ABSTRACT. The purpose of this study is to investigate the salient factors influencing consumers’ attitudes and usage intentions towards pirated software. Using the Theory of Planned Behaviour, this study investigates the relationships between three sets of factors, i.e. personal, social and perceived behavioural control onto attitudes towards pirated software. Through a multiple regression, only personal factors have shown significant relationship with attitudes towards software piracy. Further results from this study have supported that favourable attitudes towards pirated software is likely to result in stronger intentions to use pirated software. It was found that computer proficiency acts as a predictor for intentions towards pirated software, rather than a moderator as originally postulated.

KEY WORDS: ethical beliefs, software piracy, softlifting, attitudes, integrity

Introduction

Software piracy refers to the illegal copying of software and is a persistent issue that has significantly increased in magnitude in recent years (Crittenden et al., 2007; Glass and Wood, 1996; Goles et al., 2008; Gopal and Sanders, 2000; Hinduja, 2003). The Fourth Annual BSA and IDC Global Software Piracy Study reports that 35% of the software installed in 2006 on personal computers (PCs) worldwide was obtained illegally (BSA, 2007; Lau, 2007). Further, while emerging markets in Asia Pacific, Latin America, Eastern Europe and the Middle East/Africa account for 33% of PC shipments, only 10% of these are spent on accompanying PC software (BSA, 2007). This potentially contributes not less than $40 billion in global losses due to software piracy (Lau, 2007). An equally important point is that losses suffered through piracy directly impact on the profitability, and even viability of software manufacturers.

Due to tremendous losses from piracy, software manufacturers will have fewer resources to devote research and development of new products (Neil, 1992). Ultimately, consumers stand to lose out in many ways than one if software piracy is to prevail. Firstly, consumers who do not use pirated software end up paying more to cover the losses incurred by piracy (Hinduja, 2003; Takeyama, 1997). Secondly, pirated software may not function correctly or fail completely (thus forfeiting access to customer support, upgrades, technical documentation and training), or are lacking a warranty to protect the software and the increased risk of exposure to a debilitating virus that can destroy valuable data (SIIA, 2004). Thirdly, consumers who use pirated software also violate copyright law (Title 17 of the US Code) and can be fined up to US$100,000 and face jail terms of up to 5 years.

Besides promoting the understanding of copyright law and ‘intellectual property’, software manufacturers have also tried other proactive approaches to protect themselves from losses resulting from unauthorized copying. One of the methods is to make copying difficult through the use of unformatted or oddly formatted disk sectors, laser holes and burns, and special codes. License-agreements or lease-contracts with probably unenforceable break-seal acceptance provisions have also been used (Marron and Steel, 2000; Peace, 1997; Sims et al., 1996; Swinyard et al., 1990).

Despite all these measures and efforts taken by software manufacturers, policy makers, educators and businesses to stamp out piracy, this problem is still rampant in many parts of the world. Actions have been taken from the ‘supply side’ to counter...
piracy, but as long as there remains a healthy demand for pirated software, this issue will continue to persist. In fact, this problem has been further aggravated by digital piracy, which involves downloading from the Internet (Gupta et al., 2004; Langenderfer and Cook, 2001). Faster transmission speeds have also catalyzed online piracy, since faster connections enable users to send and download larger files (such as software programs) at a faster rate (BSA, 2007).

Clearly, many researchers suggested that more should be done to address the demand side of the phenomenon citing personal characteristics such as ethics, personality factors and social factors as influencing factors of software piracy (e.g. Ang et al., 2001; Gupta et al., 2004). In fact, ethical and legal considerations were argued by many as an important component towards understanding consumers’ attitudes towards pirated software, and research has been frequently conducted in this area (Eining and Christensen, 1991; Glass and Wood, 1996; Gupta et al., 2004; Harrington, 1989; Oz, 1990; Shim and Taylor, 1993; Solomon and O’Brien, 1990; Wagner and Sanders, 2001). Furthermore, the acquisition-mode decision making process postulates that there is a two way choice between purchasing and pirate/softlift the software (Gupta et al., 2004). As such, the importance of understanding consumer decision making using the acquisition mode helps to generate broader implications in various aspects. These can include ethical and legal considerations to pirate or softlift, and the social and personal factors affecting the decision.

Recently, Gupta et al. (2004) is probably one of the most well developed studies in this area of interest. However, they have argued that ethical appeals may not work well as many consumers do not see software piracy as an ethical issue. Consumers are also confused between ethics and legality of software piracy. They have also suggested that other reasons such as socio-cultural values, norm formation and community evolution should be looked at. In their study, they have suggested that for future studies, the Theory of Planned Behaviour (TPB) may be a useful conceptualisation. To close these gaps in the literature, this research extends prior studies by explicitly studying predictors, other than ethics and legal issues on attitudes and usage intentions of pirated software. Specifically, the objectives of this article are threefold. Firstly, it is to measure the effect of (a) value consciousness, (b) integrity, (c) personal gratification, (d) social influence and (e) risk aversion, on consumers’ attitudes towards software piracy. These predictors are adopted from a number of sources notably Ang et al. (2001). Secondly, it is to determine if there is a relationship between attitudes towards software piracy and intention to use pirated software. Thirdly, it is to determine if level of computer proficiency has any moderating effects on the relationship between attitudes and intentions to use pirated software. To tie all these constructs together, the TPB is used to conceptualise the framework as suggested by Gupta et al. (2004).

This article will first examine the relevant literature pertaining to piracy. Next, the theoretical underpinnings leading towards the development of the hypotheses will be presented. This is followed by the methodology, data analysis and discussion of the findings. Finally, concluding comments will present the conceptual and managerial implications of the study.

**Relevant literature**

**Definition**

Software piracy has been defined by most authors as ‘unauthorized or illegal copying of computer programs’ (Glass and Wood, 1996; Gupta et al., 2004; Sims et al., 1996; Swinyard et al., 1990). The term ‘softlifting’ has since been commonly used and applied in some of the studies relating to software piracy (e.g. Kini et al., 2004; Lane and Lane, 1996; Logsdon et al., 1994). Support has also been received for the above definition through differentiation of piracy or counterfeiting (involves monetary gains) from softlifting, the latter of which involves unauthorized copying of software for personal use (Shore et al., 2001).

**Ethical aspects of softlifting**

Many studies have been conducted to examine the effects of ethical perspectives on individual’s