, may not work properly or may even be a danger to life.
- Because counterfeiting activity is clandestine, the proprietors of businesses involved are more likely to exploit their employees.

Examples of the potential for human suffering include:

- In 1999, 109 children died after taking a fake branded pharmaceutical product which contained paracetamol and an industrial solvent.

Figure 4.1: Information sheet provided to participants of the experimental condition Victim = Individual.
• In 1995, 45000 lbs of counterfeit baby formula were seized by the F.D.A. in California, which could have led to allergic reactions or malnourishment.
• The reported discovery of counterfeit metallic fasteners in the United States space shuttle.

Furthermore, it is believed internationally that counterfeiting is used as a source of funds by the underworld. Police intelligence has found evidence of this even in NZ, where film and video counterfeiting amongst Asian criminal groups is becoming more prevalent.
Examples of underworld involvement internationally include:
• Islamic Extremists raised cash for the bombing of the World Trade Centre in New York, by selling counterfeit t-shirts.
• A convicted gang leader of the violent Vietnamese gang "Born to Kill" (BTK) admitted to earning over $13 million from his counterfeit watch enterprise. He is now serving three consecutive life sentences for murder. BTK was allegedly also involved in importing illegal immigrants and soliciting prostitution.
• It is estimated that, within the UK, criminals earn 600 million pounds from the trade of pirated DVDs. Such goods provide an easy illicit income for illegal immigrants. Behind these are gangs who operate activities such as people trafficking, drug smuggling, pornography, illegal gambling and racketeering.

Must it be further stressed that the true victims of black market counterfeit and stolen goods are in the end the individual? There is a price to pay for stolen or pirated goods and it is much higher than people think.

Figure 4.1 cont.: Information sheet provided to participants of the experimental condition Victim = Individual.

Black markets mostly victimise organizations by either infringing copyright laws and producing counterfeit products or by selling products that have been obtained by means of theft, burglary or deceit.
Because of the clandestine and mobile nature of black markets, it is difficult to obtain reliable statistics as to the extent of such markets in NZ and overseas.

Overall, the costs to businesses whose products are pirated, counterfeited or stolen include:
• Loss of sales.
• A consequence of loss of sales is a barrier to entry in some markets.
• Possibility of product liability, at least until the manufacturer is able to prove that the defective product is not its responsibility because it is counterfeit.
• Loss of goodwill to a brand if it becomes known that there is a risk of

Figure 4.2: Information sheet provided to participants of the experimental condition Victim = Organization.
purchasing counterfeit product.
- Discouragement of intentiveness because of competing counterfeit activity.
- The expenses of protecting product against piracy and counterfeiting, of investigating and seeing out potential counterfeit activity, of litigation and other legal enforcement.
- Discouragement of research and development.

It is estimated that the worldwide trade in counterfeit products adds up to 5-10% of total worldwide trade, valued between $300-$600 billions. Broken down, counterfeit music sales are worth $4 million, being 5% of total sales of music and 21% of the total number of units of all recorded music sold (e.g. cassette and CDs). In the field of software, losses due to piracy are estimated at $23 billions, with about 40% of all new business software applications installed globally being pirated. The larger mass of counterfeit goods would, however, appear to be branded goods, comprising a total value of about $200 billions. For example, a recent study showed that 22% of all sales worldwide of apparel and footwear of a number of American corporations were lost to counterfeiting. It is therefore clear that pirate and counterfeit goods are a major part of international trade and consequently a great loss to organizations.

Such trade pattern is also appearing in NZ. Preliminary figures for NZ, obtained from the NZ Custom Service, show that 15,000 items of counterfeit goods were forfeited to the Crown over three years, but these were only in respect to trade marks of only 13 different proprietors who had filed notices of their clothing trade marks registrations with Customs. In addition, NZ Customs have identified other goods that they are unable to detain due to the trademark not being registered. Real figures of copyright infringement are therefore probably much higher.

The Film and Video industry, believes that estimated losses due to piracy in NZ are worth $16 million, some 4% of all motion pictures sold. In the field of software, piracy rates are estimated much higher at 34% and piracy losses here amount to $40 million.

It is common grounds amongst all concerned that inadequate resources available to customs and police, the cost of enforcement, and the low number of convictions contribute for the very low number of prosecutions in NZ and consequently to the limited statistical data available on the matter.

Products on sale on the black market, obtained by theft or burglary also pose a great cost to these organizations. A University of Otago Marketing Department study has found that retail crime costs New Zealand retailers about $580 million annually - $1.59 million a day. This does not include costs towards upgrading the security of the organization’s premises, which would include alarms, alarm monitoring, security personnel etc. When adding these to the total, the true value of such a cost appears obvious. Black Markets that victimise organizations impose colossal losses on them.

Figure 4.2 cont.: Information sheet provided to participants of the experimental condition Victim = Organization.
You have been shopping around for a new TV.
Black market dealers approach you and offer you
an LCD TV which is however counterfeit in nature.
You must now choose one out of these two options:

You can purchase it
from the black market
for $1000

or

You can purchase
the original product,
legally, from a shop
for $1000

You have been shopping around for a new TV.
Black market dealers approach you and offer you
an LCD TV obtained from the burglary of a large organization.
You must now choose one out of these two options:

You can purchase it
from the black market
for $219

or

You can purchase
the original product,
legally, from a shop
for $1000

Figure 4.3: Screenshots of the experimental procedure.
4.3 Results

Responses were converted into percentages of their original values to obtain a
standardized unit of measurement. Overall only two participants refused to purchase
in all instances. As in Study 2, an additional analysis of the refusals is later presented.

The mean percentage at which participants were willing to purchase is presented in
Table 4.1. Overall, participants paid less for goods purchased from the black market
when the good was stolen rather than pirated. It also appears that the cheaper the good
the less of an incentive is needed to warrant participation.

Table 4.1: Mean percentage (and standard deviations) for all experimental
conditions of legal values at which participants were willing to buy from the
black market.

<table>
<thead>
<tr>
<th>Legal value of good</th>
<th>$1000</th>
<th>$500</th>
<th>$200</th>
<th>$50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Origin</td>
<td>Stolen</td>
<td>Counterfeit</td>
<td>Stolen</td>
<td>Counterfeit</td>
</tr>
<tr>
<td>Mean</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>Mean</td>
<td>18.03</td>
<td>24.91</td>
<td>20.48</td>
<td>32.99</td>
</tr>
</tbody>
</table>

No significant correlation was found ($r = .07, p < .05$) after conducting a correlation
matrix between the age of the participants and the overall average of their responses.

A 2 (gender of participant) x 3 (experimental group) x 4 (value of good) x 2 (origin of
the good) ANOVA with repeated measures on the last two factors was performed.
The Analysis of Variance revealed statistically significant differences between the three experimental conditions tested, $F(2, 54) = 4.82, p < .01$ (refer to Figure 4.4). Post hoc analysis (Tukey Honestly Significant Difference Test) revealed that a significant difference ($p < .01$) existed between the control condition and the individual=victim condition. No significant differences were found between the control or individual condition and the organization condition. Participants were significantly less willing to buy from a black market when they had been given information identifying the true victims of black markets as individuals rather than organizations.

![Graph showing experimental group results](image)

**Figure 4.4:** Results for the three conditions (ie: the control group & two experimental groups).
Overall, there was a significant difference between the two categories of origin of the product (stolen & counterfeit), where individuals required a higher percentage of savings to warrant a black market purchase if a good was stolen ($M = 20.9\%$ and $SD = 2.83$) compared to when the good was counterfeit ($M = 29.59\%$ and $SD = 2.75$), $F(1, 54) = 9.74$, $p = .003$ (Refer to Table 4.1).

There was also a statistically significant main effect between the ratings of females ($M = 20.37\%$ and $SD = 3.42$) and males ($M = 30.12\%$ and $SD = 3.42$), $F(1, 54) = 4.05$, $p = .049$. Overall, men needed less of an incentive to purchase from the black market than females.

A significant effect was also found for the value of product on offer $F(3, 162) = 4.38$, $p < 0.005$. As presented in Figure 4.5 and confirmed by a Post hoc analysis (Tukey Honestly Significant Difference Test), statistically significant differences were present between the TV ($M = 21.56\%, SD = 2.80$) and the DVD ($M = 29.44\%, SD = 3.28$) and between the watch ($M = 23.26\%, SD = 2.37$) and the DVD. Such results show that the legal value or the type of good does make a difference, although not a large one.
Figure 4.5: Effect of good's value on willingness to purchase black market goods.

There was a significant interaction effect between the value of the good and its origin, $F(3, 162) = 3.11, p = .02$. The value of the good has a more direct effect when the good on offer is stolen rather than counterfeit (Refer to Figure 4.6).

Figure 4.6: Interaction effect between the original value of the good and its origins.
There were no significant interactions between the value of the good and the experimental condition $F(6, 162) = 1.01, p = .41$ nor between the value of the good and the gender of the participant $F(3, 162) = 1.03, p = .37$.

Furthermore, no interaction effects were found between the origins of the good and the experimental condition $F(2, 54) = 2.10, p = .13$ ns, nor between the origins of the good and gender $F(1, 54) = 1.25, p = .26$ ns,

A three-way interaction was found between the value of the good, its origins and the gender of the participant $F(3, 162) = 4.86, p = .001$ (Refer to Figure 4.7). The results indicate that when a good is stolen the value of the good more directly affects participation and that females need more of an incentive to participate than males.

![Figure 4.7: Interaction effect of the value of good, the origins of the good and the gender of the participant.](image-url)
No significant interaction effect was found between the value of the good, the origins of the good and the experimental condition $F(6, 162) = 1.82, p = .09$. A non significant four way interaction effect was found between the gender of the participant, the experimental group, the value of the good and the origins of the good $F(6, 162) = .768, p = .59$.

4.3.1 Additional analysis of refusals to participate

A further Analysis of variance, with the same parameters as the above analysis, was conducted on the data. However, in this additional analysis I looked at each individual scenario for differences in the number of individuals who eventually participated compared to those who did not (Refer to Table 4.2 for the data). Once again a significant difference was found between the three experimental conditions set $F(2, 54) = 3.63, p = .03$. A Tuckey HSD post hoc analysis revealed that only participants in the “individual=victim” condition were significantly less likely to participate at all in a black market purchase compared to the “control” condition (Refer to Table 4.2).

A significant difference was also found depending on the value of the good ($F(3, 162) = 3.09, p = .02$) showing that participants were less likely to partake in black markets dealing in more valuable items.

A significant difference was also found depending on the origins of the good $F(1, 54) = 29.40, p = .001$, indicating once more that participation in a black market transactions was less likely if the good was stolen rather than counterfeit.

No other significant main or interaction effects were found for any other factor.
Table 4.2: Number of complete refusals to participate in a black market transaction depending on the legal value of the good, on the victim resulting from the transaction and on the origins of the good (out of 53 participants).

<table>
<thead>
<tr>
<th>Experimental group</th>
<th>Value $1,000</th>
<th>Value $500</th>
<th>Value $200</th>
<th>Value $50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stolen</td>
<td>Counterfeit</td>
<td>Stolen</td>
<td>Counterfeit</td>
<td>Stolen</td>
</tr>
<tr>
<td>Organisation</td>
<td>11</td>
<td>5</td>
<td>9</td>
<td>2</td>
</tr>
<tr>
<td>Individual</td>
<td>13</td>
<td>9</td>
<td>11</td>
<td>6</td>
</tr>
<tr>
<td>Control</td>
<td>5</td>
<td>3</td>
<td>6</td>
<td>1</td>
</tr>
</tbody>
</table>

4.4 Summary
The significant differences reported between the control condition and the “individual = victim” condition indicate that by informing a person about the repercussions of black markets on individuals, it is possible to change their willingness to buy from a black market. Such differences were not found for the group given information on how black markets harm organisations. Willingness to purchase a good in relation to price also varied depending on whether it was stolen or pirated; participants paid more for pirated goods rather than stolen ones. Gender of the participant also had an effect with males willing to pay more for a black market good. The value of the good also had a minor effect. A trend appears showing that unless a greater discount on price was provided, participants were less willing to purchase a good of larger monetary value.
CHAPTER FIVE

DISCUSSION

The findings from the three studies showed that overall the acceptability of black markets and the willingness to purchase from such markets were influenced by the gender of the consumer, the age of the consumer, the need or want motivating the consumer to purchase, the victim resulting from obtaining the product for sale and the type of crime committed to obtain the product for sale.

5.1 Need

Study one supported the prediction that individuals would be more acceptant of black markets when participation was driven by need rather than by want. Participants rated the acceptability of buying from a black market to save money or because he or she could otherwise not afford a non essential item as less acceptable than when an individual was buying to survive. However, there were no significant differences between the need to save money and when the purchase was of an otherwise unaffordable non-essential item. Furthermore, only when the need was identified as survival did participants rate buying from a black market as acceptable or somewhat acceptable (Refer to Figure 2.1 in Chapter 2).

Such findings of the importance of needs are consistent with Olander & Thorgesen’s (1995) theory of sustainability. In essence, this theory argues that consumer needs determine a consumptive act. According to this theory, consumers’ behaviours can be best predicted by environment and circumstances rather than personal characteristics. Furthermore, the findings are consistent with and explain historical reports of extreme
situations (e.g.: wars and natural disasters). In such cases, individuals are drawn into participating in black markets, but cease participation as soon as the circumstances ameliorate. Therefore, it is more likely that a person will be willing to buy an essential item from the black market when in life threatening circumstances, as seen in Study 1.

The results are also congruent with Maslow's (1943) hierarchy of needs, as they indicate that basic survival needs are more important than morality. The results support the idea that only once we have satisfied our most basic needs, such as the physiological need for food, can we then move to satisfy higher needs such as the pursuit of morality, which would make us less accepting of black markets. This explains why in the scenarios depicting survival, participation was rated as acceptable, while all others were deemed unacceptable.

5.2 Victim

All three studies support the second hypothesis that people will be more accepting and willing to participate in black markets when they perceive the victim as an organization, followed by society and finally individuals. Study 1 showed that the nature of the victim of black market activity affected participants' ratings of the acceptability of black market participation. Black market goods were described as either stolen from an individual; an organization; from poaching or from government stocks that were destined to be distributed amongst the population. The victims were respectively categorised as an individual, an organization and society. Participants rated black markets that victimise individuals as significantly less acceptable than those that victimise society, which in turn were significantly less acceptable than those victimising organizations.
Building on Study 1, Study 2 showed how the victim of a black market affects how much money people were willing to pay for a good. From greatest to least, the amount of money participants were willing to pay for the same goods as from the legitimate source was higher when the victim was described as an organization, compared to when the victim was described as society and then again as an individual. It is however important to notice that, within the design of Study 2, each victim was also categorized by a different crime, these being counterfeiting (victim = organization), poaching (victim = society) and theft (victim = individual). The results might therefore reflect the seriousness of the crime as well as the perceived victim.

Study 3 confirmed the differences found in Study 1. Results showed that, when given information about how black markets have a negative impact on individuals, participants paid less money for goods than those who had not been given any information or information detailing the damage organizations suffered as a consequence of black markets. Our results are similar to those of Smigel (1956) who investigated people's attitudes towards stealing money. When participants were asked to rate their degree of approval for stealing, greater disapproval was found for stealing from small businesses, followed by government and large businesses. When participants were forced to choose “which they would prefer to steal from if forced by necessity” (Smigel, 1956, p. 321) most respondents preferred to steal from large businesses, next from the government and lastly from small businesses. Participants justified their choice of targets in that they considered some stealing was a lesser evil (eg when stealing from the government), or there was less probability of being caught (eg stealing from a small business). The identified victim of a crime therefore appears
to affect people’s willingness to commit crime. Perhaps the differences found between
the victims in our study could be the result of greater empathy placed on victims
portrayed as actual people rather than “faceless” groups.

5.3 Type of Crime

The type of crime used to procure black market goods was isolated and its role
analysed in Study 3. The origin of a good (stolen or counterfeit) affected how much
participants were willing to pay for a good. When a good was stolen, participants paid
less for the good compared to when the good was counterfeit. Stealing was probably
perceived as a more serious crime than counterfeiting, and participants were less
willing to participate. The finding that type of crime may affect willingness to
participate is consistent with the research of Clements et al. (2006) who reported that
concern for victims of violent crime is higher than for other crimes. This finding
offers some justification for the advertisement campaigns by New Zealand DVD
manufacturers who have tried to equate copying a movie with stealing one. In light of
my results, such a campaign could well be an effective strategy for curbing black
markets involving DVDs.

On the other hand, it is also possible that these differences are a consequence of
statutory penalties associated with the different crimes. In New Zealand the legal
consequences for receiving stolen goods are more severe than those for breaking
copyright laws. A person who buys a product that infringes on copyright may not be
pursued criminally but only civilly; however a person who purchases a stolen product
may face a similar punishment to the seller and the person who originally stole the
good (Prof. J.Finn, personal communication, February 19, 2007). Thus, legal consequences may be acting as an effective deterrent to black market participation. Of course, the legal consequences themselves are in part a reflection of society’s values. The finding is also consistent with Davis and Kemp’s (1994) findings. This study asked participants to rate how serious they perceived a number of crimes depicted in vignettes. Their findings showed a positive correlation between the perceived seriousness of the crime with the average custodial sentence handed down by the courts.

5.4 Value of the Good

Study 2 did not find any differences in willingness to purchase related to the value of the good. However, results indicated that the price for participation was a relatively constant proportion (~ 35%) of the original value of the good. It does not appear that such price varies in relation to the original value of the good. However, an additional analysis of complete refusals to participate, showed that participants were significantly less likely to purchase a good of a larger monetary value.

Study 3 confirms this trend and shows that unless a greater discount on price was provided, participants were less willing to purchase a good of larger monetary value. An additional analysis of the complete refusals to participate also shows the number of refusals varied significantly depending on the value of the good.

This may be due to the fact that the courts impose harsher sentences for crimes involving large utilitarian gains (Prof. J. Finn, personal communication, February 19, 2007). Another possible explanation is that the nature of the good itself might have
affected the price at which participants opted for the illegal purchase. That is, independently of value, a more desirable good would have required less of a price discount to warrant participation compared to a less desirable good. Further research may address this issue by asking the same question but in regard to goods of the same nature but within different price ranges.

5.5 Age

An analysis of the demographic variables in Study 1 indicated that, as age increased, people’s ratings of black market acceptability decreased. Older participants viewed black market participation as less acceptable than their younger counterparts. Study 2 also confirmed these findings. Older participants needed a greater price discount before purchasing from the black market and therefore were less willing to participate. Study 3 on the other hand did not show any relationship between age and willingness to participate. Study 3, however, did report a smaller variation in the age of the participants, compared to Study 1 and Study 2. This may explain why age did not reach significance only in Study 3.

The result is consistent with a vast amount of scientific literature on both the topics of risk taking (McDaniel & Zuckerman, 2003; Bromiley & Curley, 1992; Palsson, 1996) and crime propensity (Hirschi & Gottfredson, 1983; Stattin & Magnusson, 1991), as well as national statistics that indicate that as individuals get older they are less likely to undertake illegal activities (Registrar General, 2006). The results are also consistent with previous research exploring the perception of the seriousness of crimes in New Zealand (Davis & Kemp, 1994) that found that older participants overall rate crime as more serious compared to their younger counterpart.
5.6 Gender

Gender is often an important variable in economic decision-making. The results of Study 1 revealed gender to be a significant factor in participants' ratings of the acceptability of participating in a black market. Results collected on both the participant's and agent's (in the scenarios) gender showed that while males gave equal ratings of acceptability to scenarios describing males and females, female participants rated it as less acceptable for males to participate than females.

Study 2 and Study 3 revealed gender as a significant factor in predicting how much money people would pay for different black market goods. Females paid less than males to buy from the black market, thus appearing to be less willing to engage in black market activities.

The results from Study 2 and Study 3 are however consistent with previous psychological literature (Blickle, 1996; Haynie & Armstrong, 1996) and statistics (Registrar-General, 2006) indicating that females are more law abiding than males. The New Zealand Official Year-Book (2006) for example reports that on the 20th of November 2003 a total of 262 women and 4833 men were in jail. The results are also explained by the related literature on risk taking (McDaniel & Zuckerman, 2003; Fagley & Miller, 1990; Heaven, 1991; Arch, 1993) showing that males are greater risk takers than females and males are more likely to participate in criminal activities.

5.7 Income

Study 1 and Study 2 tested the hypothesis that individuals with lower incomes would be more accepting and willing to buy from a black markets. This prediction was made
on the basis of Olander and Thorgson’s (1995) consumption theory predicting that a consumptive act is determined by need. However, there were no significant correlations between income and acceptability of black market participation or between income and willingness to buy. Possibly, in Study 2, need was not great enough to warrant participation because none of the scenarios depicted essential items. Furthermore, Study 1 measured how acceptable they believed it was for an agent to participate in a particular scenario. Thus, the need was a constant for all participants as it depended on the scenario rather than on the socio economic status of the participant. The results were, however, consistent with findings from Davis & Kemp (1994) and by Evans & Scott (1984) that overall the judged seriousness of crime does not vary with socio economic status.

5.8 Education

Study 1 did not support the hypothesis that individuals with lower educational achievement would be more acceptant of black markets. Once again, this prediction was made on the basis of Olander and Thorgson’s (1995) consumption theory. The role of Education was not addressed in Study 2 and Study 3 as all the participants for this study were recruited at the local university.

5.9 Modifying Individuals’ Willingness to Participate in Black Markets

The victim resulting from buying a black market good was found to affect both the perception of acceptability of black markets and the price paid to buy goods from such markets. In Study 3, an attempt was made to alter individuals’ willingness to participate in black markets by manipulating who they perceived as the victim.
Participants who read information on how black markets affect individuals were significantly less willing to participate in these markets than participants who received no information and participants who read information on how black markets affect organizations. On average, participants in the control group paid 35% of the legal value, whereas participants who read information on the negative impact of black markets on organizations paid on average 24% of the legal value. Lastly, participants who read information on the effects of black markets on individuals paid on average 17% of the legal value.

The results found in Study 3 have both practical and theoretical implications. On the practical side, the study demonstrates that it is possible to reduce people’s willingness to participate in black market activity. Such information could easily be disseminated and help in the fight against crime. This is of growing importance because black markets are increasing worldwide and are affecting national economies (Schneider and Enste, 2000).

On the theoretical side, it shows that an individual’s predisposition to participate in black markets is flexible and may vary according to situational factors as well as to the person participating. Furthermore, it shows that education is a viable option for changing a person’s predisposition to participate in a black market activity and therefore a viable tool for curbing black markets from a consumer approach.
5.10 A possible model

After conducting these three studies, I have identified a number of variables that appear to influence participation in black markets. Variables such as the gender of the consumer, the age of the consumer, the need motivating the consumer, the victim that results from the obtainment or the production of the product for sale and the type of crime committed to obtain the product for sale. Nonetheless, future research could test additional variables. These include the effect of prolonged exposure to black market, the effect of personal characteristics such as empathy, conscientiousness and attitude towards black markets, cultural or sub-cultural differences in acceptability, and the most effective media for black market awareness campaigns.

A model is presented in Figure 5.1 that may help describe how the decision process leading to a purchase from the black market may occur. The variables included in the shaded area are those that need further research.

Figure 5.1: Variables affecting the decision process to purchase goods from a black market. Variables in the shaded area are those that need further research.
5.11 Summary

If this thesis could be summarized in a few lines, it would be that willingness to participate in black markets changes from person to person and from transaction to transaction. Characteristics inherent to the consumer, to the product and to the environment surrounding the transaction determine how unacceptable it is to buy from a black market. My research identifies the consumer as a viable target in the fight against black market activities. I began this thesis by stating that black markets are ubiquitous and that until there is a demand for a product there will be a supply. We have now begun uncovering a tool to curb such a demand.
References:


Australian and New Zealand Journal of Criminology, 27, pp. 250-263.


APPENDIX A: INFORMATION SHEET FOR STUDY 1

Information Sheet

University of Canterbury

Department of Psychology

INFORMATION

You are invited to participate as a subject in the research project: Perception of acceptability of black markets.

The aim of this project is to analyze possible variables which may affect the perception of acceptability of a black market.

Your involvement in this project will entail rating on a scale from one to seven your perceived acceptability of a number of different black market scenarios. For each scenario you will be asked to rate how acceptable you believe is participating in such a transaction as a consumer.

The results of the project may be published, but you may be assured of the complete confidentiality of data gathered in this investigation: the identity of participants will not be made public. To ensure anonymity and confidentiality, your name will not appear next to your results. You may withdraw from participation at any time.

The project is being carried out as part of a M.A. research project by Luca C. Casola at Canterbury University under the supervision of Simon Kemp, who can be contacted at 03 364 2987 (Ext. 6968). They will be pleased to discuss any concerns you may have about participation in the project.
APPENDIX B: DEMOGRAPHIC SECTION OF STUDY 1

Demographics

1) Age (in years):

2) Gender: Male Female

3) Occupation: 

4) Highest educational achievement: 

5) Approximate combined family yearly income (circle one):
   Between $ 10.000 and $ 19.000   Between $ 50.000 and $ 59.999
   Between $ 20.000 and $ 29.999   Between $ 60.000 and $ 69.999
   Between $ 30.000 and $ 39.999   Between $ 70.000 and $ 79.999
   Between $ 40.000 and $ 49.999   more than $ 80.000