AN INVESTIGATION OF THE DETERMINANTS OF EMPLOYEES' DECISIONS TO USE ORGANIZATIONAL COMPUTING RESOURCES FOR NON-WORK PURPOSES

by

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ABSTRACT

STEPHEN MATTHEW CAMPBELL. An Investigation of the Determinants of Employees' Decisions to Use Organizational Computing Resources for Non-Work Uses. (Under direction of DR. ANTONIS STYLIANOU)

Internet access in the workplace has become ubiquitous in many organizations. Often, employees need this access to perform their duties. However, many studies report a large percentage of employees use their work Internet access for non-work-related activities. These activities can result in reduced efficiency, increased vulnerability to cyber attack, and legal liability.

Previous models of technology adoption and usage can give us some insight into this phenomenon, but they lack the ability to explain the moral decision making aspect that is involved when technology is used in a manner other than allowed by organizational policies.

In this dissertation, we create and test a predictive model of the moral decision making process concerning three different categories of personal Internet usage at work (PIUW): informational, social, and adult-related. Our results indicate that perceived difficulty, perceived moral intensity, social influence, perceived personal risk, perceived benefits, and knowledge of organizational policy all have significant impacts on moral judgment concerning informational and social PIUW and all of these except perceived moral intensity and social influence also significantly impact intention for both informational and social PIUW. However, many of these factors are not significant in predicting moral judgment and intention concerning adult-related PIUW.

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LIST OF ABBREVIATIONS

IDT	Innovation Diffusion Theory
IS	Information Systems
IT	Information Technology
MPCU	Model of PC Utilization
PMI	Perceived Moral Intensity
PIUW	Personal Internet Usage at Work
TAM	Technology Acceptance Model
TAM2	Technology Acceptance Model 2
UTAUT	Unified Theory of Acceptance and Use of Technology

CHAPTER 1: INTRODUCTION

A 2008 survey found that 34 percent of U.S. respondents spend at least one hour or more of each workday on personal Internet use. In addition, 63 percent of those surveyed access personal e-mail at work and almost half of those surveyed use peer-to-peer file swapping services at work. While most respondents did acknowledge that their organization has an Acceptable Use Policy in place, only 5 percent of U.S. users said they have been disciplined for Internet Use Policy violations (8e6 Technologies, 2008).

Although employees may view their personal use of the Internet at work as harmless, there can be serious consequences for the organization. For example, research has shown that productivity losses of 30% to 40% may result from inappropriate Internet usage (Verton, 2000). In fact, a study by SurfWatch found that US companies lose as much as $1 billion annually in labor costs from employees using the Internet on company time for non-work related reasons (Lim et al., 2002). In addition, personal Internet usage by employees can cause companies to be subject to potential legal liabilities, such as libel, defamation, and harassment lawsuits (Scheuermann and Langford, 1997). The Motion Picture Association of America has also warned organizations of the fact that they can be held liable for their employees' illegal downloading over corporate networks. In addition, illegal file sharing can consume massive amounts of bandwidth, which slows down corporate networks and reduces the efficiency of other employees. Both Chevron and Microsoft settled sexual-harassment lawsuits for $2.2 million apiece as a result of

sexually related internally circulated e-mails that created hostile work environments (Verespej, 2000). In fact, the American Management Association (AMA) reports that 27% of Fortune 500 companies have defended themselves against claims of sexual harassment stemming from inappropriate e-mail and/or Internet use (AMA 2005).

Most previous predictive models take a non-situational specific approach to the study of technology usage; examples include Technology Acceptance Model (TAM), Unified Theory of Acceptance and Use of Technology (UTAUT), and Model of PC Utilization (MPCU). However, some believe (Jones, 1991) that the characteristics of the situation, especially perceived moral intensity, impact the moral decision making process. The question of why employees engage in technology abuse at work is salient to both researchers and managers. For researchers, gaining an understanding into the motivation behind personal Internet usage at work can give insights into other types of computer usage that involve a moral decision making process (e.g., piracy and hacking). For managers, greater insight into why employees engage in personal Internet usage at work will allow them to better tailor their policies to deter uses that they find unacceptable.

While models such as TAM, UTAUT, and MPCU have looked at the decision of individuals to use or not use technology, our investigation attempts to move past the question of technology usage and on to the subject of technology misusage. While previous models of technology adoption can give us some insight into this phenomenon, they lack the ability to explain the moral decision making aspect that is involved when technology is used in a manner other than that allowed by organizational policies.

Our study examines the moral decision making process that employees use when deciding whether to engage in technology abuse at work. We will test our model in the

domain of personal Internet usage at work. Personal Internet usage at work (PIUW) is defined as any voluntary act of employees using their company's Internet access during office hours to surf non-work-related Web sites for non-work purposes or accessing non-work-related email (Mahatanankoon et al., 2004; Lim et al., 2002; Anandarajan, 2002). Technology use becomes a moral issue when a person's actions, when freely performed, may harm or benefit others (Velasquez & Rostankowski, 1984; Jones, 1991). In this dissertation, we will examine the individual's moral judgment process as well as the formation of intention to engage in PIUW in violation of organizational policies. We incorporate constructs from various technology usage models, including Davis et al.'s (1989) Technology Acceptance Model, Thompson et al.'s (1991) Model of PC Utilization, Moore and Benbasat's Innovation Diffusion Theory (1991), and Venkatesh et al.'s (2003) Unified Theory of Acceptance and Use of Technology (UTAUT) as well as other behavior models to construct our model.

Jones (1991) proposed that moral intensity would have a direct impact on both moral judgment and intention. He did not, however, propose that moral intensity would have a moderating effect on the antecedents of each stage. Later research, though, has suggested that the individual's level of perceived moral intensity influences that individual's moral reasoning level (Weber, 1996). Weber (1996) found that when an individual perceived a situation to be of low moral intensity, he or she was more likely to use a low level of moral reasoning as described by Kohlberg's (1969) stages of moral reasoning. Similarly, when an individual perceived a situation to be of high moral intensity, he or she was more likely to use a high level of moral reasoning.

While many IS studies (e.g., LaRose and Eastin, 2004; Wyatt and Phillips, 2005; McElroy, et al., 2007) consider personal Internet usage intention and behavior as dependent variables, our literature review found few studies that investigated moral judgment toward these behaviors.

Our study is different from previous technology abuse studies in two ways. First, unlike many other technology abuse studies, we include a situation specific variable: perceived moral intensity. Second, we examine the between-group differences in the strength of the impact that each factor has on moral judgment and intention.

1.1 Research Questions

As noted above, organizations can be put at great risk by the actions of employees engaging in personal Internet use in the workplace (PIUW). To effectively deal with this danger, it is necessary to understand the process by which employees decide to engage in PIUW. Using factors proposed by earlier technology abuse and ethics research, our research aims to create a comprehensive model that explains the moral decision making process of employees with regards to PIUW. Specifically, we will address the following research questions:

1) What factors influence an individual's moral judgment concerning PIUW in the workplace?
2) What factors influence an individual's intention to engage in PIUW in the workplace?
3) How does the strength of these factors change across situations with different levels of perceived moral intensity?

1.2 Summary of Research Design

This research uses a field survey to evaluate a theoretical model derived from the technology usage and moral decision making literature. Full-time US employees with access to the Internet during their daily work were recruited to participate in this study. Based on the literature, a survey was developed and administered online to participants.

1.3 Summary of the Results

Our study examined three aspects of the moral decision making process concerning PIUW. The first analysis examined factors that impact employees' moral judgment concerning PIUW. All five hypotheses were found to be supported for informational and social PIUW. Three of the five were found to be supported for adult-related PIUW. The second study examined factors that impact employees' intentions concerning PIUW. Six out of seven hypotheses were found to be supported for informational PIUW; five out of seven hypotheses were found to be supported for social PIUW; and four out of seven hypotheses were found to be supported for adult-related PIUW. The results of these two studies show that similar factors play a role in determining both informational and social PIUW; however, only some of these factors are significant in explaining adult-related PIUW.

The second analysis examined the between-group differences for information, social, and adult-related PIUW. A significant between-groups effect (between informational and adult-related and between social and adult-related) was found for the relationship between knowledge of organizational policies and both intention and judgment. A significant between-groups effect (between informational and adult-related and between social and adult-related) was also found for the relationship between social

influence and moral judgment. In addition, a significant between-groups effect (between informational and adult-related and between social and adult-related) was found for the relationship between perceived difficulty and intention. Despite the findings of Weber (1996), our results suggest that, overall, the impacts of the antecedents of moral judgment and intention are not moderated according to the moral reasoning stages described by Kohlberg (1969). We propose our own theory to explain the between-group effects displayed in our research: in situations with a higher level of PMI, the impact of internally-derived motivations will be stronger and externally-derived motivations will be weaker than a situation with a lower level of PMI.

1.4 Overview of Chapters

This dissertation is composed of six chapters. In the introduction, we provide an overview of the research topic, motivations, research questions, and the project in general.

Chapter 2 consists of a literature review examining the foundations of our models and the previous research that has been conducted in the area of technology abuse.

Chapter 3 details the research models and individual hypotheses that are examined in our study. Our model weaves together constructs from technology usage, motivation, and ethical decision making literatures. The theoretical basis for each hypothesis is presented and discussed.

In Chapter 4, we discuss our research methodology and study design. The process used to develop and validate our survey instrument is also described.

Chapter 5 contains information concerning our data collection method, analysis of the data, and the results of those analyses.

Last, Chapter 6 discusses the results that were found and the implication of those results for researchers and practitioners. We also discuss limitations of our study and areas of future research.

CHAPTER 2: LITERATURE REVIEW

2.1 Technology Abuse

Computer-based information technology (IT) has changed significantly the way employees in many organizations accomplish their jobs. Although the use of IT has many positive benefits, such as improving business processes, managerial decision making, and workgroup collaboration, there are also negative effects as well (O'Brian and Marakas, 2005). Studies have found that employees abusing technology in the workplace can cause damage to the organization through loss of productivity, loss of confidential information, data and equipment damage, and exposure to civil and criminal liability (AMA 2005). In addition, better computer literacy, increased user sophistication, and the availability of software tools will likely increase the number and severity of attacks that organizations will face in the future (Kankanhalli et al., 2003). A survey by Case and Young (2002) found that the two most problematic types of technology abuse reported by employers were abuse of email and abuse of Internet usage, including such behavior as viewing pornography, shopping online, watching stocks, visiting online auctions, and reading news sites.

Technology abuse in organizations is not a trivial problem. A study by Belanger and Van Slyke (2002) found that abuses such as excessive personal Internet usage among employees are prevalent, with employees spending an average of about 2 hours per day on non-work activities. This represents approximately 25% of the work day

spent in abusing technology (Belanger and Van Slyke 2002). Employers are noticing the results of technology abuse. A survey by Robert Half International Inc. revealed that 55 percent of executives polled said employee use of the Internet for non-business purposes was hurting organizational productivity (Roman 1996).

There have been a number of approaches to examining technology abuse. One stream of research focused on testing demographic and environment variables to determine their influence on technology abuse (e.g., Kreie and Cronan, 2000; Galletta and Polak, 2003). A shortcoming of this stream of research is the lack of theory to explain why these factors impact abuse behavior.

A second stream of research has focused on situational and individual normative variables. An example of this stream of research is Eining and Christensen's (1991) work, which uses a modified version of Fishbein and Ajzen's (1975) theory of reasoned action. Their results indicated that computer attitudes, perceived consequences, and normative expectations are significant factors in helping to explain piracy. Another example of this stream of research involves studies that have focused on counterproductive work behaviors involving technology abuse. Stanton et al., (2003) found that organizational commitment predicted a number of technology abuse behaviors such as personal web use, personal email use, personal gaming, as well as willingness to abide by the organizational acceptable use policy. Marcus and Schuler (2004) found that factors of organizational injustice, social influence, perception of personal risk, and intention all had a significant influence on general counterproductive behavior at work including technology abuse. Mount et al., (2006) found that both job satisfaction and the personality trait of conscientiousness are directly related to

organizational counterproductive work behaviors such as inappropriate Internet use. A major shortcoming of this stream of research is that it does not include a situation specific construct.

A third research stream has focused on understanding technology abuse using a moral decision making framework. One common framework that has been applied to the study of technology abuse is Rest's (1986) four component model. Rest's model proposes that moral decisions are made in four stages: moral awareness, moral judgment, intention, and behavior. Our work follows this stream by examining the determinants of moral judgment and intention. We do not focus on the first stage of Rest's model (moral awareness) because of our concern that testing for awareness will cause awareness. We do not focus on the fourth stage of Rest's model (behavior) because our cross-sectional study design does not allow us to accurately measure both intention and judgment and it is not feasible to conduct a longitudinal study with the number of subjects needed to test the other relationships proposed in our model.

2.1.1 Types of Technology Abuse in Organizations

The information systems literature contains studies on a number of different abuses of technology. Some studies focus on a particular type, such as piracy, while others examine a wide scope of behaviors within one study.

A number of studies have looked at factors that influence an individual's judgment about or attitude toward IS related behaviors (Gattiker and Kelley, 1999; Kreie and Cronan, 2000; Calluzzo and Cante, 2004; Haines and Leonard, 2007a). But instead of focusing on one particular behavior, such as piracy, those researchers often have studied many different behaviors together in the same study. Commonly used

examples of these behaviors include a subject that: accesses online software that he didn't pay for, keeps software disks that he didn't pay for, modifies bank software to conceal an overdraft on his account and then "borrows" funds temporarily by manipulating computerized accounts, uses a company computer to work on personal projects, makes commercial use of data on children obtained from the government for processing, and creates viruses and releases them into circulation (Harrington, 1994; Harrington, 1996; Haines and Leonard, 2004; Haines and Leonard, 2007a; Haines and Leonard, 2007b; Kreie and Cronan, 1998; Kreie and Cronan, 1999; Kreie and Cronan, 2000).

Specific types of technology abuse in the workplace that have been examined by researchers include piracy, personal Internet usage, and security violations.

Piracy

Piracy is the unauthorized downloading or copying of software, movies, music, and other copyrighted content. Studies that have examined piracy include Peace, et al., 2003; Higgins, 2005; Tang & Farn, 2005; Moores and Chang, 2006; and Goles, et al., 2008. Often piracy is accomplished through peer-to-peer file sharing applications such as Kazaa, Napster, and Bittorrent. Piracy can allow users to gain access to content that they otherwise many not have had access to, but it can also expose them to viruses, hackers, and legal liability. When users engage in piracy at their workplace, they expose the organizations to the same threats. Piracy in the work place setting also has been studied by researchers examining personal Internet usage at work.

Personal Internet Usage at Work

Personal Internet usage at work (PIUW) occurs when employees decide to use organizational computer resources for reasons not related to their jobs. PIUW activities can include online shopping, downloading copyrighted movies and music (piracy), online chatting, online game playing, viewing pornography, engaging in cybersex, and other such activities. Studies that have examined PIUW include Chang and Cheung, 2001; Galletta and Polak, 2003; Woon and Pee, 2004; Wyatt and Phillips, 2005; and McElroy, et al., 2007. The impact of PIUW on the organization can include a loss of productivity, network congestion, increased vulnerability to viruses and hackers, and legal liability to copyright holders whose works were downloaded or to employees who may have been sexually harassed (Chen et al., 2008).

While many companies prohibit the use of organizational resources for PIUW, some companies take a different approach. Some companies feel that allowing their employees a limited amount of time to engage in some forms of PIUW (e.g., personal communication and personal business) allows the employees to recharge and relax during the workday (Guthrie and Gray, 1996). Although it is difficult to measure all of the positive and negative effects of PIUW, most researchers are of the opinion that the net effect of PIUW for the organization is negative (Galletta and Polak, 2003).

Security Violations

Security violations in organizations occur for two different reasons: negligence and malice. Negligence-based security violations include such acts as poor password practices and lack of encryption use on sensitive data. Malice-based security violations include unauthorized access, modification, and theft of data. Negligence-based security

violations by some employees can make malice-based security violations by other employees or outside users easier to perform (Adams and Blandford, 2005).

Although most research on security violations deals with algorithms, methods, and standards that can reduce the incidents of security violations, a few studies do look at the antecedents of security violations by employees (e.g., Stanton et al., 2004; Adams and Blandford, 2005). Quite often, security violations caused by employees are negligence-based. These often occur because employees find it easier to work around security policies than to follow them. Examples include the lack of encryption use in emails and on backup tapes, even though the software to encrypt this data is readily available, and employees reusing the same password on many different systems so they can have fewer passwords to remember. Often times, employees do not take the necessary precautions to protect organizational data because they do not believe that there is much value in the data they are working with.

2.1.2 Impacts of Technology Abuse in Organizations

Previous studies have used a number of theories to study technology abuse behaviors. In this section, we examine each of them.

2.2 Information Technology Usage

The adoption and diffusion literature provides a number of models that propose to explain why individuals make certain decisions. A number of these models have been found to work reasonably well when explaining certain decisions. The theories of General Deterrence (Paolucci, 1963) and Social Control (Hirschi, 1969), for instance, have been used widely in criminology research; while the theories of Reasoned Action (Fishbein and Ajzen, 1975), Planned Behavior (Ajzen, 1985), and Interpersonal

Behavior (Triandis, 1980) have been widely used in organizational behavior research as well as other areas.

2.2.1 Theories of Behavior

Studies that try and understand the motivation behind technology abuse often use behavioral theories to ground their work.

General Deterrence Theory

Beccaria's (Paolucci, 1963) theory of general deterrence (GDT) states that an individual makes rational choices based on the benefits and costs of the decisions. The individual will act in such as way as to maximize benefits and reduce costs. In other words, an employee will commit an act of abuse when the benefits of doing so outweigh the costs of punishment. According to this theory, the most effective way of preventing technology abuse will be to raise the cost of punishment to a level high enough that most employees will find it too costly in comparison to the benefits obtained from abusing the technology.

Many computer abuse studies have used general deterrence theory as the basis of their investigations (e.g., Hoffer and Straub, 1989; Straub, 1990; Straub and Nance, 1990; Parker, 1998; Straub and Welke, 1998). In general, these studies look at actions taken by the organization to deter computer abuse, such as security training, monitoring, and acceptable use policies. Unfortunately, many studies have found that these measures do not reduce computer abuse in the organization (e.g., Backhouse and Dhillion, 1995; Loch et al., 1992; Knotts and Richards, 1989).

Social Control Theory

Hirschi's (1969) Social Control Theory (SCT) (also called Social Bond Theory) proposes that an individual is influenced by his/her relationships, commitments, and social bonds with others. A natural desire to engage in deviant behavior is present in the individual, but is restrained by their social bonds with others in society. If the individual commits a crime, it is because these bonds were not strong enough to keep him from doing so (Hirschi, 1969; Agnew, 1995). Social bond factors have also been associated with the reduction of deviant behavior (e.g., Anderson, 1999; Costello and Vowell, 1999).

Researchers studying the effect of social bonds have based their research on four factors: attachment, commitment, involvement, and belief (Lee and Lee, 2002). Lee et al., (2004) found that attachment, commitment, involvement, and belief all were significant in predicting intention to commit computer abuse.

Social Learning Theory

Social learning theory (SLT) (Bandura, 1976) proposes that individuals tend to commit crime because they associate with and become influenced by others who commit crimes. The influence of others has been empirically tested using four main constructs: differential association, differential reinforcement/punishment, definitions, and imitation (e.g., Akers, 1997; Skinner and Fream, 1997).

A number of studies have investigated the effect of association on behavior and have found it to be significant, with Krohn et al., (1985) finding that association with deviant peers strongly predicted deviant behavior and Skinner and Fream (1997) finding

that differential association, differential reinforcement/punishment, definitions, and imitation are all significantly related to deviant computer behavior (Lee and Lee, 2002).

Expected Utility Theory

The Expected Utility Theory (EUT) (Bernoulli, 1954; Schoemaker, 1982) states that, when faced with a risky choice, a rational person will choose the option that maximizes his/her benefits after taking into account the cost associated with each option. The cost and benefits associated with each outcome are not confined only to financial. The costs for the employee choosing to engage in personal Internet usage may be discipline by management or the risk of infecting one's computer with a virus, while the benefits may include finding a good deal on an online purchase or a funny joke on a webpage.

Many software piracy studies have had a great deal of success using Expected Utility Theory as the basis of their research (e.g., Conner and Rumelt, 1991; Gopal and Sanders, 1997; Gopal and Sanders, 1998; Chen and Png, 1999). This is because the decision to pirate software has three possible outcomes: to purchase the software, to pirate the software, or to do without. EUT provides a sound basis for comparing each of the three outcomes to determine which decision an individual will make (Peace et al., 2003).

Theory of Reasoned Action

Fishbein and Ajzen's (1975) Theory of Reasoned Action (TRA) proposes that a person's behavior is significantly impacted by his or her intention concerning that behavior. A person's intention is influenced by the individual's attitude concerning the behavior and his or her subjective norms. An individual's attitude toward the action

consists of their positive and negative feelings concerning the action. These feelings can be influenced by the individual's expected benefits and consequences concerning the action. An individual's subjective norm concerning the action consists of the influence of friends, family, managers, and other important stakeholders in the individual's life.

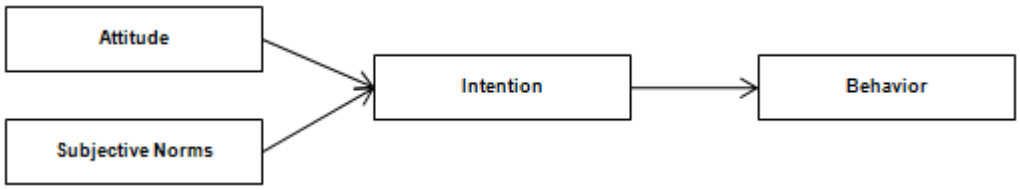

Figure 2-1: Theory of Reasoned Action (Fishbein and Ajzen, 1975)

Although the Theory of Reasoned Action has found support in many areas of research, it has not proved as successful in some studies concerning the ethical issue of computer abuse (e.g., Loch and Conger, 1996). However, Christensen and Eining (1991) did have some success using it to study software piracy, finding attitude and subjective norms to be related to behavior. Christensen and Eining (1991) did not attempt to measure intention in their study.

Theory of Planned Behavior

Ajzen's (1985) Theory of Planned Behavior (TPB) proposes that individual behavior is motivated by behavioral intentions. Those intentions, in turn, are driven by the individual's attitude toward the behavior, the subjective norms surrounding the performance of the behavior, and the individual's perception of the ease with which he or she can perform the behavior, also known as perceived behavioral control (Peace et

al., 2003).

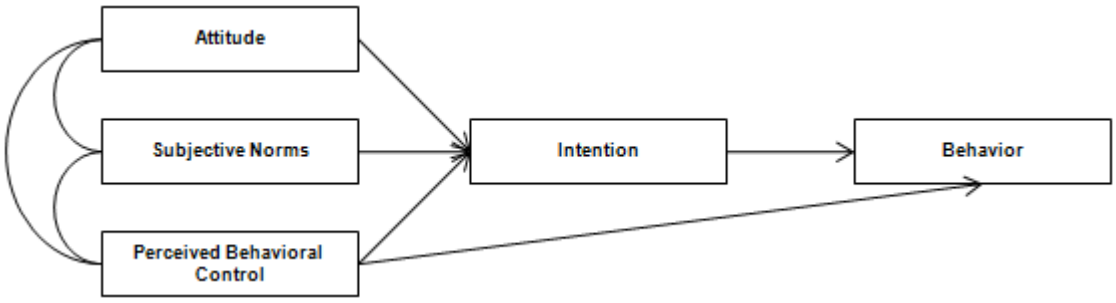

Figure 2-2: Theory of Planned Behavior (Ajzen, 1985)

The Theory of Planned Behavior is similar to the Theory of Reasoned Action except that it includes the effect of perceived behavioral control on intention. Many studies have been conducted to test the relationships proposed in this theory. Armitage and Conner (2001) conducted a review of numerous studies in various domains that had investigated TPB. Most studies found support for the theory. While the original TPB model proposed interaction effects between attitude, subjective norms, and perceived behavioral control, most research has only found evidence of the main effects of these factors (Beck and Ajzen, 1991; Peace et al., 2003).

An individual's attitude toward an action consists of his or her positive and negative feelings concerning the action. These feelings can be influenced by the individual's expected benefits and consequences concerning the action. An individual's subjective norm concerning the action consists of the influence of friends, family, managers, and other important stakeholders in the individual's life. Perceived behavioral control is the individual's perception of his or her ability to commit the

behavior. This perception could range anywhere from easily performed to very difficult or even impossible to perform (Peace et al., 2003).

The Theory of Planned Behavior has been used in information systems research to study a number of behaviors, including software piracy. Galletta and Polak (2003) found that the antecedents of attitudes and subjective norms were significant in predicting Internet abuse in the workplace; however, the antecedents of perceived behavioral control were not significant. Peace et al., (2003) found that attitude, subjective norms, and perceived behavioral control were all significant predictors of software piracy intention. Cronan and Al-Rafee (2008) found that attitude and subjective norms (in addition to past behavior) were significant in predicting intention to pirate software. However, they did not find support in their research for the effect of perceived behavioral control on intention.

Theory of Interpersonal Behavior

The Theory of Interpersonal Behavior (TIB) (part of the Triandis Model of Subjective Culture and Social Behavior) states that an individual's intention to commit a behavior is composed of affect, social factors, and perceived consequences. The individual's behavior is determined, in turn, by the influence of habit, facilitating conditions, and intention.

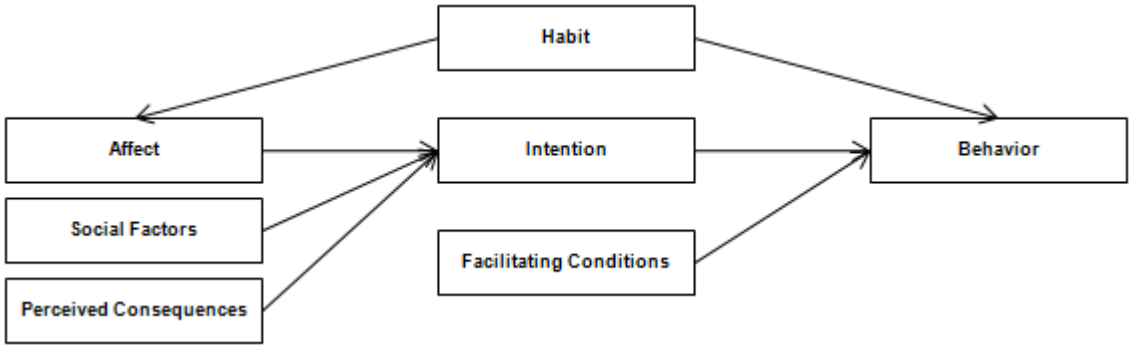

Figure 2-3: Theory of Interpersonal Behavior (Triandis, 1980)

Although the TIB and TPB are similar, until recently, the TPB has been used much more widely in research. Bamberg and Schmidt (2003) attribute this recent increase in use to the inability of the TPB to explain all types of behaviors, and a new interest on the part of researchers to examine the effect of habit on everyday behaviors.

The TIB has been used somewhat infrequently in information systems research, but has shown to be useful in explaining behavior. For example, Woon and Pee (2004) used the theory of interpersonal behavior to examine personal Internet usage. They found that affect, social factors, and perceived consequences had a significant impact on Internet abuse intention and that habit, facilitating conditions, and intention had a significant impact on Internet abuse behavior.

2.2.2 Theories of Technology Acceptance and Usage

Technology Acceptance Model (TAM)

Davis et al.'s (1989) Technology Acceptance Model (TAM) is an IS specific adaptation of the Theory of Reasoned Action. TAM proposes that an individual's intention to use an information system is driven by attitude toward the system, which is in turn driven by perceived usefulness of the system and perceived ease of use. Actual

system use is then driven by intention. Unlike TRA, the attitude component has been replaced in TAM by the perceived usefulness and perceived ease of use constructs. The subjective norm construct has been removed. Both TRA and TAM assume that the user is not subject to any external restraint on their freedom to act according to their intentions.

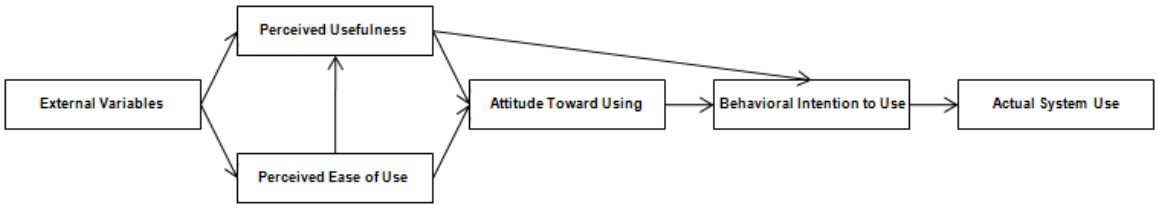

Figure 2-4: Technology Acceptance Model (TAM) (Davis et al., 1989)

Venkatesh and Davis (2000) extended the original TAM model by proposing new antecedents of perceived usefulness (subjective norm, image, job relevance, output quality, and result demonstrability) and usage intentions (subjective norm moderated by experience and voluntariness). This new model was referred to as TAM2. Their research found strong support for TAM2 in both voluntary and mandatory settings.

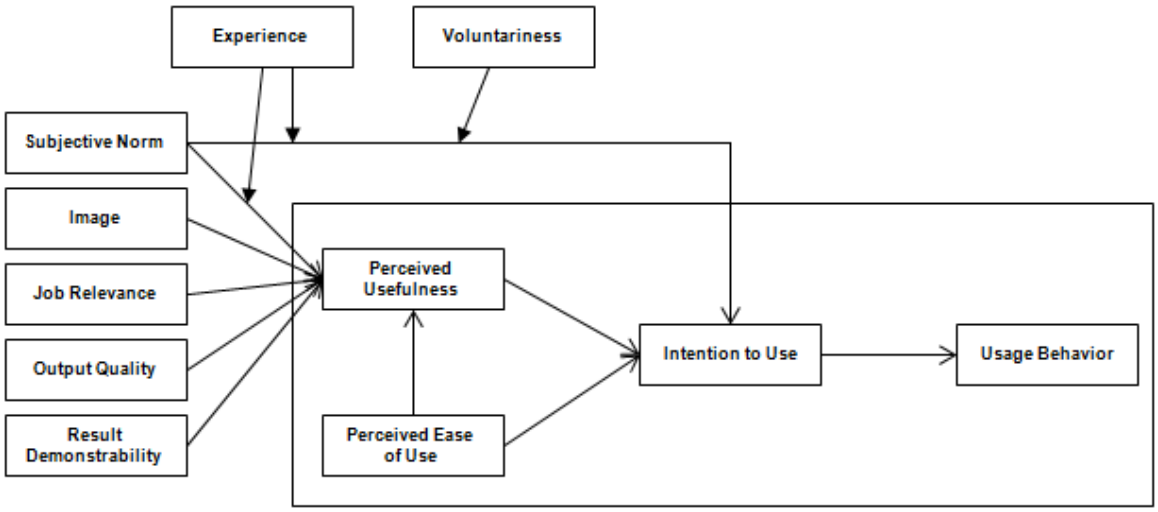

Figure 2-5: Technology Acceptance Model 2 (TAM2) (Venkatesh and Davis, 2000)

Model of PC Utilization (MPCU)

The Model of PC Utilization (MPCU) (Thompson et al., 1991) is an adaptation of Triandis' (1977) theory of human behavior to predict PC usage. According to the theory, the antecedents of usage include job-fit, complexity of use, long-term consequences, affect toward use, social factors, and facilitating conditions.

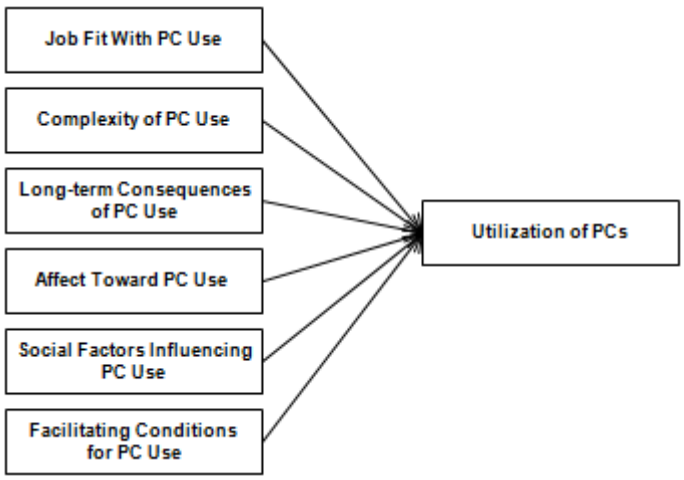

Figure 2-6: Model of PC Utilization (MPCU) (Thompson et al., 1991)

Innovation Diffusion Theory (IDT)

Innovation Diffusion Theory is a sociology-based theory that was adapted for the study of technology acceptance by Moore and Benbasat (1991). According to the theory, the antecedents of usage include relative advantage of a technology over its predecessor, ease of use, degree of image enhancement, visibility of others using the system, compatibility with needs and values, demonstrability of results, and voluntariness of use. Moore and Benbasat (1996) found support for the predictive validity of these constructs.

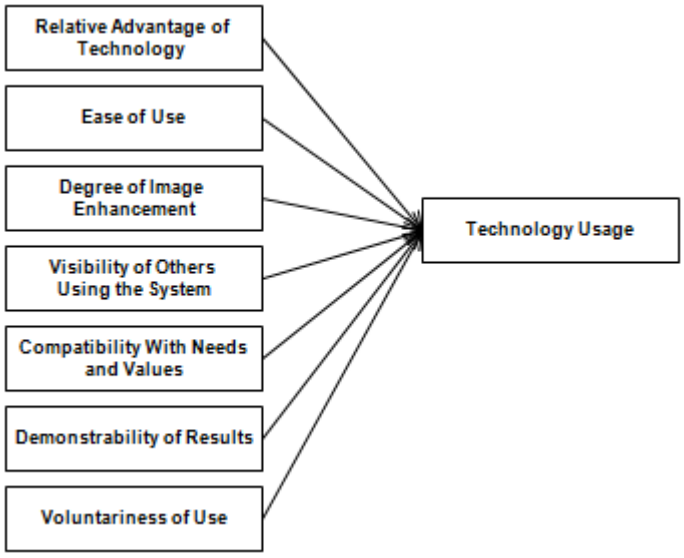

Figure 2-7: Innovation Diffusion Theory (Moore and Benbasat, 1991)

Unified Theory of Acceptance and Use of Technology (UTAUT)

Venkatesh et al.'s (2003) Unified Theory of Acceptance and Use of Technology (UTAUT) proposes that an individual's intention to use an information system is driven by performance expectancy, effort expectancy, and social influence. Actual system usage is driven by intention to use the system and by facilitating conditions. In the

model, these constructs are moderated by gender, age, experience, and voluntariness of use. The model draws from a number of earlier models that attempt to explain an individual's behavior (theory of reasoned action, technology acceptance model, motivational model, theory of planned behavior, a combined theory of planned behavior/technology acceptance model, model of PC utilization, innovation diffusion theory, and social cognitive theory). Validation tests conducted by Venkatesh et al., (2003) found that UTAUT explained 70% of the variance in information system usage intention.

The four constructs that directly affect intention and behavior in UTAUT are performance expectancy, effort expectancy, social influence, and facilitating conditions. Performance expectancy refers to an individual's expectation that using the system will result in better job performance. Effort expectancy refers to an individual's expectation about the difficulty involved in using the system. Social influence refers to an individual's perception of how other individuals of importance to him/her feel about him/her using the system. Last, facilitating conditions refers to an individual's perception of factors that exist within the organization that would encourage his/her use of the system.

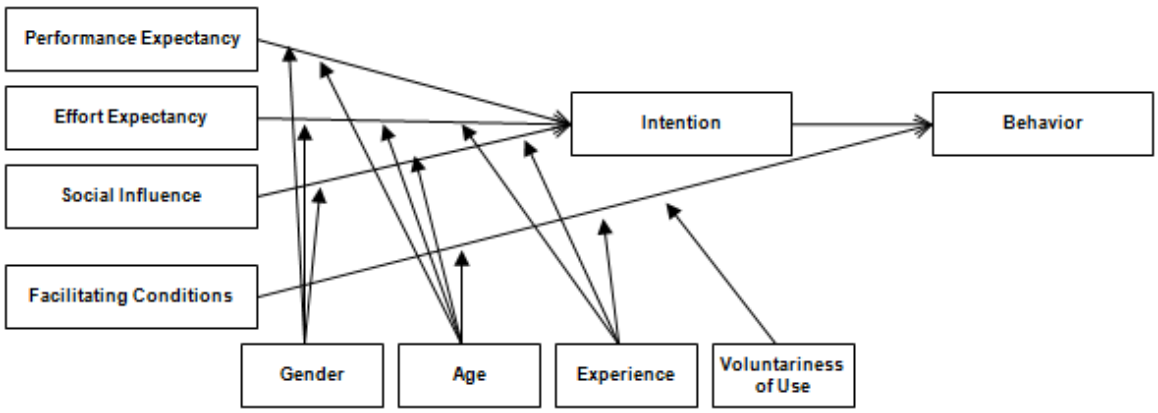

Figure 2-8: Unified Theory of Acceptance and Use of Technology (UTAUT)

2.3 Moral Decision Making

In his work examining moral development in children, Piaget (1965) theorized that children pass through three stages of moral development. The first stage he termed *pre-moral judgment*. During this stage, children are not able to comprehend issues of morality and simply respond to rules that are given to them. For example, Piaget found that children in this stage regarded lying as "naughty words" and had no concept of why they should not lie other than it was "naughty." The second stage he termed *moral realism*. During this stage, children understand the concept of rules, but their motivation to follow these rules is external. For example, children in this stage responded that they should not lie because "it isn't right" or "it isn't true". Piaget termed his third stage *moral relativity*. During this stage, children start to realize that rules are not absolutely fixed and can be negotiated and changed. Children also start to develop an internally motivated morality. For example, children in this stage explained that lying is wrong because it involved deceiving someone else.

Kohlberg (1969) found similar results when he conducted his research into moral development. His work identified six stages of moral reasoning that were divided into three main levels. These levels and stages are described in the table below.

Table 2-1: Kohlberg's Stages of Moral Development

Level	Stage	Motivation
Level 1 (Pre-Conventional)	1. Obedience and punishment orientation	How can I avoid punishment?
	2. Self-interest orientation	What is best for me?
Level 2 (Conventional)	3. Interpersonal accord and conformity	What is everyone else doing?
	4. Authority and social-order maintaining orientation	What do the rules say?
Level 3 (Post-Conventional)	5. Social contract orientation	What is best for the greatest number of people?
	6. Universal ethical principles	What is the most just solution?

Kohlberg proposed that individuals move through each stage in order and do not regress to a previous stage. Although Kohlberg proposed six stages, he found it difficult to identify any individuals who consistently operated at the sixth stage.

2.3.3 Theories of Moral Decision Making and Development

Rest (1986) proposed a four-component model for individual ethical decision making and behavior. The model states that any ethical decision starts with an awareness by the individual that an ethical issue exists. Once the individual is aware that an ethical issue exists, he or she will form a judgment about what is the morally correct action to take. After the individual forms an ethical judgment about the issue, he or she must decide to act in accordance with this judgment or against it. Once the individual has decided upon an ethical intention, he or she must take action to either behave according to that intention or against it.

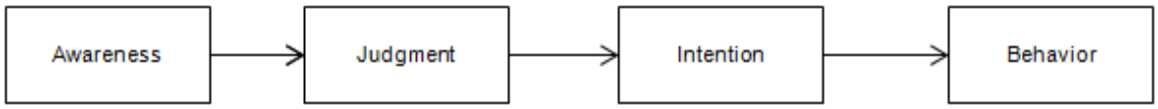

Figure 2-9: Rest's Four Component Model (Rest, 1986)

In Rest's (1986) conception of awareness, an individual, when confronted with a decision, may realize that the situation is a moral problem or may think of a particular moral norm or principle that applies to that case. However, Rest states that all that is necessary for awareness to occur is that the individual must realize that a particular course of action in question could affect another person's welfare or interests. If the individual does not make this realization, then they do not continue on through the next three steps of the model.

In Rest's (1986) conception of judgment, the individual examines the different courses of actions that are possible for the given decision and then chooses one as being the most morally correct course of action. Rest notes that different people may come to different conclusions about the most morally correct choice of action. Many theories have been proposed as to how individuals decide what course of action is morally correct in a situation (e.g., Piaget, Kohlberg); however, Rest's (1986) model does not deal directly with this issue other than to say judgment is influenced by awareness.

Rest (1986) defines intention as the decision an individual makes as to whether he or she will act in accordance with their judgment or against it. Even though an individual may believe that stealing is wrong, they may still commit theft if there are other factors that encourage them to do so. Similarly, even if an individual decided that stealing was morally right, they might choose not to commit theft because of the threat of going to jail.

The fourth component of Rest's (1986) model is behavior. Because of the difficulty of directly studying both intention and behavior in a cross-sectional study, many researchers have relied upon reported past behavior (e.g., Mahatanankoon, 2006). A number of IS studies have used components of Rest's model to structure their study (e.g., Harrington, 1997; Tan, 2002; Haines and Leonard, 2004; Haines and Leonard, 2007b). In our review of the IS literature, we found that behavior tended to be the most often studied component of the four component model. Intention and Judgment were second and third, respectively. No IS studies were found that used awareness as the dependent variable.

Jones (1991) notes the success of many of the behavioral models that had been put forth (e.g., Rest, 1986; Trevino, 1986; Hunt & Vitell, 1986); however, he points out that these models do not contain any issue contingent variables. For example, Jones notes that employees, who would never dream about stealing from their coworkers, have no problem making personal use of office supplies or placing personal long distance calls. Both of these actions are technically stealing, and both take place in the workplace. What is it that makes these two situations different from each other?

Jones (1991) proposed that what was needed was an issue-contingent construct. To meet this need, Jones theorized a construct he called moral intensity. He defined moral intensity as "a construct that captures the extent of issue-related moral imperative in a situation" (p.372). These variables include magnitude of consequences, social consensus, probability of effect, temporal immediacy, proximity, and concentration of effect. As Jones proposed it, moral intensity only focuses on the characteristics of the moral issue. It does not include an individual's traits such as ego strength, field

dependence, locus of control, or knowledge or values. Neither does it consider organization factors such as culture or policies (Jones, 1991).

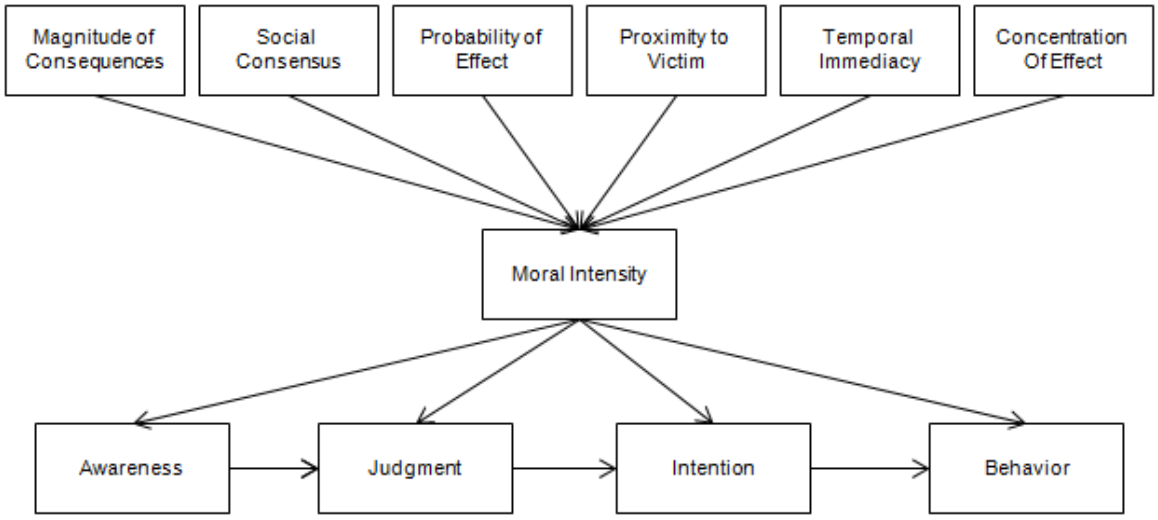

Figure 2-10: Jones' Model of Moral Intensity with Rest's Model

Although Jones (1991) did not include an empirical test of this proposed construct of perceived moral intensity, a number of studies have looked at the impact of one or more of the components on moral decision making. For example, in a pair of studies, Singhapakdi et al., (1996b and 1999) found that perceived moral intensity is a significant predictor of ethical perceptions, with a higher reported perception of an ethical problem among those who perceived the situation as being higher in perceived moral intensity. Morris and McDonald (1995) examined three different ethical scenarios (bribery, pollution, and over-promising) and found that all of the six individual dimensions of perceived moral intensity were significant in predicting moral judgment in at least one scenario. However, magnitude of consequences and social consensus were significant in all three scenarios. Tan (2002) found that perceived

moral intensity had a significant effect on the intention to pirate software, with individuals who viewed the act as having a lower perceived moral intensity reporting a higher intention to pirate. Valentine and Fleischman (2003) found that perceived moral intensity was associated with the behavior of granting equitable relief to an innocent spouse, with a higher perceived level of moral intensity resulting in a greater propensity to grant relief to the innocent spouse.

2.4 Chapter Summary

Although a number of models have tried to predict behavior, many of these models are not situation specific and, therefore, treat all considered acts the same. More recent models do account for the specific characteristics of each type of behavior considered; however, they do not test for the possibility of interaction effects between their moral intensity variable and the antecedents of intention and behavior. Such interaction effects have been suggested by a few studies in the ethics literature, but never tested directly in the information systems literature.

What is needed for a better understanding of the moral decision making process to engage in technology abuse is a situation specific model that examines interaction effects of perceived moral intensity on the relationship between both moral judgment and intention and their antecedents.

In our next chapter, we present our situation specific model for both moral judgment and intention concerning PIUW. We believe that understanding moral judgment will give fresh insight into why employees choose to engage in PIUW behaviors.

CHAPTER 3: RESEARCH MODEL AND HYPOTHESES

3.1 Moral Judgment

3.1.1 Introduction

Personal Internet use by employees at work has become a serious problem for many organizations. As discussed earlier, the impacts of PIUW on the organization include productivity losses, a reduction in network bandwidth available for legitimate work, and vulnerability to viruses and hackers. A first step in controlling personal Internet usage at work (PIUW) is to understand what motivates an employee's decision to engage in it. This research examines factors that are under the organization's control that we believe impact moral judgment concerning PIUW.

3.1.2 Literature Review & Hypotheses Development

3.1.2.1 Moral Judgment Concerning Technology Abuse

We reviewed the information systems and organizational behavior literature for research with moral judgment as the dependent variable. Table 3-1 lists the factors that were shown in the literature to impact moral judgment concerning technology abuse. The fourth column lists how the construct is included in our model.

Table 3-1: Factors that Impact Moral Judgment

Factor	Context	Study	Dissertation Model Construct
Age	General	Gattiker and Kelley, 1999	Age
Age	Piracy	Harrington, 2000	Age
Age	PIUW	Anandarajan, et al., 1998	Age
Awareness of laws	Piracy	Goles et al., 2008	Knwl. of Org. Policies
Codes of Conduct	General	Harrington, 1996; Kreie and Cronan, 2000	Knwl. of Org. Policies
Computer literacy	Piracy	Winter et al., 2004	Perceived Difficulty
Consequences	General	Kreie and Cronan, 1998	Perceived Personal Risk
Denial of Responsibility	General	Harrington, 1994 and 1996	Relativism
Denial of Responsibility	Piracy	Harrington, 2000	Relativism
Deontological Norms	Piracy	Thong and Yap, 1998	Idealism
Ethical Ideology	Piracy	Winter et al., 2004	Idealism
Gender	General	Kreie and Cronan, 1998; Gattiker and Kelley, 1999; Haines and Leonard, 2007	Gender
Gender	PIUW	Anandarajan, et al., 1998	Gender
Legal environment	General	Kreie and Cronan, 1998	Knwl. of Org. Policies
Machiavellianism	Piracy	Winter et al., 2004	Relativism
Moral obligation	General	Kreie and Cronan, 1998	Idealism
Moral obligation	Piracy	Peace and Galletta, 1996; Goles et al., 2008	Idealism
Moral Recognition	Piracy	Moores and Chang, 2006	Not Included
Perceived Imp. of Issue	General	Kreie and Cronan, 2000	Perceived Moral Int.
Perceived Negative Consequences	Piracy	Thong and Yap, 1998	Perceived Personal Risk
Perceived Positive Consequences	Piracy	Thong and Yap, 1998	Expected Personal Benefits
Perceived usefulness	Piracy	Goles et al., 2008	Expected Personal Benefits
Personal Values	General	Kreie and Cronan, 1998; Kreie and Cronan, 2000	Idealism
Punishment certainty and severity	Piracy	Peace and Galletta, 1996; Peace et al., 2003	Perceived Personal Risk
Religion	General	Kreie and Cronan, 1998	Idealism
Risk-taking	Piracy	Goles et al., 2008	Perceived Personal Risk
Rule orientation	Virus	Harrington, 1997	Idealism
Scenario Charactistics	General	Kreie and Cronan, 1998	Perceived Moral Int.
Social consensus	Virus	Harrington, 1997	Social Influence
Social Pressure	PIUW	Anandarajan, et al., 1998	Social Influence
Societal environment	General	Kreie and Cronan, 1998	Social Influence
Software cost	Piracy	Peace and Galletta, 1996; Peace et al., 2003	Exp. Personal Benefits
Subjective norm	Piracy	Chang, 1998; Ramakrishna, et al., 2001	Social Influence
Subjective norm	General	Pierce and Henry, 2000; Haines and Leonard, 2007	Social Influence
Victim (personal vs. enterprise)	General	Calluzzo and Cante, 2004	Perceived Moral Intensity

Perceived Moral Intensity

A number of technology abuse studies have looked at factors that were issue-contingent; that is, they were specific to the particular characteristics of a given issue. For example, Calluzzo and Cante (2004) observed that the identity of the victim influenced moral judgment about general computer abuse. Individuals were more likely to judge a behavior as wrong if it victimized an individual as opposed to an organization. Kreie and Cronan (1998) found that the actual scenarios they used were a significant predictor of judgment concerning general computer abuse.

In his theoretical paper on the need for an issue-contingent model of moral decision making, Jones (1991) suggested a measure he called moral intensity. He theorized that moral intensity was a formative construct composed of six components: magnitude of consequences, social consensus, probability of effect, proximity to victim, temporal immediacy, and concentration of effect.

Although Jones (1991) did not include an empirical test of moral intensity, a number of studies have looked at the impact of one or more of its components on moral judgment. Studies that have looked at the impact of perceived moral intensity by calculating a single perceived moral intensity value using responses concerning the six components have found significant results when examining the relationship between perceived moral intensity and moral judgment.

For example, Morris and McDonald (1995) examined three different ethical scenarios (bribery, pollution, and over-promising) and found that all of the six individual dimensions of perceived moral intensity were significant in predicting moral judgment in at least one scenario. However, magnitude of consequences and social consensus were

significant in all three scenarios. Valentine and Fleischman (2003) also found strong evidence of perceived moral intensity's impact on the moral judgment of accounting, legal, and human resource professionals when deciding whether to grant equitable relief to an innocent spouse. Barnett and Valentine (2004) found that magnitude of consequences was positively related to ethical judgment in both scenarios studied, while social consensus was significant in one scenario. They found no significant relationship for proximity or temporal immediacy. These results suggest that not all dimensions of moral intensity will be significant in all situations, but all dimensions have the potential to be significant when a group of behaviors is examined.

Jones (1991) proposed that a higher level of moral intensity would cause an individual to judge questionable behaviors as more unethical. Following Jones' proposition, we hypothesize the following:

H1: *As the level of perceived moral intensity increases, an individual's moral judgment about PIUW will become more negative.*

- ***H1a:*** *As the level of perceived moral intensity increases, an individual's moral judgment about* ***informational PIUW*** *will become more negative.*
- ***H1b:*** *As the level of perceived moral intensity increases, an individual's moral judgment about* ***social PIUW*** *will become more negative.*
- ***H1c:*** *As the level of perceived moral intensity increases, an individual's moral judgment about* ***adult-related PIUW*** *will become more negative.*

Social Influence

We define social influence as the degree to which an individual perceives that important others believe PIUW is morally unacceptable. This is based on Venkatesh et

al.'s (2003) conceptualization of this construct. Support for the impact of social influence, also known as subjective norm, on moral judgment has been found in the organizational behavior literature. For example, Pierce and Henry (2000) found that subjective norm has a significant impact on moral judgments concerning general technology abuse, with subjective norms that are more accepting of technology abuse resulting in a more positive judgment of the action. Chang (1998) and Ramakrishna et al., (2001) both found that subjective norms that are more accepting of piracy result in a more positive judgment of piracy. Likewise, Anandarajan et al., (1998) found that subjective norms that are more accepting of personal Internet usage at work result in a more positive judgment of that behavior. Based on the findings of this research, we believe that a higher level of social influence will lead to a more negative moral judgment of PIUW. Thus, we hypothesize the following:

H2*: As the level of social influence increases, moral judgment about the action will become more negative.*

- ***H2a****: As the level of social influence increases, moral judgment about* ***informational PIUW*** *will become more negative.*
- ***H2b****: As the level of social influence increases, moral judgment about* ***social PIUW*** *will become more negative.*
- ***H2c****: As the level of social influence increases, moral judgment about* ***adult-related PIUW*** *will become more negative.*

Perceived Personal Risk

Perceived personal risk is the individual's perception of possible negative consequences that he or she could face for committing an action. Perceived risk could

include potential organizational consequences such as loss of privileges or even termination. Perceived personal risk could also include possible social consequences such as loss of esteem in the eyes of colleagues and ostracization by friends. Organizationally enforced rewards and sanctions have also been found to have an effect on moral judgment. Tenbrunsel and Messick (1999) found that weak sanctions resulted in employees making judgments based on business needs instead of ethical aspects. Likewise, Cherry and Fraedrich (2002) found that people judged situations more critically when faced with a higher level of risk.

In the information systems literature, Peace and Galletta (1996), Thong and Yap (1998), and Peace et al., (2003) found that the threat of negative consequences is a significant predictor of attitude toward software piracy. In addition, numerous studies (e.g., Baum, 1989; Ladd, 1989; Bloombecker, 1990) have found that a lack of awareness of consequences was common among those who abuse computer resources. Kreie and Cronan (1998 and 1999) found that awareness of consequences was significant when deciding if an act was unacceptable or acceptable. Thus, we hypothesize the following:

H3*: As the level of perceived personal risk becomes greater, moral judgment about PIUW will become more negative.*

H3a*: As the level of perceived personal risk becomes greater, moral judgment about* ***informational PIUW*** *will become more negative.*

H3b*: As the level of perceived personal risk becomes greater, moral judgment about* ***social PIUW*** *will become more negative.*

H3c*: As the level of perceived personal risk becomes greater, moral judgment about* ***adult-related PIUW*** *will become more negative.*

Expected Personal Benefits

Expected personal benefits are the individual's perception of possible positive consequences that he or she could receive for committing an action. Expected personal benefits may include monetary benefits such as saving or making money, but could also include such factors as entertainment, relief of boredom, and expression of creativity. Research supports the idea that expected benefits influence judgment. For example, both Thong and Yap (1998) and Goles et al., (2008) found that a higher level of expected benefits from an act of software piracy resulted in a more positive judgment of the act. Based on the findings of this research, we believe that the level of expected personal benefits will be positively related to intention to commit PIUW at work. Thus, we hypothesize the following:

H4*: As the level of expected personal benefits increases, moral judgment about PIUW will become more positive.*

- ***H4a****: As the level of expected personal benefits increases, moral judgment about* ***informational PIUW*** *will become more positive.*
- ***H4b****: As the level of expected personal benefits increases, moral judgment about* ***social PIUW*** *will become more positive.*
- ***H4c****: As the level of expected personal benefits increases, moral judgment about* ***adult-related PIUW*** *will become more positive.*

Knowledge of Organizational Policies

In the information systems literature, previous studies have identified an employee's knowledge of organizational policies and rules as one factor that may influence his or her moral judgment. For example, Harrington (1996) and Kreie and

Cronan (2000) found that codes of conduct appear to have an effect on computer abuse judgments. Kreie and Cronan (1998 and 1999) also found that an individual's awareness of laws (legal environment) was significant for individuals when deciding if an act of general technology abuse was unacceptable or acceptable. Likewise, Goles et al. (2008) found that an individual's awareness of laws was significant when judging an act of piracy. In each of these studies, a greater awareness of rules and policies concerning an action resulted in a more negative judgment of that action. Based on the findings of this research, we believe that knowledge of acceptable use policies will cause a more negative judgment of PIUW. Thus, we hypothesize the following:

H5*: An employee's knowledge of organizational policies prohibiting PIUW will result in a more negative moral judgment about PIUW.*

H5a*: An employee's knowledge of organizational policies prohibiting* ***informational PIUW*** *will result in a more negative moral judgment about* ***informational PIUW****.*

H5b*: An employee's knowledge of organizational policies prohibiting* ***social PIUW*** *will result in a more negative moral judgment about* ***social PIUW****.*

H5c*: An employee's knowledge of organizational policies prohibiting* ***adult-related PIUW*** *will result in a more negative moral judgment about* ***adult-related PIUW****.*

3.1.2.2 Control Variables

Our study seeks to find antecedents that can be affected by actions of management in order to impact moral judgment among employees. Past research, as detailed below, suggests additional variables besides the ones listed in our hypotheses

that should be included because of their potential influence on moral judgment. Since these factors cannot be influenced directly by management, they are included as control variables to remove their impact on moral judgment.

Age was found to have a significant impact on moral judgment concerning general computer abuse (Gattiker and Kelley, 1999), personal Internet usage (Anandarajan, et al., 1998), and piracy (Harrington, 2000) with older individuals displaying a more negative judgment of these actions than younger ones.

Support for the impact of gender on moral judgment has also been suggested by previous research. For example, gender was found to have a significant impact on moral judgment concerning general computer abuse (Kreie and Cronan, 1998; Gattiker and Kelley, 1999; Haines and Leonard, 2007) and personal Internet usage (Anandarajan, et al., 1998), with females displaying a more negative judgment of these actions than males.

Last, an individual's value orientation has also been shown to impact moral judgment. Forsyth (1980) described idealism as a belief that what is ethically right in a given situation is governed by a set of absolute moral rules. In other words, individuals who display high levels of idealism tend to make moral decisions based on rules rather than the outcome of an action. Because individuals high in idealism make their decisions based on absolute moral rules (e.g., "thou shall not steal", respect for authority), we believe that these individuals will possess a higher moral awareness toward any action that might be interpreted as violating these rules (e.g., doing personal work on the company's time).

A number of technology abuse studies have suggested that idealism has a significant impact on judgment. For example, Winter et al., (2004) found that individuals

high in idealism were less likely to find piracy morally acceptable than were individuals low in idealism. Harrington (1997) found that individuals with a high level of rule orientation were more likely to judge the act of virus writing as morally wrong. Thong and Yap (1998) found that individuals use deontological norms to arrive at a judgment about piracy. In addition, Kreie and Cronan (1998) found that individuals with high levels of moral obligation - a feeling of responsibility to act according to set rules - formed more negative judgments about general computer abuse. Likewise, Peace and Galletta (1996) and Goles et al. (2008) found that high levels of moral obligation resulted in more negative judgments about piracy and Kreie and Cronan (1998 and 2000) found that high levels of personal values also led to a more negative judgments about piracy.

Relativism is a belief that what is ethically right in a given situation depends on the characteristics of that situation (Forsyth, 1980; Sparks and Hunt, 1998; Yetmar and Eastman, 2000). In other words, individuals who utilize relativist thinking tend to make moral decisions based on the outcome of the action instead of on a set of rules or beliefs concerning the action itself. Winter et al. (2004) found that individuals high in relativism were more likely to judge software piracy morally acceptable than were individuals low in relativism. Using a subset of an instrument developed by Forsyth (1980), we, therefore, control for idealism and relativism to remove their influence from our model.

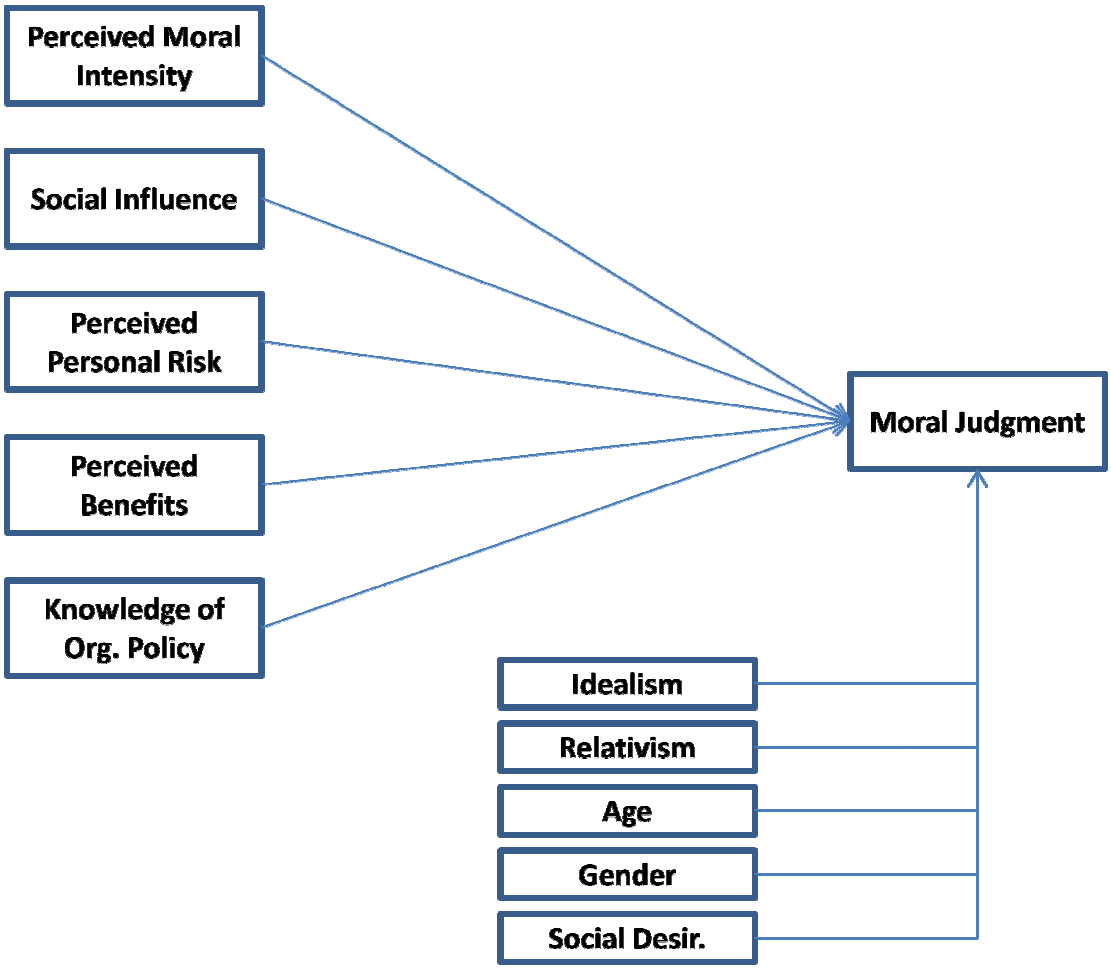

Figure 3-1: Model of Moral Judgment Concerning PIUW

Figure 3-1 details our model of moral judgment concerning PIUW. In our next section, we will develop our model for intention to engage in PIUW.

3.2 Intention

3.2.1 Introduction

Although many employees may believe that some forms of PIUW are morally wrong, that does not necessarily keep them from engaging in these acts. Although previous research suggests that moral judgment impacts intention, it is not the only factor

believed to do so (see table 3-2 below). It is, therefore, necessary to look at intention in addition to moral judgment.

3.2.2 Literature Review & Hypotheses Development

We examined the information systems and organizational behavior literature for research that had studied intention as a dependent variable. Table 3-2 lists the factors that were shown in the literature to impact intention concerning technology abuse. The fourth column details how each construct is included in our model.

Table 3-2: Factors that Impact Intention to Engage in Abuse Technology

Factor	Setting	Study	Dissertation Model Construct
Affect	PIUW	Chang and Cheung, 2001; Woon and Pee, 2004	Moral Judgment
Age	General	Leonard et al., 2004	Age
Age	Piracy	Gopal and Sanders, 1997; Gopal and Sanders, 1998; Harrington, 2000	Age
Attitude	General	Loch and Conger, 1996; Leonard et al., 2004; Leonard and Haines, 2007	Moral Judgment
Attitude	Piracy	Christensen and Eining, 1991; Peace and Galletta, 1996; Chang, 1998; Peace et al., 2003; Higgins, 2005; Goles et al., 2008	Moral Judgment
Complexity/difficulty	PIUW	Chang and Cheung, 2001	Perceived Difficulty
Computer Literacy	General	Loch and Conger, 1996	Perceived Difficulty
Consequences (near and long-term)	PIUW	Chang and Cheung, 2001; Woon and Pee, 2004	Perceived Personal Risk
Denial of responsibility	General	Harrington, 1996	Relativism
Denial of responsibility	Virus	Harrington, 1997	Relativism
Deterrence information provided	Piracy	Gopal and Sanders, 1997	Perceived Personal Risk
Expected outcomes	PIUW	LaRose et al., 2001	Perceived Personal Risk
Facilitating conditions	PIUW	Chang and Cheung, 2001	Perceived Difficulty
Financial gains	Piracy	Tang & Farn, 2005	Expected Personal Benefits
Gender	General	Leonard et al., 2004; Leonard and Haines, 2007	Gender
Gender	Piracy	Gopal and Sanders, 1997	Gender
Informational group pressure	Piracy	Tang & Farn, 2005	Social Influence
Judgment	Piracy	Moores and Chang, 2006	Moral Judgment

Table 3-2: Continued

Justice/Personality	Piracy	Gopal and Sanders, 1998	Idealism
Moral beliefs	Piracy	Higgins, 2005	Idealism
Moral Intensity	Piracy	Tan, 2002	Perceived Moral Intensity
Moral judgment	General	Leonard et al., 2004	Moral Judgment
Moral judgment	Piracy	Tan, 2002	Moral Judgment
Normative group pressure	Piracy	Tang & Farn, 2005	Social Influence
Organizational ethical climate	General	Banerjee et al., 1998	Social Influence
Organization-scenario variable	General	Banerjee et al., 1998	Perceived Moral Intensity
Other-directedness	Piracy	Harrington, 1995	Relativism
Perceived behavioral control	Piracy	Peace and Galletta, 1996; Chang, 1998; Peace et al., 2003	Perceived Personal Risk
Perceived consequences	Piracy	Limayem et al., 2004	Perceived Personal Risk
Perceived importance	General	Leonard et al., 2004; Leonard and Haines, 2007.	Perceived Moral Intensity
Perceived negative consequences	Piracy	Thong and Yap, 1998	Perceived Personal Risk
Perceived positive consequences	Piracy	Thong and Yap, 1998	Expected Personal Benefits
Perceived Risk	Piracy	Tan, 2002	Perceived Personal Risk
Personal gain	Piracy	Simpson et al., 1994; Loch and Conger, 1996	Expected Personal Benefits
Personal normative beliefs	General	Banerjee et al., 1998; Leonard et al., 2004; Leonard and Haines, 2007	Idealism
Price	Piracy	Conner and Rumelt, 1991	Expected Personal Benefits
Resource constraint	Piracy	Eining and Christensen, 1991; Simpson et al., 1994	Expected Personal Benefits
Scenario	General	Leonard and Haines, 2007.	Perceived Moral Intensity
Social consensus	Virus	Harrington, 1997	Perceived Moral Intensity
Social factors	Piracy	Limayem et al., 2004	Social Influence
Social factors	PIUW	Chang and Cheung, 2001; Woon and Pee, 2004	Social Influence
Social norm	Piracy	Bommer et al., 1987; Swinyard et al., 1990; Harrington, 1996; Loch and Conger, 1996	Social Influence
Social norms	General	Loch and Conger, 1996	Social Influence
Subjective norm	Piracy	Christensen and Eining, 1991; Peace and Galletta, 1996; Peace et al., 2003; Higgins, 2005	Social Influence

Perceived Moral Intensity

A number of technology abuse studies have found evidence that decisions concerning intention and behavior of technology abuse are issue-contingent, that is, they are specific to the particular characteristics of a given issue. Studies that did not include an issue-contingent construct have observed that the issue used in the instrument was itself a significant predictor of intention concerning general computer abuse (e.g., Banerjee et al., 1998; Leonard and Haines, 2007). Studies that do include an issue-contingent construct have found significant results. For example, Tan (2002) found that perceived moral intensity was significant in predicting an individual's intention concerning software piracy, with a higher level of perceived moral intensity resulting in a lower level of intention to commit software piracy. Similarly, both Leonard et al. (2004) and Leonard and Haines (2007) found that the perceived importance of the issue was significant in predicting intention to commit general technology abuse, with a higher level of perceived importance resulting in a lower level of intention to commit the abuse.

In his theoretical paper on the need for an issue-contingent model of moral decision making, Jones (1991) suggested a measure he called moral intensity. He theorized that moral intensity was a formative construct composed of six components: magnitude of consequences, social consensus, probability of effect, proximity to victim, temporal immediacy, and concentration of effect.

Although Jones (1991) did not include an empirical test of moral intensity, a number of studies have looked at the impact of one or more of its components on moral judgment. Studies that have looked at the impact of moral intensity as a single construct have found significant results when examining the relationship between moral intensity

and intention. For example, both Singhapakdi et al. (1996b) and Paolillo and Vitell (2002) found that perceived moral intensity is a significant positive predictor of ethical intentions with a higher perception of perceived moral intensity related to a lower level of reported intention to commit the action.

Studies in the ethics literature that have looked at the impact of individual constructs of perceived moral intensity have found mixed results when examining the relationship between perceived moral intensity and intention. For example, Barnett (2001) found support for the negative impact of magnitude of consequences, social consensus, and proximity on intention; Barnett and Valentine (2004) found support for the negative impact of magnitude of consequences on intention in one of two scenarios, but found no support for social consensus, proximity, and temporal immediacy. As the results of these studies show, different situations will be related to different dimensions of perceived moral intensity. Not all dimensions will be significant in all situations, but all dimensions have the potential to be significant when a group of behaviors is examined.

Jones (1991) proposed that a higher level of moral intensity would cause an individual to judge questionable behaviors as more unethical. He also proposed that a higher level of moral intensity would decrease an individual's intent to commit an ethically questionable action. Following Jones' propositions, we hypothesize the following:

H6: *As the level of perceived moral intensity increases, an individual's intention to engage in PIUW will decrease.*

H6a: *As the level of perceived moral intensity increases, an individual's intention to engage in* ***informational PIUW*** *will decrease.*

H6b: *As the level of perceived moral intensity increases, an individual's intention to engage in* ***social PIUW*** *will decrease.*

H6c: *As the level of perceived moral intensity increases, an individual's intention to engage in* ***adult-related PIUW*** *will decrease.*

Social Influence

We define social influence as the degree to which an individual perceives that important others believe PIUW is morally unacceptable. Venkatesh et al.'s (2003) conceptualization of this construct included both an individual's subjective norm and organizational social factors.

A number of behavioral models propose that social influence, or the influence of immediate others, impacts intention to commit an act (e.g., Theory of Planned Behavior, Social Control Theory, Social Learning Theory, Theory of Reasoned Action, TIB, and UTAUT). Numerous studies in the IS field have found that the presence of more ethical social norms in an organization lead to a reduced level of intention to commit:

- General computer abuse (Loch and Conger, 1996; Banerjee et al., 1998),
- Piracy (Bommer et al., 1987; Swinyard et al., 1990; Christensen and Eining, 1991; Harrington, 1996; Loch and Conger, 1996; Peace and Galletta, 1996; Harrington, 1995; Limayem et al., 2004; Peace et al., 2003; Higgins, 2005; Tang & Farn, 2005),
- PIUW (Chang and Cheung, 2001; Galletta and Polak, 2003; Woon and Pee, 2004),
- and Virus Creation (Harrington, 1997).

Based on the findings of this research, we believe that social influence will be negatively related to intention to engage in PIUW. Thus, we hypothesize the following:

H7*: As the level of social influence increases, the intention to engage in PIUW will decrease.*

H7a*: As the level of social influence increases, the intention to engage in* ***informational PIUW*** *will decrease.*

H7b*: As the level of social influence increases, the intention to engage in* ***social PIUW*** *will decrease.*

H7c*: As the level of social influence increases, the intention to engage in* ***adult-related PIUW*** *will decrease.*

Perceived Personal Risk

Perceived risk is the individual's perception of the possible consequences that he or she could face for committing an action. Perceived risk could include organizational consequences such as loss of privileges or even termination. Perceived risk could also include social consequences such as loss of esteem in the eyes of colleagues and legal consequences such as liability for violations of applicable law.

The idea that perceived personal risk can influence intention has been proposed by a number of behavioral models. For example, General Deterrence Theory (Paolucci, 1963), Theory of Interpersonal Behavior (Triandis, 1980), and Expected Utility Theory (Bernoulli, 1954) all propose that perceived consequences have an effect on intention. IS research has also found that consequences and risk can have an impact on an employee's intention to commit acts of abuse. For instance, the perceived consequences arising from an action tend to have a negative impact on intent to commit abuse. Gopal and Sanders

(1997) found that the inclusion of a list of consequences in the packet distributed to study subjects was significant in reducing the reported level of intention to commit software piracy. Other studies have also found that the intention to pirate software was reduced by the presence of perceived consequences (Thong and Yap, 1998; Limayem et al., 2004; Tan, 2002). Studies have also shown that the intent to commit PIUW was significantly reduced by the perceived presence of consequences (Chang and Cheung, 2001; LaRose et al., 2001; Woon and Pee, 2004; de Lara et al., 2006). Workman and Gathegi (2007) found that punishment can be effective in reducing the threat of both software and information security misuse. Darcy et al., (2008) found that perceived certainty of punishment significantly influenced intention for individuals who judged a behavior to be morally wrong, but not for those who judged technology abuse to be permissible. However, they found that perceived severity of punishment significantly influences intention for individuals who judged technology abuse to be morally permissible, but not for those who judged it to be morally wrong. Based on the findings of this research, we believe that perceived personal risk will be negatively related to intention to commit PIUW. Thus, we hypothesize the following:

H8*: As the level of perceived personal risk becomes greater, the intention to engage in PIUW will become more negative.*

H8a*: As the level of perceived personal risk becomes greater, the intention to engage in* ***informational PIUW*** *will become more negative.*

H8b*: As the level of perceived personal risk becomes greater, the intention to engage in* ***social PIUW*** *will become more negative.*

***H8c**: As the level of perceived personal risk becomes greater, the intention to engage in **adult-related PIUW** will become more negative.*

Perceived Difficulty

Perceived difficulty refers to an individual's perception of how hard it would be to complete a given task. The root components of this construct are facilitating conditions, self efficacy, ease of use, and perceived behavioral control.

Self-efficacy is the individual's perception of his or her own ability to complete a certain task (Anandarajan et al., 1998). Resource and technology facilitating conditions refer to the factors in the environment that make an act easier to accomplish (Venkatesh et al., 2003). Perceived ease of use is the individual's perception of the degree to which use of the system will be free of effort of difficulty (Davis et al., 1989). Perceived behavioral control was defined by Venkatesh et al. (2003) as a construct that "reflects perceptions of internal and external constraints on behavior." Venkatesh et al. found that the effects of facilitating conditions and computer self-efficacy upon intention were captured by effort expectancy. This would suggest that they should all be combined into a single construct.

Chang and Cheung (2001) found that an individual's perception of high complexity or difficulty of performing an action resulted in a lower intent to engage in personal Internet usage. Loch and Conger (1996) found that an individual's computer literacy has a significant impact on intention, with higher computer literacy resulting in a higher reported intention to engage in general technology abuse. Chang and Cheung (2001) also found that the existence of facilitating conditions made the intention to engage in PIUW more likely. In fact, the employee's perception of perceived

behavioral control has been shown in numerous studies to be negatively related to intent to pirate software (Peace and Galletta, 1996; Chang, 1998; Peace et al., 2003). Thus, we hypothesize the following:

H9*: As the level of perceived difficulty increases, the intention to engage in PIUW will decrease.*

H9a*: As the level of perceived difficulty increases, the intention to engage in* ***informational PIUW*** *will decrease.*

H9b*: As the level of perceived difficulty increases, the intention to engage in* ***social PIUW*** *will decrease.*

H9c*: As the level of perceived difficulty increases, the intention to engage in* ***adult-related PIUW*** *will decrease.*

Expected Personal Benefits

Expected personal benefits are the possible rewards that an individual could receive for committing an action. Expected personal benefits could include monetary benefits such as saving or making money, as well as factors such as entertainment, relief of boredom, and expression of creativity.

The idea of expected benefits influencing intention has been included in a number of behavioral models. For example, Beccaria's (Paolucci, 1963) General Deterrence Theory states that individuals will engage in a behavior when the benefits outweigh the costs; Davis et al.'s (1989) Technology Acceptance Model (TAM) states that perceived usefulness will influence intention; and Venkatesh et al.'s (2003) Unified Theory of Acceptance and Use of Technology (UTAUT) states that performance expectancy will affect intention. LaRose et al., (2001 and 2003) found that many different categories of

benefits had a significant impact on PIUW intent, including activity outcomes, social outcomes, novel sensory outcomes, pleasing sensory outcomes, and self-reactive incentives. Other benefits can include personal and financial gains, especially for high priced software, and were found to be positively related to intention to pirate software (Conner and Rumelt, 1991; Simpson et al., 1994; Loch and Conger, 1996; Tang & Farn, 2005). However, something as simple as resource constraints within an organization can lead an employee to pirate software (Eining and Christensen, 1991; Simpson et al., 1994). Based on the findings of this research, we believe that the level of expected personal benefits will be positively related to intention to commit PIUW at work. Thus, we hypothesize the following:

H10*: As the level of expected personal benefits increases, the intention to engage in PIUW will increase.*

H10a*: As the level of expected personal benefits increases, the intention to engage in* ***informational PIUW*** *will increase.*

H10b*: As the level of expected personal benefits increases, the intention to engage in* ***social PIUW*** *will increase.*

H10c*: As the level of expected personal benefits increases, the intention to engage in* ***adult-related PIUW*** *will increase.*

Knowledge of Organizational Policies

In the information systems literature, previous studies have identified an employee's knowledge of organizational policies and rules as one factor that may influence his or her intention. For example, Harrington (1996) found that codes of

conduct appear to have an effect on intention to commit computer abuse. Thus, we hypothesize the following:

H11: *An employee's knowledge of organizational policies prohibiting PIUW will result in a lower intention to engage in PIUW.*

H11a: *An employee's knowledge of organizational policies prohibiting* ***informational PIUW*** *will result in a lower intention to engage in* ***informational PIUW****.*

H11b: *An employee's knowledge of organizational policies prohibiting* ***social PIUW*** *will result in a lower intention to engage in* ***social PIUW****.*

H11c: *An employee's knowledge of organizational policies prohibiting* ***adult-related PIUW*** *will result in a lower intention to engage in* ***adult-related PIUW****.*

Moral Judgment

Moral judgment refers to an individual's decision of the most morally correct course of action among all of the available alternatives (Rest, 1986). Rest proposed that moral judgment has a positive effect on intention in his four component model. Leonard et al. (2004) found that moral judgment was significant in predicting intention to engage in general computer abuse. Similarly, Tan (2002) and Moores and Chang (2006) both found that moral judgment was significant in predicting intention to commit piracy. In all three studies, individuals were more likely to form an intention that agreed with their moral judgment of the action.

A similar, but not identical, construct is that of attitude. Attitude, defined by Ajzen and Fishbein (1977) as an individual's "evaluation of the entity in question," has

been included in a number of well regarded models (e.g., TPB and TRA). Attitude encompasses moral judgment, but also includes other feelings that an individual may have toward an activity such as pleasure or distaste. Both TPB and TRA propose that attitude has a direct positive effect on intention. Evidence of this relationship has been found by numerous studies. For example, Loch and Conger (1996), Leonard et al., (2004), and Leonard and Haines (2007) all found that attitude was a significant predictor of intent to engage in general technology abuse. Similarly, Christensen and Eining (1991), Peace and Galletta (1996), Chang (1998), Peace et al., (2003), Higgins (2005), and Goles et al., (2008) all found that attitude was a significant predictor of intention to engage in software piracy. In all studies, individuals were more likely to form an intention that agreed with their attitude toward the action.

Another concept that is similar to attitude is termed "affect." Woon and Pee (2004) defined affect as an "individual's pure emotion of joy, elation, pleasure, depression, distaste, discontentment, or hatred with respect to a particular behavior." This is very similar to the definition given by Ajzen and Fishbein (1977) for attitude. Affect is proposed by the Theory of Interpersonal Behavior (Triandis, 1980) to impact intention. Evidence of this relationship was found by Chang and Cheung (2001) and Woon and Pee's (2004) research, which found that affect was related to Internet abuse intention, with individuals more likely to form an intention that agreed with their moral affect toward the action.

Despite the difference in the way that different researchers have conceptualized this construct, it appears very probable that the feelings that an individual has about an act, especially his or her moral judgment concerning the act, influence the intention to

commit the act. Based on the findings of this research, we believe that moral judgment will be positively related to intent to commit PIUW. Thus, we hypothesize the following:

H12*: As the level of moral judgment concerning PIUW becomes more negative, the intention to engage in PIUW will decrease.*

H12a*: As the level of moral judgment concerning PIUW becomes more negative, the intention to engage in* ***informational PIUW*** *will decrease.*

H12b*: As the level of moral judgment concerning PIUW becomes more negative, the intention to engage in* ***social PIUW*** *will decrease.*

H12c*: As the level of moral judgment concerning PIUW becomes more negative, the intention to engage in* ***adult-related PIUW*** *will decrease.*

3.2.2.2 Control Variables

Past research suggests additional variables that should be included because of their potential influence on intention and behavior. Our study seeks to find antecedents that management can change or impact in order to cause more moral intentions among employees. Because these demographic variables cannot be impacted by actions of management, they are included as control variables to remove their impact on intention.

A number of information systems studies have found that age significantly impacts the intention of individuals. For instance, Gopal and Sanders (1997 and 1998) and Harrington (2000) found that younger individuals were more likely to express an intention to engage in piracy. Leonard et al. (2004) found that age was a significant predictor of moral intention to engage in general technology abuse with younger individuals also reporting a lower level of intention to engage in abuse. Because of these results, we control for age to remove its influence from our model.

Studies have also found evidence to suggest that gender has an impact on intention. In the information systems literature, gender was found to predict piracy (Gopal and Sanders, 1997) as well as general computer abuse (Leonard et al., 2004; Leonard and Haines, 2007), with males more likely than females to express an intention to commit abuses. We, therefore, control for gender to remove its influence from our model.

An individual's value orientation has also been shown to impact moral intention. For instance, Higgins (2005) found that an individual's moral beliefs have a significant negative effect on software piracy intention. Similarly, Kreie and Cronan (1998 and 1999) found that personal values were a significant negative predictor of intention to engage in general computer abuse for women. Gopal and Sanders also found a relationship between their "philosophy of justice" (1998) measure and reported intent to pirate, with more ethical and more just people reporting less intention to pirate.

Forsyth (1980) described idealism as the belief that what is ethically right in a given situation is governed by a set of absolute moral rules. In other words, individuals who display high levels of idealism tend to make moral decisions based on rules rather than the outcome of an action. Singhapakdi et al. (2000) found that idealism is a significantly positive predictor of ethical intentions. Using an instrument developed by Forsyth (1980), we therefore control for idealism to remove its influence from our model.

Relativism is the belief that what is ethically right in a given situation depends on the characteristics of that situation (Forsyth, 1980; Sparks and Hunt, 1998; Yetmar and Eastman, 2000). In other words, individuals who utilize relativist thinking tend to make moral decisions based on the outcome of the action rather than on a set of rules or beliefs

concerning the action itself. Singhapakdi et al. (2000) found that relativism is a significantly negative predictor of ethical intentions. Using an instrument developed by Forsyth (1980), we, therefore, control for idealism to remove its influence from our model.

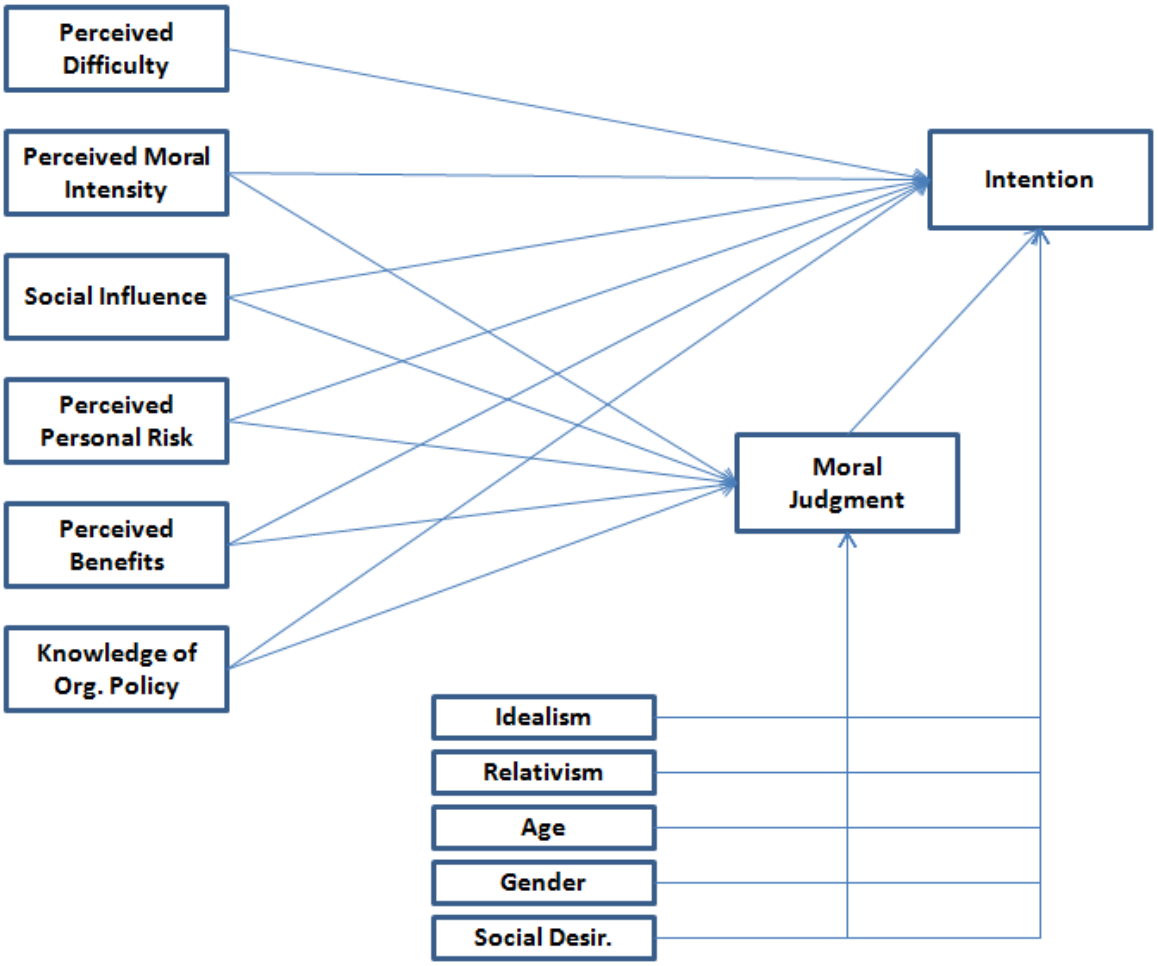

Figure 3-2: Model of Intention to Engage in PIUW

Figure 3-2 details our model of intention to engage in PIUW. In our next section, we will discuss the impact of perceived moral intensity.

3.3 The Impact of Perceived Moral Intensity

Besides having a direct impact moral judgment, there is research to suggest that perceived moral intensity may have a moderating effect on the relationship between moral judgment and its antecedents.

3.3.1 Literature Review & Hypotheses Development

The moderating effect of perceived moral intensity on the relationship between moral judgment and its antecedents and intention and its antecedents is rooted in research conducted by Weber (1990 and 1996) and Kohlberg (1969). Weber (1990 and 1996) found that an individual's perception of the perceived moral intensity of the issue affected his or her stage of moral reasoning, with higher levels of perceived moral intensity causing individuals to use a higher level of moral reasoning to make a judgment. As mentioned in chapter 2, Kohlberg's (1969) theory of moral development states that different factors will influence an individual's moral judgment depending on the level of moral reasoning they are using. While we do not measure moral reasoning level directly, it can be inferred using the findings of Weber (1996).

Weber's findings indicated that in situations with a higher level of perceived moral intensity, the individual will make moral judgments on the basis of principled moral considerations such as those described in Kohlberg's third stage of moral reasoning (e.g., universal ethical principles). A situation with a lower level of perceived moral intensity would cause the individual to make moral judgments and form intentions based on considerations other than principled moral considerations such as those described in Kohlberg's first and second stage of moral reasoning (e.g., punishment avoidance, personal gain, and conformity to standards). Thus, we hypothesize the following:

H13*: The impact of social influence on moral judgment will be greater for an issue with a lower level of perceived moral intensity.*

H13a*: The impact of social influence on moral judgment will be greater for informational PIUW than for social PIUW.*

H13b*: The impact of social influence on moral judgment will be greater for informational PIUW than for adult-related PIUW.*

H13c*: The impact of social influence on moral judgment will be greater for social PIUW than for adult-related PIUW.*

H14*: The impact of knowledge of organizational policies on moral judgment will be greater for an issue with a lower level of perceived moral intensity.*

H14a*: The impact of knowledge of organizational policies on moral judgment will be greater for informational PIUW than for social PIUW.*

H14b*: The impact of knowledge of organizational policies on moral judgment will be greater for informational PIUW than for adult-related PIUW.*

H14c*: The impact of knowledge of organizational policies on moral judgment will be greater for social PIUW than for adult-related PIUW.*

H15*: The impact of perceived personal risk on moral judgment will be greater for an issue with a lower level of perceived moral intensity.*

H15a*: The impact of perceived personal risk on moral judgment will be greater for informational PIUW than for social PIUW.*

H15b*: The impact of perceived personal risk on moral judgment will be greater for informational PIUW than for adult-related PIUW.*

H15c*: The impact of perceived personal risk on moral judgment will be greater for social PIUW than for adult-related PIUW.*

H16*: The impact of expected personal benefits on moral judgment will be greater for an issue with a lower level of perceived moral intensity.*

H16a*: The impact of expected personal benefits on moral judgment will be greater for informational PIUW than for social PIUW.*

H16b*: The impact of expected personal benefits on moral judgment will be greater for informational PIUW than for adult-related PIUW.*

H16c*: The impact of expected personal benefits on moral judgment will be greater for social PIUW than for adult-related PIUW.*

Besides having a direct impact on intention there is evidence in the ethics literature to suggest that perceived moral intensity may have a moderating effect on the relationship between intention and its antecedents as well. For example, Flannery and May (2000) found in a study of a wastewater treatment issue that the ethical intentions of managers became stronger as the magnitude of consequences increased. They also found that the antecedent factors in Ajzen's (1991) theory of planned behavior (e.g., attitude, subjective norm, and perceived behavioral control) were more strongly related to managers' ethical intentions regarding wastewater treatment when the magnitude of consequences was low (e.g., low harm to both people and the environment) than when it was high (e.g., high harm to either people or the environment).

Just as for moral judgment and its antecedents, Weber's findings suggest that a situation with a higher level of perceived moral intensity will cause the individual to form intentions on the basis of principled moral considerations such as those described in Kohlberg's third stage of moral reasoning (e.g., universal ethical principles) and that a situation with a lower level of perceived moral intensity would cause the individual to make moral judgments and form intentions based on considerations other than principled moral considerations such as those described in Kohlberg's first and second stage of moral reasoning (e.g., punishment avoidance, personal gain, and conformity to standards). Thus, we hypothesize the following:

H17*: The impact of social influence on intention will be greater for an issue with a lower level of perceived moral intensity.*

- ***H17a****: The impact of social influence on intention will be greater for informational PIUW than for social PIUW.*
- ***H17b****: The impact of social influence on intention will be greater for informational PIUW than for adult-related PIUW.*
- ***H17c****: The impact of social influence on intention will be greater for social PIUW than for adult-related PIUW.*

H18*: The impact of knowledge of organizational policies on intention will be greater for an issue with a lower level of perceived moral intensity.*

- ***H18a****: The impact of knowledge of organizational policies on intention will be greater for informational PIUW than for social PIUW.*

***H18b**: The impact of knowledge of organizational policies on intention will be greater for informational PIUW than for adult-related PIUW.*

***H18c**: The impact of knowledge of organizational policies on intention will be greater for social PIUW than for adult-related PIUW.*

***H19**: The impact of perceived personal risk on intention will be greater for an issue with a lower level of perceived moral intensity.*

***H19a**: The impact of perceived personal risk on intention will be greater for informational PIUW than for social PIUW.*

***H19b**: The impact of perceived personal risk on intention will be greater for informational PIUW than for adult-related PIUW.*

***H19c**: The impact of perceived personal risk on intention will be greater for social PIUW than for adult-related PIUW.*

***H20**: The impact of expected personal benefits on intention will be greater for an issue with a lower level of perceived moral intensity.*

***H20a**: The impact of expected personal benefits on intention will be greater for informational PIUW than for social PIUW.*

***H20b**: The impact of expected personal benefits on intention will be greater for informational PIUW than for adult-related PIUW.*

***H20c**: The impact of expected personal benefits on intention will be greater for social PIUW than for adult-related PIUW.*

H21*: The impact of perceived difficulty on intention will be greater for an issue with a lower level of perceived moral intensity.*

H21a*: The impact of perceived difficulty on intention will be greater for informational PIUW than for social PIUW.*

H21b*: The impact of perceived difficulty on intention will be greater for informational PIUW than for adult-related PIUW.*

H21c*: The impact of perceived difficulty on intention will be greater for social PIUW than for adult-related PIUW.*

3.4 Chapter Summary

Our proposed model bears some resemblance to other models that examine intention as a dependent variable such as TRA, TPB, and TAM. However, the addition of a situation specific construct (perceived moral intensity) and the examination of interaction effects between perceived moral intensity and the antecedents of intention gives us the ability to better understand technology misuses that involve a moral component such as PIUW.

Using Weber's (1996) findings as our guide, we have proposed how the strength between intention and each of its antecedents will vary depending on the perceived moral intensity of the situation. Our model can serve as a guide to allow future researchers to propose and test the moderating effect of perceived moral intensity on other antecedents of intention. In the next chapter, we will examine the methodology that we will use to conduct our study of technology abuse acts.

CHAPTER 4: METHODOLOGY

Chapter 4 discusses the methodology used in our study. This includes issues such as research design, operationalization of the constructs, pretesting and pilot testing the instrument, data collection and data screening.

4.1 Research Design

To test our hypotheses, a single, cross-sectional survey was developed focusing on technology abuse behaviors taking place in the workplace. The survey questionnaire was designed based on the literature of technology abuse, organizational behavior, and ethics. The goal of our study is to identify factors that influence employees to engage in each of these categories of PIUW. Previously tested questions were used when possible and instrument construction guidelines were followed (Fox et al., 1988).

4.2 Survey Instrument

Because of the wide range of possible PIUW activities, we decided to focus our survey on categories of PIUW behaviors. A group of Information Systems PhDs and doctoral students were asked to perform a closed card sort of 27 non-work related Internet usage behaviors reported by employees in a 2006 survey (Websense, 2006). The three categories of PIUW behaviors were labeled informational usage, social usage, and adult-related usage. Commonly agreed upon behaviors (as identified by the card sort) were then listed under each category name to provide survey respondents an example of what was meant by each category type (Informational Internet Use: browsing news,

sports, or weather sites; Social Internet Use: using social networking such as Facebook or MySpace, or playing multiplayer games; Adult Related Internet Use: viewing pornography or engaging in online gambling).

The survey contains three parts. Part one contains 10 demographic items and 7 items that test for social desirability taken from Strahan and Gerbasi (1972). Part two contains 27 items that are situation-specific that were asked for each PIUW category being considered. Part three contains 10 questions taken from Forsyth (1980) asking participants about their ethical orientation (idealism and relativism). This results in a total of 108 questions. Appendix A contains a more detailed description of what constructs appear in each section.

4.2.1 Pilot Test

To identify potential problems with our survey instrument, we conducted a pilot test before distributing it to our respondents.

4.2.1.1 Pilot Test Subjects

To pilot test our survey, we administered it to MBA students at a major US university who were also employed full-time. We provided each volunteer the opportunity to provide us with feedback at the end of the survey.

4.2.1.2 Pilot Test Discussion

The pilot test revealed a number of issues that needed to be addressed. The first issue that was mentioned by numerous respondents was the length of the survey. The second issue that was mentioned was confusion regarding the same questions being asked three times, once for each PIUW category. The third issue that was mentioned was the similarity of many of the questions to each other.

4.2.1.3 Actions Based on the Pilot Test

To reduce the number of questions on the survey, we used a subset of the 20 questions concerning idealism and relativism (Forsyth, 1980). Five questions from both the idealism and relativism items were selected by running a factor analysis on data collected in an earlier study on technology abuse (Winter et al., 2004). The five questions that explained the most variability in each group were selected.

Because of the confusion regarding the same set of questions being used for each of the three types of behaviors, a structural change was made to the survey after the pilot test. Instead of viewing one survey page containing a list of 27 questions about a single behavior three separate times, we listed each of the three categories of behaviors at the top of a column and changed our Likert scale questions from radio buttons to drop down menus (see Appendix A for a copy of the online survey). Answers were still based on a seven-point scale, but respondents could now easily compare their answers to each question concerning each of the three categories of PIUW behavior.

To address the complaints about the similarity between questions, some questions were reworded slightly to emphasize the differences between them. The ordering of the questions was then changed so that no reflective items were listed together. Therefore, questions that might sound somewhat similar were located further apart from each other.

4.3 Sampling Plan

To recruit respondents for our survey, we used the technique of network sampling. Network sampling is more commonly used in medical literature (e.g., Sudman and Freeman, 1988; Griffiths et al., 1993), but has also been used in the study of technology abuse (e.g., Winter et al., 2004). To conduct the network sampling process,

we offered a group of undergraduate students at a southeastern US university extra credit in an information systems course to recruit individuals to participate in our survey. Each participant was required to be a full-time employee with access to the Internet during their everyday work. Once the student obtained agreement from each participant, the student forwarded that person's contact information to the author, who then sent the participant an email containing a link to the survey instrument which was hosted online (see Appendix A for a copy of the online survey). In order to encourage participation to the this survey, participants were offered the chance to enter in a drawing for a $200 Wal-Mart gift card if they chose to provide their email addresses at the end of the survey.

4.4 Operationalization of the Research Constructs

The constructs in this study were derived from the technology abuse, organizational behavior, and ethics literature. For each construct we have uncovered the underlying domains and created corresponding items. The items in the survey instrument were developed based on existing instruments when possible. We used a 7-point Likert scale (ranging from 1 for "Strongly disagree" to 7 for "Strongly agree") for all questions except age and gender. Appendix A details the survey constructs along with their respective measurement items.

4.4.1 Perceived Moral Intensity

Perceived moral intensity is defined as an individual's perception of the nature of a situation in terms of six different factors: magnitude of consequences, social consensus, probability of effect, proximity to victim, temporal immediacy, and concentration of effect (Jones, 1991). To measure moral intensity, we slightly changed the wording of six measures used by Singhapakdi et al. (1996a) to better fit our study.

Table 4-1: Perceived Moral Intensity Measurement Items

Item	Question
For the following questions, please indicate your level of agreement using the scale: 1. Strongly Agree to 7. Strongly Disagree.	
PMI1	It is unlikely that engaging in this action would cause harm (e.g., through loss of productivity, exposure to hackers, viruses, or legal liability) to my organization or coworkers.
PMI2	Most people in society would agree that doing this at work is wrong. (Rev. Coded)
PMI3	If this action harmed someone or something that I cared strongly about then the action would be wrong. (Rev. Coded)
PMI4	If engaging in this activity did cause any harm, only a small number of people would be affected.
PMI5	If engaging in this activity did cause any harm, the results would not be noticed immediately.
PMI6	If engaging in this activity did cause any harm, the degree of harm would be very low.

4.4.2 Moral Judgment

Moral judgment is defined as an individual's determination of the most morally correct course of action among all of the available alternatives and is based on the second construct of Rest's (1986) four component model of moral decision making. To measure moral judgment, we modified two measurement items used in two studies that measured judgment concerning technology abuse (Harrington, 1996 and Moores and Chang, 2006). The wording of these previous items was changed to make them applicable to our study.

Table 4-2: Moral Judgment Measurement Items

Item	Question
For the following questions, please indicate your level of agreement using the scale: 1. Strongly Agree to 7. Strongly Disagree.	
JUD1	I believe I would be morally justified in doing this at work.
JUD2	I find engaging in this activity at work morally acceptable.

4.4.3 Intention

Intention is defined as an individual's conscious decision to commit a PIUW behavior and is based on the third construct of Rest's (1986) four component model of moral decision making. To measure intention we slightly modified the wording of the intention measures suggested by Ajzen (2002) to better fit our study.

Table 4-3: Intention Measurement Items

Item	Question
For the following questions, please indicate your level of agreement using the scale: 1. Strongly Agree to 7. Strongly Disagree.	
INT1	I intend to engage in this at work.
INT2	I predict that I will probably do this at work sometime in the future.

4.4.4 Social Influence

Social influence is defined as the degree to which an individual perceives that important others believe PIUW is morally unacceptable and is based on a similar construct by Venkatesh et al., (2003). To measure social influence, we modified measurement items from three previous studies that looked at technology abuse (Peace et al., 2003;Venkatesh et al., 2003; Higgins, 2005).

Table 4-4: Social Influence Measurement Items

Item	Question
For the following questions, please indicate your level of agreement using the scale: 1. Strongly Agree to 7. Strongly Disagree.	
SIF1	My family and friends would not look favorably on someone who did this at work.
SIF2	Engaging in this activity at work is discouraged by the management of my organization.
SIF3	My coworkers would not look favorably on someone who engaged in this activity at work.

4.4.5 Perceived Personal Risk

Perceived personal risk is defined as the fear that an individual has of enduring negative consequences because of committing an action. To measure perceived personal risk, we modified measurement items from two previous studies that looked at technology abuse (Cherry and Fraedrich, 2002; Darcy et al., 2008).

Table 4-5: Perceived Personal Risk Measurement Items

Item	Question
For the following questions, please indicate your level of agreement using the scale: 1. Strongly Agree to 7. Strongly Disagree.	
RSK1	Engaging in this activity at work is very likely to get me into trouble.
RSK2	Engaging in this activity is unacceptably risky to me.

4.4.6 Perceived Difficulty

Perceived difficulty is defined as an individual's perception of how hard it would be to complete a given task. To measure perceived difficulty, we modified measurement items based from Venkatesh et al.'s (2003) UTAUT study.

Table 4-6: Perceived Difficulty Measurement Items

Item	Question
For the following questions, please indicate your level of agreement using the scale: 1. Strongly Agree to 7. Strongly Disagree.	
DIF1	I have the knowledge necessary to do this at work.
DIF2	There are no technical restrictions (e.g. firewall or other security measure) that would prevent me from doing this at work.

4.4.7 Expected Perceived Benefits

Expected personal benefits are defined as the positive outcomes that an individual expects for committing an action (Bandura, 1976). To measure expected personal

benefits, we created three new measurement items based on LaRose and Eastin's (2004) study of Internet benefits.

Table 4-7: Expected Perceived Benefits Measurement Items

Item	Question
For the following questions, please indicate your level of agreement using the scale: 1. Strongly Agree to 7. Strongly Disagree.	
BEN1	Engaging in this activity at work brings me pleasure or happiness.
BEN2	Engaging in this activity could improve my current circumstances.
BEN3	Engaging in this activity at work is beneficial to me.

4.4.8 Knowledge of Organizational Policies

Knowledge of organizational policies is defined as the individual's awareness of organizational policies and guidelines regarding permissible use of IS resources (Straub and Nance 1990). To measure knowledge of organizational rules, we created a new measurement item based on items from a study that measured user awareness of security policies (Darcy et al., 2008).

Table 4-8: Knowledge of Organizational Policies Measurement Item

Item	Question
KNW1	What is your organization's policy concerning each of these activities in the workplace?
	1. Unlimited usage is allowed
	2. Limited usage is allowed
	3. No usage is allowed
	4. I am not aware of any policy

4.4.9 Age

Age (measured in years) has been found to impact both moral judgment and intention to engage in PIUW and is used as a control variable in both studies.

4.4.10 Gender

Gender has been found to impact both moral judgment and intention to engage in PIUW and is used as a control variable in both studies.

4.4.11 Idealism

Idealism is defined as a belief that what is ethically right in a given situation is governed by a set of absolute moral rules (Forsyth, 1980). It has been found to impact both moral judgment and intention to engage in PIUW and is used as a control variable in both studies. Because of concerns about instrument length, idealism was measured using a subset of items developed by Forsyth (1980). To select our subset, we conducted a factor analysis of Forsyth's full 20-item instrument for measuring idealism and relativism using the dataset from Winter et al. (2004). We selected the five highest loading items measuring idealism and compared them to the full set of ten idealism items (Reynolds, 1982; Strahan and Gerbasi, 1972). We found that our subset was .916 correlated with the full set of ten idealism items and displayed an acceptable Cronbach's Alpha.

Table 4-9: Idealism Measurement Items

Item	**Question**
For the following questions, please indicate your level of agreement using the scale: 1. Strongly Agree to 7. Strongly Disagree.	
IDL1	A person should make certain that their actions never intentionally harm another even to a small degree.
IDL2	The existence of potential harm to others is always wrong, irrespective of the benefits to be gained.
IDL3	One should never psychologically or physically harm another person.
IDL4	One should not perform an action which might in any way threaten the dignity and welfare of another individual.
IDL5	If an action could harm an innocent other, then it should not be done.

4.4.12 Relativism

Relativism is defined as a belief that what is ethically right in a given situation depends on the characteristics of that situation (Forsyth, 1980). It has been found to impact both moral judgment and intention to engage in PIUW and is used as a control variable in both studies. Relativism was measured using a subset of five items from the instrument developed by Forsyth (1980) and were chosen using the same procedure detailed above for the idealism items. We found that our subset was .925 correlated with the full set of ten idealism items and displayed an acceptable Cronbach's Alpha.

Table 4-10: Relativism Measurement Items

Item	**Question**
For the following questions, please indicate your level of agreement using the scale: 1. Strongly Agree to 7. Strongly Disagree.	
REL1	Moral standards should be seen as being individualistic; what one person considers to be moral may be judged to be immoral by another person.
REL2	Different types of moralities cannot be compared as to "rightness."
REL3	Questions of what is ethical for everyone can never be resolved since what is moral or immoral is up to the individual.
REL4	Moral standards are simply personal rules which indicate how a person should behave, and are not to be applied in making judgments of others.
REL5	Ethical considerations in interpersonal relations are so complex that individuals should be allowed to formulate their own individual codes.

4.4.13 Social Desirability

Social desirability is the tendency of a respondent to answer in a way that will be viewed as favorable by others (Fischer and Fick, 1993). To control for this influence in our data, we used a subset of the Marlowe-Crowne Social Desirability Scale (SDS) that was developed by Strahan & Gerbasi (1972) and found by Fischer and Fick (1993) to be superior to other subsets of the SDS that have been used in previous literature. They

reported that this instrument was highly correlated with the original scale and displayed high internal consistency.

Table 4-11: Social Desirability Measurement Item

Item	**Question**
Please select your answers to the following questions. (True or False)	
SD1	I like to gossip at times.
SD2	There have been occasions when I took advantage of someone.
SD3	I'm always willing to admit it when I make a mistake.
SD4	I sometimes try to get even rather than forgive and forget.
SD5	At times I have really insisted on having things my own way.
SD6	I have never been irked when people expressed ideas very different from my own.
SD7	I have never deliberately said something that hurt someone's feelings.

4.5 Chapter Summary

In chapter 4 we discuss the methodology used to build and test our model. We began by discussing the development of our instrument and then discussed the operationalization of each of the constructs. The survey was pretested by both PhDs and MBA students for readability and for length. We then made changes to the original survey instrument and had it reviewed by PhDs in information systems that were knowledgeable in survey research and experts in the subject area. The survey was then administered to 976 individuals. The data was examined and cases with missing or problem data were removed. In the next chapter, we discuss the analysis of the data and the results of this analysis.

CHAPTER 5: DATA ANALYSIS AND RESULTS

The goal of our research is to examine the factors that impact an employee's moral judgment and intention concerning PIUW. The last chapter discussed the development of our survey instrument. This chapter will discuss the analysis of the data collected using that survey.

5.1 Data Collection and Survey Procedures

The survey was administered online and invitations were sent out via email. The first email was sent out within 48 hours of the submission of the volunteer's name. A second follow-up email was sent out to all volunteers who had not yet taken the survey approximately one week before the deadline to respond.

5.1.1 Respondent Demographics

Data collection for our study occurred from mid-March through mid-April 2010. A total of 976 individuals responded to the survey. After data screening, 787 cases were used for analysis (see section 5.2.2 for a discussion of data screening procedures). Of these, 338 (42.9%) of the respondents were male. 321 of the respondents were between the ages of 18-30; 211 of the respondents were between the ages of 31-45; 232 of the respondents were between the ages of 40-60; and 23 of the respondents were older than 60. The sampling frame required that respondents be employed full-time with regular access to the Internet during their work. We explain this requirement in the informed

consent form that all respondents must view before starting the survey and ask respondents not to take the survey if they don't meet these criteria.

Our sample set represented a diverse array of jobs. Although we did not code the data for specific job type, a review of the data revealed participants came from a number of fields including: food service, medicine, law, news, communications, government, the arts, retail, insurance, banking, and education.

5.1.2 Response Rate and Non-response Bias

Because of the nature of online survey responses, it is possible to examine exactly when responses are received. Below is a line graph of how many responses were received each day during the survey period. The spike in responses on 4/7/2010 correlates with a reminder email that was sent out to all volunteers who had yet to take the survey. A smaller spike occurs right before the deadline of the survey. A total of 1326 survey invitations were sent out to people who agreed to participate in the survey. A total of 976 responses were received for a 73.6% response rate.

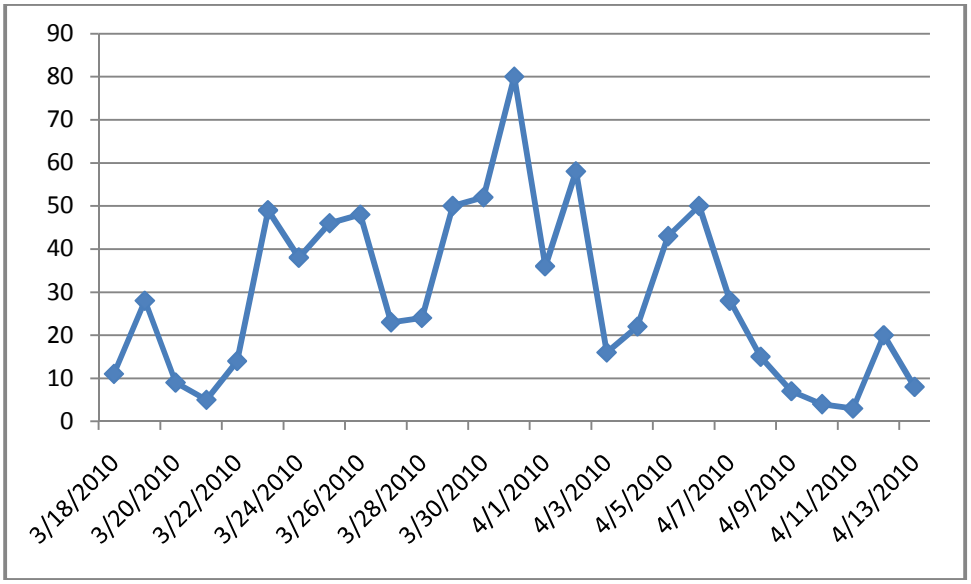

Figure 5-1: Response Timeline Graph

To examine the data for the possibility of non-response bias, we used the extrapolation method pioneered by Armstrong and Overton (1977) to examine "waves" of respondents. If we define the last "wave" of respondents as those who responded after the email reminder was sent out, we can compare these respondents to the first respondents and examine these groups for statistically significant difference. The reasoning for this is that those who responded after the reminder email might not have responded at all if not for the second invitation. The number of participants who responded after the reminder email was 135. These were compared to the first 135 respondents using t-tests. Statistically significant differences were found for perceived moral intensity (likelihood of harm and societies view), difficulty (presence of technical restrictions), and both intention items for informational usage. Those who took the survey in the last wave rated informational PIUW as having a higher perceived moral intensity than those in the first wave. They also reported a lower intention to engage in informational PIUW. In addition, those in the last wave reported a higher incidence of technical restrictions on informational PIUW than those in the first wave.

A logical explanation for all of these findings exists: those who have a higher perceived moral intensity of informational usage would be more likely to put off taking a research survey that would fall into the informational category while at work. Since most survey invitations were sent out during the day, it would seem to be more convenient for respondents to answer from a computer at their workplace. However, there was nothing that would prevent respondents from completing the survey from a home computer at a later time. Similarly, those that have technical restrictions against informational PIUW at work would also be more likely to put off taking a survey that would fall into that

category. Because of these reasons, it is not surprising that those in the second wave reported a lower intention (items 1 and 2) to engage in informational PIUW than those in the first wave. We do not believe that these differences will impact the effects of our study since anyone who agreed to respond could have done so from a home computer.

We did have anecdotal reports that some respondents did not receive their invitations or had accidentally deleted them. It was not possible to narrow these reports down to a particular email service, since our data showed that users of every major public email service were able to respond to the survey.

5.2 Preliminary Data Analysis

In order to prepare data for analysis, it is necessary to clean and prepare the data. This preparation is discussed in detail below.

5.2.1 Recoding

In order to enhance understanding of the results, many of the items were reverse coded so that a lower number would indicate a lower value (e.g., social influence, PMI, benefits, risk, moral judgment, and intention). Two of the PMI items were worded in an opposite direction than the other PMI items (PMI2 and PMI3). It was necessary to reverse code them as well. Recoded items are denoted by the letters "RC" added to the variable name.

5.2.2 Data Problems Requiring Dropping the Case

The online survey was created in such a way as to require participants to answer all questions on a page before they could advance to the next page. Inevitably, some participants did not complete the survey once they had started it. The survey did not allow participants to return at a later time to continue once they closed their browser.

This was stated to the participants in the informed consent form on the first page of the survey. Because the survey did not allow the respondent to continue without answering all the questions on the page, any incomplete cases were missing answers to at least 10 questions (see appendix C, section 3). Because of this, any case containing an unfinished survey response was dropped from the data set. Specifically, 87 cases were dropped because of missing data, with 889 cases remaining.

Because of the nature of our recruiting method, there was a chance that students might submit fake names and email addresses in order to receive extra credit. The student might then access each of these email addresses created through a free service such as Yahoo! or Hotmail and take the survey using the invitations sent to each address. To reduce the possibility of this impacting our results, the IP address of each submission was recorded. IP addresses that submitted three or more surveys were checked against a whois database in order to identify the owner of that IP address. Survey data belonging to IP addresses that had submitted more than two responses and were identified as being used by residential Internet customers were removed from the dataset. Specifically, 6 suspicious IP addresses were identified and a total of 23 cases were removed from the data set leaving 866 cases remaining.

Last, there appeared to be cases where the respondent did not take the time to read the survey carefully. There were cases in which the respondent answered all 108 questions in such a short amount of time that we felt it was very unlikely that he or she had actually read each question, let alone given a thoughtful answer. Specifically, we identified cases in which the respondent had taken the entire survey in 7 minutes or less. During our initial evaluations of the survey, we did not have a single respondent who

answered in this short amount of time. It is assumed that these respondents completed the survey out of a sense of obligation, but did not actually take the time to read or think about their answers. For this reason, 79 cases were removed from the data set, leaving a total of 787 cases for analysis.

5.2.3 Descriptive Statistics

After performing the data cleaning procedures describe above, descriptive statistics were calculated for the remaining 787 data points. These statistics are displayed in table 5-1 below.

Table 5-1: Measurement Item Descriptive Statistics

Variable	Item	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	Kurtosis	Survey Question #
Perceived Benefits	BEN11_RC	787	1	7	4.5	1.7	-0.5	-0.329	s2_13a
	BEN12_RC	787	1	7	3.4	2.1	0.13	-1.324	s2_13b
	BEN13_RC	787	1	7	1.5	1.2	2.04	3.146	s2_13c
	BEN21_RC	787	1	7	3.8	2	-0.1	-1.014	s2_19a
	BEN22_RC	787	1	7	2.8	1.8	0.55	-0.815	s2_19b
	BEN23_RC	787	1	7	1.4	1.1	2.71	7.193	s2_19c
	BEN31_RC	787	1	7	5.1	1.8	-1.0	0.110	s2_21a
	BEN32_RC	787	1	7	3.3	2	0.24	-1.243	s2_21b
	BEN33_RC	787	1	7	1.3	1	3.42	12.141	s2_21c
Perceived Personal Risk	RSK11_RC	787	1	7	3	2	0.67	-0.798	s2_14a
	RSK12_RC	787	1	7	4.7	2.2	-0.4	-1.255	s2_14b
	RSK13_RC	787	1	7	6.5	1.4	-3.2	8.905	s2_14c
	RSK21_RC	787	1	7	2.9	1.9	0.72	-0.581	s2_24a
	RSK22_RC	787	1	7	4.3	2.2	-0.1	-1.373	s2_24b
	RSK23_RC	787	1	7	6.2	1.7	-2.1	3.258	s2_24c

Table 5-1: (Continued)

Idealism	IDL1	787	1	7	1.7	1.2	2.29	5.755	s3_1
	IDL2	787	1	7	2.2	1.6	1.35	0.898	s3_2
	IDL3	787	1	7	1.6	1.2	2.59	6.757	s3_3
	IDL4	787	1	7	1.6	1.2	2.44	6.104	s3_4
	IDL5	787	1	7	1.7	1.3	2.42	5.826	s3_5
Relativism	REL1	787	1	7	3.1	2.1	0.72	-0.870	s3_6
	REL2	787	1	7	2.9	1.8	0.73	-0.518	s3_7
	REL3	787	1	7	3.8	2.1	0.17	-1.418	s3_8
	REL4	787	1	7	3.9	2.1	0.03	-1.383	s3_9
	REL5	787	1	7	4.3	2	-0.2	-1.224	s3_10
Social Desirability	SD1	787	0	1	0.4	0.5			s1_11
	SD2	787	0	1	0.5	0.5			s1_12
	SD3	787	0	1	0.7	0.4			s1_13
	SD4	787	0	1	0.6	0.5			s1_14
	SD5	787	0	1	0.2	0.4			s1_15
	SD6	787	0	1	0.3	0.4			s1_16
	SD7	787	0	1	0.4	0.5			s1_17
Knowledge of Org. Policies	KWL11_d1	787	0	1	0.3	0.5			s2_1a
	KWL11_d2	787	0	1	0.5	0.5			s2_1a
	KWL11_d3	787	0	1	0.1	0.3			s2_1a
	KWL12_d1	787	0	1	0.1	0.3			s2_1b
	KWL12_d2	787	0	1	0.3	0.4			s2_1b
	KWL12_d3	787	0	1	0.5	0.5			s2_1b
	KWL13_d1	787	0	1	0	0.1			s2_1c
	KWL13_d2	787	0	1	0	0.1			s2_1c
	KWL13_d3	787	0	1	0.9	0.3			s2_1c
Judgment	JUD11_RC	787	1	7	5.5	1.7	-1.2	0.681	s2_3a
	JUD12_RC	787	1	7	3.4	2.1	0.23	-1.312	s2_3b
	JUD13_RC	787	1	7	1.4	1.2	3.6	12.162	s2_3c
	JUD21_RC	787	1	7	5.5	1.6	-1.3	1.094	s2_20a
	JUD22_RC	787	1	7	3.7	2.1	0.01	-1.373	s2_20b
	JUD23_RC	787	1	7	1.3	1.1	3.68	13.643	s2_20c
Intention	INT11_RC	787	1	7	5.6	1.7	-1.4	1.211	s2_4a
	INT12_RC	787	1	7	3.3	2.3	0.31	-1.458	s2_4b
	INT13_RC	787	1	7	1.2	0.8	5.48	31.339	s2_4c
	INT21_RC	787	1	7	6.1	1.5	-2.1	3.876	s2_8a
	INT22_RC	787	1	7	3.8	2.5	0.09	-1.698	s2_8b
	INT23_RC	787	1	7	1.2	1	4.91	24.313	s2_8c

Table 5-1: (Continued)

Variable	Item	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	Kurtosis	Survey Question #
Perceived Moral Intensity	PMI11	787	1	7	3	2	0.76	-0.628	s2_5a
	PMI12	787	1	7	4.5	2.2	-0.3	-1.363	s2_5b
	PMI13	787	1	7	6	2.1	-1.8	1.489	s2_5c
	PMI21_RC	787	1	7	3.2	1.9	0.46	-1.032	s2_6a
	PMI22_RC	787	1	7	4.7	1.8	-0.4	-0.948	s2_6b
	PMI23_RC	787	1	7	6.3	1.7	-2.5	4.446	s2_6c
	PMI31_RC	787	1	7	6.1	1.6	-1.8	2.607	s2_7a
	PMI32_RC	787	1	7	6.2	1.5	-2.0	3.524	s2_7b
	PMI33_RC	787	1	7	6.5	1.4	-2.8	7.274	s2_7c
	PMI41	787	1	7	3.7	2	0.29	-0.998	s2_15a
	PMI42	787	1	7	4.1	2.1	0.05	-1.217	s2_15b
	PMI43	787	1	7	4.8	2.3	-0.5	-1.228	s2_15c
	PMI51	787	1	7	3.6	2	0.32	-1.014	s2_18a
	PMI52	787	1	7	3.8	2.1	0.18	-1.226	s2_18b
	PMI53	787	1	7	4.2	2.4	-0.1	-1.547	s2_18c
	PMI61	787	1	7	2.7	1.7	0.99	0.280	s2_22a
	PMI62	787	1	7	3.8	2.1	0.28	-1.175	s2_22b
	PMI63	787	1	7	5.9	1.8	-1.4	0.836	s2_22c
Perceived Difficulty	DIF11	787	1	7	1.6	1.2	2.55	7.015	s2_9a
	DIF12	787	1	7	2.8	2.2	0.89	-0.703	s2_9b
	DIF13	787	1	7	4.6	2.5	-0.4	-1.489	s2_9c
	DIF21	787	1	7	2.8	2.2	0.91	-0.698	s2_10a
	DIF22	787	1	7	3.9	2.6	0.07	-1.708	s2_10b
	DIF23	787	1	7	4.9	2.5	-0.6	-1.292	s2_10c
Social Influence	SIF11_RC	787	1	7	3	1.9	0.57	-0.774	s2_11a
	SIF12_RC	787	1	7	4.1	2	-0.1	-1.195	s2_11b
	SIF13_RC	787	1	7	6.3	1.7	-2.4	4.118	s2_11c
	SIF21_RC	787	1	7	3.9	2	0.07	-1.225	s2_17a
	SIF22_RC	787	1	7	5.2	2	-0.7	-0.843	s2_17b
	SIF23_RC	787	1	7	6.6	1.3	-3.2	9.667	s2_17c
	SIF31_RC	787	1	7	2.7	1.8	0.83	-0.264	s2_26a
	SIF32_RC	787	1	7	4	2.1	0.06	-1.315	s2_26b
	SIF33_RC	787	1	7	6.2	1.8	-2.2	3.252	s2_26c

The descriptive statistics show that for every item, the full range of possible responses was given. Skewness ranged from -3.2 to 5.48 and kurtosis ranged from -1.708 to 31.339 indicating non-normality in the results. The majority of this non-normal data is in the responses for adult-related PIUW which we expect to be non-normally distributed. Since PLS does not have normality assumptions, we will not attempt to transform the data.

5.3 Construct Reliability and Validity

Our examination of the model will include an analysis of each PIUW category (informational, social, and adult-related) independently. Before we could analyze the adequacy of the model, we first had to assess the reliability and validity of the constructs. Our measurement model contains six independent variables, five control variables, and two dependent variables. Of the six independent variables, three are formative constructs (perceived moral intensity, social influence, and difficulty) and three are reflective constructs (risk, benefits, and knowledge of organizational policies). All five control variables are reflective (idealism, relativism, social desirability, gender and age).

Because reflective constructs are expected to covary but formative items are not, we must conduct separate evaluations for each type of construct using methods taken from previous literature (Chin, 1998a, 1998b; Gray & Meister, 2004; Hulland, 1999).

5.3.1 Reflective Construct Reliability

To evaluate the reliability of the reflective constructs, we used the item loadings generated by the PLS analysis. Items identified as problematic (item loading score lower than .70) are bolded in the following table and are candidates for removal from the

analysis since they fall below the customary cutoff value for IS research (Chin et al., 2003).

Table 5-2: Reliability Analysis for Informational PIUW

Variable	Item	Loading
Social Desirability	SD1	**0.528*** **
	SD2	0.723***
	SD3	**0.217**
	SD4	**0.620*** **
	SD5	**0.577*** **
	SD6	**0.220**
	SD7	**0.441*** **
Moral Judgment	JUD11_RC	0.879***
	JUD21_RC	0.912***
Intention	INT11_RC	0.917***
	INT21_RC	0.906***
Perceived Benefits	BEN11_RC	0.737***
	BEN21_RC	0.785***
	BEN31_RC	0.866***
Perceived Personal Risk	RSK11_RC	0.898***
	RSK21_RC	0.874***
Idealism	IDL1	0.742***
	IDL2	0.803***
	IDL3	0.867***
	IDL4	0.876***
	IDL5	0.705***
Relativism	REL1	**0.467***
	REL2	0.839*
	REL3	**0.353**
	REL4	**0.555***
	REL5	**-0.034**

***=p<.001; **=p<.01; *=p<.05

Six of the seven social desirability items have loadings below .70. Through an iterative process of dropping the lowest loading item, SD2 and SD4 were retained with loadings of .860 and .759, respectively. Four relativism items also loaded below the .70 mark. Through an iterative process of dropping the lowest loading value, REL1 and REL4 were retained with loadings of .680 and .975, respectively. Although REL1 loads with a value slightly less than 0.70, we have chosen to retain it because of the exploratory nature of this research.

Table 5-3: Reliability Analysis for Social PIUW

Variable	Item	Loading
Social Desirability	SD1	**0.550*** **
	SD2	0.740***
	SD3	**0.328*** **
	SD4	**0.641*** **
	SD5	**0.493*** **
	SD6	**0.108**
	SD7	**0.466*** **
Moral Judgment	JUD12_RC	0.911***
	JUD22_RC	0.921***
Intention	INT12_RC	0.965***
	INT22_RC	0.966***
Perceived Benefits	BEN12_RC	0.837***
	BEN22_RC	0.871***
	BEN32_RC	0.892***
Perceived Personal Risk	RSK12_RC	0.886***
	RSK22_RC	0.887***
Idealism	IDL1	0.774***
	IDL2	0.755***
	IDL3	0.884***
	IDL4	0.873***
	IDL5	0.714***
Relativism	REL1	0.743***
	REL2	**0.492*** **
	REL3	0.834***
	REL4	0.815***
	REL5	0.880***

***=p<.001; **=p<.01; *=p<.05

Six of the seven social desirability items have loadings below .70. Through an iterative process of dropping the lowest loading item, SD2 and SD4 were retained with loadings of .853 and .767, respectively. To allow us to keep our model identical for all PIUW behavior analyses, REL1 and REL4 were retained with loadings of .875 and .856, respectively.

Table 5-4: Reliability Analysis for Adult-Related PIUW

Variable	Item	Loading
Social Desirability	SD1	**0.334**
	SD2	**0.565**
	SD3	**-0.106**
	SD4	0.701
	SD5	**0.010**
	SD6	**-0.409**
	SD7	**-0.143**
Moral Judgment	JUD12_RC	0.731***
	JUD22_RC	0.831***
Intention	INT12_RC	0.867***
	INT22_RC	0.852***
Perceived Benefits	BEN12_RC	**0.685*** **
	BEN22_RC	0.781***
	BEN32_RC	0.861***
Perceived Personal Risk	RSK12_RC	0.814***
	RSK22_RC	0.774***
Idealism	IDL1	0.749***
	IDL2	0.701***
	IDL3	0.852***
	IDL4	0.859***
	IDL5	0.814***
Relativism	REL1	**0.642*** **
	REL2	**0.568*** **
	REL3	0.846***
	REL4	0.839***
	REL5	0.814***

***=p<.001; **=p<.01; *=p<.05

Six of the seven social desirability items have loadings below .70. Through an iterative process of dropping the lowest loading item, SD2 and SD4 were retained with loadings of .853 and .767, respectively. To allow us to keep our model identical for all PIUW behavior analyses, REL1 and REL4 were retained with loadings of .741 and .952, respectively. Although BEN12_RC loads with a value slightly less than 0.70, we have chosen to retain it because of the exploratory nature of this research.

5.3.2 Reflective Item Construct Validity

To determine the convergent and discriminant item validity of our measures, we conducted a factor analysis of all of our reflective independent variables. This analysis allows the researcher to assess whether all items load onto the factors that they are hypothesized to load onto providing an indication of discriminant validity (Straub et al., 2004). Straub et al. also suggested that dependent and independent factors at different levels of the model should be examined in a separate factor analysis because of the high degree of correlation that would be expected between the independent variable and the dependent variable that it is hypothesized to impact. Therefore, only our independent variables are loaded into this factor analysis. The results of the factor analysis are shown in the table below. Item loadings with an absolute value of less than .50 are suppressed.

Table 5-5: Factor Analysis for Informational PIUW Dataset – Ind. Variables

	Component				
	1	2	3	4	5
benefit11_RC		.758			
benefit21_RC		.809			
benefit31_RC		.690			
risk11_RC			.843		
risk21_RC			.858		
IDL1	.778				
IDL2	.749				
IDL3	.819				
IDL4	.843				
IDL5	.757				
REL1				.867	
REL4				.856	
sd_q2_coded					.803
sd_q4_coded					.791

Extraction Method: Principal Component Analysis. Rotation Method: Equamax with Kaiser Normalization.

Table 5-6: Factor Analysis for Social PIUW Dataset – Ind. Variables

	Component				
	1	2	3	4	5
benefit12_RC		.737			
benefit22_RC		.805			
benefit32_RC		.816			
risk12_RC					.608
risk22_RC					.616
IDL1	.773				
IDL2	.753				
IDL3	.823				
IDL4	.850				
IDL5	.757				
REL1			.815		
REL4			.798		
sd_q2_coded				.804	
sd_q4_coded				.789	

Extraction Method: Principal Component Analysis. Rotation Method: Equamax with Kaiser Normalization.

Table 5-7: Factor Analysis for Adult-Related PIUW Dataset – Independent Variables

	Component				
	1	2	3	4	5
benefit13_RC		.668			
benefit23_RC		.815			
benefit33_RC		.814			
risk13_RC					.800
risk23_RC					.761
IDL1	.779				
IDL2	.761				
IDL3	.827				
IDL4	.848				
IDL5	.752				
REL1			.855		
REL4			.865		
sd_q2_coded				.834	
sd_q4_coded				.760	

Extraction Method: Principal Component Analysis. Rotation Method: Equamax with Kaiser Normalization.

The factor analyses for the informational, social, and adult-related PIUW datasets reveal that all reflective items in the analysis load cleanly on their proposed factors.

An additional way to examine convergent and discriminant validity is to examine the average variance extracted (AVE) score that is produced by PLS (Chin & Gopal, 1995). To display convergent validity, the average variance extracted (AVE) by a construct should be at least .50 in order to demonstrate that the variance explained by the construct is greater than the variance explained by measurement error. All of the reflective items in all three analyses display adequate convergent validity.

To determine discriminant validity, the square root of each construct's AVE is compared with the correlations between that construct and all other constructs. Adequate discriminant validity is displayed when each construct's AVE is higher than the correlation between it and any other construct. This analysis can be seen in the tables below.

Table 5-8: Construct Discriminant Analysis - AVE Analysis - Informational PIUW

	Benefits	IDL	Intention	Judgment	REL	Risk	SD
Benefits	**0.798**						
IDL	0.206	**0.802**					
Intention	0.638	0.167	**0.912**				
Judgment	0.613	0.134	0.675	**0.896**			
REL	0.010	0.073	0.055	0.036	**0.840**		
Risk	-0.502	-0.147	-0.578	-0.547	-0.135	**0.887**	
SD	-0.177	-0.241	-0.188	-0.113	0.084	0.096	**0.811**

Table 5-9: Construct Discriminant Analysis - AVE Analysis - Social PIUW

	Benefits	IDL	Intent	Judgment	REL	Risk	SD
Benefits	**0.850**						
IDL	0.139	**0.802**					
Intent	0.794	0.118	**0.965**				
Judgment	0.782	0.190	0.770	**0.917**			
REL	-0.095	0.072	-0.147	-0.096	**0.865**		
Risk	-0.644	-0.145	-0.671	-0.681	0.085	**0.887**	
SD	-0.190	-0.239	-0.207	-0.201	0.099	0.145	**0.811**

Table 5-10: Construct Discriminant Analysis - AVE Analysis - Adult-Related PIUW

	Benefits	IDL	Intention	Judgment	REL	Risk	SD
Benefits	**0.779**						
IDL	0.084	**0.797**					
Intention	0.517	0.102	**0.860**				
Judgment	0.591	0.083	0.536	**0.783**			
REL	-0.051	0.063	-0.046	-0.082	**0.853**		
Risk	-0.282	-0.059	-0.299	-0.316	0.036	**0.794**	
SD	-0.112	-0.230	-0.122	-0.077	0.096	0.095	**0.811**

All of the reflective items for informational, social, and adult PIUW display adequate discriminant validity.

In this section we have examined the discriminant and convergent validities of the reflective items for all three categories of PIUW. Through multiple examinations, we

have found that all constructs in our study display acceptable validity for analysis. We must now examine the formative constructs in our study.

A PLS analysis of the refined constructs and their items indicates that all factors are now significant, all items (with the exception of REL1 in the informational analysis which loaded with a 0.680 and BEN13_RC in the adult-related analysis which loaded with a 0.685) load above a .70, and all have a composite reliability score of at least a 0.70.

Table 5-11: Modified Reflective Construct Items – Informational PIUW

Variable	Item	Loading	Cronbach's Alpha	Composite Reliability	AVE
Social Desirability	SD2	0.860***	-	0.793	0.658
	SD4	0.759***			
Moral Judgment	JUD11_RC	0.877***	0.753	0.890	0.802
	JUD21_RC	0.913***			
Intention	INT11_RC	0.918***	0.795	0.908	0.831
	INT21_RC	0.905***			
Perceived Benefits	BEN11_RC	0.737***	0.716	0.840	0.637
	BEN21_RC	0.785***			
	BEN31_RC	0.866***			
Perceived Personal Risk	RSK11_RC	0.898***	0.727	0.880	0.786
	RSK21_RC	0.874***			
Idealism	IDL1	0.742***	0.856	0.899	0.643
	IDL2	0.803***			
	IDL3	0.867***			
	IDL4	0.876***			
	IDL5	0.705***			
Relativism	REL1	0.680*	0.666	0.823	0.706
	REL4	0.975***			

***=p<.001; **=p<.01; *=p<.05

Table 5-12: Modified Reflective Construct Items – Social PIUW

Variable	Item	Loading	Cronbach's Alpha	Composite Reliability	AVE
Social Desirability	SD2	0.853***	-	0.793	0.658
	SD4	0.767***			
Moral Judgment	JUD12_RC	0.911***	0.809	0.913	0.840
	JUD22_RC	0.921***			
Intention	INT12_RC	0.965***	0.924	0.965	0.932
	INT22_RC	0.966***			
Perceived Benefits	BEN12_RC	0.837***	0.807	0.886	0.722
	BEN22_RC	0.819***			
	BEN32_RC	0.892***			
Perceived Personal Risk	RSK12_RC	0.886***	0.727	0.880	0.786
	RSK22_RC	0.887***			
Idealism	IDL1	0.774***	0.856	0.900	0.644
	IDL2	0.755***			
	IDL3	0.884***			
	IDL4	0.873***			
	IDL5	0.714***			
Relativism	REL1	0.875***	0.666	0.857	0.749
	REL4	0.856***			

***=p<.001; **=p<.01; *=p<.05

Table 5-13: Modified Reflective Construct Items – Adult-Related PIUW

Variable	Item	Loading	Cronbach's Alpha	Composite Reliability	AVE
Social Desirability	SD2	0.753***	-	0.792	0.657
	SD4	0.864***			
Moral Judgment	JUD13_RC	0.731***	0.369	0.759	0.613
	JUD23_RC	0.832***			
Intention	INT13_RC	0.866***	0.643	0.850	0.739
	INT23_RC	0.853***			
Perceived Benefits	BEN13_RC	0.685***	0.687	0.821	0.607
	BEN23_RC	0.781***			
	BEN33_RC	0.861***			
Perceived Personal Risk	RSK13_RC	0.814***	0.410	0.774	0.631
	RSK23_RC	0.774***			
Idealism	IDL1	0.749***	0.856	0.897	0.636
	IDL2	0.701***			
	IDL3	0.852***			
	IDL4	0.859***			
	IDL5	0.815***			
Relativism	REL1	0.741***	0.666	0.840	0.727
	REL4	0.952***			

***=p<.001; **=p<.01; *=p<.05

Although the Cronbach's Alpha score for some of the constructs is below 0.70, Cronbach's Alpha is very susceptible to non-normally distributed data (Christmann and Van Aelst, 2006) and so, for this reason, we will use the composite reliability scores generated by the PLS analysis to gauge reliability.

5.3.3 Formative Construct Reliability and Validity

Because of the nature of formative constructs, reliability and validity cannot be determined in the same way that it can be for reflective constructs (Chin, 1998a; Gray & Meister, 2004). Formative constructs represent different attributes or aspects of the latent variable, and therefore, there is no assumption that the items of a formative variable will covary (Bollen & Lennox, 1991; Chin, 1998b; Hulland, 1999).

However, it is necessary to have some metric of evaluation for formative measures to ensure the quality of the research being conducted. Formative measures should be evaluated for content validity to ensure that the items do represent the latent variable that they are proposed to determine. Our model includes three formative variables: perceived moral intensity, perceived difficulty, and social influence. We will reexamine the origins of the measures of each of these variables.

As mentioned earlier, perceived moral intensity, perceived difficulty, and social influence are all based on constructs found in previous literature. Perceived moral intensity was proposed by Jones (1991) as a second order construct with six first-order constructs. Our measure for each of these first order constructs was derived from previous literature (see appendix A). Perceived difficulty is based on TAM's (Davis et al., 1989) perceived ease of use construct as well as Venkatesh et al.'s (2003) perceived behavioral control construct that "reflects perceptions of internal and external constraints

on behavior." Social influence is based on Venkatesh et al.'s (2003) construct of the same name. It measures the influence of friends and family, colleagues, and managers. Our measures for each of these first order constructs was derived from previous literature (see appendix A).

Another indicator of the appropriateness of a formative item is the weight with which it loads on its proposed factor in a PLS analysis. An item's weight can give us an indication of how much it contributes to the overall construct (Gray & Meister, 2004; Hulland, 1999). The item weights for the formative items are shown below.

Table 5-14: Formative Item Weights

	Informational		**Social**		**Adult-Related**	
Item	**Weight**	**T Score**	**Weight**	**T Score**	**Weight**	**T Score**
PMI1	0..496	7.967	0.514	11.822	0.455	4.677
PMI2	0.473	7.778	0.243	6.702	0.237	3.179
PMI3	**-0.069**	**1.292**	**-0.017**	**0.522**	**0.120**	**1.319**
PMI4	**0.062**	**1.195**	**0.043**	**1.084**	**0.107**	**1.354**
PMI5	**0.073**	**1.380**	**0.005**	**0.123**	**-0.044**	**0.508**
PMI6	0.426	6.735	0.554	12.072	0.726	8.720
SIF1	0.250	4.485	0.323	7.772	0.346	3.179
SIF2	0.437	7.982	0.434	10.377	0.578	5.541
SIF3	0.565	9.811	0.511	11.491	0.555	5.481
DIF1	0.763	11.434	0.651	13.894	0.750	7.570
DIF2	0.493	5.507	0.537	10.581	0.478	3.826

Items with t scores less than 1.96 are not significant at the $p<.05$ level and are candidates for deletion. These items (in bold) will be removed from further analysis. Table 5-20 contains the new loadings for the retained items.

Table 5-15: Revised Formative Item Weights

	Informational		Social		Adult-Related	
Item	**Weight**	**T Score**	**Weight**	**T Score**	**Weight**	**T Score**
PMI1	0.514	8.731	0.517	12.387	0.470	4.544
PMI2	0.464	8.484	0.241	6.871	0.264	3.820
PMI6	0.467	8.065	0.572	13.465	0.768	13.673
SIF1	0.250	5.008	0.323	6.750	0.346	3.422
SIF2	0.437	8.260	0.434	9.569	0.578	5.320
SIF3	0.565	10.747	0.511	10.304	0.555	5.717
DIF1	0.763	12.081	0.651	13.494	0.750	8.471
DIF2	0.493	5.903	0.537	10.637	0.478	4.252

We also examine the items of formative constructs for issues with multicollinearity (.70 or greater).

Table 5-16: Informational PIUW Multicollinearity Analysis – Social Influence

	social_inf11_RC	**social_inf21_RC**	**social_inf31_RC**
social_inf11_RC	1.000		
social_inf21_RC	0.342	1.000	
social_inf31_RC	0.478	0.439	1.000

Table 5-17: Informational PIUW Multicollinearity Analysis – Perceived Difficulty

	difficult11	**difficult21**
difficult11	1.000	
difficult21	0.233	1.000

Table 5-18: Informational PIUW Multicollinearity Analysis – PMI

	pmi11	**pmi21_RC**	**pmi61**
pmi11	1.000		
pmi21_RC	0.273	1.000	
pmi61	0.221	0.154	1.000

Table 5-19: Social PIUW Multicollinearity Analysis – Social Influence

	social_inf12_RC	social_inf22_RC	social_inf32_RC
social_inf12_RC	1.000		
social_inf22_RC	0.339	1.000	
social_inf32_RC	0.464	0.449	1.000

Table 5-20: Social PIUW Multicollinearity Analysis – Perceived Difficulty

	difficult12	difficult22
difficult12	1.000	
difficult22	0.413	1.000

Table 5-21: Social PIUW Multicollinearity Analysis – PMI

	pmi13	pmi23_RC	pmi63
pmi13	1.000		
pmi23_RC	0.002	1.000	
pmi63	0.146	0.031	1.000

Table 5-22: Adult-Related PIUW Multicollinearity Analysis – Social Influence

	social_inf13_RC	social_inf23_RC	social_inf33_RC
social_inf13_RC	1.000		
social_inf23_RC	0.099	1.000	
social_inf33_RC	0.222	0.176	1.000

Table 5-23: Adult-Related PIUW Multicollinearity Analysis – Perceived Difficulty

	difficult13	difficult23
difficult13	1.000	
difficult23	0.291	1.000

Table 5-24: Adult-Related PIUW Multicollinearity Analysis – PMI

	pmi13	pmi23_RC	pmi63
pmi13	1.000		
pmi23_RC	0.002	1.000	
pmi63	0.146	0.031	1.000

The results listed in the tables below indicate that there are no issues with multicollinearity between items in our formative constructs.

5.3.4 Construct Characteristics

In the previous sections, we examined all of the proposed constructs and made changes to improve the validity and reliability of each of them, if necessary. Tables 5-21 through 5-23 contain the descriptive statistics of our revised constructs.

Table 5-25: Descriptive Statistics for Revised Constructs - Informational PIUW

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Age	787	1	4	1.9	0.9
Benefits	787	1	7	4.5	1.5
Difficulty	787	1	7	1.9	1.2
Gender	787	1	2	1.6	0.5
IDL	787	1	7	1.7	1
Intention	787	1	7	5.8	1.5
Judgment	787	1	7	5.5	1.5
PMI	787	1	7	3	1.3
REL	787	1	7	3.3	1.6
Risk	787	1	7	2.9	1.7
SD	787	0	1	0.5	0.5
SocialInf	787	1	7	3.2	1.5
KWL	787	0	1	0.1	0.3

Table 5-26: Descriptive Statistics for Revised Constructs - Social PIUW

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Age	787	1	4	1.9	0.9
Benefits	787	1	7	3.1	1.7
Difficulty	787	1	7	3.3	2
Gender	787	1	2	1.6	0.5
IDL	787	1	7	1.7	1
Intent	787	1	7	3.5	2.3
Judgment	787	1	7	3.6	1.9
PMI	787	1	7	4.3	1.6
REL	787	1	7	3.8	1.7
Risk	787	1	7	4.5	1.9
SD	787	0	1	0.5	0.5
SocialInf	787	1	7	4.5	1.6
KWL	787	0	1	0.5	0.5

Table 5-27: Descriptive Statistics for Revised Constructs – Adult-Related PIUW

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Age	787	1	4	1.945	0.904
Benefits	787	1	7	1.367	0.914
Difficulty	787	1	7	4.740	2.012
Gender	787	1	2	1.571	0.495
IDL	787	1	7	1.721	1.020
Intention	787	1	7	1.197	0.769
Judgment	787	1	7	1.321	1.054
KWLd3	787	0	1	0.910	0.287
PMI	787	1.843	7	6.007	1.237
REL	787	1	7	4.021	1.760
Risk	787	1	7	6.391	1.235
SD	787	0	1	0.575	0.400
SocialInf	787	1	7	6.375	1.058

5.3.5 Common Method Variance

In our study, we have selected self reported measures of moral judgment and intention concerning different categories of PIUW. We believe that self-reported measures are the only way to obtain this information which exists only inside of the individual in question. A concern of any study that involves self-reported measurement is common method variance (CMV). Podsakoff defined common method variance as "variance that is attributable to the measurement method rather than to the constructs the measures represent" (Podsakoff et al., 2003, p. 897). Some researchers have questioned whether the impact of CMV is really as large as some have stated. Lance et al. (2010) found that any inflationary effect that CMV might have on observed relationships is almost completely offset by the attenuating effect of measurement error. In addition, Siemsen et al. (2009) found that interaction effects cannot be artifacts of CMV; however, they did find that interaction terms can be severely deflated through CMV, which can make them more difficult to detect through statistical means.

5.3.5.1 Types of Common Method Bias

According to Podsakoff (2003), common method variance can take the forms of common rater effects, item characteristics effects, item context effects, and measurement context effects. We will discuss our actions to prevent each type of bias below.

5.3.5.2 Preventing Common Method Variance

To reduce the incidents of CMV, we have taken steps outlined by Podsakoff et al. (2003). Common rater effects occur when data for both independent and dependent variables are obtained from the same individual. Common rater effects can take the forms of social desirability, consistency, or mood state. Because we believe that social desirability could have been an issue in our research, we took steps in the design of our survey to reduce its impact. Our survey was written in such a way that the respondent was assured complete anonymity. Even the authors of this study could not tell which set of responses belonged to what individual. We repeated this fact multiple times during our recruitment of volunteers. In addition, because we asked each respondent the same question about three different categories of behavior, consistency bias was a concern. We did not want respondents to answer the same question with the same response three separate times just because it was the same question. In order to reduce the chances of this, our survey was constructed using three columns, with one column representing each category of behavior. Each row contained a different question and would ask the respondent to answer that question for each category of PIUW. In this way, respondents would be more likely to consider the differences between each type of behavior and make sure that was represented in their answers.

Item characteristics effects occur when the characteristics of the measurement items themselves influence the response of the subject. Item characteristics effects can take the form of item social desirability, item ambiguity, and positive (negative) wording (Podsakoff et al., 2003). To reduce the impact of item characteristics effects, we conducted a pretest of our survey. We also had a number of experts familiar with information systems research and survey design review the survey to ensure that items were constructed in a way that was straightforward and did not convey any unintended meaning. In addition, some items were reverse coded.

Item context effects occur when the context in which the items are presented influences the response of the subject. To reduce the impact of item context effects, the order in which the items were presented was modified after the pretest so that similar items were not next to each other. Respondents were also advised that they could take the survey from whatever location they wished. We did this so that respondents who did not wish to engage in a survey at work could do it from a location where they felt most comfortable.

Measurement context effects concern effects that occur as a result of data for both independent and dependent data being collected in the same or similar context (time, location, method). Although our cross-sectional research method required that we ask respondents about independent and dependent variables in the same survey, we did attempt to arrange the items in such a way so that items asking about the same constructs were not next to each other.

Podsakoff et al. (2003) recommends in cases where the dependent and independent variables cannot be obtained from different sources and cannot be measured

in different contexts and the sources of method bias can be identified and measured, that the researcher employ a single-common-method-factor approach in addition to the procedural remedies mentioned above. Because of the sensitive nature of some of the questions in our survey concerning PIUW, we strongly believe that the most likely source of common method bias will be common rater effects, specifically social desirability. To deal with this issue, we added seven items measuring social desirability to our survey to control for the effects of social desirability in our model.

Although there are post hoc statistical methods available to control for common method bias, we have not employed them. Conway and Lance (forthcoming) state that there are significant drawbacks to all of the available post hoc methods and that some have shown poor empirical results in practice. Instead, they suggest that authors explain why self-reported measures were used, test constructs for validity, avoid overlap in items for different constructs, and present evidence that the authors proactively considered common method bias and took steps to prevent it. We believe we have met all four of these criteria.

5.3.5.3 Tests for Common Method Bias

A number of tests have been proposed to examine a dataset for common method bias. One of the most commonly used method used by Information Systems researchers is Harman's single factor test. Although some researchers have cast doubt on the validity of this test (Richardson et al., 2009), we conducted the analysis anyway to determine if the results indicated common method bias. After screening our data, we performed the Harmon single-factor test recommended by Podsakoff and Organ (1986). A factor analysis combining all the independent and dependent variables in each of our models

revealed no sign of a single-factor accounting for the majority of covariance. A second set of tests was conducted by drawing paths in PLS from social desirability to all other variables in order to partial out the effects of social desirability. None of the statistically significant paths in the PLS model changed signs or became not significant. This again suggests no problems with common method bias.

In addition, we conducted a PLS analysis to examine the path weights between social desirability and all of the other variables in our model to partial out the effects of social desirability. No changes in significance in the model were observed which suggests that there is no significant common method bias from social desirability impacting the model.

5.4 Hypotheses Testing

After establishing the reliability and validity of our measurement model, we tested the overall model with data on each type of PIUW (informational, social, and adult-related) using the partial least squares (PLS) path modeling technique. The software we used to conduct our PLS analysis is SmartPLS.

5.4.1 PLS Analysis

To assess the hypotheses of our model, a PLS analysis was run for all three categories of PIUW and the strength and significance of the structural paths were examined.

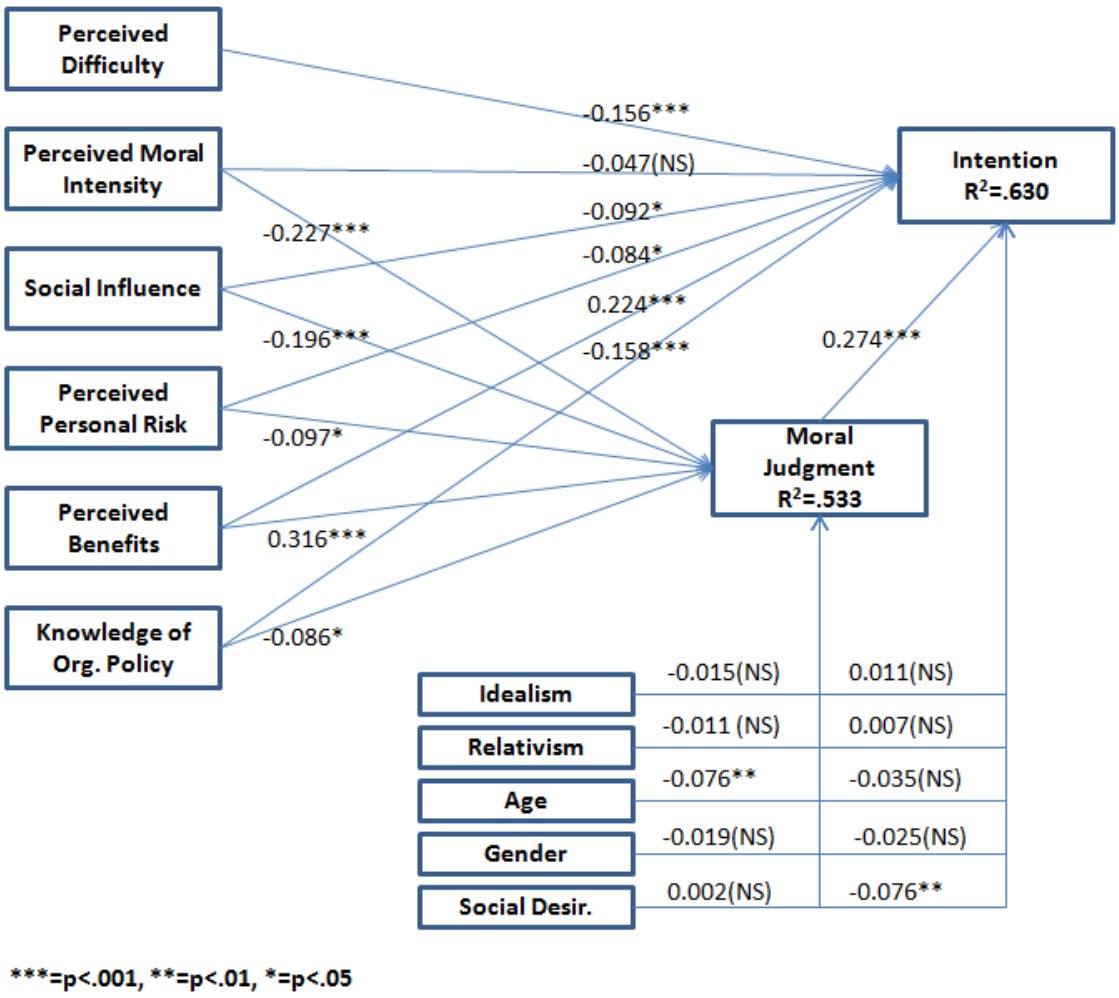

Figure 5-2: PLS Analysis for Informational PIUW

As shown in the figure above, 53.3 percent of the variance in moral judgment and 62.9 percent of the variance in intention was explained by the model for informational PIUW. All of the proposed hypotheses were supported by the results except for the impact of PMI on Intention.

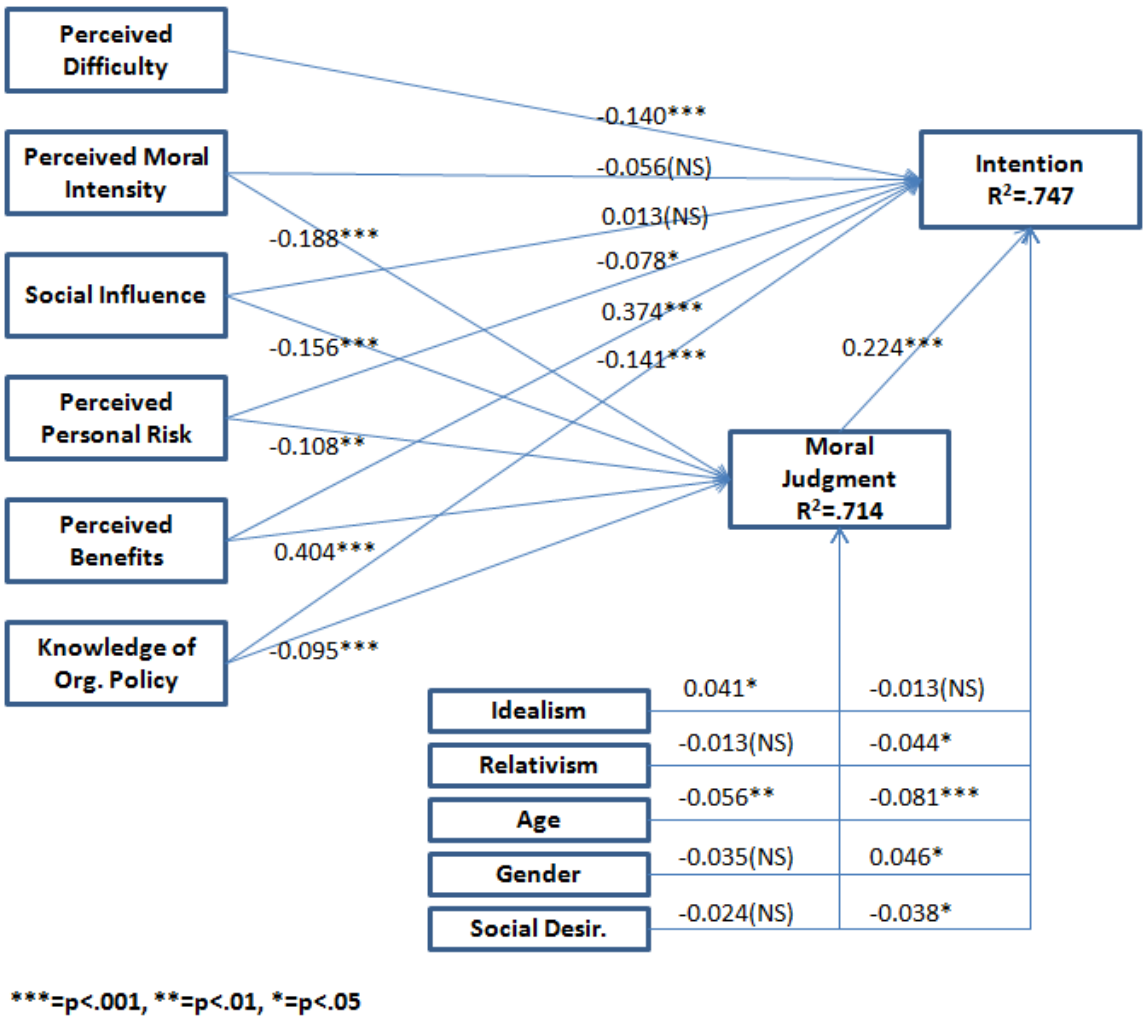

Figure 5-3: PLS Analysis for Social PIUW

For social PIUW, 71.4 percent of the variance in moral judgment and 74.6 percent of the variance in intention were explained by the model. All of the proposed hypotheses were supported by the results except for the impacts of PMI and social influence on intention.

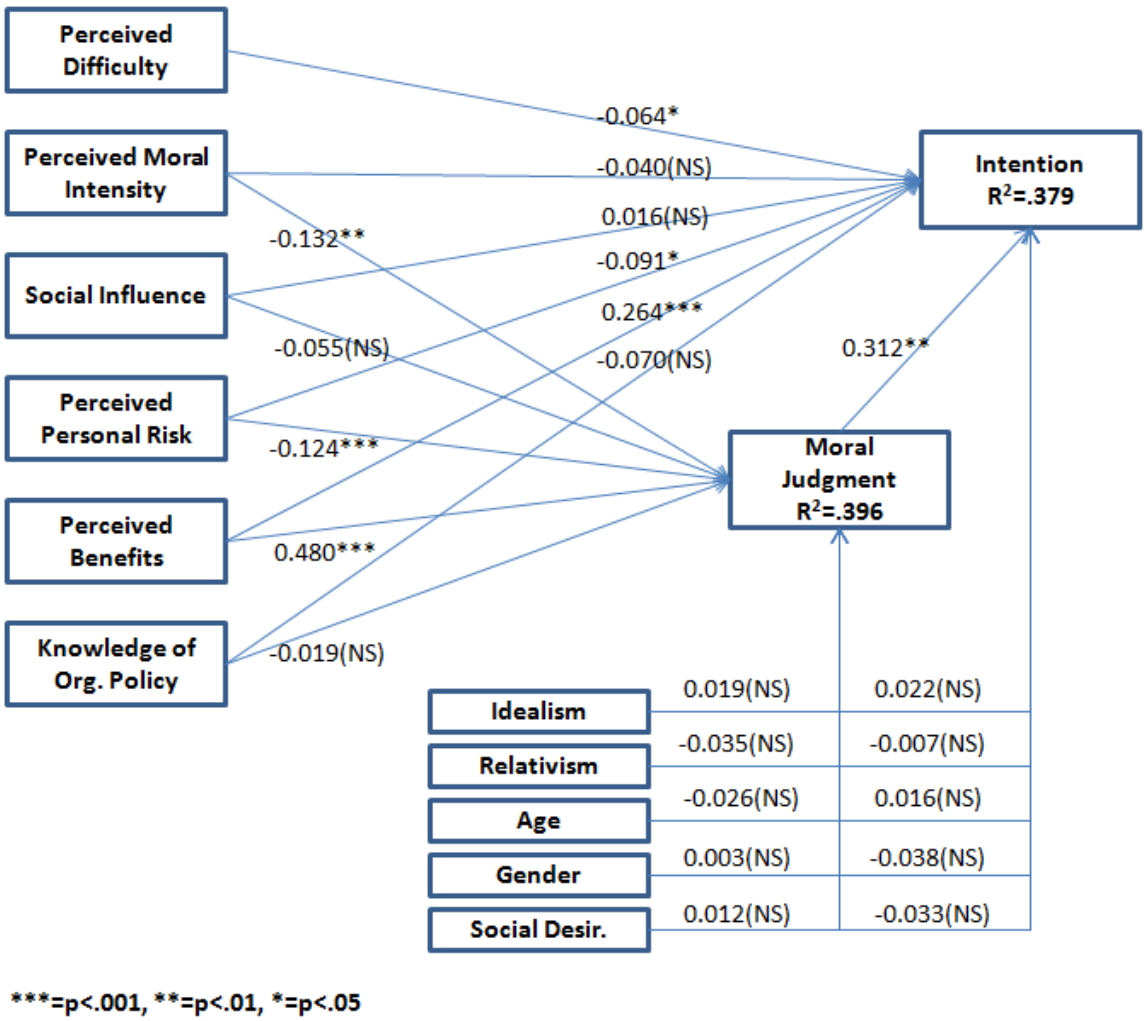

Figure 5-4: PLS Analysis for Adult-Related PIUW

For adult-related PIUW, 39.6 percent of the variance in moral judgment and 37.9 percent of the variance in intention were explained by the model. A number of the proposed hypotheses were not supported by the results including: the impacts of social influence and knowledge of organizational policy on moral judgment and the impacts of PMI, social influence, and knowledge of organizational policy on intention. Difficulty, risk, benefits, and moral judgment were all found to significantly impact intention. PMI, risk, and benefits were found to significantly impact judgment.

5.4.2 Between-Group Analyses

In addition to testing our model for all three categories of PIUW, we also used a PLS-based multigroup analysis (MGA) to examine the differences between responses for each type of behavior. This is recommended over the traditional t-test examinations of the differences in path coefficients because MGA has no distributional assumptions (Henseler et al., 2009). Conducting an MGA is similar to a test of the moderation effect of PIUW category type on the path strength across groups.

Table 5-28: Moral Judgment Path Weight Comparisons (Info. and Social)

Hypothesis	Path	Informational		Social
13a	SIF -> Judgment	-0.196***	(NS)	-0.156***
14a	KWL -> Judgment	-0.086*	(NS)	-0.095***
15a	Risk -> Judgment	-0.097*	(NS)	-0.108**
16a	Benefits -> Judgment	0.316***	<*	0.404***
	Idealism -> Judgment	-0.015	<*	0.041*
	Relativism -> Judgment	-0.011	(NS)	-0.013
	Age -> Judgment	-0.075**	(NS)	-0.056**
	Gender -> Judgment	-0.019	(NS)	-0.035
	Social Desir. -> Judgment	0.002	(NS)	-0.024

*****=p<.001, **=p<.01, *=p<.05**

Table 5-29: Moral Judgment Path Weight Comparisons (Info. and Adult-Related)

Hypothesis	Path	Informational		Adult-Related
13b	SIF -> Judgment	-0.196***	>**	-0.055(NS)
14b	KWL -> Judgment	-0.086*	(NS)	-0.019(NS)
15b	Risk -> Judgment	-0.097**	(NS)	-0.124***
16b	Benefits -> Judgment	0.316***	<*	0.480***
	Idealism -> Judgment	-0.015	(NS)	0.019
	Relativism -> Judgment	-0.011	(NS)	-0.035
	Age -> Judgment	-0.075**	(NS)	-0.026
	Gender -> Judgment	-0.019	(NS)	0.003
	Social Desir. -> Judgment	0.002	(NS)	0.012

*****=p<.001, **=p<.01, *=p<.05**

Table 5-30: Moral Judgment Path Weight Comparisons (Social and Adult-Related)

Hypothesis	Path	Social		Adult-Related
13c	SIF -> Judgment	-0.156***	>*	-0.055(NS)
14c	KWL -> Judgment	-0.095***	>*	-0.019(NS)
15c	Risk -> Judgment	-0.108**	(NS)	-0.124***
16c	Benefits -> Judgment	0.404***	(NS)	0.480***
	Idealism -> Judgment	0.041*	(NS)	0.019
	Relativism -> Judgment	-0.013	(NS)	-0.035
	Age -> Judgment	-0.056**	(NS)	-0.026
	Gender -> Judgment	-0.035	(NS)	0.003
	Social Desir. -> Judgment	-0.024	(NS)	0.012

*****=p<.001, **=p<.01, *=p<.05**

Our analysis suggests that significant between-groups effects exist for perceived difficulty and knowledge of organizational policies in the direction hypothesized. A significant between-groups effect was found for expected personal benefits, but it was not in the direction hypothesized. No significant effect was found between-groups for perceived personal risk or any of the control variables on moral judgment.

Table 5-31: Intention Path Weight Comparisons (Informational and Social)

Hypothesis	Path	Informational		Social
17a	SIF -> Intention	-0.092*	>*	0.013 (NS)
18a	KWL -> Intention	-0.156***	(NS)	-0.141***
19a	Risk -> Intention	-0.084*	(NS)	-0.078*
20a	Benefits -> Intention	0.224***	<**	0.374***
21a	Difficulty -> Intention	-0.158***	(NS)	-0.141***
	Idealism -> Intention	0.011	(NS)	-0.013
	Relativism -> Intention	0.007	>*	-0.044*
	Age -> Intention	-0.035	>*	-0.081***
	Gender -> Intention	-0.025	<**	0.046*
	Social Desir. -> Intention	-0.076**	(NS)	-0.038*

*****=p<.001, **=p<.01, *=p<.05**

Table 5-32: Intention Path Weight Comparisons (Informational and Adult-Related)

Hypothesis	Path	Informational		Adult-Related
17b	SIF -> Intention	-0.092*	>*	0.016 (NS)
18b	KWL -> Intention	-0.156***	>*	-0.070(NS)
19b	Risk -> Intention	-0.084*	(NS)	-0.091*
20b	Benefits -> Intention	0.224***	(NS)	0.264***
21b	Difficulty -> Intention	-0.158***	>*	-0.064***
	Idealism -> Intention	0.011	(NS)	0.022
	Relativism -> Intention	0.007	(NS)	-0.007
	Age -> Intention	-0.035	(NS)	0.016
	Gender -> Intention	-0.025	(NS)	-0.038
	Social Desir. -> Intention	-0.076**	(NS)	-0.033

*****=p<.001, **=p<.01, *=p<.05**

Table 5-33: Intention Path Weight Comparisons (Social and Adult-Related)

Hypothesis	Path	Social		Adult-Related
17c	SIF -> Intention	0.013 (NS)	(NS)	0.016 (NS)
18c	KWL -> Intention	-0.141***	>*	-0.070(NS)
19c	Risk -> Intention	-0.078*	(NS)	-0.091*
20c	Benefits -> Intention	0.374***	(NS)	0.264***
21c	Difficulty -> Intention	-0.141***	>*	-0.064***
	Idealism -> Intention	-0.013	(NS)	0.022
	Relativism -> Intention	-0.044*	(NS)	-0.007
	Age -> Intention	-0.081***	<**	0.016
	Gender -> Intention	0.046*	>**	-0.038
	Social Desir. -> Intention	-0.038*	(NS)	-0.033

*****=p<.001, **=p<.01, *=p<.05**

Our analysis suggests that significant between-groups effects exist for perceived difficulty, knowledge of organizational policies, and social influence in the direction hypothesized. A significant between-groups effect for benefits was also found, but only between informational and social PIUW and not in the direction hypothesized. No significant effect was found for perceived personal risk. Significance was found for the impact of relativism, gender, and age on intention between informational and social

PIUW. Significance was also found for the impact of gender and age on intention between social and adult PIUW.

5.5 Chapter Summary

In this chapter, we discussed the analysis of our data and our results. We began by screening our data and removing responses with missing data. Our constructs were then examined for both reliability and validity and some items were removed to improve the quality of our constructs. We then tested our model with data on informational, social, and adult-related PIUW. Our results indicate that the impact of PMI on intention was not significant for any of the three PIUW categories. Otherwise, all proposed hypotheses for informational PIUW were supported. Similarly, all proposed hypotheses were significant for the social PIUW analysis except for the impact of social influence on intention. Our analysis of adult-related PIUW showed that a number of the hypotheses were not supported. We will talk more in the next chapter about why we believe this happened.

Our analysis of between-group differences also yielded interesting results. Specifically, there was some support for the hypotheses dealing with the impact of social influence and knowledge of organizational policies on moral judgment across groups and for the impact of social influence, knowledge of organizational policies, and perceived difficult across groups. However, the hypotheses for expected personal benefits and perceived personal risk were not as predicted. We will discuss this more in the next chapter.

CHAPTER 6: DISCUSSION AND CONCLUSIONS

Our research proposed a model of moral decision making concerning personal Internet usage at work (PIUW). This chapter provides a discussion of the results of our research. Implications for researchers and practitioners are also discussed as well as the limitations of our study and future opportunities for new avenues of research.

6.1 Discussion of the Research Findings

Organizations face a real threat; not only from outside of the organization, but also from within it. Misuse of the Internet by employees can result in numerous problems, including: loss of productivity, vulnerability to hackers, potential loss of sensitive data, and exposure to liability for harassment and copyright violation. To counter these threats, it is necessary to understand the motivation of employees who engage in these behaviors.

Our research proposed a model of moral judgment and intention concerning personal Internet usage at work (PIUW). To build our model, we used factors identified in previous literature as impacting moral judgment and intention. We also included a situation-specific construct (perceived moral intensity) first proposed by Jones (1991). It is our belief that perceived moral intensity not only impacts moral judgment and intention (as predicted by Jones), but also moderates the strength of the impact of other factors on both moral judgment and intention.

6.1.1 Moral Judgment

We set out to identify the factors that determine an employee's moral judgment concerning different types of PIUW. Our hypotheses and the results of the analysis are summarized in the tables below.

Table 6-1: Results for Moral Judgment Hypotheses – Perceived Moral Intensity

Hypothesis	Predicted Effect	Result
Hypothesis 1	As the level of perceived moral intensity increases, an individual's moral judgment about PIUW will become more negative.	Supported
Hypothesis 1a	As the level of perceived moral intensity increases, an individual's moral judgment about informational PIUW will become more negative.	Supported
Hypothesis 1b	As the level of perceived moral intensity increases, an individual's moral judgment about social PIUW will become more negative.	Supported
Hypothesis 1c	As the level of perceived moral intensity increases, an individual's moral judgment about adult-related PIUW will become more negative.	Supported

Table 6-2: Results for Moral Judgment Hypotheses – Social Influence

Hypothesis	Predicted Effect	Result
Hypothesis 2	As social influence increases, moral judgment about the action will become more negative.	Partially Supported
Hypothesis 2a	As social influence increases, moral judgment about informational PIUW will become more negative.	Supported
Hypothesis 2b	As social influence increases, moral judgment about social PIUW will become more negative.	Supported
Hypothesis 2c	As social influence increases, moral judgment about adult-related PIUW will become more negative.	Not Supported

Table 6-3: Results for Moral Judgment Hypotheses – Perceived Personal Risk

Hypothesis	Predicted Effect	Result
Hypothesis 3	As the level of perceived personal risk becomes greater, moral judgment about PIUW will become more negative.	Supported
Hypothesis 3a	As the level of perceived personal risk becomes greater, moral judgment about informational PIUW will become more negative.	Supported
Hypothesis 3b	As the level of perceived personal risk becomes greater, moral judgment about social PIUW will become more negative.	Supported
Hypothesis 3c	As the level of perceived personal risk becomes greater, moral judgment about adult-related PIUW will become more negative.	Supported

Table 6-4: Results for Moral Judgment Hypotheses – Expected Personal Benefits

Hypothesis	Predicted Effect	Result
Hypothesis 4	As the level of expected personal benefits increases, moral judgment about PIUW will become more positive.	Supported
Hypothesis 4a	As the level of expected personal benefits increases, moral judgment about informational PIUW will become more positive.	Supported
Hypothesis 4b	As the level of expected personal benefits increases, moral judgment about social PIUW will become more positive.	Supported
Hypothesis 4c	As the level of expected personal benefits increases, moral judgment about adult-related PIUW will become more positive.	Supported

Table 6-5: Results for Moral Judgment Hypotheses – Knowledge of Org. Policies

Hypothesis	Predicted Effect	Result
Hypothesis 5	An employee's knowledge of organizational policies prohibiting PIUW will result in a more negative moral judgment about PIUW.	Partially Supported
Hypothesis 5a	As an employee's level of knowledge of organizational policies prohibiting PIUW increases, moral judgment about informational PIUW will become more negative.	Supported
Hypothesis 5b	As an employee's level of knowledge of organizational policies prohibiting PIUW increases, moral judgment about social PIUW will become more negative.	Supported
Hypothesis 5c	As an employee's level of knowledge of organizational policies prohibiting PIUW increases, moral judgment about adult-related PIUW will become more negative.	Not Supported

All of the hypotheses were found to be supported for the informational and social categories of PIUW in our analysis. Hypotheses 1c, 3c, and 4c were also supported, but hypotheses 2c and 5c were not. Our between-group hypotheses state that both social influence and knowledge of organizational policies will become less important in situations with a high level of perceived moral intensity. We believe this explains why both social influence and knowledge of organizational policies significantly impact moral judgment for PIUW categories with lower levels of PMI (informational and social), but not significant for adult-related PIUW.

The overall model performed fairly well with 53.3 percent of the variance being explained for moral judgment to engage in informational PIUW, 71.4 percent of the variance being explained for moral judgment to engage in social PIUW, and 40.1 percent of the variance being explained for moral judgment to engage in adult-related PIUW.

Overall, all hypotheses (H1, H2, H3, H4, and H5) were found to be at least partially supported. This suggests that all of the proposed factors do impact moral judgment at certain levels of perceived moral intensity. However, it appears that some of these factors can become irrelevant in situations with higher PMI.

The factors examined in this model were ones that had been identified as issues that organizational management could influence and that had been suggested by previous research to impact moral judgment. The results of this analysis emphasize the need for organizations to take an active role in discouraging PIUW by working to increase knowledge of organizational policies, perceived moral intensity, social

influence, and perceived risk and working to decrease perceived personal benefits obtained by engaging in PIUW. We will discuss our suggestions for doing so below.

Organizations could attempt to increase employees' knowledge of organizational policies by requiring training on organizational policies for all new hires and by having existing employees sign a form agreeing to abide by the organization's policies on acceptable computer use once a year. It is important to point out that our results suggest that knowledge of organizational policies does not impact adult-related PIUW. Therefore, training might only be effective for PIUW categories with lower levels of PMI such as informational and social.

Organizations could attempt to increase the level of perceived moral intensity by educating employees on the harm that PIUW could cause both the organization and fellow employees. In our survey, 14.6% of respondents reported that accessing adult-related content would not hurt their organization, 35.8% reported that accessing social content would not hurt their organization, and 67.4% reported that accessing informational content would not hurt their organization. As mentioned earlier, at the very least, these behaviors can result in a loss of productivity, but could result in much worse.

Organizations could attempt to increase the level of social influence by fostering a culture that does not condone PIUW. In our survey, 90.1% of respondents reported that adult-related use was discouraged by the management of their organization, 63.7% reported that social use was discouraged by the management of their organization, and 38.5% reported that informational use was discouraged by the management of their organization.

Organizations could attempt to increase perceived risk by mandating punishment for proven cases of PIUW outside of organizational policy and then by educating employees on those policies and punishments. In our survey, 91.4% of respondents reported that adult-related use at work was likely to get them into trouble, 58.2% reported that social use was likely to get them into trouble, and 25.2% reported that informational use was likely to get them into trouble at their organization.

Organizations attempting to decrease perceived personal benefits may have to get creative in order to counter the lure of PIUW. Because of the changing culture in this country, the line between an employee's work and personal life is continuing to blur. Large amounts of overtime leave many employees with no time to accomplish personal tasks or to enjoy a social life. Others may not have access to the Internet at home. Organizations can attempt to decrease perceived personal benefits of PIUW for these employees by reducing the amount of overtime that an employee is expected to work and by providing Internet access for employees at their homes as an additional benefit.

6.1.2 Intention

We set out to identify the factors that determine an employee's intention to engage in different categories of PIUW. Our hypotheses and the results of the analysis are summarized in the tables below.

Table 6-6: Results for Intention Hypotheses – Perceived Moral Intensity

Hypothesis	Predicted Effect	Result
Hypothesis 6	As the level of perceived moral intensity increases, an individual's intention to engage in PIUW will decrease.	Not Supported
Hypothesis 6a	As the level of perceived moral intensity increases, an individual's intention to engage in informational PIUW will decrease.	Not Supported
Hypothesis 6b	As the level of perceived moral intensity increases, an individual's intention to engage in social PIUW will decrease.	Not Supported
Hypothesis 6c	As the level of perceived moral intensity increases, an individual's intention to engage in adult-related PIUW will decrease.	Not Supported

Table 6-7: Results for Intention Hypotheses – Social Influence

Hypothesis	Predicted Effect	Result
Hypothesis 7	As the level of social influence increases, the intention to engage in PIUW will decrease.	Partially Supported
Hypothesis 7a	As the level of social influence increases, the intention to commit PIUW will decrease.	Supported
Hypothesis 7b	As the level of social influence increases, the intention to commit PIUW will decrease.	Not Supported
Hypothesis 7c	As the level of social influence increases, the intention to engage in adult-related PIUW will decrease.	Not Supported

Table 6-8: Results for Intention Hypotheses – Perceived Personal Risk

Hypothesis	Predicted Effect	Result
Hypothesis 8	As the level of perceived personal risk becomes greater, the intention to engage in PIUW will become more negative.	Supported
Hypothesis 8a	As the level of perceived personal risk becomes greater, the intention to engage in informational PIUW will become more negative.	Supported
Hypothesis 8b	As the level of perceived personal risk becomes greater, the intention to engage in social PIUW will become more negative.	Supported
Hypothesis 8c	As the level of perceived personal risk becomes greater, the intention to engage in adult-related PIUW will become more negative.	Supported

Table 6-9: Results for Intention Hypotheses – Perceived Difficulty

Hypothesis	Predicted Effect	Result
Hypothesis 9	As the level of perceived difficulty increases, the intention to engage in PIUW will decrease.	Supported
Hypothesis 9a	As the level of perceived difficulty increases, the intention to engage in informational PIUW will decrease.	Supported
Hypothesis 9b	As the level of perceived difficulty increases, the intention to engage in social PIUW will decrease.	Supported
Hypothesis 9c	As the level of perceived difficulty increases, the intention to engage in adult-related PIUW will decrease.	Supported

Table 6-10: Results for Intention Hypotheses – Expected Personal Benefits

Hypothesis	Predicted Effect	Result
Hypothesis 10	As the level of expected personal benefits increases, the intention to engage in PIUW will increase.	Supported
Hypothesis 10a	As the level of expected personal benefits increases, the intention to engage in informational PIUW will increase.	Supported
Hypothesis 10b	As the level of expected personal benefits increases, the intention to engage in social PIUW will increase.	Supported
Hypothesis 10c	As the level of expected personal benefits increases, the intention to engage in adult-related PIUW will increase.	Supported

Table 6-11: Results for Intention Hypotheses – Knowledge of Org. Policies

Hypothesis	Predicted Effect	Result
Hypothesis 11	An employee's knowledge of organizational policies prohibiting PIUW will result in a lower intention to engage in PIUW.	Partially Supported
Hypothesis 11a	As an employee's level of knowledge of organizational policies prohibiting PIUW increases, intention to engage in informational PIUW will become more negative.	Supported
Hypothesis 11b	As an employee's level of knowledge of organizational policies prohibiting PIUW increases, intention to engage in social PIUW will become more negative.	Supported
Hypothesis 11c	As an employee's level of knowledge of organizational policies prohibiting PIUW increases, intention to engage in adult-related PIUW will become more negative.	Not Supported

Table 6-12: Results for Intention Hypotheses – Moral Judgment

Hypothesis	Predicted Effect	Result
Hypothesis 12	As the level of moral judgment concerning PIUW becomes more negative, the intention to engage in PIUW will decrease.	Supported
Hypothesis 12a	As moral judgment about the action becomes more positive, intention to engage in informational PIUW will increase.	Supported
Hypothesis 12b	As moral judgment about the action becomes more positive, intention to engage in social PIUW will increase.	Supported
Hypothesis 12c	As moral judgment about the action becomes more positive, intention to engage in adult-related PIUW will increase.	Supported

Our analysis of the antecedents of intention revealed many interesting findings. Perceived moral intensity was not found to significantly impact intention in any of our three analyses (H6a, H6b, and H6c). A mediation analysis showed that the impact of all independent variables (except difficulty) on intention is partially mediated by moral judgment. In fact, our analysis found that the unique contribution of PMI on intention was totally mediated by moral judgment in all there PIUW analyses; although when considered without the other proposed independent variables, the impact of PMI is only partially mediated.

Another interesting finding was that social influence was only significant for informational PIUW (H7a), but not for social (H7b) or adult-related (H7c) PIUW. Our between-groups hypotheses state that social influence will have less of an impact on intention in situations with a high level of perceived moral intensity. We believe this explains why social influence is significant for the PIUW category with lowest level of PMI (informational), but not significant for PIUW categories with higher levels of PMI (social or adult-related).

Just as we found in our analysis of the antecedents of moral judgment, knowledge of organizational policies was found to have a significant impact on intention for informational (H11a) and social (H11b), but not adult-related (H11c) PIUW. Again, we believe that our between-groups hypotheses explain this since knowledge of organizational policies is significant for the two categories of PIUW with the lowest levels of PMI (informational and social), but not for the category with the highest (adult-related).

All other hypotheses were found to be significant for all three categories of PIUW. The overall model performed very well with 62.9 percent of the variance being explained for intention to engage in informational PIUW, 74.6 percent of the variance being explained for intention to engage in social PIUW, and 29.8 percent of the variance being explained for intention to engage in adult-related PIUW.

Overall, all hypotheses (H7, H8, H9, H10, H11, and H12) were found to be at least partially supported except H6 (the impact of perceived moral intensity on intention). This suggests that all of the proposed factors do impact intention at certain levels of perceived moral intensity. However, it appears that some of these factors can become irrelevant in situations with higher PMI.

The importance of the findings of this analysis is similar to those in the last section concerning moral judgment. For employees to engage in PIUW, they must first form a moral judgment about the act, but then they must form an intention of what they are going to do. In this way, it could be said that impacting an employee's intention is even more important than impacting their judgment, since employees do sometimes form an intention that goes counter to their moral judgment.

6.1.3 Between-Group Differences

Weber's (1996) findings suggested that when an individual perceived a situation to be of low moral intensity, he or she was more likely to use a low level of moral reasoning as described by Kohlberg's (1969) stages of moral reasoning. We tested this theory by examining the path weights between social influence, risk, benefits, and organizational rules to moral judgment and intention concerning PIUW.

6.1.3.1 Moral Judgment Between-Groups Analysis

We examined the differences in path weights between social influence, knowledge of organizational policies, perceived personal risk, and expected personal benefits to moral judgment concerning PIUW. We hypothesized that these factors would be more salient in forming a moral judgment about a lower PMI issue (informational and social PIUW) than they would be for a higher PMI issue (adult-related PIUW).

Table 6-13: Results for Moral Judgment Between-Group Effects – Social Influence

Hypothesis	Predicted Effect	Result
Hypothesis 13	The impact of social influence on moral judgment will be greater for an issue with a lower level of perceived moral intensity.	Partially Supported
Hypothesis 13a	The impact of social influence on moral judgment will be greater for informational PIUW than for social PIUW.	Not Supported
Hypothesis 13b	The impact of social influence on moral judgment will be greater for informational PIUW than for adult-related PIUW.	Supported
Hypothesis 13c	The impact of social influence on moral judgment will be greater for social PIUW than for adult-related PIUW.	Supported

Table 6-14: Results for Moral Judgment Between-Group Effects – Knowledge of Org. Policies

Hypothesis	Predicted Effect	Result
Hypothesis 14	The impact of knowledge of organizational policies on moral judgment will be greater for an issue with a lower level of perceived moral intensity.	Partially Supported
Hypothesis 14a	The impact of knowledge of organizational policies on moral judgment will be greater for informational PIUW than for social PIUW.	Not Supported
Hypothesis 14b	The impact of knowledge of organizational policies on moral judgment will be greater for informational PIUW than for adult-related PIUW.	Supported
Hypothesis 14c	The impact of knowledge of organizational policies on moral judgment will be greater for social PIUW than for adult-related PIUW.	Supported

Table 6-15: Results for Moral Judgment Between-Groups Effects – Perceived Personal Risk

Hypothesis	Predicted Effect	Result
Hypothesis 15	The impact of perceived personal risk on moral judgment will be greater for an issue with a lower level of perceived moral intensity.	Not Supported
Hypothesis 15a	The impact of perceived personal risk on moral judgment will be greater for informational PIUW than for social PIUW.	Not Supported
Hypothesis 15b	The impact of perceived personal risk on moral judgment will be greater for informational PIUW than for adult-related PIUW.	Not Supported
Hypothesis 15c	The impact of perceived personal risk on moral judgment will be greater for social PIUW than for adult-related PIUW.	Not Supported

Table 6-16: Results for Moral Judgment Between-Groups Effects – Expected Personal Benefits

Hypothesis	Predicted Effect	Result
Hypothesis 16	The impact of expected personal benefits on moral judgment will be greater for an issue with a lower level of perceived moral intensity.	Not Supported
Hypothesis 16a	The impact of expected personal benefits on moral judgment will be greater for informational PIUW than for social PIUW.	Not Supported
Hypothesis 16b	The impact of expected personal benefits on moral judgment will be greater for informational PIUW than for adult-related PIUW.	Not Supported
Hypothesis 16c	The impact of expected personal benefits on moral judgment will be greater for social PIUW than for adult-related PIUW.	Not Supported

Our analysis yielded some interesting results. The first is that none of the hypotheses proposing significant between-group effects between informational and social PIUW were supported (13a, 14a, 15a, and 16a). This is not surprising. Looking at the means of the latent variable scores for PMI (Informational: 2.962, Social: 4.262, Adult-Related: 6.007), it is clear that there was not as much difference in the level of perceived moral intensity between informational and social PIUW as there was between informational and adult-related or social and adult-related PIUW. We believe that there was not enough difference in PMI between informational and social PIUW to result in significant differences between these groups.

Another interesting finding is that expected personal benefits was significant between all three groups, but in the opposite direction than we hypothesized. This would disagree with the findings of Weber (1996). It appears that in situations with high levels of PMI, individuals are more concerned with what is of most benefit to them than they are in situations with lower levels of PMI.

A third interesting finding is that none of the between-groups effect hypotheses were significant for perceived personal risk. It would appear that an individual's moral judgment concerning PIUW is impacted at approximately the same level by perceived risk independent of the level of PMI of the situation.

Last, the between-group effects hypotheses for social influence and knowledge of organizational policies were significant between the informational and adult-related and the social and adult-related groups. This suggests that at least some factors do change in their level of impact on moral judgment as suggested by Weber (1996) provided the difference in the level of PMI is large enough.

Overall (though not in every between-group analysis), the results suggest that impacts of social influence and knowledge of organizational policies on moral judgment did increase in situations with a higher level of PMI (H13 and H14, respectively) as hypothesized. No support was found for H15 and H16. In fact, the strength of the impact of expected personal benefits on moral judgment actually increased across behaviors as the level of PMI increased, opposite of what was hypothesized.

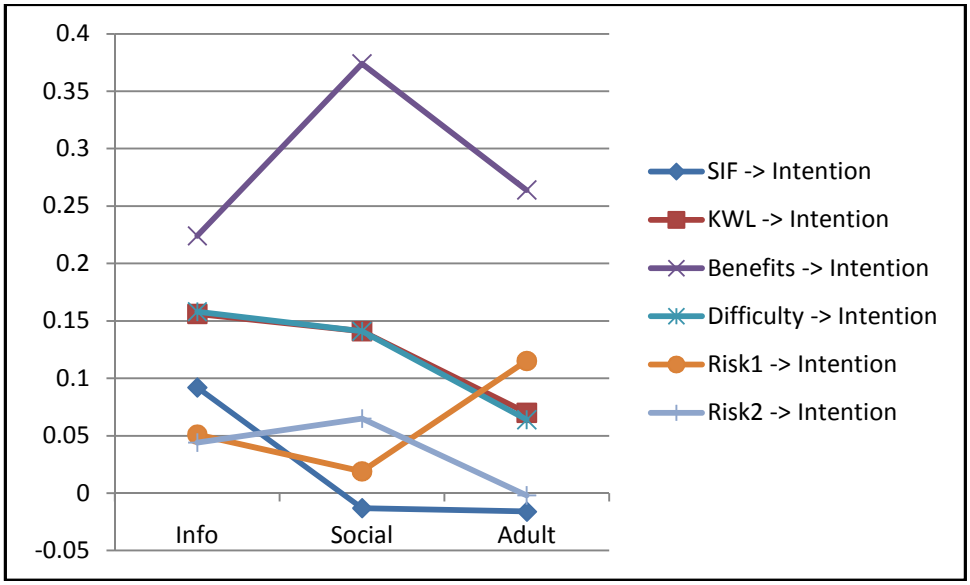

Figure 6-1: Graph of PLS Path Weights – Moral Judgment

A graph of the path weights from the PLS analyses for moral judgment allows us to better examine what is going on between groups. According to our hypotheses, we would expect all of the factors to start out as significant in the low PMI situation (informational) and then decline in strength of influence in situations where PMI is higher (adult), possibly losing significance while moving from low to high PMI situations. We can see from the graph that social influence (SIF) and knowledge of organizational policies (KWL) do follow this general trend. We can also see that

expected personal benefits (benefits) and perceived personal risk (risk) do not follow this trend. The impact of expected personal benefits increases in situations with a higher level of PMI, while risk appears to stay almost constant across categories.

An interesting observation is that all of the factors that decreased in impact as hypothesized were external to the individual (social influence, knowledge of organizational policies, and perceived difficulty), while the factor that appeared to increase counter to our hypothesis (expected personal benefits) is internal to the individual. The factor that did not show any significant changes between groups was measured using two items, one that measured risk externally ("Engaging in this activity at work is very likely to get me into trouble.") and one that measured internal perception of risk ("Engaging in this activity is unacceptably risky to me.").

To explore this theory of internal versus external sources of motivation, we conducted a PLS analysis using only one of the risk factors at a time. Our analysis shows that the path weights for the item that measured the internal perception of risk (risk2) appear to increase for issues with higher levels of perceived moral intensity. The other risk item (risk1) did not appear to change significantly across categories. It is important to note that these questions were not created specifically to measure internal and external perceptions of risk. It is possible that better support could be found using items specifically created to measure internal and external sources of motivation.

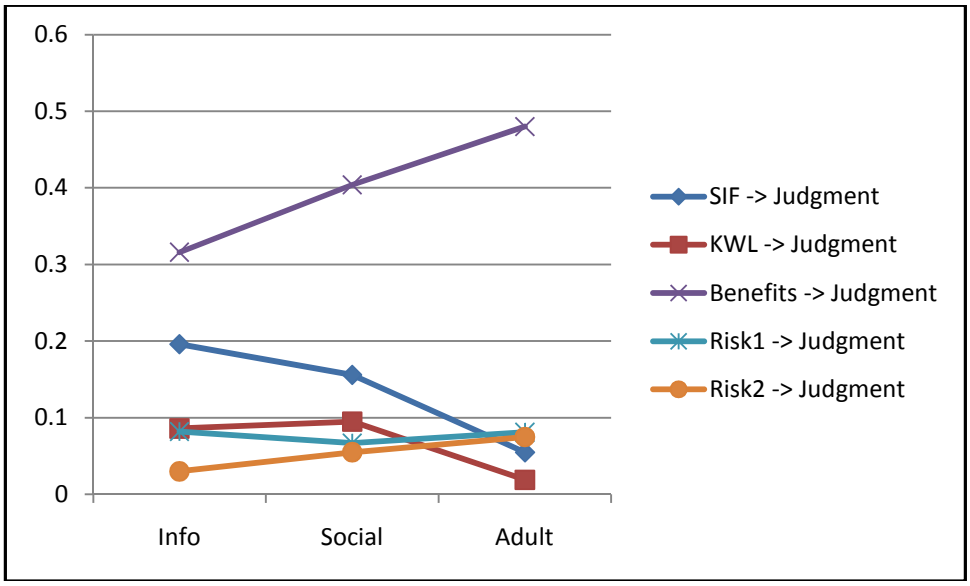

Figure 6-2: Graph of PLS Path Weights – Internal & External Risk Items

6.1.3.2 Intention Between-Groups Analysis

We also examined the differences in path weights between social influence, perceived difficulty, risk, benefits, and knowledge of organizational policies to intention to engage in PIUW. We hypothesized that these factors would be more salient in forming intention to engage in a lower PMI issue (informational or social PIUW) than a higher PMI issue (adult-related PIUW).

Table 6-17: Results for Intention Between-Group Effects – Social Influence

Hypothesis	Predicted Effect	Result
Hypothesis 17	The impact of social influence on intention will be greater for an issue with a lower level of perceived moral intensity.	Partially Supported
Hypothesis 17a	The impact of social influence on intention will be greater for informational PIUW than for social PIUW.	Supported
Hypothesis 17b	The impact of social influence on intention will be greater for informational PIUW than for adult-related PIUW.	Not Supported
Hypothesis 17c	The impact of social influence on intention will be greater for social PIUW than for adult-related PIUW.	Not Supported

Table 6-18: Results for Intention Between-Group Effects – Knowledge of Org. Policies

Hypothesis	Predicted Effect	Result
Hypothesis 18	The impact of knowledge of organizational policies on intention will be greater for an issue with a lower level of perceived moral intensity.	Partially Supported
Hypothesis 18a	The impact of knowledge of organizational policies on intention will be greater for informational PIUW than for social PIUW.	Not Supported
Hypothesis 18b	The impact of knowledge of organizational policies on intention will be greater for informational PIUW than for adult-related PIUW.	Supported
Hypothesis 18c	The impact of knowledge of organizational policies on intention will be greater for social PIUW than for adult-related PIUW.	Supported

Table 6-19: Results for Intention Between-Group Effects – Perceived Personal Risk

Hypothesis	Predicted Effect	Result
Hypothesis 19	The impact of perceived personal risk on intention will be greater for an issue with a lower level of perceived moral intensity.	Not Supported
Hypothesis 19a	The impact of perceived personal risk on intention will be greater for informational PIUW than for social PIUW.	Not Supported
Hypothesis 19b	The impact of perceived personal risk on intention will be greater for informational PIUW than for adult-related PIUW.	Not Supported
Hypothesis 19c	The impact of perceived personal risk on intention will be greater for social PIUW than for adult-related PIUW.	Not Supported

Table 6-20: Results for Intention Between-Group Effects – Expected Personal Benefits

Hypothesis	Predicted Effect	Result
Hypothesis 20	The impact of expected personal benefits on intention will be greater for an issue with a lower level of perceived moral intensity.	Not Supported
Hypothesis 20a	The impact of expected personal benefits on intention will be greater for informational PIUW than for social PIUW.	Not Supported
Hypothesis 20b	The impact of expected personal benefits on intention will be greater for informational PIUW than for adult-related PIUW.	Not Supported
Hypothesis 20c	The impact of expected personal benefits on intention will be greater for social PIUW than for adult-related PIUW.	Not Supported

Table 6-21: Results for Intention Between-Group Effects – Perceived Difficulty

Hypothesis	Predicted Effect	Result
Hypothesis 21	The impact of perceived difficulty on intention will be greater for an issue with a lower level of perceived moral intensity.	Partially Supported
Hypothesis 21a	The impact of perceived difficulty on intention will be greater for informational PIUW than for social PIUW.	Not Supported
Hypothesis 21b	The impact of perceived difficulty on intention will be greater for informational PIUW than for adult-related PIUW.	Supported
Hypothesis 21c	The impact of perceived difficulty on intention will be greater for social PIUW than for adult-related PIUW.	Supported

Our analysis again yielded interesting results. The first is that only one of the hypotheses proposing a significant between-groups effect between informational and social PIUW was supported (social influence, H17a). This agrees with results found by Flannery and May (2000) that suggested subjective norms are more strongly related to managers' intentions when the magnitude of consequences was low. However, the difference between social and adult-related groups was not large enough to be significant at the $p<.05$ level.

The between-groups effects hypotheses for knowledge of organizational policies were significant between the informational and adult-related (H18b) and the social and adult-related groups (H18c) as hypothesized. This suggests that as PMI increases, employees rely increasingly less on organizational policies to guide their intentions. This has important implications for both researchers and practitioners alike which will be discussed in more detail in sections 6.3 and 6.4.

The between-groups effect hypothesis for expected personal benefits between the informational and social groups (H20a) was significant in the opposite direction then what was hypothesized. We saw a similar effect for expected personal benefits in

our moral judgment analysis between all three groups. The between-groups effect hypotheses for expected personal benefits between the informational and adult-related PIUW analyses (H20b) and between the social and adult-related PIUW analyses (H20c) were not significant. All of these results disagree with the findings of Weber (1996), which suggest that expected personal benefits should become less important as PMI increases.

None of the between-groups effect hypotheses were significant for perceived personal risk, similar to what we found in our moral judgment analysis. It would appear that an individual's intention to engage in PIUW is impacted at approximately the same level by perceived risk independent of the level of PMI of the situation. Again these results go against the findings of Weber (1996), which suggested that perceived risk should become less important as PMI increases.

Last, the between-groups effect hypotheses for perceived difficulty was supported between the informational and adult-related and the social and adult-related groups. This agrees with the findings of Flannery and May (2000) that perceived behavioral control is more strongly related to intentions when the magnitude of consequences is low.

Overall (though not in every between-group analysis), the results suggest that impacts of social influence, knowledge of organizational policies, and perceived difficulty on intention did increase in situations with a higher level of PMI (H17, H18, and H21, respectively) as hypothesized. No support was found for H18 and H19. In fact, the strength of the impact of expected personal benefits on intention actually

increased across behaviors as the level of PMI increased, opposite of what was hypothesized.

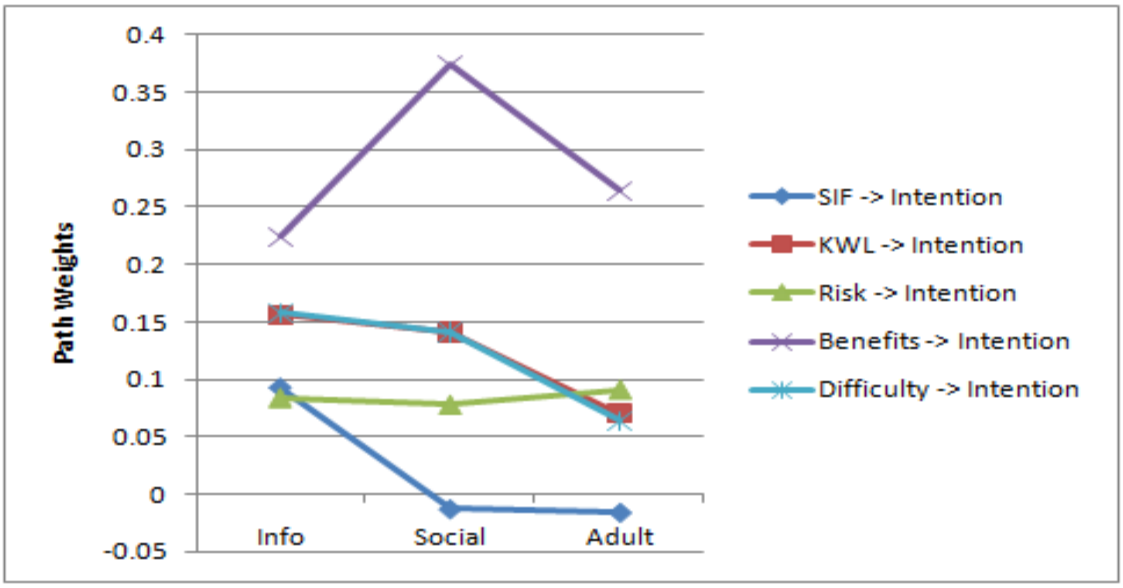

Figure 6-3: Graph of PLS Path Weights – Intention

A graph of the path weights from the PLS analyses for intention allows us to better examine what is going on between groups. According to our hypotheses, we would expect all of the factors to start our as significant in the low PMI situation (informational) and then decline in situations where PMI is higher (adult), possibly losing significance while moving from low to high PMI. We can see from the graph that social influence (SIF), knowledge of organizational policies (KWL), and perceived difficulty (difficulty) do follow this general trend. We can also see that expected personal benefits (benefits) and perceived personal risk (risk) do not follow this trend. The impact of expected personal benefits increases between informational and social PIUW, then decreases between social and adult-related PIUW, while risk appears to stay almost constant across categories.

Overall, our results suggest that an effect similar to that described by Weber (1996) may cause the impact of social influence, knowledge of organizational policies, and perceived difficulty to decrease in situations of higher perceived moral intensity. Although the between-group analyses did not find significant differences between every group, we did see either an overall reduction in the level of significance between PIUW categories with low and high PMI, a significant between-group effect in the proposed direction, or both that suggest that the proposed effect does exist. Alternatively, no support was found for the hypotheses concerning expected personal benefits and perceived personal risk.

As with the between-group analysis for moral judgment, we found that in the between-groups analysis for intention all of the factors that decreased in impact as hypothesized were external to the individual (social influence, knowledge of organizational policies, and perceived difficulty), while the factor that appeared to increase counter to our hypothesis (expected personal benefits) is internal to the individual. Again, risk did not show any significant changes between groups.

We again conducted a PLS analysis using only one of the risk factors at a time. Our analysis shows that the path weight for the item that measured the internal perception of risk (risk2) appears to be higher for social than either of the other two groups just as expected personal benefits is. The risk item that related external perception of risk (risk1) had low path weights for both informational and social PIUW and a higher path weight for adult-related. It is important to note that these questions were not created specifically to measure internal and external perceptions of risk. It is

possible that better support could be found using items specifically created to measure internal and external sources of motivation.

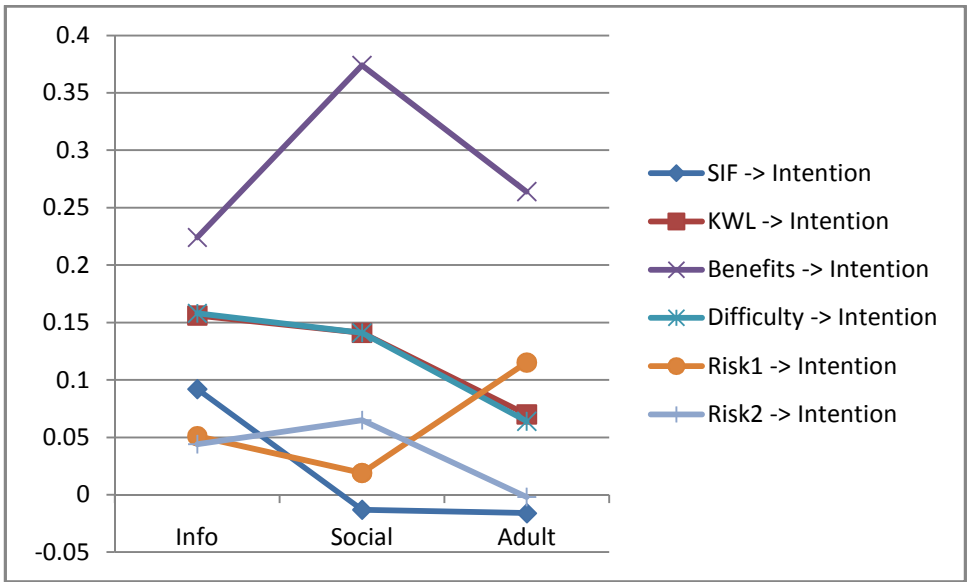

Figure 6-4: Graph of PLS Path Weights – Internal & External Risk Items

Our results suggest that instead of following the pattern suggested by Weber (1996), situations with higher PMI result in a higher level of moral reasoning as defined by Kohlberg (1969), the impact of internal factors becomes more salient in situations where PMI is high; the impact of external factors becomes more salient in situations where PMI is low.

6.1.4 Control Variables

Our analysis revealed that of the five control variables used in our analysis of informational PIUW, only age was found to significantly impact moral judgment with younger people more likely to find informational PIUW acceptable. Social desirability was found to impact reported intention to engage in informational PIUW, with those

displaying more social desirability more likely to report a lower intention to engage in informational PIUW.

Our analysis also revealed that of the five control variables used in our analysis of social PIUW, three of them were found to be significant. Age was found to significantly impact both moral judgment and intention concerning social PIUW, with younger people more likely to report a positive moral judgment and an intention to engage in social PIUW. Idealism was found to significantly impact social PIUW, with those expressing a higher level of idealism also expressing a more positive moral judgment, but a lower intention to engage in social PIUW. Gender was also found to significantly impact intention to engage in social PIUW, with men more likely than women to express an intention to engage in social PIUW.

Last, our analysis revealed that of the five control variables used in our analysis of adult-related PIUW, none of them were found to be significant. Because all five of these factors had been found in some previous studies to impact both moral judgment and intention, we were surprised by this finding. In fact, only the social PIUW analysis resulted in all five factors being found significant for moral judgment, intention, or both. It could be that previous studies that found significance for these factors tended to examine situations that had neither extremely high nor extremely low levels of PMI. This suggests that many of the factors found by previous studies to impact moral judgment or intention only do so for certain activities within a certain range of PMI.

Our between group analyses for moral judgment found no significant differences in path weights between groups except for idealism between informational and social PIUW. However, our between-group analyses for intention found a number of

significant differences in path weights between social PIUW and other groups. Specifically, significant differences were found between informational and social PIUW for relativism, age, and gender. Significant differences were also found between social and adult-related PIUW for age and gender. Surprisingly, no significant differences in path weight were found between informational and social PIUW. This differs from the results found for most of the factors of interest in our model. The differences for age and gender would suggest that there are generational and gender-based views impacting social PIUW that don't appear to be present for other types of PIUW.

6.2 Limitations

A major limitation of our research design was the possibility that a single respondent for both dependent and independent variables could introduce common method bias. However, it was necessary for our study that we construct out survey instrument this way. We do believe, however, that the steps we have taken to reduce and control for common method bias (Podsakoff et al., 2003) have greatly lessened the impact that it might have had on our results.

A second limitation of our study was the inability to examine more than three different types of PIUW in depth. The length of the survey instrument required us to divide PIUW into a small number of categories. It would have been useful to have data on a wider range of PIUW behaviors for our analysis; however, we believe that our use of categories of similar behaviors allowed us to demonstrate the predictive power of our model.

6.3 Implications for Research

Our study has a number of implications for research. Most importantly, our literature review found no research that has examined the difference between situations with differing levels of perceived moral intensity. We feel that this is the most important aspect of our research because it speaks to the range in which other behavioral models are valid. For example, UTAUT proposes that subjective norm, image, job relevance, output quality, and result demonstrability impact perceived usefulness. However, our results suggest that these relationships might not be significant in situations with high PMI. Therefore, we would caution researchers who focus only on external factors that their models might not be valid in situations with high PMI.

It is interesting to note that when the impact of each independent factor on moral judgment and intention was examined without any other independent factor in the analysis, we saw the highest amount of variability in moral judgment and intention explained for social PIUW, a situation with a moderate level of PMI. However, the internal motivation of expected personal benefits accounted for the most unique variance in situations with high levels of PMI.

All of the independent factors considered in our model were suggested by previous research, particularly the behavioral and IS usage models suggested in section 2.2. While these factors seem to perform well in situations of low and moderate PMI, they don't seem to do nearly as well in situations with high levels of PMI. It would appear that none of these commonly used models of behavior are well-suited to situations of high PMI. Although studies that involve technology use look at situations

that would appear to have relatively low levels of PMI, many technology uses could have higher levels of PMI in actual practice. Technology gives individuals and organizations new abilities that often involve an ethical component, such as automating work resulting in layoffs or collecting massive amounts of personal information on customers that is then used to market to that individual or possibly to sell to other organizations. If employees view these situations as being high in PMI, it would appear that most existing models would not work well in predicting moral judgment and intention to use them.

Second is the fact that our study addresses the research gap of IS abuse models, especially those that are situation-specific. Although there are a number of models of IS adoption and usage, these studies do not address the issue of IS usage in ways not sanctioned by the organization. We have created a situation-specific model that can be used in the study of IS abuse behaviors. In addition, our study will give researchers greater insight into the decision making process of personal web usage in the workplace and its causes. This will be of importance to both IS researchers and researchers in the field of organizational behavior who study deviant behavior in the workplace.

Third, our study is one of the few in literature that has examined the impact of perceived moral intensity on both moral judgment and intention in the same analysis. Our analysis revealed that for all three categories of PIUW, the impacts of all proposed independent factors (except perceived difficulty) on intention were partially mediated by moral judgment. Considering that intention is often considered in models that don't include moral judgment, this is an important finding that should be taken into account in future studies.

Last, we believe that our research will give organizational behavior researchers and others greater insight into the need for situational specific models when studying deviant behavior in the workplace. We believe it is folly to try and model many types of deviant behavior with a single model unless researchers include a construct that takes into account the characteristics of each behavior.

6.4 Implications for Practice

Our research also has value for practitioners. Most importantly, it suggests that organizations should take a proactive approach to deterring PIUW instead of waiting for it to occur. Our model accounts for a high percentage of the variance of both moral judgment concerning and intention to engage in PIUW. This gives managers clear direction as to what factors they should focus their efforts on to modify the way their employees view PIUW.

Specifically, organizations should not rely solely on policies to discourage adult-related PIUW. Our results show that these policies do not significantly impact moral judgment or intention for this type of behavior. In addition, social influence does not appear to be significant in forming intention to engage in social or adult-related PIUW. Because of this, managers should not rely on attempts to modify social influence in order to reduce PIUW categories with higher levels of PMI. It appears that finding ways to reduce the expected personal benefits associated with PIUW would be a good way to reduce PIUW overall.

Our model examines a wide spectrum of factors that influence PIUW. In our experience, many organizations focus only on a few ways of combating this behavior,

such as firewalls and written corporate policy. Our model suggests that both technical and social deterrence are needed to reduce PIUW.

6.5 Future Research

We believe that we can extend this line of research in a number of different directions. First, we would like to try again to evaluate our model using data concerning adult-related usage. Our results show that a much larger sample size will be needed in order to find enough individuals who engage in this behavior. In addition, there are other types of PIUW besides the three categories considered in this study that need to be examined.

Second, we would like to extend our model to other types of IS abuse behaviors including piracy and hacking. We anticipate a small percentage of the population engages in hacking; however, with the popularity of file sharing services over the past few years, we believe it won't be difficult to find respondents who have engaged in some form of piracy.

Third, although our model performed fairly well for informational and social PIUW, it seemed to lose some of its ability when examining adult-related PIUW. More work should be done in examining what motivates PIUW at extreme levels of PMI, such as adult-related PIUW.

Last, we would like to conduct an examination comparing the predictive ability of our model to other models of technology usage such as UTAUT for behaviors of differing levels of PMI. Because UTAUT is currently one of the most widely used models of technology usage, we believe this would be a good guide by which to gauge our model.

6.6 Conclusion

Our study examines the moral decision making process concerning personal Internet usage at work. The main effects model gives us a good idea of what factors are important in forming a moral judgment and intention concerning PIUW. Our second analysis gives us insight into how the relative importance of these factors can change based on the characteristics of the situation as revealed by PMI.

Although we did not find support for all of our hypotheses, we did make some interesting observations about the nature of the moral decision making process concerning PIUW. Most importantly, we found evidence that suggests another reason for the differences between groups than the one proposed by Weber (1996): that the impact of internal factors becomes more salient in situations where PMI is high, while the impact of external factors becomes more salient in situation where PMI is low. It is not possible to determine why Weber (1996) found slightly different results since they used interviews to gauge each individual's moral reasoning level and did not use quantitative measures.

Through discussions with others, both practitioners and researchers, we find that individuals are drawn to this topic of the "dark side" of IS usage. For many organizations though, it seems to be a subject that they would rather ignore until they are forced to deal with it because of the repercussions of the actions of an employee. In the future, we believe that organizations are going to need to be more proactive with their deterrence measures in order to reduce the dangers to the organization from IS misuse.

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APPENDIX A: OPERATIONALIZATION OF THE CONSTRUCTS

Construct: **Idealism**
Similar Concepts in the Literature:
Description: Belief that what is ethically right in a given situation is governed by a set of absolute moral rules. (Forsyth, 1980)
Source of Survey Instrument:
Forsyth, 1980

1. A person should make certain that their actions never intentionally harm another even to a small degree.
2. Risks to another should never be tolerated, irrespective of how small the risks might be.
3. The existence of potential harm to others is always wrong, irrespective of the benefits to be gained.
4. One should never psychologically or physically harm another person.
5. One should not perform an action which might in any way threaten the dignity and welfare of another individual.
6. If an action could harm an innocent other, then it should not be done.
7. Deciding whether or not to perform an act by balancing the positive consequences of the act against the negative consequences of the act is immoral.
8. The dignity and welfare of people should be the most important concern in any society.
9. It is never necessary to sacrifice the welfare of others.
10. Moral actions are those which closely match ideals of the most "perfect" action.

Selected Questions:

1. A person should make certain that their actions never intentionally harm another even to a small degree.
2. The existence of potential harm to others is always wrong, irrespective of the benefits to be gained.
3. One should never psychologically or physically harm another person.
4. One should not perform an action which might in any way threaten the dignity and welfare of another individual.
5. If an action could harm an innocent other, then it should not be done.

Construct Type: Reflective, General

Construct: **Relativism**
Similar Concepts in the Literature:
Description: Belief that what is ethically right in a given situation depends on the characteristics of that situation. (Forsyth, 1980; Sparks and Hunt, 1998; Yetmar and Eastman, 2000)
Source of Survey Instrument:
Forsyth, 1980

1. There are no ethical principles that are so important that they should be a part of any code of ethics.
2. What is ethical varies from one situation and society to another.

3. Moral standards should be seen as being individualistic; what one person considers to be moral may be judged to be immoral by another person.
4. Different types of moralities cannot be compared as to "rightness."
5. Questions of what is ethical for everyone can never be resolved since what is moral or immoral is up to the individual.
6. Moral standards are simply personal rules which indicate how a person should behave, and are not to be applied in making judgments of others.
7. Ethical considerations in interpersonal relations are so complex that individuals should be allowed to formulate their own individual codes.
8. Rigidly codifying an ethical position that prevents certain types of actions could stand in the way of better human relations and adjustment.
9. No rule concerning lying can be formulated; whether a lie is permissible or not permissible totally depends upon the situation.
10. Whether a lie is judged to be moral or immoral depends upon the circumstances surrounding the action.

Selected Questions:

1. Moral standards should be seen as being individualistic; what one person considers to be moral may be judged to be immoral by another person.
2. Different types of moralities cannot be compared as to "rightness."
3. Questions of what is ethical for everyone can never be resolved since what is moral or immoral is up to the individual.
4. Moral standards are simply personal rules which indicate how a person should behave, and are not to be applied in making judgments of others.
5. Ethical considerations in interpersonal relations are so complex that individuals should be allowed to formulate their own individual codes.

Construct Type: Reflective, General

Construct: **Knowledge of Organizational Policies**
Similar Concepts in the Literature: User Awareness of Security Policies (Darcy et al., 2008; Straub and Nance 1990; Straub 1990); Security awareness (Lee et al., 2004)
Description: The individual's awareness of rules and guidelines regarding permissible use of organizational IS resources (Straub and Nance 1990).
Source of Survey Instrument:
Darcy et al., 2008

1. My organization has specific guidelines that describe acceptable use of e-mail.
2. My organization has established rules of behavior for use of computer resources.
3. My organization has a formal policy that forbids employees from accessing computer systems that they are not authorized to use.
4. My organization has specific guidelines that describe acceptable use of computer passwords.
5. My organization has specific guidelines that govern what employees are allowed to do with their computers.

Lee et al., 2004

1. Frequency of awareness programs per year
2. Degree of security awareness

3. Helpfulness of security awareness

Selected Questions:

What is your organization's policy concerning each of these activities in the workplace?

Construct Type: Reflective, Issue Specific

Construct: **Perceived Moral Intensity**

Similar Concepts in the Literature: Perceived Importance of an Issue (Haines and Leonard, 2007b; Kreie and Cronan, 2000; and Haines and Leonard, 2004)

Description: An individual's perception of the nature of a situation in terms of six different factors: magnitude of consequences, social consensus, probability of effect, proximity to victim, temporal immediacy, and concentration of effect (Jones, 1991).

Source of Survey Instrument:

Paolillo and Vitell, 2002

1. The overall harm (if any) done as a result of the action would be very small.
2. Most people would agree that the action is wrong. (Rev. Coding)
3. There is a very small likelihood that the action will actually cause any harm.
4. The action will not cause any harm in the immediate future.
5. If one were a personal friend of the person(s) harmed, the action would be wrong.
6. The action will harm very few people, if any.

Singhapakdi et al., 1996a

1. The overall harm (if any) done as a result of the [marketer]'s action would be very small.
2. Most people would agree that the [marketer]'s action is wrong.
3. There is a very small likelihood that the [marketer]'s action will actually cause any harm.
4. The [marketer]'s action will not cause any harm in an immediate future.
5. If the [marketer] is a personal friend of the [victim], the action is wrong.
6. The [marketer]'s action will harm very few people (if any).

Selected Questions:

1. It is unlikely that engaging in this action would cause harm (e.g. through loss of productivity, exposure to hackers, viruses, or legal liability) to my organization or coworkers.
2. Most people in society would agree that doing this at work is wrong.
3. If this action harmed someone or something that I cared strongly about then the action would be wrong.
4. If engaging in this activity did cause any harm, only a small number of people would be affected.
5. If engaging in this activity did cause any harm, the results would not be noticed immediately.
6. If engaging in this activity did cause any harm, the degree of harm would be very low.

Construct Type: Formative, Issue Specific

Construct: **Age**
Similar Concepts in the Literature:
Description:
Source of Survey Instrument:
Selected Questions:
Construct Type: Reflective, General

Construct: **Gender**
Similar Concepts in the Literature:
Description:
Source of Survey Instrument:
Selected Questions:
Construct Type: Reflective, General

Construct: **Moral Judgment**
Similar Concepts in the Literature:
Description: An individual's decision of the most morally correct course of action among all of the available alternatives (Rest, 1986).
Source of Survey Instrument:
Leonard et al., 2004; Haines and Leonard, 2007b
1. The [person in the scenario's] [behavior] was: (acceptable–unacceptable).
Harrington, 1996
1. [The person listed in the vignette] was justified.
2. [The person listed in the vignette] did nothing wrong.
Moores and Chang, 2006
1. I would consider buying pirated software in this case an acceptable behavior.
Selected Questions:
1. I have the knowledge necessary to do this at work.
2. There are no technical restrictions (e.g. firewall or other security measure) that would prevent me from doing this at work.
Construct Type: Reflective, Issue Specific

Construct: **Perceived Difficulty**
Similar Concepts in the Literature: self-efficacy, resource facilitating conditions, technology facilitating conditions
Description: An individual's perception of how hard it would be to complete a given task.
Source of Survey Instrument:
Venkatesh et al., 2003
1. I have control over using the system.
2. I have the resources necessary to use the system.
3. I have the knowledge necessary to use the system.
4. Given the resources, opportunities and knowledge it takes to use the system, it would be easy for me to use the system.
5. The system is not compatible with other systems I use.
Netemeyer et al., 1991

1. For me voting is difficult-easy
2. If I wanted to I could easily vote
3. How much control do you have over whether you do or do not vote
4. It is mostly up to me whether I vote

Sheeran and Orbell, 1999

1. For me taking a multi-vitamin pill would be very easy- very difficult
2. The number of external influences that may prevent me from taking a multi-vitamin pill
3. How much control do you think you have over your ability to take a multi-vitamin pill

Selected Questions:

1. I have the knowledge necessary to do this at work.
2. There are no technical restrictions (e.g. firewall or other security measure) that would prevent me from doing this at work.

Construct Type: Formative, Issue Specific

Construct: **Perceived Personal Risk**

Similar Concepts in the Literature: Perceived Certainty of Sanctions (Darcy et al., 2008); Perceived Severity of Sanctions (Darcy et al., 2008); Perceived Risk (Cherry and Fraedrich, 2002); Consequences (Leonard et al., 2004)

Description: The fear that an individual has of enduring negative consequences because of committing an action.

Source of Survey Instrument:

Darcy et al., 2008

1. Taylor would probably be caught, eventually, after sending the e-mail: (strongly disagree …. strongly agree)
2. The likelihood the organization would discover that Taylor sent the e-mail is: (very low …. very high)

Darcy et al., 2008

3. If caught sending the email, Taylor would be severely reprimanded: (strongly disagree …. strongly agree)
4. If caught sending the e-mail, Taylor's punishment would be: (not severe at all …. very severe)

Grassmick and Green, 1980

1. "Estimate the chance you would be arrested by the police if you did each of these things."
2. "Imagine you had been arrested and found guilty and the court had decided what your punishment would be. Indicate how big a problem that punishment would create for your life."

Cherry and Fraedrich, 2002

1. The risk involved is 'very high/very low'
2. The risk involved is 'unacceptable/ acceptable.'

Leonard et al., 2004

1. If the programmer knew that, if discovered, he would be reprimanded, he should have /should not have made the changes.

Selected Questions:

1. Engaging in this activity at work is very likely to get me into trouble.
2. Engaging in this activity is unacceptably risky to me.

Construct Type: Reflective, Issue Specific

Construct: **Social Influence**

Similar Concepts in the Literature: Subjective Norm (Ajzen 1991; Davis et al. 1989; Fishbein and Azjen 1975; Mathieson 1991); Social Factors (Thompson et al. 1991); Association with software pirating peers (Higgins, 2005); Ethical Climate (Verbeke et al., 1996; Victor and Cullen, 1988; Singhapakdi et al., 2001; Cullen et al., 2003; Luria and Yagil, 2008); Ethical Culture of the Organization (Razzaque and Hwee, 2002 and Singhapakdi et al., 2001)

Description: The degree to which an individual perceives that important others believe PIUW is morally unacceptable.

Source of Survey Instrument:

Peace et al., 2003

1. If I committed software piracy, most of the people who are important to me would: approve...disapprove.
2. Most people who are important to me would look down on me if I committed software piracy: likely...unlikely.
3. No one who is important to me thinks it is okay to commit software piracy: strongly agree...disagree.

Ajzen, 2002

1. Most people who are important to me think that [I should (1 to 7) I should not] walk on a treadmill for at least 30 minutes each day in the forthcoming month
2. It is expected of me that I walk on a treadmill for at least 30 minutes each day in the forthcoming month [extremely likely (1 to 7) extremely unlikely]
3. The people in my life whose opinions I value would [approve (1 to 7) disapprove] of my walking on a treadmill for at least 30 minutes each day in the forthcoming month

Venkatesh et al., 2003

1. People who influence my behavior think that I should use the system.
2. People who are important to me think that I should use the system.
3. The senior management of this business has been helpful in the use of the system.
4. In general, the organization has supported the use of the system.

Higgins, 2005

1. How many of your best male/female friends copy software?
2. How many of the friends (male/female) you have known the longest copy software?
3. How many friends (male/female) do you copy software with?

Selected Questions:

1. My family and friends would not look favorably on someone who did this at work.
2. Engaging in this activity at work is discouraged by the management of my organization.

3. My coworkers would not look favorably on someone who engaged in this activity at work.

Construct Type: Formative, Issue Specific

Construct: **Intention**
Similar Concepts in the Literature:
Description: An individual's conscious decision to commit a behavior (Rest, 1986).
Source of Survey Instrument:
Ajzen, 2002

1. I intend to walk on a treadmill for at least 30 minutes each day in the forthcoming month [extremely unlikely (1 to 7) extremely likely]
2. I will try to walk on a treadmill for at least 30 minutes each day in the forthcoming month [definitely true (1 to 7) definitely false]
3. I plan to walk on a treadmill for at least 30 minutes each day in the forthcoming month [strongly disagree (1 to 7) strongly agree]

Moores and Chang, 2006

1. I would buy pirated software if it were freely available.
2. I would buy pirated software if the cost of legal software were too high.
3. I would buy pirated software if there is no punishment for doing so.

Peace et al., 2003

1. I may commit software piracy in the future (strongly agree... strongly disagree).
2. If I had the opportunity, I would commit software piracy (strongly agree... strongly disagree).
3. I would never commit software piracy (strongly agree... strongly disagree).

Venkatesh et al., 2003

1. I intend to use the system in the next <n> months.
2. I predict I would use the system in the next <n> months.
3. I plan to use the system in the next <n> months

Lee et al., 2007

1. I intend to use the Internet for non-work-related activities during work hours.
2. I would use the Internet for non-work-related activities during work hours.

Darcy et al., 2008

1. If you were Taylor, what is the likelihood that you would have sent the e-mail? (very unlikely …. very likely)
2. I could see myself sending the e-mail if I were in Taylor's situation: (strongly disagree …. strongly agree)

Selected Questions:

1. I intend to engage in this at work.
2. I predict that I will probably do this at work sometime in the future.

Construct Type: Reflective, Issue Specific

Construct: **Expected Personal Benefits**
Similar Concepts in the Literature: Expected Outcomes (LaRose and Eastin, 2004); Near term consequences (Chang and Cheung, 2001); Long term consequences

(Chang and Cheung, 2001); Internet Uses and Gratifications (Parker and Plank, 2000)

Description: The positive outcomes that an individual expects for committing an action (Bandura, 1976).

Source of Survey Instrument:

Parker and Plank, 2000

Factor 1: Companionship & Social Relationships

Because it's something to do when friends come over.

So I won't have to be alone

So I can get away from the rest of the family or others.

When there's no one else to talk with or be with.

Because it makes me feel less lonely.

Factor 2: Surveillance & Excitement

It helps me learn things about myself and others.

Because it's thrilling.

So I can talk with other people about what's going on.

So I can learn how to do things which I haven't done before.

Factor 3: Relaxation and Escape

So I can forget about school, work, and other things.

Because it relaxes me.

Because it passes the time away, particularly when I'm bored.

Because it allows me to unwind.

Because it amuses me.

Selected Questions:

1. Engaging in this activity at work brings me pleasure or happiness.
2. Engaging in this activity could improve my current circumstances.
3. Engaging in this activity at work is beneficial to me.

Construct Type: Reflective, Issue Specific

APPENDIX B: SURVEY COVER LETTER

The survey could also be accessed online:

UNDERSTANDING PROJECT PORTFOLIO MANAGEMENT PRACTICES
Thank you very much for taking the time to fill out this survey!

The purpose of this study is to understand Personal Internet Usage in the workplace. The survey will take between 45-60 minutes to complete.

Your participation is voluntary. The information collected through this survey will be kept confidential and not used to identify any individual respondent. The data analysis will be done on the aggregated responses.

As a token of our appreciation for taking time to participate in this survey, participants who complete the survey will get a chance to enter into a draw to win one of four $50 Amazon gift certificates.

For any questions you might have regarding subject's rights, you may contact the Compliance Office, Office of Research Services at 704-687-3309 or research@uncc.edu. If you have any questions or concerns regarding this survey or if you are interested in receiving summary of the results, please contact Matt Campbell at 704-687-7580 or smcampbe@uncc.edu.

Thank you,

Matt Campbell
PhD Student
University of North Carolina at Charlotte
Email: smcampbe@uncc.edu
Phone: 704-687-7580

APPENDIX C: SURVEY INSTRUMENT

UNC Charlotte
Internet@Work Research Survey

INTERNET@WORK SURVEY

Section 1 of 3: General Information

Please select your answers to the following questions.				
1. Age:	○ 18-30	○ 31-45	○ 46-60	○ 60+
2. Gender:	○ Male		○ Female	
3. Job Type:	○ Management		○ Non-Management	
4. Organization Size (# of employees)	○ Less than 100	○ 100-999	○ 1,000-10,000	○ More than 10,000
5. Organization Type	○ For Profit		○ Non-Profit	
6. Education Level	○ No College	○ Some College	○ Bachelor's Degree	○ Graduate Degree
7. In what area are you working?	○ Marketing/Sales ○ Info. Systems	○ Accounting/Finance ○ Operations	○ Human Resources ○ R&D	○ Customer Service ○ Other
8. How long have you been using computers?	○ 0-2 Years	○ 3-6 Years	○ 7-10 Years	○ Over 10 Years
9. How many hours per week do you use a computer?	○ 0-10 Hours	○ 11-20 Hours	○ 21-30 Hours	○ Over 30 Hours
10. Have you ever written computer programs?	○ No	○ Yes, in one language	○ Yes, in multiple programming languages	

11. I like to gossip at times.	○ True	○ False
12. There have been occasions when I took advantage of someone.	○ True	○ False
13. I'm always willing to admit it when I make a mistake.	○ True	○ False
14. I sometimes try to get even rather than forgive and forget.	○ True	○ False
15. At times I have really insisted on having things my own way.	○ True	○ False
16. I have never been irked when people expressed ideas very different from my own.	○ True	○ False
17. I have never deliberately said something that hurt someone's feelings.	○ True	○ False

Submit Cancel

UNC Charlotte
Internet@Work Research Survey

Section 2 of 3: Personal, Non-work Related Internet Use in the Workplace

Instructions:
The following questions ask about three different types of **personal, non-work related** Internet usage at work.

	Informational Internet Use (e.g. browsing news, sports, or weather sites)	Social Internet Use (e.g. using social networking such as Facebook or MySpace, or playing multiplayer games)	Adult Related Internet Use (e.g. viewing pornography or engaging in online gambling)
1. What is your organization's policy concerning each of these activities in the workplace?	-- Please select --	-- Please select --	-- Please select --
2. Have you ever engaged in this activity at work?	-- Please select --	-- Please select --	-- Please select --
For the following questions, please indicate your level of agreement using the scale: 1. Strongly Agree to 7. Strongly Disagree.			
3. I believe I would be morally justified in doing this at work.	-- Please select --	-- Please select --	-- Please select --
4. I intend to engage in this at work.	-- Please select --	-- Please select --	-- Please select --
5. It is unlikely that engaging in this action would cause harm (e.g. through loss of productivity, exposure to hackers, viruses, or legal liability) to my organization or coworkers.	-- Please select --	-- Please select --	-- Please select --
6. Most people in society would agree that doing this at work is wrong.	-- Please select --	-- Please select --	-- Please select --
7. If this action harmed someone or something that I cared strongly about then the action would be wrong.	-- Please select --	-- Please select --	-- Please select --
8. I predict that I will probably do this at work sometime in the future.	-- Please select --	-- Please select --	-- Please select --
9. I have the knowledge necessary to do this at work.	-- Please select --	-- Please select --	-- Please select --

10. There are no technical restrictions (e.g. firewall or other security measure) that would prevent me from doing this at work.	-- Please select --	-- Please select --	-- Please select --
11. My family and friends would not look favorably on someone who did this at work.	-- Please select --	-- Please select --	-- Please select --
12. I engage in this activity at work quite often.	-- Please select --	-- Please select --	-- Please select --
13. Engaging in this activity at work brings me pleasure or happiness.	-- Please select --	-- Please select --	-- Please select --
14.Engaging in this activity at work is very likely to get me into trouble.	-- Please select --	-- Please select --	-- Please select --
15. If engaging in this activity did cause any harm, only a small number of people would be affected.	-- Please select --	-- Please select --	-- Please select --
16.The procedures or methods (if any) used to control or restrict this type of Internet use at my organization are fair.	-- Please select --	-- Please select --	-- Please select --
17. Engaging in this activity at work is discouraged by the management of my organization.	-- Please select --	-- Please select --	-- Please select --
18. If engaging in this activity did cause any harm, the results would not be noticed immediately.	-- Please select --	-- Please select --	-- Please select --
19. Engaging in this activity could improve my current circumstances.	-- Please select --	-- Please select --	-- Please select --
20.I find engaging in this activity at work morally acceptable.	-- Please select --	-- Please select --	-- Please select --
21. Engaging in this activity at work is beneficial to me.	-- Please select --	-- Please select --	-- Please select --
22. If engaging in this activity did cause any harm, the degree of harm would be very low.	-- Please select --	-- Please select --	-- Please select --

23. My organization's rules concerning this type of Internet use are fair.	-- Please select --	-- Please select --	-- Please select --
24. Engaging in this activity is unacceptably risky to me.	-- Please select --	-- Please select --	-- Please select --
25. This is part of my normal routine at work.	-- Please select --	-- Please select --	-- Please select --
26. My coworkers would not look favorably on someone who engaged in this activity at work.	-- Please select --	-- Please select --	-- Please select --
27. If I discovered a coworker abusing the Internet in this way at work, I would report him/her to a manager.	-- Please select --	-- Please select --	-- Please select --

Submit Cancel

Section 3 of 3: Ethical Views

For the following questions, please indicate your level of agreement using the scale: 1. Strongly Agree to 7. Strongly Disagree.

1. A person should make certain that their actions never intentionally harm another even to a small degree.	-- Please select --
2. The existence of potential harm to others is always wrong, irrespective of the benefits to be gained.	-- Please select --
3. One should never psychologically or physically harm another person.	-- Please select --
4. One should not perform an action which might in any way threaten the dignity and welfare of another individual.	-- Please select --
5. If an action could harm an innocent other, then it should not be done.	-- Please select --
6. Moral standards should be seen as being individualistic; what one person considers to be moral may be judged to be immoral by another person.	-- Please select --
7. Different types of moralities cannot be compared as to "rightness."	-- Please select --
8. Questions of what is ethical for everyone can never be resolved since what is moral or immoral is up to the individual.	-- Please select --
9. Moral standards are simply personal rules which indicate how a person should behave, and are not to be applied in making judgments of others.	-- Please select --
10. Ethical considerations in interpersonal relations are so complex that individuals should be allowed to formulate their own individual codes.	-- Please select --

Submit Cancel