FIGHTING NEUTRALIZATION BEHAVIORS OF EMPLOYEES IN INFORMATION SECURITY POLICY COMPLIANCE: EXTRA-ROLE BEHAVIORS

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ABSTRACT

Past research found that employees use neutralization techniques including defense of necessity, appeal to higher loyalties, condemnation of the condemners, metaphor of the ledger, denial of injury, and denial of responsibility to reason and defend their information security policy (ISP) violation behaviors. Drawing upon the compliance theory, this study develops a research model which investigates how extra-role behaviors are related to neutralization behaviors in the context of ISP compliance. We hypothesize that extra-role behaviors − helping and voicing - decrease neutralization and increase ISP compliance intention. The data from an on-going survey will be used to empirically validate the research model. The study has both academic and practical implications by providing a mechanism to fight against neutralization behaviors of employees in ISP compliance.

INTRODUCTION

Recent research has highlighted the role of human behaviors and perceptions in information security policy (ISP) compliance as well as the importance of ISP and ISP compliance. For example, prior research studied the effect of various human behaviors and perceptions on ISP compliance [2], ISP violation [15], and IT misuse [4], to name a few. Particularly, prior research emphasized the role of extra-role behaviors, which are employees' voluntary actions, in increasing ISP effectiveness and argued that compliance behaviors resulted from extra-role behaviors are more independent from rewards and punishments, and thus long-lasting [8]. Prior research also studied neutralization behaviors and pointed out that employees often find excuses to deny their security responsibility and justify their policy violation [15]. A large scale, worldwide survey conducted by Cisco further provided evidence that employees still use excuses such as "I need to get job done", "I'm too busy to think about my company's IT policy" and "I'm not doing anything wrong" for their non-compliance behaviors [3]. So how to fight against employees' neutralization behaviors in ISP compliance is still challenging. The goal of this paper is to address this persistent challenge by exploring the inner drives of employees.

As the management philosophy has shifted from managing "abilities to achievement" to managing "willingness for achievement" [11, p.18], and current organizations increasingly depend on employees' discretionary efforts, looking for inner drives to overcome disgruntled behaviors has become critical in organization design [6] [7] [10]. For information security management, prompting voluntary, extra-role behaviors such as helping out coworkers to deal with security compliance issues, and paying specific intention to customers' personal information security, to name a few, might be a mechanism to mitigate

neutralization behaviors and increase ISP compliance in organizations. Therefore we posit promoting extra-role behaviors should be taken into consideration when fighting against neutralization behaviors.

The rest of the paper is organized as follows. We present our theoretical foundation and develop the hypotheses in the next section. In Section 3, we discuss the methodology. The last section, Section 4, concludes the paper.

THEORETICAL FOUNDATIONS AND HYPOTHESIS DEVELOPMENT

Theory of Compliance

Compliance is a critical task for organizations. The purpose of compliance is to make sure employees act as per their organizational directives so that organizational goals can be achieved [5]. An employee's compliance indicates he/she accepts the values embodied in the organizational directives and acts accordingly. However, compliance is not always the case. To assure compliance, companies generally rely on controls. Controls is a critical mechanism employed by organizations to prevent behavioral deviation. Coercive control is often used in organizations to enforce compliance and punish noncompliance. However, the effect of coercive control is limited [2] [5]. Frequent punishments and sanctions create hostile environments and result in negative reactions among employees, such as anxiety, burnout, anger, and withdrawal, just to list a few [1]. Literature also showed that compliance is more likely to occur when employees believe specific rewards such as bonus, promotion, and commissions can be gained [2]. For this reason, many organizations also use remunerative control by giving material rewards to employees in exchange for compliance [2] [5].

Nevertheless, when compliance is achieved by exercising either coercive control or remunerative control, employees may not necessarily share the values prescribed by the organization. Individual attitudes and organizational attitudes may differ. Consequently, compliance acts may not last once the control is loose or lifted. To internalize organizational values among employees, normative control which emphasizes norms and moral reasoning is used in organizations as a means to change employees' beliefs and attitudes to be aligned with organizational goals [5]. More importantly, positively changed beliefs and attitudes often lead to compliance that lasts. Motivated by this possibility, this study investigates ISP compliance from the normative control perspective.

Neutralization Theory and ISP compliance

Past studies showed that employees often use excuses to defend their ISP policy violation or non-compliance behaviors [3] [15]. The purpose of using excuses such as "I'm too busy to comply", "It's not a big deal", "Nobody would get hurt", and "I just want to get the job done" is to explain away their deviant behaviors and the potential harm of such behaviors, to avoid feeling of guilty, and to avoid sanctions [15]. Borrowed from criminology, neutralization theory has been used to explain ISP violation behaviors in the IS field. Excuses are categorized into six neutralization techniques namely defense of necessity, appeal to higher loyalties, condemnation of the condemners, metaphor of the ledger, denial of injury, and denial of responsibility [9] [14] [15].

Defense of necessity technique is often observed among ISP violators who claim the violation of the ISP is necessary due to the job. By claiming "I did this because otherwise I cannot get the job done on time", a violator finds a justification for his/her action while neutralizing a feeling of guilty in breaking rules [15].

H1. Defense of necessity is positively associated with overall neutralization perception.

Appeal to higher loyalties excuses are used when violators attempt to appeal to the group they are close to while sacrificing the values of the larger society [16]. For example, in criminology, it was found that criminals claimed their crime was to support their gang which was the family to them. Animal activists and environmental activists have found to use this technique occasionally to claim saving animal life or the mother earth is more important than abiding the law, and to explain away their acts which indeed violated the law [12]. In the context of this study, employees may use this technique to justify their ISP violation is to meet the deadline of their team work and the team is very important to them.

H2. Appeal to higher loyalties is positively associated with overall neutralization perception.

Condemnation of the condemners is a technique to shift the blame from the violator him/herself to laws, systems and others that disapprove his/her violation. By attacking others, his/her own violation may be repressed or reasoned [16]. When it comes to ISP compliance, a violator may blame the ISP being unreasonable to justify his/her action.

H3. Condemnation of the condemners is positively associated with overall neutralization perception.

Metaphor of the ledger means that many past good acts compensate occasionally bad acts. Past research found that employees used metaphor of the ledger excuses such as having good performance to justify running personal errands, watching sports on the Internet and other social loafing behaviors during work [13]. Employees may also claim that their job performance and past compliance behaviors compensate their occasionally ISP violations [15].

H4. Metaphor of the ledger is positively associated with overall neutralization perception.

Denial of injury is a kind of excuse that refuses to admit the harm caused by the violation. For example, some hackers claimed their hacking actions not only do not harm others, but benefit the society by finding vulnerabilities in computer systems. Employees often view that using a simple password for his/her work account, or not logging off his/her computer when leaving does no harm to others.

H5. Denial of injury is positively associated with overall neutralization perception.

In ISP compliance, employees often deny their responsibility for their violations. "The policy is unclear at all", and "The IT department should take care of security, not me" are common excuses for non-compliance behaviors.

H6. Denial of responsibility is positively associated with overall neutralization perception.

When employees have a high level neutralization perception, they use all kinds of excuses to minimize their perceptions of harm and responsibility. They tend to find justifications and reasons for not following rules.

H7. Overall neutralization perception is negatively associated with ISP compliance intention.

Following [8], we define extra-role behaviors in ISP compliance as "security behaviors not specified in an ISP and not dependent on the use of rewards or punishments to encourage performance." Based on compliance theory, we argue extra-role behaviors are the consequence of normative control in organizations. Extra-role behaviors occur when employees' beliefs and attitudes are highly aligned with organizational values and goals. Encouraging extra-role behaviors helps build a moral environment where compliance is more vulnerary.

Helping is an extra-role behavior that promotes actions of consideration [17]. Helping co-workers to comply with ISP can alleviate the frustration or misunderstanding in compliance. Employees demonstrating helping behaviors normally don't look for excuses of violations. Instead, they tend to facilitate others and themselves to comply.

H8. Employees demonstrating more extra-role behaviors-helping are less likely to have high neutralization perception.
H9. Employees demonstrating more extra-role behaviors-helping are more likely to have high ISP compliance intention.

Voicing is an extra-role behavior that speaks out with attempt of improving the current procedures and policies. Employees demonstrating voicing behavior seek continuous improvement of the current state. They are less likely to use neutralization techniques to deny their responsibility and minimize their perceptions of harm due to violation. Instead, they look for solutions to the problem, while adhering to the current policy.

H10. Employees demonstrating more extra-role behaviors-voicing are less likely to have high neutralization perception.
H11. Employees demonstrating more extra-role behaviors-voicing are more likely to have high ISP compliance intention.

In sum, our research model posits that extra-role behavior helping and voicing increase ISP compliance intention and decrease overall neutralization perception, whereas overall neutralization perception decreases ISP compliance intention.

RESEARCH METHODOLOGY

The measurement scales for the research model were developed based on an extensive literature review. Scales for defense of necessity, appeal to higher loyalties, condemnation of the condemners, metaphor of the ledger, denial of injury, and denial of responsibility were adopted from [15] and then adapted to the current research context. Measures for extra-role behaviors of helping and voicing were adopted from [8] and then adapted to the current research context. Scales for ISP compliance intention were adopted from [2]. Our pretest of the research model involved 3 participants recruited from a masters degree program. A pilot test involving 8 participants recruited from a local company was also conducted. The main data collection is currently underway. Once sufficient observations are acquired, the structural equation modeling method will be used for data analysis.

DISCUSSION AND CONCLUSION

This research proposes a defense mechanism to deal with neutralization behaviors of employees in ISP compliance and develops a research model in which the relationships among extra-role behaviors of

helping and voicing, neutralization and ISP compliance intention are examined. The study has academic implications by studying neutralization in the context of ISP compliance from the normative perspective based on compliancy theory. The study also provides new insights into neutralization behaviors by investigating how extra-role behaviors impact neutralization behaviors among employees in ISP compliance. The practical implications include providing practitioners a means to deal with neutralization behaviors in ISP compliance in organizations, and examining neutralization behaviors from the moral perspective instead of the criminology perspective.

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