

# **Software Piracy and Ethical Decision Making Behavior of Chinese Consumers**

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*China has one of the highest software piracy rate in the world. It is important to understand consumers' ethical response to software piracy in the Chinese markets and design effective preventive strategies. This paper proposes a conceptual framework for an understanding of consumer ethical decision making. In the proposed framework, the transformation from legal problem recognition to ethical problem recognition is added to the traditional research framework and viewed as the first and most important step in consumer ethical decision making in regards to software piracy. The effects of two culture-related constructs—assumption of responsibility and attitude towards copyright laws on consumer ethical decision making—are examined and two propositions are made. The influence of Chinese culture and history on consumer ethical decision making is discussed. This paper contributes to our understanding of consumer ethical decision making in software piracy and provides new and constructive interpretations of the cultural influence.*

## **Introduction**

Software piracy refers to consumers' knowing involvement in illegal software usage. Software piracy may include a number of related practices such as illegal copying of programs, counterfeiting and distributing software, purchasing pirated software and renting unauthorized software. Piracy is different from counterfeit in terms of the consumer awareness of the legitimacy of a product. A counterfeit product is one which a manufacturer produces with the intention of deceiving customers by leading buyers to believe that they are purchasing the genuine article. A pirated product is one where consumers are aware that the product is pirated (McDonald & Roberts, 1994).

While software piracy is prevalent in countries of various geographic, cultural and economic natures, China is one of the countries with the most severe piracy problem. According to the International Intellectual Property Alliance (IIPA), US businesses lost an estimated US\$2.86 billion in revenues in 2003 due to copyright violations in China, with business software applications like Microsoft Office comprising 62.5% (US\$1.79 billion) and entertainment software comprising 20% (US\$568.2 million) of the total losses (IIPA, 2004). The remaining losses come from copyright piracy in records and music (US\$286 million), motion pictures (US\$178 million), and books (US\$40 million) (IIPA, 2004). The large losses from software piracy in the Chinese markets (82.5% of total piracy losses) indicate that addressing software piracy is a priority in the Chinese markets. The software piracy rate in China is estimated in a range of 92% (business software applications) (IIPA 2004) to 96% (entertainment software) (IIPA 2004; Marron & Steel, 2000; Traphagan & Griffith, 1998). As the Chinese software market has been developing fast with the continuous double digit economic development in China, it is among countries with the highest piracy rates. It is expected that the software piracy issue in China will become more critical to multinational software businesses in the future.

Many factors influence software piracy. At the national level, macro factors such as culture, economic development, law and legislation and enforcement (Husted, 2000) are important in determining the prevalence of software piracy in a country. As to micro factors, financial gain is one of the most important reasons for software piracy (Cheng et al., 1997; Moores & Dhillon, 2000; Traphagan & Griffith, 1998; Wee et al., 1995). Other micro-level factors such as demography, benefit-cost evaluation other than the financial gain, situational factors, professionalism, and other gains to consumers, are found to be relevant to consumer attitude towards software piracy (Cheng et al., 1997; Logsdon et al., 1994; Moores & Dhillon, 2000).

The Chinese macro-environment leads to the high software piracy rate. China is a developing economy, and financial benefit from software piracy is high. Copyright legislation only started recently and enforcement mechanism is

underdevelopment. The collectivist culture of China is found to be correlated with high piracy rates (Marron & Steel, 2000). However, understanding macro factors is not sufficient in designing anti-piracy policies and strategies as these factors take a long time to change. Businesses need to address micro-level factors to target the consumers of pirated software. A recent focus in micro-level analysis is consumer ethical decision making. Apparently, if consumers do the right thing (not pirate software), the software piracy problem is solved.

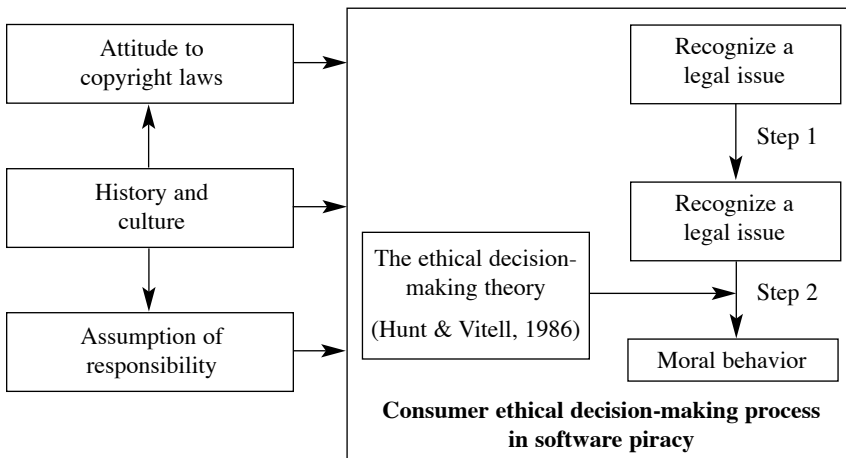
The issue of software and its copyrights has been drawing attention in mainstream research for years, but its findings are limited and related theories have yet to be established (e.g., Lerner and Tirole, 2005; Varian, 2005). Applying theories and previous findings of consumer ethical decision making in software piracy in the Chinese markets, we find several research gaps. First, current ethical decision making theories cannot satisfactorily explain consumer behavior in software piracy. Many studies found a weak relationship between consumer moral judgment and their response to software piracy (Logsdon et al., 1994; Simpson et al., 1994). Second, while collectivism, which is a component of the culture construct, has been used to explain the differences in ethical decision making in software piracy between eastern and western consumer groups (Swinyard et al., 1990), the culture factor has not been examined directly in analyzing consumer attitudes on a micro-level. Researchers have been using collectivism as a residual in explaining consumer ethical responses to software piracy. We doubt that the collectivism component of Chinese culture can explain everything about the high piracy rate. Third, despite the importance of the software piracy issue in China to industries, little research has been conducted to directly examine Chinese consumers on a micro-level. Most reported research conducted on eastern/Chinese/collectivist culture were done in relatively developed countries/areas such as Singapore and Hong Kong (Ang et al., 2001; Cheng et al., 1997; Moores & Dhillon, 2000; and Swinyard et al, 1990). While these countries/areas feature high collectivist traits, their business history, copyright legislation, and consumer characteristics are largely different from mainland China. The Chinese may have a different consumer culture which is highly relevant, but by far largely neglected by ethical decision making research in software piracy.

This paper intends to examine Chinese consumer ethical decision making in software piracy. By addressing the insufficiencies of previous consumer ethical decision making research, we will develop a more complete framework of consumer ethical decision making. By analyzing characteristics of Chinese markets, we will address the role of culture in affecting consumer attitudes in a micro-level analysis. Our theories will be supported by observations on Chinese consumers in virtual communities. This paper is organized as follows. Section II presents a research framework on Chinese consumer ethical decision making in software piracy. Section III analyzes the consumer ethical decision-making process in software piracy, which is a part of the research framework.

Section IV interprets cultural effects on the ethical decision making of Chinese consumers, through factors of assumption of responsibility and attitudes towards the copyright laws. Section V provides some observations of Chinese consumers in virtual communities, which support the research framework and proposed theories. Section VI concludes this paper and proposes future research.

### Conceptual Framework

Research on consumer ethical response to software piracy is important. If software piracy is solely viewed as a legal problem, the solution will lay in legislation and law enforcement. Consumer self discipline will be based on a high risk evaluation of legal consequences of software piracy. However, in reality, such a high risk evaluation does not exist. For software businesses, it is very impractical to identify and prosecute every individual pirate. Also, software piracy may sometimes bring marketing benefits to businesses. It was found that pirates were responsible for generating more than 80% of new software buyers; thereby, diffusion through piracy significantly influences the legal diffusion of the software (Givon et al., 1995). Thus, the focus of business enforcement of legal software use has been on legislation and prosecution of institutional violation. The strategic focus of businesses and governments to consumers has been on education and control. From the consumer side, software piracy is very prevalent and has a relatively high social acceptance. “Little chance of being caught” is one of the most importance reasons identified for individuals to pirate software (Cheng et al., 1997). Thus understanding and solving the problems in the legal domain is not powerful enough to control individual software piracy. Ethics serves as a powerful alternative way for consumer self-discipline.



**Figure 1: A framework to analyze Chinese consumer ethical decision-making in software piracy**

A research framework, shown in Figure 1, is proposed to analyze Chinese consumers' ethical decision making in regards to software piracy. It is proposed in this framework that there are two essential steps of consumer ethical decision-making in software piracy: recognizing a legal problem to recognizing an ethical problem, and recognizing an ethical problem to moral behavior. The framework also highlights two important factors—attitude to copyright laws and assumption of responsibility, influencing consumer ethical decision making—and calls research attention to the historical and cultural interpretation of these two factors in analyzing Chinese consumers of pirated software.

### **A Complete Consumer Ethical Decision-Making Process in Software Piracy**

An important part of this framework is a complete consumer ethical decision-making process in software piracy, which is composed of two steps—recognizing a legal problem to recognizing an ethical problem; and recognizing an ethical problem to moral behavior. Following consumer ethical decision making theories, previous research in the domain of software piracy assumes that consumer ethical decision making starts from consumer perceiving an ethical problem. This research explains consumer attitude and behavior in software piracy by invoking the Western ethical standards in decision making. Many studies have demonstrated a weak relationship between consumer moral judgment and their response to software piracy (Logsdon et al., 1994; Simpson et al., 1994). However, using the low moral intensity of software piracy as a reason to explain the inconsistency between moral judgment and piracy behavior, researchers imply that the low moral intensity of software piracy is a precondition. This devalues moral factors in preventive strategies against software piracy and makes the ethical concern related research largely useless. While traditional theories define the research domain of consumer ethical decision making from situations where consumers perceive an ethical problem, no research has extended the domain to ethical decision making further by examining factors causing the ethical insensitivity of software piracy.

Compared to other situations such as shoplifting, where consumers have no problems realizing both legal and ethical problems they encounter, software piracy is a special case in that consumers realize the legal problem but not the ethical one. Since recognizing the ethical problem is the major obstacle, consumer realization of ethical issue need to be considered as the first step of consumer ethical decision making instead of a research presupposition in software piracy research.

### **Step 1. From recognizing a legal problem to recognizing an ethical problem**

Recognizing an ethical problem is not a starting point, but an important step of ethical decision making in the case of software piracy. This step is largely neglected and used as an unrealistic assumption in many previous research. Recognizing an ethical problem is important since software piracy is an issue with more legal content than ethical content.

Two research components are involved in testing the Step 1: 1) consumer legal knowledge; 2) consumer recognition of an ethical problem based on their legal knowledge. The difference between a legal and an ethical problem is critical in consumer attitude to software piracy. A legal problem appears when laws are violated whereas an ethical problem appears when an individual perceives a situation posed to him as having ethical issues. Software piracy is first, and most importantly, a legal issue. Consumers perceive an ethical problem starting from the recognition of this legal issue. However, a perception of a legal issue may not successfully transfer to an ethical issue (Swinyard et al., 1990). Many consumers think software piracy is low in moral intensity (Logsdon et al., 1994) or not an ethical problem (Glass & Wood, 1996). In other words, consumers are ethically insensitive (Thong & Yap, 1998) on this issue. The legal domain obviously covers more than the ethical domain in software piracy problems.

With the exception of Swinyard et al. (1990), very little research has addressed different components of consumer recognition of the ethical problem related to software piracy. In a study of the morality of software piracy, Swinyard et al. (1990) tested consumer legal knowledge of software piracy and ethical attitude towards piracy behavior separately. It was found (Swinyard et al., 1990) that Singaporeans had better legal knowledge, but presented more positive attitude towards software piracy than Americans. However, this research (Swinyard et al., 1990) stopped at drawing conclusions that the Asian moral values are simply very different from Westerners, and did not conceptually recognize the step from recognizing a legal problem to recognizing an ethical problem.

The first task in evaluating consumer recognition of an ethical problem (Step 1 of the research framework) is to evaluate consumers' legal knowledge of software piracy. Consumer legal knowledge of software piracy has two key components: knowledge of software ownership and piracy actions and knowledge of legal responsibility of a subject. This means that consumers need to know that piracy is wrong, and a subject (the consumer) involved in the action has legal responsibility. Most research on consumer ethical decision making in software piracy has ignored the status of legal knowledge of their research subjects. For example, while it is widely known that selling pirated software is illegal, consumers may not be clear whether purchasing pirated software is illegal

or not. Consumers may also not know which party is legally responsible if s/he shares legally purchased software with a friend upon request. Thus, previous research, which only tested consumer knowledge on piracy actions did not sufficiently test consumer knowledge. There may be cases that consumers know that piracy is illegal but assume that they are not responsible as buyers for sharing the software with others. Researchers need to understand consumer legal knowledge of software piracy in detail to interpret consumer attitude properly.

Knowledge of legal standards is found to have a weak relation to moral attitude toward software piracy (Joshphberg et al., 2003). Thus it is important to understand the transformation of consumer perception from a legal problem to an ethical problem and investigate factors influencing this process. Recognizing an ethical problem means that an individual thinks that s/he is doing something against the established ethical rules. It implies that consumers need to recognize both the ethical issue associated with an activity and their own ethical responsibility. Thus, when recognizing an ethical problem, an individual not only may question an activity such as “this may not be an ethical behavior”, but may also question themselves whether they behaved ethically.

## **Step 2. From recognizing an ethical problem to moral behavior**

Most previous research in consumer ethical decision making is carried out in this step. A very fundamental framework about this step is Hunt and Vitell (1986), and most of the research has been done following this framework (1986) (i.e., Sagner & Sanders, 2001; Thong & Yap, 1998) purposely, or resulting in conclusions which are covered by their framework (i.e., Swinyard et al., 1990). Hunt and Vitell’s framework (1986) starts from a construct of “perceived ethical problem” and ends at a construct of “moral behavior”. This theory classifies two types of evaluation process for alternatives in a situation with ethical problems: a deontological evaluation and a teleological evaluation. In a deontological evaluation, the rightness or wrongness of the behavior implied by each alternative is evaluated by comparing with established deontological norms. For example, by testing the impact of the importance of integrity of an individual on his/her attitude towards piracy, Ang et al (2001) used integrity as a deontological norm. In a teleological evaluation, ethical decision making results are generated by considering probabilities of consequences happening and desirability of consequences. Research on consumer motivation in software piracy (Cheng et al., 1997) focuses more on the teleological evaluation. For example, the observation on the different preferences of Singaporeans and the US group for “outcome” and “decisions” in their moral evaluation of software piracy by Swinyard et al. (1990) simply complied with Hunt and Vitell’s classification (1986) of deontological and teleological evaluation. Thong and Yap (1998) also use social norms (deontological norms) and the consequences (desirability of consequences) of piracy to explain consumer moral judgments about software piracy.

While Hunt and Vitell's framework (1986) is powerful and has been widely used in research (Sagner & Sanders, 2001; Thong & Yap, 1998), it starts with an individual arriving at a perception of the ethical problem situation, and then triggers the remaining process. If the individual is ethically insensitive, the subsequent elements of the model do not come into play. As many consumers may not successfully go from a legal recognition to an ethical recognition in software piracy, research under Hunt and Vitell's framework (1986) cannot generate satisfying result. This also sometimes results in confusion in literature about a legal issue and an ethical issue. For example, it was suggested that incorporating ethical considerations in computer curricula is not helpful (Simpson et al., 1994) based on the understanding that there is a weak relationship between moral judgment and attitude towards software piracy. Our framework distinguishes the legal issue from the ethical issue and points out that there is a process from recognizing a legal issue to recognizing an ethical issue in software piracy. Education usually focuses on the legal aspect and enhances students' legal knowledge. Thus it is still desirable and useful. However, legal education may not draw students into an ethical dilemma. Education needs to be carefully designed to address important/detailed aspects of the legal knowledge and aspects influencing the transformation process to an ethical recognition.

## **Culture and Ethical Decision-Making**

Macro-level analyses have proven that the culture factor influences a country's software piracy rate. However, previous research only focused on the collectivist-individualist aspects of the culture factor. For example, in examining effects of cultural factors on intellectual property protection across countries, Marron and Steel (2000) only addressed the collectivist-individualist aspect of culture. Husted (2000) adopted Hofstede's five work-related cultural dimensions—power distance, individualism, masculinity, uncertainty avoidance, and Confucian dynamism—in examining culture's influence on software piracy, and found that only individualism is important.

The culture factors, especially the collectivist culture, have been used as a residual to explain the non-recognition of the ethical problem of software piracy in Asian countries. A Chinese proverb "He who shares is to be rewarded; he who does not, condemned." is widely cited to refer to the impact of the collectivist culture on software piracy (Swinyard et al., 1990). It is suggested that the more casual attitude of Asians toward piracy as compared to Americans are rooted in cultural mores that emphasize the virtue of sharing creative work (Swinyard et al., 1990). While software piracy may be an issue with a low moral intensity worldwide (Logsdon et al., 1994), researchers have concluded that the Chinese view the software piracy as a right thing to do. To the best of our knowledge, no research has been conducted at a micro level to directly explore the effects of cultural factors on consumer attitudes towards software



piracy.

There are problems in using culture as a panacea in explaining the high piracy rate and low moral sensitivity in Asian countries to software piracy. First, using culture as a residual to explain unexpected results in consumer ethical decision making research in software piracy is not constructive in designing anti-piracy strategies, as culture is a very broad concept and has little power if it is used as a residual category (Child, 1981). Second, there may be other cultural factors besides collectivism that seem to play important roles in Chinese consumer ethical decision making in software piracy. Applying collectivism without more in-depth micro-level analysis, researchers may misunderstand Chinese consumers' behavior in this context. Culture refers to the collective programming of the mind which distinguishes the members of one group or category of people from another (Hofstede, 1997; Husted, 2000). A culture is highly influenced by historical factors. Chinese culture and history influence consumer assumption of responsibility and attitude towards copyright laws. This, in turn, affects Chinese consumers' ethical decision making behavior.

The collectivist culture in China leads to a weak individual assumption of responsibility. Consumers in the collectivist culture not only like to share software, they also like to share responsibilities. In many cases in Chinese history, criminals were not punished as individuals. The entire family of a criminal would be punished. Also, there is the idea that rightness of a law decreases when more people violate it. A Chinese proverb "the law can not apply if everybody breaks it" heralds this view.

Consumer assumption of responsibility is related to their ethical decision making. First, the assumption of responsibility is essential to turn a legal problem to an ethical problem. When an individual thinks that the other party is responsible for a legal problem, it is less likely that s/he will question his/her own behavior. The individual simply blames the other party. Then, in ethical decision making process (step 2 in Figure 1), the assumption of responsibility will affect consumer evaluation of an alternative. Hence the following proposition:

*Proposition 1: Consumer assumption of responsibility of software piracy is positively related to his/her own recognition of ethical problems in software piracy.*

Chinese culture and history also influence consumer attitude toward copyright laws as the copyright concept originates from the western culture and does not comply with traditional Chinese view. This attitude towards copyright laws affects the ethical decision-making. Basically, consumers ask questions "who do the copyright laws protect?" and "Is it fair?". They may perceive that the copyright laws are only of business interest. Or they may perceive that the law will protect local economy and individuals. Differing perceptions may significantly affect their evaluation of stakeholders and desirability of outcomes.

Hence the following proposition:

*Proposition 2: The fairness of copyright laws as perceived by consumers is positively related to moral judgment. Consumers' perception of the effects of copyright laws on local economy, society, and individual consumers will be positively related to their recognition of ethical problems in software piracy as well as affect the ethical decisions undertaken by them.*

## **Examining Chinese Consumers in Software Piracy**

First, it is observed that many Chinese have negative attitude towards copyright laws and enforcement that largely comes from the history of copyright legislation in China. Chinese legislation and enforcement of IP laws have been developed during the past two decades in response to the demands coming from developed countries, especially US. The IP issues have been constantly brought to the table during political or trade negotiations, and presented to the Chinese government as a prerequisite for many international trade negotiations. International software giants such as Microsoft are also major forces to promote the IP legislation and its enforcement.

The IP legislation is a necessary component of a developed and mature economy, the IP legislation process, driven by developed countries, has caused a negative attitude among the Chinese consumers towards IP laws. Many Chinese consumers and IT experts question the purpose of IP legislation, and there are voices that anti-software-piracy in China is for the benefits of multinational software companies at a high cost to local software industries, businesses, and consumers.

The high value software market in China is monopolized by international software companies. "Currently, two third of the software products are provided by international companies. Above 90% of highly pirated softwares are products of international companies." (Weiyan, 2003). It is reported (SSPS, 2002) that 92% of Chinese software products are for business-to-business applications, and Chinese software industry has a different IP protection focus from multinational software businesses. Software piracy does not significantly affect Chinese software industry, and the focus of IP legislation should be on infringements by competitors and employees, not on the piracy aspect currently advocated.

Meanwhile, many Chinese consumers view the recent IP enforcement initiated by multinational companies such as Microsoft as hostile. Due to the problems of Chinese legal systems, there are unfair treatments to Chinese businesses, which are assumed to be using pirated software (Fang, 2003). Many reports on IP intention and enforcement by international companies such as Microsoft negatively affect attitude of the Chinese consumers towards IP laws. For example, Bill Gates said in a Fortune interview (Schlender, 1998) that

“Although about three million computers get sold every year in China, people don’t pay for the software. Someday they will, though. And as long as they are going to steal it, we want them to steal ours. They’ll get sort of addicted, and then we’ll somehow figure out how to collect sometime in the next decade.” In Chinese, words like “steal”, “addicted”, and “collect” are not friendly. This statement of Bill Gates has been widely perceived as hostile. It was also reported that Microsoft requested middle and primary schools to pay for software. From a business point of view, there is no problem of such actions. However, in an environment that government calls for donations to support primary school education in poor areas, such steps do not help the development of consumer support for anti-piracy.

Overall, while IP legislation has been developing fast in recent years, attitudes of many Chinese consumers towards IP laws are not very supportive. In fact, many online visitors expressed the view of supporting piracy and that IP laws help economic invasion of China ([www.blogchina.com/idea/copy/forum.html](http://www.blogchina.com/idea/copy/forum.html)). With such views popular amongst Chinese consumers, it is not difficult to understand that software piracy is a less sensitive ethical issue.

Chinese culture and history of IP legislation and enforcement also affect consumer assumption of responsibility. Consumers with collectivist culture may assume less individual responsibility due to their perception of sharing. In China, consumers may perceive that sharing responsibility rests with a group rather than an individual. Also, IP laws in China did not cover end user’s non-business-purpose piracy behavior before 2002. It may have affected consumer recognition of their legal responsibility. It was reported that only 30.6% of Chinese software businesses considered that end users (consumers) are legally responsible for software piracy. Furthermore, 38.9% of Chinese software businesses did not agree that consumers have legal responsibility. In online discussion groups (such as [www.blogchina.com](http://www.blogchina.com)), many software users stated similar sentiments.

## Conclusions

Consumer ethical response is important for addressing software piracy problem because it may complement legal actions against piracy. And the culture factor has been used as a residual to explain the very low moral sensitivity of Asian consumers to software piracy (Logsdon et al., 1994). However, to the best of our knowledge, there has been no research that has directly examined the effect of culture on this issue. This paper has proposed a framework for consumer ethical decision making and for exploring the culture effects. In the new framework, the transformation from legal problem recognition to ethical problem recognition is viewed as the first and important step in consumer ethical decision making in the context of software piracy. While this is discussed as a necessary step to understand consumer ethical response to software piracy,

the framework may be generalized and applied to other ethical problems.

We have argued that many Chinese consumers have negative attitude toward IP legislation and enforcement in China. They consider that current IP legislation and enforcement in China are driven by international forces and do not target at protecting local software business and users. We have also argued that software piracy may be a result of the Chinese culture and legislation history. However, more empirical research is needed to systematically validate the model proposed in this paper.

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