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Xin Luo
University of New Mexico, luo@mgt.unm.edu

Merrill Warkentin
Mississippi State University, m.warkentin@msstate.edu

Allen C. Johnston
University of Alabama Birmingham, ajohnston@uab.edu

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Merrill Warkentin
Mississippi State University
m.warkentin@msstate.edu

Allen C. Johnston
University of Alabama at Birmingham
ajohnston@uab.edu

ABSTRACT

Organizational leaders seek to establish a safe information environment, including perimeter controls against external threats and also internal controls to monitor for intentional or accidental internal threats. Are individuals who are more oriented toward individualistic perceptions more likely to reject or resent the use of such controls designed to facilitate organizational security? A related question is whether national culture, specifically the cultural environment within East Asian countries such as China, may promote a predominance of individuals who are more oriented toward collectivist or allocentric perceptions such that they may be more willing to relinquish some degree of individual privacy in order to increase overall organizational security. A large sample of working professionals in the insurance and other industries will be surveyed in China and in the United States to address these research questions, and the results will be presented and discussed at the conference.

Keywords

National culture, information security, privacy expectation, employee behavior.

INTRODUCTION

Discussions of how to effectively design and implement a computer security plan remain prevalent within the academic and practitioner literature. It could be argued, however, that the persistence of such discussions is not due to a lack of empirically-derived insight or a void in the availability of episodic knowledge. Rather, the debate simply reflects the volatile nature of technological advancement, characterized by rapidly evolving technology and expanding expertise on both sides of the fence between attacker and attackee. Advances in ubiquitous connectivity, along with more sophisticated and coordinated attack vectors, have helped to shape the current milieu for computer security management and in doing so have presented unique challenges for IT managers. Fortunately, for many of these and other challenges, IT managers can look to extant theories and practices as guidance.

Numerous taxonomies and conceptual models (e.g.; Whitman (2004), Straub and Welke (1998)) exist to aid managers in devising policies and procedures for coping with threats to their information assets. A critical success factor for effective security management lies in the degree to which end users engage in recommended security actions as dictated by policy and procedure. A common denominator in determining how users respond to individual security initiatives is their level of awareness; awareness of threats, awareness of vulnerabilities, and an awareness of the actions and technologies available to protect themselves.

While the discussion of security awareness within the end user community is appropriate and supported, much less is understood of the aspect of privacy and its influence on security outcomes. Many security procedures and related technologies infringe upon the privacy of users in an attempt to secure their computing facilities. Interestingly, these infractions are often unwittingly carried out by the victimized party. Whether in partial fulfillment of the mandate of self defense or as part of an enterprise security solution, these privacy violations may be the result of a lack of awareness within the user community of the threat these actions ultimately have on individual privacy.

Organizational leaders must ensure that the information they create, store, and transmit remains secure. It must conform to the goals of confidentiality, integrity, and accessibility. In addition to various controls and monitors that relate to the external

environment, such as firewalls, intrusion detection systems, and anti-malware systems, the IT managers must also monitor internal electronic activity to ensure that actions by insiders (whether intentional or accidental) are consistent with the goals and protocols of organizational security.

Many security activities by the organization require some level of invasion of individual privacy in order to be effective. Such activities include:

- system monitoring
- USB drive scanning
- password cracking
- web traffic monitoring through proxy servers
- email, IM filtering
- remote administration
- update servers
- search engine monitoring

So in order to maintain organizational security, it is necessary to remove some level of individual privacy. To what extent are end users willing to forgo personal privacy for the security of the whole? The primary research of the present study focuses on the relationships between an individual's desire for privacy and his or her sense of individualism as opposed to collectivism and the relationships between the privacy and organizational commitment and organizational citizen behavior. Are collectivists more likely to be willing to suspend their individual-level desire for privacy in order to contribute to organizational security?

The purpose for this research is to empirically assess the influence of individualism on perceptions of privacy infringement and its downstream effect on organizational commitment and organizational citizenship. In pursuit of this objective, the authors seek to determine the extent to which end users are willing to forgo personal privacy for the security of the whole. The present study is further motivated by the influence of national culture on the individual's sense of individualism or collectivism.

CULTURE

Broadly defined as the collective programming of the mind which distinguishes the members of one human group from another and as the human-made part of the environment (Hofstede, 1980, Hofstede, 1998), culture is a certain human group's collective meaning system and is composed of its values, attitudes, beliefs, language patterns, customs, and thoughts. Goodenough (1964) indicated that culture consists of habits and tendencies to act in certain ways, and further contended that culture is the forms of things that people have in mind, their models for perceiving, relating, and otherwise interpreting them.

Furthermore, culture consists of both objective elements and subjective elements (Triandis, 1972). Triandis (1989) claimed that subjective culture includes many aspects, including attitudes, categorizations, norms, roles, and values of a particular group. He also indicated that elements of subjective culture are often interrelated and form unique cultural syndromes. Additionally, Schwartz (1994) stated that the unique cultural syndromes can reflect basic issues that societies must confront in regulating human activity.

As researchers across disciplines tended to compare different cultures in such terms as values and attitudes, Hofstede (1991) urged that we need a theoretical justification and framework; otherwise the comparison of values and attitudes is in some way a comparison of apples to oranges. As such, he proposed that the value system of national cultures can be presented by five dimensions including power distance, collectivism versus individualism, uncertainty avoidance, femininity versus masculinity, and long-term orientation. Despite the fact that his cultural taxonomy has received various criticisms, this five-dimensional framework that is based on value orientations considered important and shared across cultures still is the predominant cross-cultural study's foundation and has been extensively employed and validated in IS research (Robey and Rodriguez-Diaz, 1989, Straub et al., 1997, Straub, 1994).

In general, an ethical system can aid in identifying the noticeable dissimilarities among different cultures such as China and USA. China is not a country that is devoid of morals. Their beliefs and approaches are *different* due to the deep influence of Confucianism, which is a scholarly tradition and lifestyle based on the teachings of Confucius. Confucius's philosophical ideals have been followed by the Chinese for over two millennia. Despite the mushrooming introduction of Western management ideas, products, and technologies in today's China, the inception of Western influence has been re-morphed by the deeply rooted socio-cultural context that is still bounded by the Confucius belief.

While USA and Western societies are built on Plato's philosophy which stresses individualism, equity, and democracy, China, a historically collectivist society, is built on Confucius' five Cardinal Relationships, emphasizing hierarchical social order and authoritarianism. This stark cultural contract reveals that Chinese people are socially-oriented and situation-centered and that they more likely tend to follow orders or doctrine from their leaders. Albeit the riot of Cultural Revolution, the social and moral structures of Confucianism still have retained and guided Chinese people to conform to their cultural traditions.

Even though Chinese society has undergone enormous change over the past three decades, traditional socio-cultural values have continued to influence the Chinese people's societal behavior. The long history of collectivism has continuously shaped Chinese people in such a way that they tend to prioritize the needs of the group (i.e., family, work associates, or friends) over the individual. As such, when compared with Westerners, Chinese members of the group are more concerned about the welfare of the group than the needs of outsiders. Unlike Western societies, such as the USA which values self-expression and trust, Chinese societies value trust inside the family and deem that self-expression in front of others confronts entrenched behaviors and beliefs and causes societal tension and conflict.

The ethical ideas taught by Confucius have had a major impact on China's moral fabric and these ideas are still seen today in Chinese organizational context. For example, Confucianism focuses not only on the advancement and well-being of the individual, but also on the harmony of the State and society. Western beliefs stress that human beings have individual rights to seek truth and personal privacy and property, whereas Chinese beliefs tend to emphasize social harmony and balance and are comparatively relationship-oriented for virtue. Therefore, a leader (i.e., manager) of a Chinese organization might judge what an employee does based on whether or not his motivations were appropriate and what his intent was in relation to Confucius' moral principles. Chinese people, when compared with Westerners, tend not to alter their external environment and instead focus on adapting to their current surroundings because they believe that all things are interdependent and exist for peace.

Confucianism advocates ethical normality, which means that men and women should practice moral excellence correctly within the confines of an ethical code. In China, this ethical code is defined in the interpersonal relationship environment referred to as *guanxi* (Leung, 2004). Chinese society is built upon the so-called Chinese term *guanxi* (interpersonal connections and networks). *Guanxi,* regarded as the lifeblood of personal relationships and business conduct in Chinese society, ranks relationships higher than other ethical considerations, not excluding things like an organization's code of conduct. On the other hand, Westerners are accustomed to a different set of ethical standards and are taught and trained to rank obeying the law and following an organization's code of conduct above relationships.

Since *guanxi* stems from the traditional Confucius belief of close bonding with one's family and group, a Chinese person's existence is defined by a bilateral relationship with another person, and Chinese people operate collectively having close relationships with their immediate groups (Lee and Dawes, 2005). Based on their social networks, Chinese users normally tend to seek suggestions or opinions from their social groups instead of acting individually and they prefer to use indirect and implicit communications with others.

The cultural values of individualism and collectivism have been at the heart of numerous investigations seeking to highlight the influence of cultural values on employee-related psychological phenomena (Wast, 2003).

CONCEPTUAL MODEL AND HYPOTHESES DEVELOPMENT

Drawing on research in cross-cultural studies, organizational behavior, and information privacy, we posit that national culture, in the form of an individual's orientation toward individualistic or collectivism, impacts an individual's workplace privacy expectancy. Workplace privacy expectancy subsequently influences organizational commitment and organizational citizenship behavior. Finally, we contend that organizational commitment directly influences organizational citizenship behavior. The proposed research model is foreshadowed in Figure 1.
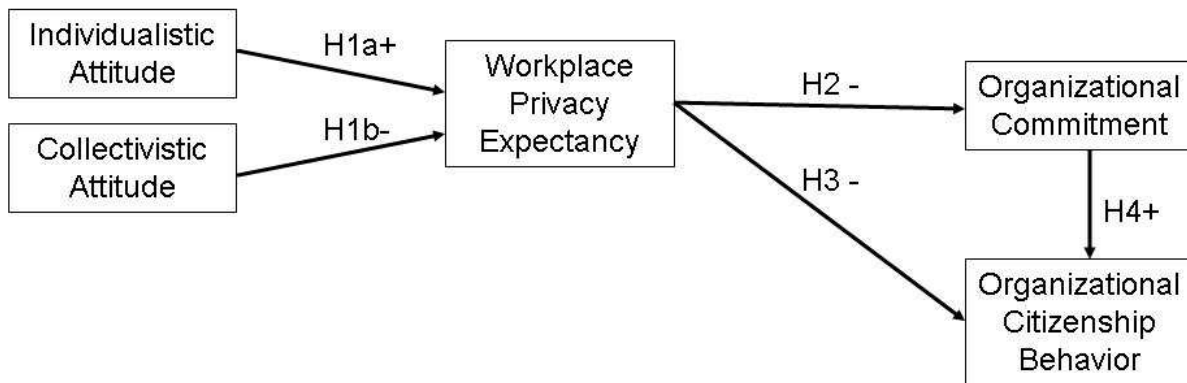
Figure 1: Proposed Research Model

The fundamental difference between individualism and collectivism lies in the construal of self (Wasti, 2003). Individualists perceive themselves as independent from a larger group, placing priority on personal goals and objectives, and indulging in thoughts, behaviors, and emotions centric to their own beliefs with little to no reference to others (Marksu and Kitayama, 1991). Conversely, collectivists see themselves as interdependent upon a larger group, placing a priority on the needs and good of the whole above their own requirements and desires.

Information privacy has been described as the ability an individual possesses to control the manner in which their personal information is acquired and used (Westin, 1967). Comparisons of individualists and collectivists reveal an interesting differentiation in terms of how the two groups perceive their individual privacy (Milberg et al., 2000; Bellman et al., 2004; Dinev et al., 2006). Hofstede (1980, 1991) determined that individualists are more inwardly focused - predisposed to thoughts and actions that benefit themselves over others in their peer group. As such, their desires and perceived requirements for privacy are strong. Milberg et al. (1995) reinforced Hofstede's assertion, finding that citizens of high individualism-oriented countries exhibit high levels of concern for information privacy. Collectivists, on the other hand, are less oriented toward personal privacy and, as such, are more likely to forgo personal privacy for the good of the whole (Hofstede, 1980; 1991). Hofstede's findings further support this contention, specifically stating that for allocentric-oriented societies, personal privacy is secondary to organizational practices that infringe upon personal privacy, but benefit the organization. Therefore, the following hypotheses are offered:

H1a: *An employee with an individualistic orientation will maintain a strong expectation of personal information privacy in the workplace.*

H1b: *An employee with a collectivistic orientation will maintain a weak expectation of personal information privacy in the workplace.*

Organizational commitment has been described as a multi-faceted perception held by an employee with regard to his or her psychological attachment to an organization (Morrow, 1993). Allen and Meyer (1990) and Meyer and Allen (1991) describe organizational commitment as consisting of three forms: affective commitment, continuance commitment, and normative commitment. Affective commitment refers to the employee's emotional connection to the organization. As an employee's affective commitment to his or her organization increases, so too does his or her motivation to perform well and to meaningfully contribute to the organization (Meyer and Allen, 1997).

Organizations achieve desired behaviors by their employees through the combined use of policy and procedures. To provide an acceptable level of assurance that employees are complying with the goals and objectives for information privacy and security as set forth in the policy and procedures of the organization, numerous controls can be embedded throughout the organization's information systems infrastructure to monitor and report end user activities. For instance, these controls may be used to monitor system access and usage, network activities, as well as Internet usage. As employees are exposed to or imposed upon by these controls, their expectations for privacy in the workplace are expected to influence the degree to which they support the organization's use of these controls. For collectivist employees, to whom organizational motives are of greater priority than their personal goals, the use of monitoring controls within the organization is likely to strengthen their sense of affective commitment to the organization as long as they believe the monitoring activity benefits the firm. For

individualist employees, with a stronger sense of personal privacy, the use of monitors in the workplace may be seen as an infringement of privacy. For these individuals, their affective commitment to their organization may be reevaluated and reformed on the basis of what they perceive to be a conflicting set of principles. Based on this set of expectations, the following hypothesis is offered:

H2: *An employee's expectations of privacy in the workplace will negatively influence his or her organizational commitment (affective) to the organization.*

Organizational citizenship behaviors (OCBs) are the discretionary, or non-required, actions of employees that either assist coworkers (altruism) or improve the organization (compliance) (Alge et al., 2006). While there are numerous factors that influence OCB, Lee and Allen (2002) found that employees who feel they are treated fairly by their organization will engage in OCB. Conversely, employees that feel they are treated unfairly will withhold OCB. Interestingly, organizational attempts at controlling and monitoring information tasks among employees have been proven to unwittingly undermine perceptions of privacy held by the employees, which in turn negatively influence discretionary behaviors that are regarded as beneficial to the organization (Benner and Tushman, 2003). Therefore, for those employees with a high degree of workplace privacy expectancy, it is expected that they will withhold OCB as organizations are increasingly devoted to reducing their exposure to security risks through the monitoring and controlling of employees (Alge et al., 2006). The following hypothesis is posited:

H3: *An employee's expectations of privacy in the workplace will negatively influence his or her organizational citizenship behavior.*

Numerous studies have found a predictive relationship between organizational commitment and organizational citizenship behaviors (Mathieu and Zajac, 1990). Meyer et al. (2002) determined a positive relationship between both the normative and affective commitment aspects of organizational commitment with the altruistic and compliant dimensions of OCB. Employees who are emotionally attached and committed to the organization are more likely to take actions that are collaborative or constructive outside those assigned to them as part of their regular duties. In other words, committed employees are more likely to help other employees and to facilitate a better work environment. From this logic, the following hypothesis is offered:

H4: *An employee's organizational commitment (affective) will positively influence his or her organizational citizenship behavior.*

The instrument will utilize previously-validated scale items to measure the latent constructs. The scale for idiocentrism is a 32-item, four dimension, INDCOL scale (Singelis et al., 1995). However, Srite and Karahanna (2006) developed a comparable scale for their MIS Quarterly item, also based on Hofstede's work and applicable to individual-level perceptions. Following rigorous pre-testing, one of these scales will be selected for the present study. The scale for Workplace Privacy Expectancy is adapted from the Global Information Privacy Concerns scale (Malhotra et al., 2004, Smith et al., 1996). The scale for Organizational Commitment (affective commitment dimension) is a 6-item scale found in Meyer and Allen (1997). Finally, the OCB is measured using the 16-item scale developed by Smith et al. (1983). This scale measures both the altruism (7 items) and compliance (9 items) dimensions of OCB.

RESEARCH PLAN

This study will use a field survey method. The instrument used will be formed out of the items used in prior researches and pilot-tested before the actual launch. The respondents will be asked to answer the questions on a 5-point Likert scale, 1 being strongly disagree and 5 strongly agree. Partial Least Square (PLS), a Structural Equation Modeling (SEM) tool, will be employed to analyze the correlations between the factors identified and to examine the overall model fit. Other information concerning internet experience, company size, employee number, employee accessibility to computer and Internet will also be collected. The survey instrument will be administered to a large sample of working professionals in the insurance and other industries in China and in the United States to address these research questions, and the results will be presented and discussed at the conference. Anonymity of the survey will be ensured.

RESEARCH IMPLICATIONS

The relationships of national culture and employee workplace privacy expectancy as well as organizational citizenship behavior with other identified factors will be investigated. We expect that national culture, when measured at the individual level, may aid organizational leaders in making effective decisions with regard to employees' privacy invasion versus organizational information assurance against internal and/or external threats. In essence, we expect that our planned survey

samples from China and the United States shall mirror cultural differences which may exert different roles for organizational leaders to accordingly establish information assurance training or education programs to alleviate the load on actual privacy invasion amid employees. This can lead to increased employee productivity, less monitoring cost/investment, reduced workplace stress, and improved organizational citizenship behavior change.

CONCLUSION

Building on organizational behavior, information privacy, and cross-cultural dimensions, this study will identify the salient factors that influence employees' workplace privacy expectancy versus information assurance programs towards organizational citizenship behavior and organizational commitment. The relationships among these factors were mostly drawn from prior studies, proposed and presented in the research model. It is expected that the result of the study will provide organizations in different cultures with possible suggestions or solutions to employees' privacy concern related to organizational information assurance policies in different philosophical as well as cultural settings.

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