Influence of Manager Attitude and Team Attitude on Employee Commitment of Change

Abstract

Employee commitment to change is critical to organizational change. We draw upon social learning theory and examine the influence of both manager and team attitude toward change on employee commitment to change, with motivation and power distance orientation as moderators. Our sample was comprised of 291 employees and 38 managers from 5 Taiwanese companies that implemented knowledge management related technologies. The results showed that team attitude was positively associated with employee commitment to change, employee motivation positively moderated the above relationship, and employee power distance orientation negatively moderate the relationship between manager attitude and employee commitment to change.

Key word: social learning theory, change implementation, commitment to change

**INTRODUCTION**

Organizational change is always regarded as a means to provide solutions to problems, to improve performance, and to be more competitive (Chen et al., 2013; Choi and Chang, 2009; Choi et al., 2011; Jaros, 2010; Klein et al., 2001; Real and Poole, 2005). However, the majority of organizations do not obtain the intended benefits from changes they adopted. Successful implementation requires employees of the adopting organizations to have a positive attitude toward the change and adapt to the change (Chung and Choi, 2016; Jasperson et al., 2005; Jaros, 2010; Klein et al., 2001; Klein and Sorra, 1996; Klein and Ralls, 1995; Neves and Caetano, 2009; Real & Poole, 2005).

In the organizational change literature, commitment to change is more than positive attitude toward the change initiatives and has been identified as a better predictor for employee support for change (Herold et al., 2007; Herold et al., 2008; Herscovitch and Meyer, 2002). Commitment to change is associated with employees’ willingness to put effort into supporting a successful implementation (Herold et al., 2007; Herold et al., 2008; Herscovitch and Meyer, 2002; Jaros, 2010). Previous research on commitment of change has identified several antecedents including contextual factors, such as influence of other change programs (Herold et al., 2007), level of hierarchy (Hill et al., 2012), and reasons for the change (Jing et al., 2014); role of managers, such as transformational leadership style (Herold et al., 2008; Hill et al., 2012), and perceived supervisor support (Neves, 2011); personal factors, such as self-efficacy (Herold et al., 2007), relational contract (Jing et al., 2014), and locus of control (Chen and Wang, 2007).

In this study we propose to use social learning theory to shed light on what factors affect commitment to change. Social learning theory is a plausible way to explain commitment to change because it posits that people can learn either from their own experiences or by observing others with whom they have frequent contact (Bandura, 1977). Even though commitment to change is not an actual behavior, social learning theory also posits that verbal modeling or symbolic modeling can also be developed (Bandura, 1977). Based on the assumption of social learning theory, we propose that employees are likely to learn from people around them, such as their direct managers and their team members, and their commitment to change would be influenced by those people’s attitude toward the change.

By examining commitment to change from the social learning perspective, the current study makes the following contributions. First, we include the team process in the study, and we are not aware of any existing study that examines how team members affect employee commitment to change. To be more specific, we intend to explore how team attitude toward the change affects an employee’s commitment to change. Second, even though middle managers traditionally play the role as implementer (Wooldeidge et al., 2008), there are only a few studies that have examined middle managers (Chiu and Fogel, 2017; Hill et al., 2012). Therefore, the current study intends to fill this gap by examining how middle managers affect employee commitment to change. Third, the current study intends to extend social learning theory by including individual characteristics as moderators. We propose that employees’ level of motivation and power distance orientation would moderate the relationship between either manager attitude or team attitude and employee commitment to change.

In the current study, the change is knowledge management related technologies implemented in Taiwanese companies. The term “manager” refers to middle managers who are one level above line employees and two levels below chief executive officer (Huy, 2001, 2002; Huy et al., 2014), and the term “team” refers to the individuals belonging to the same department or the same subunit within an department, depending on how the work is divided at each organization. The rest of the paper is organized as follows. We first present theoretical background and propose our hypotheses. It is followed by the method section describing our sample and measurement. The results of our analyses will be presented after the method section. Lastly, we will discuss our results and both theoretical and practical implications of the current study. Figure I is the proposed model in this study.

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**THEORETICAL BACKGROUND AND HYPOTHESES**

**Commitment to Change**

Organizational commitment has long been a predictor for employee behaviors, such as employee performance (e.g. Benkhoff, 1997; Riketta, 2002), organizational citizenship behavior (e.g. Bishop et al., 2000), job satisfaction (e.g. Neininger et al., 2010), and turnover intention (e.g. Joo and Park, 2010; Neininger et al., 2010). In addition, the commitment research extends to other contexts within the organization (Herold et al., 2007; Meyer and Herscovitch, 2001; Neves and Caetano, 2009), such as commitment to team (e.g. Bishop et al., 2000; Neininger et al., 2010), commitment to occupations (e.g. Lee et al., 2000; May et al., 2002), commitment to goals (e.g. Kruglanski et al., 2011; Klein et al., 1999), and commitment to change (eg. Hill et al., 2012; Neves and Caetano, 2009).

Commitment to change is defined as “the force (mind-set) that binds an individual to a course of action deemed necessary for the successful implementation of a change initiative” (Herscovitch & Meyer, 2002). Compared to other forms of commitment that measure attitudinal commitment, commitment to change is an “action commitment” (Jaros, 2010), which requires employees’ willingness to support and engage in change related behaviors (Herold et al., 2007; Herold et al., 2008). It is a dynamic process which goes beyond a positive attitude. In addition, employees need to develop psychological attachment to the change and be willing to take actions to ensure successful implementation (Herold et al., 2007; Herold et al., 2008). As a result, employee commitment to change is associated with employee support for change (Hill et al., 2012).

**Social Learning Theory**

Social learning theory posits that individuals can learn not only from direct experience, but also from observing others. By observation, individuals form an idea of how a behavior is performed and are expected to perform the same behavior on a later occasion (Bandura, 1977). In other words, social learning theory posits that individuals learn through modeling, which is comprised of four interrelated processes including attending to an individual, memorizing what and how that individual behaves, organizing the memory of observation, and performing the behavior if the consequences deemed favorable (Bandura, 1977). According to social learning theory, individuals tend to attend to those whom they regarded as important and interact regularly. Therefore, in a work setting, it is very likely that an employee would view their direct manager as well as their team as their referents.

**Manager Attitude and Commitment to Change**

Managers are always seen as an authoritative figure, who can decide the outcomes for employees, such as rewards or punishments (Brown et al., 2005; Duff et al., 2015). Therefore, it is reasonable that employees will look at managers as their role models who demonstrate appropriate attitude and behaviors. Previous research has confirmed that managers influence employees’ ethical behavior (e.g. Brown et al., 2005; Hanna et al., 2013), marketing orientation (e.g. Lam et al., 2010), and employee absence (Duff et al., 2015).

In the change implementation context, it is important that managers are able to influence other employees, especially their direct subordinates, to form a favorable attitude toward change. If a manager has a positive attitude toward the change, it is likely that the manager will comment on it in a positive way, express their excitement about the change, or mention it regularly etc. As a result, employees are likely to perceive the change as positive. In addition, because of their status and power, what managers communicate will be more likely to be seen as something legitimate. Previous research also suggested that employees are more likely to support a change program if they perceive it as legitimate (Morin et al., 2016). Therefore, we hypothesize:

*Hypothesis 1*: Managers’ attitude toward innovation is positively associated with employee commitment to change.

**Team Attitude and Commitment to Change**

On the other hand, employees usually work in teams and it is likely that they also use their teams as role models. There usually exist some norms within a team whose purpose is to provide a guideline for team members. As such, team members learn which behaviors are acceptable and which behaviors are not within a particular team (Duff et al., 2015; ten Brummelhuis et al., 2016). Therefore, previous research has found out that team members would imitate other team members’ behavior, such as absenteeism (Duff et al., 2015; ten Brummelhuis et al., 2016).

In the change implementation context, employees usually have to adapt to the change by learning new skills, new knowledge, and new work related behaviors (Choi and Moon, 2013). If the team in general thinks positively about the change, it is likely that an employee will hear positive feedback about the change from other team members. In addition, when there are group norms, there is inevitably a pressure for conformity. It is likely that the pressure for conformity will force an employee to change his or her attitude and behavior (Robbins and Judge, 2017). As a result, when an employee feels like other team members have a positive attitude toward the change, he or she will tend to match his or her attitude to match the rest of the team. Therefore, we hypothesize:

*Hypothesis 2*: Team’s attitude toward innovation is positively associated with employee commitment to change.

**Motivation and Team Attitude**

Motivation refers to a psychological attribute for explaining why people behave in one way rather than another (Nahavandi et al., 2015). It is the process of how hard and how long one tries to attend to a goal (Robbins and Judge, 2017). Self-determination theory further differentiates between intrinsic motivation and extrinsic motivation (Gagne and Deci, 2005; Ryan and Deci, 2000). Individuals who are high in intrinsic motivation seek intrinsic rewards such as a feeling of achievement whereas individuals who are high in extrinsic motivation seek extrinsic rewards such as a promotion. We focus on intrinsic motivation in the current study because employees are expected to learn about, and adapt to, the change in the implementation process, and people with high intrinsic motivation are more likely to focus on building their competence and are more likely to take on challenging tasks, even though there might be mistakes involved (Simons, et al., 2004).

Based on self-determination theory, individuals try to satisfy three psychological needs: autonomy, competence, and relatedness (Gagne and Deci, 2005; Ryan and Deci, 2000). When these three needs are met, individuals will internalize values and attitudes and engage a behavior from internal regulation without the presence of external rewards or punishment (Gagne and Deci, 2005). Therefore, intrinsic motivation is regarded as a form of autonomous motivation because individuals choose to engage in certain activities or tasks because they are interesting or fun, rather than external considerations, such as rewards (Gagne and Deci, 2005; Garaus et al., 2016; Pierro et al., 2008). In the work setting, an employee with high intrinsic motivation will prefer an interesting and challenging job (Loscocco, 1989).

In the change implementation context, adopting a change could be challenging but exciting at the same time for an employee with high intrinsic motivation. Previous research shows that individuals with high intrinsic motivation are more open (Judge et al., 2014) which enable them to have a positive attitude toward something new and novel. In addition, the needs of relatedness is also important for intrinsic motivation to (Gagne and Deci, 2005; Ryan and Deci, 2000). When an employee is high in intrinsic motivation, he or she will attend to other team members’ attitude and behaviors because they like to feel connected with other people in a social setting. Therefore, we hypothesize:

*Hypothesis 3*: Employee motivation moderates the relationship between team attitude and employee commitment to change that the more positive team attitude is, the stronger the relationship becomes.

**Power Distance Orientation and Manager Attitude**

Power distance refers to the extent to which a person accepts the power disparity among individuals within a society (Hofstede et al., 2010). When a society has a high score in the power distance dimension, it is acceptable that someone has more power than others. As such, less powerful individuals, such as children, students, and employees are expected to be obedient to the more powerful individuals, such as parents, teachers, and managers. On the contrary, when a society has a low score in the power distance dimension, equality is valued. As such, less powerful individuals are encouraged to express their opinions.

Power distance is a term usually used at the cultural or societal level, and “power distance orientation” is a term used at the individual level (Kirkman et al., 2009). Individuals with a high score in power distance orientation are expected to be more obedient and more likely to take orders from managers. On the contrary, individuals with a low score in power distance orientation are expected to be more expressive and are more likely to see themselves as equal to their managers.

Since power distance orientation deals with an individual’s perceptions of status, power, and legitimacy in the organization (Kirkman et al., 2009), it is likely that the variation of employees’ power distance orientation will have an impact on how effective manager’s attitude on employee commitment to change. When employees are of a high power distance orientation, they tend to see managers as someone more powerful than themselves. Previous research has shown that the powerless pay attention to the powerful who control the outcomes of the powerless (Fiske, 1993). As such, it is likely that employees with high power distance orientation tend to pay more attention to their managers, and the managers’ attitude and behavior will have a greater impact on them. Therefore, we hypothesize:

*Hypothesis 4*: Employee power distance orientation moderates the relationship between manager attitude and employee commitment to change that the higher employee power distance orientation is, the stronger the relationship becomes.

**METHODS**

**Sample**

We examine Knowledge Management Systems (KMS) in this study. KMS is not a single system but a general term for technologies that are designed to facilitate the knowledge process within an organization (Alavi and Leidner, 1999, 2001; Davenport and Prusak, 1998; Kankanhalli et al., 2005; Thierauf, 1999). Knowledge process refers to the stages comprised of knowledge generation, knowledge codification, and knowledge transfer/realization (Dalkir, 2005; Davenport and Prusak, 1998; Grover and Davenport, 2001). In other words, there are various technologies related to KMS which help organizations to gather, store, and make use of employee knowledge. In this study, we treated each technology independently because even though each organization implemented different technology, the underlying purpose was to manage internal knowledge effectively.

The data was collected from 5 companies which implemented KMS related technologies in Taiwan. Four companies are in the electronics manufacturing industry and one company is in the telecommunication industry. Two manufacturing companies, EleCom 1 and EleCom 2, belong to the same conglomerate group and implemented a similar e-learning system to manage internal knowledge. The purpose of implementing the e-learning system is to facilitate employee training, keep track of the current product designs, and speed up new project design. Implementing departments decided what kind of knowledge was required and all courses were authored by senior employees. However, the process and scope of implementation at both companies are quite different. At EleCom 1, only the R& D department implemented this system because the company focused more on the management of various versions of product designs and streamline the process from design to production.

There are 5 business units at EleCom 2 and each business unit is responsible for their own revenues. In other words, each business unit works as an independent company with their own products and the head of each business unit has the power to decide what needs to be done within that business unit. All departments of 1 business unit at EleCom 2 were asked to implement the e-learning system. The purpose of implementing this system is not only to manage internal knowledge but also to replace the new employee training gradually.

EleCom 3, which has less than 10 employees, implemented the workflow management system. The purpose of implementing such systems is to manage all work related documents and streamline the workflow. EleCom 4 has sales offices in major countries and those offices are also responsible for product maintenance. In order to make sure all engineers in all offices have the most up-to-date knowledge, the Technical Support Department implemented a document management system. Engineers worldwide were asked to periodically enter information about the problems with products they receive. The headquarters in Taiwan updated the system for the latest product information frequently and all engineers were required to read the updated information once they were available.

TelCom implemented a meeting management system to keep track of the progress of all internal meetings. Managers were able to track attendance of employees, read the meeting minutes, and follow up the meeting resolutions. The system helped managers to have the most up-to-date information about their customers and the status of all issues reported. Even though the technologies implemented at these companies are different, all of them share the same goal: transform internal knowledge into something valuable and further enhance the competitive advantage.

The online survey was administered for the data collection. The name of KMS technology implemented in each company was customized base on the company surveyed. All questions were translated to Chinese. In order to reduce the translation error, the procedure of translation and back translation was followed. With regard to employees, 632 invitations were sent and 396 responses were received, which makes up a 62.66% response rate. With regards to managers, 63 invitations were sent and 44 responses were received, which makes up a 69.84 % response rate. Because multilevel analysis was the interest of this study, we retained responses based on the following criteria: 1) both the manager and at least 2 employees responded to the questionnaire; and 2) all key questions were answered. Therefore, the final sample was comprised of 291 employees and 38 managers. The size of the team ranges from 2 to 30 employees. Table I is the summary of the sample included in this study.

In terms of employee demographics, more than half (58.54%) had a college degree and majority of them had worked for the company for less than 5 years (73.88%). About one third employees were between 31 to 35 years old (38.83%) and the majority were male (75.6%). In terms of manager demographics, more than one third had a master degree (39.47%) and more than half of them had worked for the company for at least 11 years (52.64%). Over two thirds of manager were at least 41 years old (68.42%) and the majority were male (89.47%). Table II is the detailed demographics of both managers and employees in the sample.

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**Measures**

*Employee commitment to change*. Employee commitment to change was measured by 4 items adopted from organization commitment literature (Benkhoff, 1997). All items were measured on a 5-point Likert scale (1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree). A sample item was “I am willing to put in a great deal of effort beyond that normally expected in order to learn to use this system.” The name of the system was customized to employees who were answering the questions. The alpha was 0.86.

*Manager attitude.* Manager attitude was measured by 4 items adopted from the Technology Acceptance Model literature (Bhattacherjee and Sanford, 2006). All items were measured on a 5-point Likert scale (1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree). A sample item was “Overall, I like the idea of using the system in my job.” The name of the system was customized to employees who were answering the questions. The alpha was 0.92. Manager attitude was considered as the team level variable and was grand mean centered because of the proposed interaction effect (Enders and Tofighi, 2007).

*Team attitude*. Team attitude was the aggregation of employee attitude within the same team. Employee attitude was measured by 4 items adopted from the Technology Acceptance Model literature (Bhattacherjee and Sanford, 2006). All items were measured on a 5-point Likert scale (1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree). A sample item was “Overall, I like the idea of using the system in my job.” The name of the system was customized to employees who were answering the questions. The alpha was 0.91. In order to justify the aggregation was appropriate, we calculated 2 intraclass correlations, ICC(1) and ICC(2). The ICC(1) refers to the proportion of total variance were between groups (Bliese, 2000; Raudenbush and Bryk, 2002). The ICC(2) refers to the reliability of group means (Bliese, 2000). The values for ICC(1) and ICC(2) were 0.17 and 0.60 respectively, which were within the acceptable range (Bliese, 2000). Team attitude was the team level variable and was grand mean centered because of the proposed interaction effect (Enders and Tofighi, 2007).

*Employee motivation*. Employee motivation was comprised of 6 items from 2 variables. 3 items were adopted from a previous study measuring intrinsic work motivation (Loscocco, 1989) and 3 items were adopted from previous studies measuring individual innovativeness (Agarwal and Prasad, 1998; Lewis et al., 2003; Yi et al., 2006). All items were measured on a 5-point Likert scale (1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree). A sample item was “If I heard about a new information technology, I would look for ways to experiment with it. “The alpha was 0.82. Employee motivation was group mean centered because of the proposed interaction effect (Enders and Tofighi, 2007).

*Power distance orientation*. Power distance orientation was measured by 8 items from Kirkman et al. (2009).” The alpha for all 8 items was 0.66 which was below the 0.7 threshold. One item was later dropped in order to meet the 0.7 threshold. A sample item was “In most situations, managers should make decisions without consulting their subordinates. The alpha was 0.7. Power distance orientation was group mean centered because of the proposed interaction effect (Enders and Tofighi, 2007). All items used in this study were included in the Appendix.

*Control variables.* We included a few control variables in this study. We controlled for the company because there were 5 companies in the sample and each company implemented a different KMS technology. We controlled for the employee tenure which was measured with 6 categories: less than 1 year, 1-5 years, 6-10 years, 11-15 years, 16-20 years, and more than 20 years. We controlled for employee education which was measured with 4 categories: high school diploma, associate degree, undergraduate degree, and masters’ degree. We controlled employee age which was measured with 8 categories: under 25 years old, 26-30 years old, 31-35 years old, 36-40 years old, 41-45 years old, 46-50 years old, 51-55 years old, and 56-60 years old. We controlled for employee gender which was categorized as men=0 and women=1. We controlled for team size which was measured by the number of employees in a team.

**Statistical Analysis**

All hypotheses were tested using the multilevel mixed-effect generalized linear modeling of Stata version 14. All control variables were included in Model 1. Both independent variables, manager attitude and team attitude, as well as all control variables were included in Model 2. Both moderators, employee motivation and employee power distance orientation, as well as all variables in Model 2 were included in Model 3. Interaction terms as well as all variables in Model 3 were included in Model 4. Figures were presented when there was a significant moderation effect from the regression.

**RESULTS**

Table III is the descriptive statistics and correlations for all continuous variables. Table IV is the results of a series of multilevel regressions. All control variables were entered in Model 1 and the results showed that there was a difference between EleCom 3 and TelCom as well as between employee tenure with less than a year and 6-10 years in terms of employee commitment to change. Independent variables were entered in Model 2 and the results showed that manager attitude was not statistically significantly associated with employee commitment to change, while team attitude was positively associated with employee commitment to change. Therefore, hypothesis 1 was not supported whereas hypothesis 2 was supported.

Moderators were entered in Model 3 and the results showed that both employee motivation and employee power distance orientation were positively associated with employee commitment to change. Interaction terms were entered in Model 4 and the results showed that employee motivation positively moderated the relationship between team attitude and employee commitment to change. Therefore, hypothesis 3 was supported. Figure II showed that when employee motivation was high, employee had higher commitment when team attitude was high. The results also showed that employee power distance orientation negatively moderated the relationship between manager attitude and employee commitment to change. Even though the interaction was statistically significant, it was not the same as we hypothesized. Therefore, hypothesis 4 was not supported. Figure III showed that when employee power distance orientation was high, employee had higher commitment when manager attitude was low.

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**DISCUSSION**

Successful implementation of organizational change will bring organizations the benefits they envision. Employee commitment to change is critical to the success of the change initiatives. Based on the social learning theory, we proposed that employees would attend to both managers and other team members whose attitude toward the change would have impact on their commitment to change. We also proposed that the effect of either manager attitude or team attitude would vary depending on the level of employee motivation and power distance orientation. We are going to discuss our findings in more detail below, including contributions and managerial implications.

**Contributions**

The current study makes the following contributions. First, we adopted the social learning perspective to examine factors affecting employee commitment to change. Specifically, we included both the influence of managers and team members in the study. The role of managers in the change process has been studied extensively in the organization change literature, but the role the team process plays is overlooked. Previous studies which focused on the team phenomena focused on how team climate affected team innovation (Eisenbeiss et al., 2008) or innovation implementation (Somech and Drach-Zahavy, 2013), but to our knowledge, there is no study exploring the team attitude toward the change. The results of a series of multilevel analyses showed that team attitude toward change was positively associated with employee commitment to change whereas manager attitude was not significantly associated with employee commitment to change. In other words, the team attitude was a better predictor of employee commitment to change than the manager attitude. In addition, to our knowledge, there is only one study examining the influence of both managers and the team member and their results also showed that manager absence had no effect on employee absence but team absence was positively associated with employee absence (Duff et al., 2015). Therefore, future research should explore the role of team in the change process.

Second, the social learning theory posits that individuals attend to those who are important and with whom they have frequent contact (Bandura, 1977). It implies that not everyone would pay attention to the same person. We extended social learning theory by adding employee differences as moderators. Even though we did not hypothesize the direct effect of either employee motivation or employee power distance orientation on employee commitment to change, the results showed that both employee motivation and employee power distance orientation were positively associated with employee commitment to change. In terms of interaction, the results showed that employee motivation positively moderated the relationship between team attitude and employee commitment to change, which was consistent with our hypothesis. However, employee power distance orientation negatively moderated the relationship between manager attitude and employee commitment to change, which was contrary to our hypothesis. One possible explanation is employees with high power distance orientation are more likely to see managers as someone powerful and see themselves as powerless. Powerless people face more constraints than powerful people because they have more external constraints (Guinote, 2007; Overbeck and Park, 2006). They care more about how they present themselves rather than attaining organizational goals (Overbeck and Park, 2006). In addition, they are more likely to attend to peripheral information which makes them more easily distracted and not focused on finishing the task (Guinote, 2007).

**Limitations and Future Research**

The current study also has some limitations. First, even though our sample consisted of participants from five companies, the majority of them are in the electronics manufacturing industry. The future research should include more industries to increase the generalizability. Second, the implementation process is neither a one-shot action nor linear. There might be times that not only employees’ behaviors have to be changed but the technology needs to be modified. We only collected at one time which might simplify the implementation process. The future research should collect data at multiple times in order to capture the dynamics of the implementation.

**Managerial Implication**

The results of the current study showed that team attitude is a better predictor of employee commitment to change than the manager attitude. When implementing a change, managers are advised to take actions to change team members’ attitude toward the change. In addition, since employee motivation positively moderates the relationship between the team attitude and employee commitment to change, managers can also create an environment to help employees feel more autonomous and competent.

**Conclusion**

While previous studies in the organizational change literature focus mainly on managers, the current study provides another perspective on the role of team process. Individual differences, such as motivation and power distance orientation definitely change the strength of the impact of team attitude and manager attitude on employee commitment to change.

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Table I. Summary of the sample

|  |  |  |  |
| --- | --- | --- | --- |
| *Company* | *Number of employees* | *Number of teams* | *KMS technology* |
| TelCom | 41 | 9 | Meeting management system |
| EleCom1 | 41 | 3 | e-learning system |
| EleCom 2 | 202 | 24 | e-learning system |
| EleCom 3 | 4 | 1 | Workflow system |
| EleCom 4 | 3 | 1 | Document management system |
|  |  |  |  |
| Total | 291 | 38 |  |

Table II. Sample demographics

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | *Manager*  *(N=38)* | | *Employee*  *(N=291)* | |
|  | *N* | *%* | *N* | *%* |
| Tenure |  |  |  |  |
| less than 1 year | 1 | 2.63 | 99 | 34.02 |
| 1-5 years | 11 | 28.95 | 116 | 39.86 |
| 6-10 years | 6 | 15.79 | 44 | 15.12 |
| 11-15 years | 11 | 28.95 | 20 | 6.87 |
| 16-20 years | 4 | 10.53 | 5 | 1.72 |
| More than 20 years | 5 | 13.16 | 7 | 2.41 |
| Education |  |  |  |  |
| High school diploma | 1 | 2.63 | 4 | 1.39 |
| Associate degree | 12 | 31.58 | 42 | 14.63 |
| Undergraduate degree | 10 | 26.32 | 168 | 58.54 |
| Master’s degree | 15 | 39.47 | 73 | 25.44 |
| Age |  |  |  |  |
| under 25 years old |  |  | 15 | 5.15 |
| 26-30 years old | 1 | 2.63 | 82 | 28.18 |
| 31-35 years old | 3 | 7.89 | 113 | 38.83 |
| 36-40 years old | 8 | 21.05 | 46 | 15.81 |
| 41-45 years old | 14 | 36.84 | 21 | 7.22 |
| 46-50 years old | 7 | 18.42 | 8 | 2.75 |
| 51-55 years old | 4 | 10.53 | 5 | 1.72 |
| 56-60 years old | 1 | 2.63 | 1 | 0.34 |
| Gender |  |  |  |  |
| Male | 34 | 89.47 | 220 | 75.6 |
| Female | 4 | 10.53 | 71 | 24.4 |

Table III. Descriptive statistics and correlations

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| *Variable* | *Mean* | *s. d.* | *1* | *2* | *3* | *4* | *5* |
| Individual level variable |  |  |  |  |  |  |  |
| 1. Employee commitment | 3.37 | .65 |  |  |  |  |  |
| 2. Motivation | 3.96 | .51 | .36\*\* |  |  |  |  |
| 3. Power distance orientation | 2.58 | .49 | .13\* | -.20\*\* |  |  |  |
| Team level variable |  |  |  |  |  |  |  |
| 4. Manager attitude | 3.12 | .61 | .14\* | -.11+ | .03 |  |  |
| 5. Team attitude | 3.63 | .37 | .36\*\* | .09 | .05 | .34\*\* |  |
| 6. Team size | 15.57 | 7.30 | .09 | -.04 | .03 | .37\*\* | .12\* |

N=291

+p<0.1; \*p< .05; \*\*p< .01

Table IV. Results of multilevel regression

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *Variable* | *Model 1* | | *Model 2* | | *Model 3* | | *Model 4* | |
|  | *Beta* | *(SE)* | *Beta* | *(SE)* | *Beta* | *(SE)* | *Beta* | *(SE)* |
| intercept | 3.69\*\* | .39 | 4.05\*\* | .38 | 3.95\*\* | .35 | 4.00\*\* | .34 |
| Company |  |  |  |  |  |  |  |  |
| EleCom 1 | -.19 | .18 | -.27 | .16 | -.26+ | .15 | -.25+ | .15 |
| EleCom 2 | .13 | .13 | -.14 | .13 | -.14 | .12 | -.13 | .12 |
| EleCom 3 | .98\*\* | .34 | .06 | .36 | .04 | .33 | .06 | .33 |
| EleCom 4 | .17 | .37 | -.20 | .36 | -.21 | .33 | -.19 | .32 |
| Tenure |  |  |  |  |  |  |  |  |
| 1-5 years | -.09 | .09 | -.06 | .09 | -.07 | .08 | -.09 | .08 |
| 6-10 years | -.30\* | .12 | -.27\* | .12 | -.25\* | .11 | -.25\* | .11 |
| 11-15 years | -.04 | .18 | -.02 | .17 | -.14 | .16 | -.08 | .15 |
| 16-20 years | .20 | .31 | .22 | .29 | .14 | .27 | .16 | .26 |
| More than 20 years | .22 | .27 | .15 | .26 | .15 | .24 | .13 | .23 |
| Education |  |  |  |  |  |  |  |  |
| Associate degree | -.47 | .34 | -.57+ | .33 | -.52+ | .30 | -.60\* | .29 |
| Undergraduate degree | -.56+ | .33 | -.62+ | .32 | -.59 | .29 | -.63\* | .28 |
| Master’s degree | -.49 | .34 | -.58+ | .32 | -.53+ | .30 | -.58\* | .29 |
| Age |  |  |  |  |  |  |  |  |
| 26-30 years old | .03 | .18 | .01 | .17 | .06 | .16 | .05 | .15 |
| 31-35 years old | .04 | .18 | .02 | .17 | .03 | .16 | .04 | .15 |
| 36-40 years old | .14 | .20 | .09 | .19 | .15 | .18 | .17 | .18 |
| 41-45 years old | .10 | .23 | .10 | .22 | .08 | .20 | .12 | .20 |
| 46-50 years old | -.04 | .29 | .00 | .28 | .21 | .26 | .16 | .25 |
| 51-55 years old | -.37 | .35 | -.23 | .34 | .03 | .31 | -.01 | .30 |
| 56-60 years old | 1.22+ | .65 | .97 | .62 | .92 | .57 | .76 | .56 |
| Gender (women) | -.14 | .09 | -.20\* | .09 | -.09 | .08 | -.12 | .08 |
| Team size | .01 | .01 | .01 | .01 | .01 | .01 | .01 | .01 |
| Manager attitude |  |  | .04 | .07 | .02 | .07 | .03 | .07 |
| Team attitude |  |  | .59\*\* | .13 | .61\*\* | .12 | .60\*\* | .12 |
| Motivation |  |  |  |  | .47\*\* | .07 | .49\*\* | .07 |
| Power distance orientation |  |  |  |  | .28\*\* | .07 | .26\*\* | .07 |
| MoxTATT |  |  |  |  |  |  | .42\*\* | .18 |
| PDxLAT |  |  |  |  |  |  | -.30\* | .13 |

Note 1: +p<0.1; \*p< .05 \*\*p< .01

Note 2: MoxTATT= Employee motivation \* Team attitude; PDxLAT= Employee power distance \* Manager attitude

Figure I. Theoretical model

Employee motivation

Manager attitude

Employee commitment

Team level

Individual level

Team attitude

Employee power distance orientation

Figure II.

Figure III.

Appendix. Items used in this study

|  |  |  |
| --- | --- | --- |
| *Variable* | *Items* | *Source* |
| Commitment to change | 1. I am willing to put in a great deal of effort beyond that normally expected in order to learn to use this system. | Benkhoff, 1997 |
| 1. I am proud to tell others that the organization I am working for has implemented an advanced system. |
| 1. This new system really inspires the very best in me in the way of job performance. |
| 1. I am glad my company has this system. |
| Attitude toward change | 1. Using this system in my job is a good idea. | Bhattacherjee and Sanford, 2006 |
| 1. Using this system in my job is a foolish move. (R) |
| 1. Using this system in my job will be unpleasant. (R) |
| 1. Overall, I like the idea of using this system in my job. |
| Motivation | 1. An interesting work is important to me. | Loscocco, 1989 |
| 1. A challenging work is important to me. |
| 1. The chance to do a number of different things is important to me. |
| 1. If I heard about a new information technology, I would look for ways to experiment with it | Agarwal and Prasad, 1998; Lewis, Agarwal, and Sambamurthy, 2003; Yi, Fiedler, and Park, 2006 |
| 1. Among my peers, I am usually the first to try out new information technologies |
| 1. In general, I am hesitant to try out new information technology. (R) |
| Power distance orientation | 1. In most situations, managers should make decisions without consulting their subordinates. | Kirkman et al., 2009 |
| 1. In work-related matters, managers have a right to expect obedience from their subordinates. |
| 1. Once a top-level executive makes a decision, people working for the company should not question it. |
| 1. Employees should not express disagreements with their managers. |
| 1. Managers should be able to make the right decisions without consulting with others. |
| 1. Managers who let their employees participate in decisions lose power. |
| 1. A company’s rules should not be broken–not even when the employee thinks it is in the company’s best interest. |

Note: The term “the system” or “this system” in the original items was replaced by the name of the system implemented by each company.