Taking It with You When You Leave?: A Proposed Model and Empirical Examination of Attitudes and Intentions to Share Knowledge before Retiring

by

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Abstract

Record numbers of employees are retiring in Canada (Conference Board of Canada, 2009), and with their exit, copious amounts of organizational knowledge could be exiting too (Collins, 2007). In this thesis, I propose and test a model of attitudes and intentions towards knowledge sharing with 252 retiring and recently retired employees. The results suggested that the partially mediated alternative model fit the data the best, where affective commitment, job satisfaction, and perceived organizational support predicted attitudes towards knowledge sharing, which in turn positively predicted tacit and explicit knowledge sharing intentions, as well as negatively predicted intentions to hoard knowledge. There were also significant positive direct paths between job satisfaction and intentions to share tacit and explicit knowledge, as well as a significant negative direct path between job satisfaction and intentions to hoard knowledge. Lastly, organizational policies and practices (tacit and explicit), personal perceived knowledge value (tacit and explicit), and financial stake (explicit) were significant moderators. Study findings and limitations, as well as future research directions are discussed.

Key words: Knowledge sharing; knowledge management; tacit knowledge; explicit knowledge; knowledge hoarding.

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To Gene and Hazel Martin: The two best people I know.

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CHAPTER ONE: INTRODUCTION

The "baby boomers," people born between 1946 and 1964, began turning 65 in 2011 and more than forty percent of the Canadian workforce is between the ages 45 and 64 (Statistics Canada, 2009). With an average retirement age of 62 (CBC, 2010), more employees are preparing to retire in Canada than ever before (Conference Board of Canada, 2009). This growing rate of retirement is contributing to a projected ten percent labour shortage in Canada – over 2 million workers – by 2025 (Conference Board of Canada, 2009). And Canada is not alone; the USA, China, and Germany are experiencing similar trends (Strack, Baier, & Fahlander, 2008).

Organizations are realizing that copious amounts of valuable knowledge could be exiting with retiring employees (Collins, 2007). Slagter (2007) suggests that retiring employees' experience and length of employment indicates that they likely hold substantial amounts of valuable knowledge pertaining to the organization and its business. When employees have accumulated valuable knowledge in the organization through their experience and tenure, it is detrimental to the organization if that knowledge retires along with the employee (Strack et al., 2008). Even if knowledge networks (Nonaka, 1994) are strong within organizations, the large proportion of retiring employees, with their accumulated valuable knowledge, beginning to exit the workforce could create significant knowledge loss even at the most prepared organizations. Furthermore, as the economy becomes increasingly knowledge-based, the competitive advantage that is garnered through the knowledge and skills of employees has increased commensurately (Human Resources and Skills Development Canada, 2003). This requirement in the changing business climate heightens the importance of retaining the knowledge of employees (Argote, 1999; Argote & Ingram, 2000) before they retire.

Accessing retiring employees' knowledge is imperative for several reasons. Without access

to the retiring employees' knowledge, it may take employees remaining in the work unit longer to 'get up to speed' and it may be challenging for replacement employees to learn and gain the experience to perform at similar levels to the retired employees. Additionally, losing knowledge when retiring employees exit has drawn concerns about the quality of work produced, the quality of customer and client relations, and efficient work progress (Strack et al., 2008). Whereas knowledge loss due to retirement may negatively impact competitive advantage (Norman, 2004), successful sharing of knowledge can enhance organizational effectiveness and personal relationships among employees (Webster, Brown, Zweig, Connelly, Brodt, & Sitkin, 2008).

Given the reliance on knowledge within today's competitive business environment and the large proportion of employees reaching retirement age, knowledge sharing – the process of retiring employees sharing their knowledge before they leave the organization – is becoming a pertinent issue for organizations (Cong & Pandya, 2003). The purpose of this study was to begin to understand the extent to which retiring employees may engage in knowledge sharing.

In this thesis, I explore the relationship between attitudes that retiring employees have towards knowledge sharing with their intentions to share their knowledge. I introduce a model of knowledge sharing which draws upon several predictors of attitude towards knowledge sharing, and explore potential moderators between attitudes and intentions towards knowledge sharing. Finally, I present an empirical test of the model and discussion of the findings, implications, and future research directions.

Knowledge sharing

Nonaka (1994) explains that the overall knowledge in organizations comes from each individual employee. 'Space' or 'ba' within organizations, whether it is physical, mental, and/or virtual, serves as the foundation of knowledge sharing where knowledge can be shared between

individuals, groups, and so forth (Nonaka & Konno, 1998). The knowledge in organizations is passed throughout the organization via various knowledge sharing activities (Nonaka, 1994). According to Bandura's (1986) Social Learning Theory, people commonly obtain knowledge through observing others, imitating others, or through a specific type of motivation (e.g., being rewarded for learning). In the knowledge sharing network, this could simply mean having retiring employees allow other employees to observe their work. Through knowledge sharing interactions, knowledge can be created, transformed, and/or legitimized (Nonaka, 1994). In essence, knowledge sharing may seem like a simple process where retiring employees have some unique, individual knowledge base which they can and will willingly share with organizational stakeholders[1] before they depart. Nevertheless, there are at least three reasons why knowledge sharing may not be so simple.

First, knowledge may be divided into tacit knowledge and explicit knowledge and these types of knowledge differ in how easily they are shared (Smith, 2001). Tacit knowledge is "know-how" knowledge. It is idiosyncratic in nature and often requires trusting relationships in order to be shared (Nonaka, 1994; Smith, 2001). It can include the perspectives that employees have created through perceiving the world and creating cognitive analogies (Johnson-Laird, 1983). In many instances, employees may not be consciously aware of the tacit knowledge that they possess (Calo, 2008). It is unique to each employee, and may be challenging to articulate to others (Nonaka, 1994). Tacit knowledge may be shared through the telling of a story or through an altruistic act of sharing if the knowledge holder is aware of what they know and who might benefit from receiving the knowledge (Smith, 2001). To illustrate, Benner (1982) describes that becoming an expert nurse means going through many phases of learning and experiences. She

[1] Organizational stakeholders are those affected by the knowledge held by a retiring employee and may include successors, other members of the work group such as peers and subordinates, managers, and human resources.

further explains that experiences do not necessarily mean length of time in a position, but have more so to do with many situations that have helped shape the explicit theories in nursing. Therefore, it is may be more difficult to explicitly understand what features make an expert nurse an expert nurse. In addition to individuals, tacit knowledge may be unique to certain work groups as well as where the workgroup may have gained similar experiences (Berman, Down, & Hill, 2002).

Explicit knowledge can be described as the "know-what" knowledge. It is knowledge about specific tasks or rules, and may be contained in official documents (e.g., training manuals or policy manuals) or found in stored data (e.g., personal papers or electronic files) and is shared using language that is more formal and methodical (Nonaka, 1994). Given its more overt nature, explicit knowledge can be self-taught or delivered through forums such as on-the-job training sessions. For explicit knowledge, the role of retiring employees may simply be to point the stakeholder towards the information that will be pertinent to them, or to act as a trainer or facilitator of the explicit information source. In short, knowledge sharing of tacit versus explicit information may occur through different strategies and may pose distinct challenges; therefore, type of knowledge held by a retiring employee may impact knowledge sharing.

A second factor that may affect the ease of knowledge sharing pertains to the logistics of information sharing. For example, some retiring employees may feel they lack the time and opportunity to engage in knowledge sharing (Szulanski, 1996); they may be busy doing the work of their position right up to the day they retire without time to teach or train others about what it is that they know. Likewise, other organizational stakeholders might be busy with their own job responsibilities and may feel they do not have adequate time to learn from retiring employees (Haldin-Herrgard, 2000). Additionally, retiring employees may simply not know who will

benefit from their knowledge (Renzl, 2008). For instance, a replacement employee may not have been identified prior to the retiring employee departing the workplace, or the workgroup may be undergoing restructuring to accommodate the retirement. These logistical issues surrounding knowledge sharing may inhibit the retiring employees from having the opportunity to share their knowledge and also to share it with the right people. Therefore, "leveraging" or "probing" existing knowledge in order to spread valuable knowledge across the organization, as well as tap into previously unknown knowledge, may be important in order to avoid the consequences of knowledge loss (von Krogh, Nonaka, & Aben, 2001).

A third factor that may affect the knowledge sharing process may be unintentional knowledge hoarding. Some retiring employees with very idiosyncratic tacit knowledge, such as additional knowledge beyond the knowledge contained in a procedural manual (Smith, 2001), may not realize how crucial the sharing of their tacit knowledge is to the organization and, thus, unintentionally hoard their knowledge. Moreover, they may simply not be good at effectively communicating their knowledge, have a language barrier (Haldin-Herrgard, 2000), or be disinclined towards the story-telling ways in which tacit knowledge is often shared (Smith, 2001).

Beyond the complexity of knowledge in general, the logistical constraints which may impede knowledge sharing, as well as the unintentional knowledge hoarding that may occur, it may be crucial to organizations to consider its retiring employees' attitudes towards knowledge sharing.

Attitude Towards Knowledge Sharing

It may be fruitful for organizations to examine existing attitudes of employees set to retire as predictors of their intentions to share their knowledge. According to Bock, Zmud, Kim, and

Lee (2005), attitude towards knowledge sharing is "the degree of one's positive feelings about sharing one's knowledge" (p. 91) and, thus, how favourable they are towards the concept of sharing their knowledge (i.e., tacit and/or explicit) with their organizational stakeholders. The degree of retiring employees' positive feelings towards knowledge sharing can stem from how much they value and find enjoyment in teaching others what they know (Lin, 2007), or their personal propensity to have a generally keen attitude towards knowledge sharing (Bock et al., 2005). More specifically this research looked at how favourable retiring employees' attitudes were towards knowledge sharing at time of retirement.

In the following sections, I describe how attitude towards knowledge sharing may mediate the relationship between employee work attitudes and intentions to engage in knowledge sharing behaviour. Figure 1depicts the hypothesized model of retiring employees' attitudes and intentions towards knowledge sharing.

Intentions to Share Knowledge before Retiring

According to the Theory of Reasoned Action (Ajzen & Fishbein, 1977; Fishbein & Ajzen, 1975), the intention to engage in a certain action is guided by an individual's attitude towards the action, where intentions are the most proximal predictor of behaviour. In the context of this research, intention to engage in knowledge sharing was defined as the extent to which retiring employees plan to share their knowledge before they retire. Intentions may also be guided by subjective norms (e.g., external social factors; Fishbein & Ajzen, 1975). Within the knowledge sharing context, an individual's attitude towards knowledge sharing and subjective norms (i.e., organizational policies and practices, and organizational stakeholder affiliation) may guide that employee towards actual knowledge sharing activities. Therefore, those with more favourable attitudes towards knowledge sharing may have higher intentions to engage in explicit and tacit

knowledge sharing.

Some retiring employees may not intend to not share their knowledge and may, instead, consciously hoard their knowledge (Webster et al., 2008). Other employees may feel that they own their information and will not intend on sharing for that reason (Cole-Gomolski, 1997). When employees have more favourable attitudes towards knowledge sharing, they may have lower intentions to invoke hoarding tactics.

Hoarding tactics include playing dumb, being purposefully evasive, or employing rationalized hoarding techniques (Connelly, Zweig, Webster, & Trougakos, 2011). Through 'playing dumb', employees may pretend not to have some knowledge. For instance, when asked about some specific piece of information, the retiring employees could lie about their knowledge or training on that subject. With 'evasive hiding', employees may choose to stall in sharing information or may offer different or even misleading information. As such, they may tell other organizational members that the information will be provided at a later date when in fact it will not, or provide information that is partially or fully incorrect. Lastly, via 'rationalized hiding', employees may declare that they cannot share information. For instance, an employee might say that the information can only be released to specific members within the organization for confidentiality purposes. As for why retiring employees may intentionally hoard information, two potential explanations can be drawn from the power literature. Retiring employees could use a punitive form of power (Lawler & Bacharach, 1987) to not share their knowledge in order to act out of spite towards the organization or certain organizational stakeholders. They could also employ an expert form of power (French & Raven, 1959) via keeping "their knowledge" with them to maintain their value until their last day of work which 'shows' the organization how valuable they were (Webster et al., 2008) through the knowledge lost after their retirement. In

sum, I predicted that retiring employees would be more likely to share and less likely to hoard their knowledge when they hold favourable attitudes towards knowledge sharing. Accordingly, the following hypotheses were extended:

Hypothesis 1: Retiring employees' intentions to share their (A) tacit and (B) explicit knowledge will be higher when they have a more favourable attitude towards knowledge sharing.

Hypothesis 1C: Retiring employees' intentions to hoard their knowledge will be lower when their attitude towards knowledge sharing is more favourable.

Predictors of Attitude towards Knowledge Sharing

Three attitudinal variables that may predict an employee's attitude towards knowledge sharing are affective organizational commitment, job satisfaction, and perceived organizational support.

Affective Organizational Commitment

According to Rhoades, Eisenberger, and Armeli (2001) "affectively committed employees are seen as having a sense of belonging and identification that increases their involvement in the organization's activities [and] their willingness to pursue the organization's goals" (p. 825). When employees have positive feelings towards their organizations, they are more likely to try to positively enhance the organization (Allen & Meyer, 1990). Affective commitment has a negative correlation with turnover and a positive correlation with attendance, performance, and behaviours that positively enhance the organization (Meyer, Stanley, Herscotvitch, & Topolnytsky, 2002). Therefore, affectively committed employees may have a stronger attitude towards knowledge sharing because knowledge sharing positively enhances the organization. In support of the previous assertions, van den Hooff and de Ridder (2004) found a positive

relationship between affective commitment and the extent to which employees would willingly share their knowledge, within five Dutch organizations. Accordingly, I proposed:

Hypothesis 2: The more affectively committed retiring employees are, the more favourable their attitude towards knowledge sharing will be.

Job Satisfaction

One prominent theory of job satisfaction is that employees have various needs and when their needs are satisfied at work, they are more satisfied with their jobs (Gagné, 2009). According to Self-determination Theory (SDT; Deci & Ryan, 1985), the extent to which employees' needs are met can factor in determining their levels of satisfaction. Using SDT, Gagné proposed a model by which job satisfaction predicts favourable attitudes towards knowledge sharing. Furthermore, van den Hooff and de Ridder (2004) found a positive relationship between job satisfaction and attitude towards knowledge sharing which included eagerness and willingness to share knowledge. Based on the previous assertion and observation, retiring employees who are more satisfied with their jobs may have more favourable attitudes towards knowledge sharing. Therefore, I predict:

Hypothesis 3: The more satisfied retiring employees are with their jobs, the more favourable their attitude towards knowledge sharing will be.

Perceived Organizational Support

Organizational Support Theory (Levinson, 1965) describes the amount of support employees receive from their organization in terms of socio-emotional needs and rewards (Rhoades & Eisenberger, 2002). When employees have a greater sense of organizational support, they may be more willing to engage in behaviours that enhance the organization (Podsakoff, Mackenzie, Paine, & Bachrach, 2000). When retiring employees feel supported by their

organization, they may feel more inclined to give back and engage in activities, such as knowledge sharing, where the activity will in turn support their organization. In a study of Taiwanese executives, Lin (2006) did not directly test the link between perceived organizational support and attitude towards knowledge sharing but did, however, find a positive relationship between perceived organizational support and intention to facilitate knowledge sharing through perceptions of innovation and interpersonal trust within the organization. Based on the previous assertions, I hypothesized the following:

Hypothesis 4: The higher retiring employees perceive organizational support, the more favourable their attitude towards knowledge sharing will be.

Moderators of the Relationship between Knowledge Sharing Attitudes and Intentions

There are several variables that may directly affect the strength of the correlation between retiring employees' attitudes towards knowledge sharing and their intentions to share their knowledge (Baron & Kenny, 1986). These potential moderators include financial stake and personal perceived knowledge value. Subjective norms, affiliation towards organizational stakeholders and organizational policies and practices, may also moderate the relationship where retiring employees may perceive a heightened sense of expectations from both organizational stakeholders and organizational policies and practices, and thus feel more motivated to share their knowledge.

Financial Stake

Whether and the extent to which an employee has a financial stake in the performance of the organization may moderate the relationship between attitudes towards knowledge sharing and intentions to share knowledge. Financial stake can include personal investments in an organization such as organization stock. In a meta-analysis of 50 studies over 25 years, Sesil,

Kruse, and Blasi (2001) uncovered a trend among organizations that offered employee ownership (e.g., stock options) in organizations. Specifically, the employees in those organizations were less likely to have a negative attitude towards the organization and tended to have higher performance levels. Furthermore, Long (1978) suggested that employees with financial stakes in their organization are more committed to the organization and are more likely to align their interests with that of the organization. As such, when retiring employees have a financial stake in the organization, they may intend to engage in knowledge sharing (because it is good for the organization and therefore good for them) regardless of their attitude towards knowledge sharing. However, when retiring employees have no financial stake in their organization, their attitude toward knowledge sharing may predict their intentions to engage in knowledge sharing. Accordingly, I proposed the following hypotheses:

Hypothesis 5: Personal financial stake will moderate the relationship between attitudes towards knowledge sharing and intentions to share (A) tacit knowledge, and (B) explicit knowledge.

Hypothesis 5C: Personal financial stake will moderate the relationship between attitudes towards knowledge sharing and intentions to hoard knowledge.

Personal Perceived Knowledge Value

Retiring employees' perceptions of how valuable their knowledge is, as well as how reliant they believe the organization may be on the knowledge that they possess, may moderate the relationship between attitude towards knowledge sharing and intentions to share knowledge. Bandura (1982) suggests that those with high self-efficacy in specific situations tend to have greater confidence, motivation, and performance in those situations. Employees' beliefs in their capabilities (e.g., extent and value of knowledge) are influenced by experiences such as receiving

encouraging feedback from others about their capabilities (Bandura, 2010, 2012). To illustrate, when employees assess their knowledge and determine that it is valuable, their sense of knowledge competency increases, which in turn could increase their willingness to share their knowledge. In analyzing knowledge sharing in professional virtual communities, Hsu, Ju, Yen, and Chang (2007) found a positive relationship between knowledge self-efficacy and knowledge sharing behaviour. Therefore, when retiring employees have a greater sense of personal perceived knowledge value, they may be more inclined to share their knowledge regardless of their attitudes towards knowledge sharing, whereas when employees have a lesser sense of personal perceived knowledge value, retiring employees' attitudes towards knowledge sharing may predict their intentions to engage in knowledge sharing. Thus, the following hypotheses were extended:

Hypothesis 6: Personal perceived knowledge value will moderate the relationship between attitudes towards knowledge sharing and intentions to share (A) tacit knowledge, and (B) explicit knowledge.

Hypothesis 6C: Personal perceived knowledge value will moderate the relationship between attitudes towards knowledge sharing and intentions to hoard knowledge.

Stakeholder Affiliation

Using the tenets of Social Exchange, individuals conduct a cost-benefit analysis to create the foundation for their actions (Blau, 1964). When deciding whether or not to share their knowledge, retiring employees may ask themselves, "what is in it for me?" Retiring employees may perceive social exchange benefits of sharing knowledge with certain organizational stakeholders such as maintaining a relationship with a co-worker who is a friend, or returning a favour to a supervisor who previously did something that benefited them. Thus, given their

relationships with certain organizational stakeholders, retiring employees may perceive greater expectations to share their knowledge and simply be more motivated to do so. Furthermore, they may intend to share their knowledge as a form of social exchange irrespective of their attitude towards knowledge sharing. Cabrera and Cabrera (2005) suggested that the extent to which an employee identifies with and trusts certain organizational stakeholders could increase their intentions to engage in knowledge sharing. Additionally, Golden and Raghurman (2010) found that the bond that employees have with their colleagues is positively related to their propensity of engaging in knowledge sharing. Thus, in the absence of close relationships with organizational stakeholders, retiring employees' attitudes towards knowledge sharing will predict their intentions to engage in knowledge sharing. In contrast, when retiring employees have close relationships with organizational stakeholders they may intend to share their knowledge, regardless of their attitudes towards knowledge sharing. Therefore, the following hypotheses were derived:

Hypothesis 7: Organizational stakeholder relationships will moderate the relationship between attitudes towards knowledge sharing and intentions to share (A) tacit knowledge, and (B) explicit knowledge.

Hypothesis 7C: Organizational stakeholder relationships will moderate the relationship between attitudes towards knowledge sharing and intentions to hoard knowledge.

Organizational Policies and Practices

Using the tenets of SDT, Gagné and Deci (2005) suggest that motivation to exert a given behaviour can be driven by a desire to engage in that behaviour, and Amar (2004) suggests that organizational policies can create a desire by motivating employees to engage in behaviours beneficial to the organization, which could include knowledge sharing behaviours. An

organization's sentiments about knowledge sharing may be expressed to its employees through the organization's values or goals, or stated explicitly in formal policies and procedures. Within the context of knowledge sharing, retiring employees could be encouraged to share their knowledge implicitly (e.g., through valuing knowledge sharing at the organization or stating its importance) or explicitly (e.g., through a formal knowledge sharing training session). Goh (2002) suggests that organizations fostering an environment of knowledge sharing execution could increase the likelihood of successful knowledge sharing. Furthermore, Lin (2007) and Szulanski (1996) suggest that organizational policies and practices about knowledge sharing may motivate employees to share their knowledge. Therefore, organizational policies and practices may act as a subjective norm within organizations where retiring employees feel expected to comply with the policies and practices in place. In short, policies and practices may moderate the relationship between attitudes towards knowledge sharing and intentions to engage in knowledge sharing. Whereas retiring employees' attitudes towards knowledge sharing may predict their intentions to engage in knowledge sharing in the absence of knowledge sharing policies and procedures, when organizations have policies and practices in place to support and promote knowledge sharing, retiring employees may be prompted to share their knowledge – regardless of their attitudes towards knowledge sharing. Accordingly, the following hypotheses were proposed:

Hypothesis 8: Organizational policies and practices will moderate the relationship between attitudes towards knowledge sharing and intentions to share (A) tacit knowledge, and (B) explicit knowledge.

Hypothesis 8C: Organizational policies and practices will moderate the relationship between attitudes towards knowledge sharing and intentions to hoard knowledge.

CHAPTER TWO: METHOD

Scale Development

Two pilot studies were conducted to determine whether and to what extent the proposed model included relevant constructs and that no scale items that would add to the content validity of the scales were missing.

Pilot Study One: Qualitative Interviews and Survey Item Reviews

To determine if additional constructs were required in the model, 10 retiring and retired employees participated in qualitative one-on-one interviews. The participants also participated in a review of the scales that I created for this study and the scales that were generated based on combining items from previous studies.

Participants. Participants were five males and five females from British Columbia, Alberta, Manitoba, and New York who had worked between 17 years and 49 years. The participants held positions such as oil and gas consultant, elementary school teacher, and nurse. After having the tenth person complete the interview and survey item review, it seemed that a saturation point was met where no new constructs were discussed and no new suggestions for the survey items were made. Altogether, the interview and survey item review took between 45 minutes and 60 minutes to complete, and participants were given a $25 gift card to thank them for their time.

Procedure. In order to reach participants for the qualitative interviews and survey items reviews, I used a convenience sample of contacts from the university, past workplaces, and personal referrals, and participants were asked to refer any friends or colleagues. Prospective participants were sent a study invitation via e-mail (see Appendix A), which contained a copy of the consent form (see Appendix B). The pilot test took place in person or over the telephone.

Qualitative interviews. Pilot Study One began with one-on-one qualitative interviews where participants were asked 15 open-ended questions about why they may or may not be willing to share their knowledge, as well as what factors impeded their abilities to share their knowledge (see Appendix C). I audiotaped the interviews and took detailed notes during the interviews. After each interview, I reviewed the notes and grouped the findings into major themes (e.g., job satisfaction as a predictor of attitude towards knowledge sharing). The themes were then compared to the existing constructs identified in the proposed model to determine if the participants' responses aligned with the existing constructs or if new constructs were identified.

Survey item reviews. After responding to the interview questions, participants were then asked to review items from the newly developed and combined scales (see Appendix D) to determine question clarity and relevance, as well as provide suggestions for additional items to be included. The scales reviewed were attitude towards knowledge sharing, intentions to share knowledge, and personal perceived knowledge value.

Results. After reviewing the interview notes and audiotapes from the qualitative interviews, the responses appeared to align with the constructs in the literature and the hypothesized model. However, content for new items was added to the existing scales based on the interviews. In total, three new items were generated (e.g., observing day-to-day tasks as a form of explicit knowledge sharing).

Upon the review of the newly developed and combined scales in the survey item reviews, no major issues were identified by the participants. However, some suggested revisions to the attitude towards knowledge sharing and intentions to share knowledge scales in order to reduce the wordiness of some of the items. Based on the feedback, I made minor word changes to the

existing items to make them clearer and more concise.

Pilot Study Two: Survey Item Assessment

After updating the newly constructed and combined scales with the new items generated based on the qualitative interviews and the feedback from the survey item review, the items were further refined by conducting a second pilot test on a separate sample of 27 participants to follow best practices for scale construction (DeVellis, 2001) and to assess the reliability of the scales.

Survey item development. Twenty-nine items were generated or adapted based on existing literature on attitudes toward knowledge sharing, intentions to share tacit and explicit knowledge, and personal perceived knowledge (see Appendix E). Seven items were created using knowledge sharing literature (Dhanaraj, Lyles, Steensma, & Tihanyi, 2004; Holste & Fields, 2010) to assess attitudes towards knowledge sharing. Twelve items were generated to assess overall knowledge sharing intentions which included tacit knowledge (seven items) and explicit knowledge sharing intentions (five items). Five of these items were adapted from Bock et al. (2005) to suit the retirement context, and the remaining items were generated drawing upon tacit and explicit knowledge literature by Dhanaraj, Lyles, Steensma, and Tihanyi (2004) and Holste and Fields (2010). To measure personal perceived knowledge value, 10 items were developed for the purpose of this study, drawing upon self-efficacy theory (Bandura, 1982) and knowledge value literature (Allee, 1997). The items tapped into how valuable retiring employees believe their knowledge to be, as well as how valuable they believe their organization perceives their knowledge to be.

Participants. Twenty-seven people participated in Pilot Test Two. Thirty participants attempted the survey; however, three responses were deleted after reviewing the stimuli check question. Fifty-six percent of the usable responses were from males. Of those who responded to

the item about their working status, 33 percent were either retired or retiring in the next two years. Given the goal of the pilot test -- to determine question reliability -- and to preserve the target sample of retiring employees for the focal study, the survey invitation was not targeted at retired or retiring employees.

Procedure. Using snowball sampling techniques, a survey invitation (see Appendix F) was sent out to colleagues and friends, asking them to voluntarily participate in the survey, as well as forward it to others. Before participating in the online survey in *Qualtrics*, participants were presented with an electronic version of the consent form at the beginning of the survey (see Appendix G). When responding to the items, participants were asked to role play as if they were employees leaving an organization. To ensure that participants responded as if they were leaving an organization, a stimuli check question which asked participants if they responded to the survey as if they were employees (a) leaving an organization, (b) remaining at an organization, or (c) if they fell into another category, was asked at the end of the survey. Three people did not pass the stimuli check question, and their responses were subsequently removed from the analyses. The survey took between five and 26 minutes to complete, and those who participated were offered a one in 30 chance to win a $25 gift card.

Exploratory Factor Analysis. Using the 27 valid responses collected, three maximum likelihood factor analyses with varimax rotation were conducted to test for dimensionality of the scales (Gerbing & Anderson, 1988), and the coefficient alphas were examined to determine internal inconsistency (Nunnally & Bernstein, 1994). Varimax rotation was selected in order to reduce the complexity of the components and more simply interpret the factor structure (Tabachnick & Fidell, 2007). Furthermore, "alpha if item deleted" tests were also conducted. Using the Kaiser Criterion (Kaiser, 1958), only factors with eigenvalues above one were

retained, and only loadings that exceeded .450 were considered in the model assessment in order to retain 'fair' or better fitting items (Tabachnick & Fidell, 2007). The results from the maximum likelihood factor analysis can be found in Tables 1-3. The findings are discussed below.

Results. Several findings were uncovered during the factor analyses. To begin, the attitude towards knowledge sharing scale contained two distinct elements: personal attitudes towards knowledge sharing, as well as general perceptions of other employees' attitudes towards knowledge sharing. All of the items loaded on one of two factors extracted in the analysis. The personal perceived knowledge value scale also appeared to have two distinct factors: how valuable retiring employees' believed their own knowledge to be, as well as their perceptions of how much they believed their organizations valued their knowledge. Nine of the 10 items generated for the scale loaded on one of two factors. The results from the intentions to share tacit and explicit knowledge factor analysis were not as clear as the other factor analyses. Seven of the twelve items measure loaded on one of two factors, whereas the remaining items cross-loaded.

After reviewing the intentions to share items, it appeared that the items were quite long and somewhat wordy which could have impacted how the participants responded and, subsequently, the overall factor structure. Furthermore, given the similarity between two intentions to share tacit knowledge items querying about specialized group knowledge, the items were combined into one in order to reduce the amount of items for the focal study. All six scales assessed in the factor analyses underwent "alpha if item deleted" tests; no scale benefited significantly by removing an item. Overall, before applying the scales to the focal study, the items were reviewed again and updated (e.g., re-worded to reduce potential confusion), then entered into an electronic survey in *Qualtrics*.

Focal Study

The focal study tested the proposed model using responses from 252 retired or retiring employees. Participants responded to 74 scaled items related to the constructs within the model and 21 work history and demographic items (see Appendix H).

Participants

Participants were people planning to retire in the next two years (N = 164) or who had retired less than one year ago (N = 88). The age of respondents ranged from 39-73, with an average age of 57. Fifty two percent of the participants were female and 85 percent identified themselves as Caucasian. Participants were from provinces and territories across Canada (with the exception of Nova Scotia and Nunavut), with participants from Ontario making up roughly 38 percent of the sample. Nearly 80 percent of participants had at least college education. The number of years at their most recent workplace ranged from one year to 49 years and, on average, participants worked at their most recent organization for 22 years. Twenty-four percent worked in education, 18 percent worked in government/non-profit, and 10 percent in healthcare/personal services industries. The majority (44%) worked for local organizations, and more participants worked in public sector industries (46%) than private sector industries (31%).

Participant Recruitment Procedure

To test the hypothesized model and meet the requirements for structural equation modelling, a minimum of 200 (Barrett, 2007) recently retired or retiring employees was sought. The sample was acquired through two approaches: snowball sampling and a panel sample. To obtain the snowball sample, a study invitation (see Appendix I) was sent to personal contacts between February 2012 and May 2012, as well as past and current colleagues asking them to voluntarily forward the study information on to eligible participants. Furthermore, with

permission from supporting retirement associations (e.g., Canadian Association of Retired Persons, British Columbia Retired Teachers' Association), the study was posted on retirement websites, facebook pages, LinkedIn pages, and published in two hard-copy quarterly retirement newsletters in British Columbia and Manitoba. In total, 171 responses were collected using snowball sampling techniques. However, those who did not pass the stimuli check questions throughout the survey (N = 38) were not considered in the analyses, yielding 133 responses from this source. The stimuli check question consisted of an item within the survey that informed participants that the item was a question response check where they were instructed to select "Strongly Disagree" to that item.

In order to fulfill the recommended 200 response minimum, a panel sample was purchased from *Survey Sampling International* (SSI) to collect the remaining responses. SSI was sought out as a data source given its credibility among the academic community, as well as its extensive panel profiling. Using the panelists' profiles (i.e., panel members who had retired in the last year or were planning on retiring in the next two years), SSI sent the survey link out to its eligible members in Canada. One hundred and nineteen additional responses were obtained from this panel source. To determine if the two data sources differed, independent sample *t*-tests were conducted for each scale. Overall, the responses to 10 of the 11 scales were not significantly different between the snowball and panel samples; the only difference between the samples was that hoarding intentions were higher in the SSI sample (M = 2.42) than the snowball sample (M = 1.86; t (249) = -4.06, $p < .01$). In total, 252 responses were obtained from the two samples.

Before beginning the survey in *Qualtrics*, participants were presented with an electronic version of the consent form (see Appendix J). To ensure that they met the eligibility requirements of the survey, all participants responded to a question where they indicated if they

were (a) planning on retiring in the next two years, (b) were already retired, or (c) fell into another category. Those who were neither retired nor planning on retiring in the next two years were redirected to an end of survey message that explained that they were not eligible to participate, but were encouraged to forward the survey on to eligible prospective participants in which by doing so they could be entered to win one of the prizes. Eligible participants in the snowball sample were offered a chance to win one of three $250 gift cards. Furthermore, those who forwarded the study earned additional entries into the draw each time an eligible participant they referred responded to the survey. The cost of the SSI panel was $19.82 per participant, and SSI paid the responding participants from their panel. Overall, the survey took between 19 and 45 minutes to complete.

Measurement Model Testing Procedure

All of the variables assessed in the model were measured using 7-point Likert-type scales of 1 (*strongly disagree*) through 7 (*strongly agree*). Throughout the survey the term 'organizational stakeholders' was used to describe the participants' successors and other members of their work groups such as peers and subordinates, managers, and human resources. All of the scales were assessed in a maximum likelihood factor analysis. Only loadings that exceeded .450 (Tabachnick & Fidell, 2007) and factors with an eigenvalue above one (Kaiser, 1958) were considered in the model. All scales underwent an 'alpha if item deleted' test to determine if the reliability of each scale could be significantly increased by deleting an item. Incomplete scale responses (i.e., missing responses) were not included in the reliability or factor analyses. The scales are discussed below.

Intentions to share knowledge. Fifteen items assessed intentions to share knowledge. Intentions to share knowledge included six tacit knowledge sharing items (e.g., "Before I retire,

I intend to not share what I've learned through my experience of how I do my work with organizational stakeholders") , five explicit knowledge sharing items (e.g., "Before I retire, I intend to share my key electronic-copy work reports and official documents with organizational stakeholders") , and four intentions to hoard knowledge items (e.g., "Before I retire, I intend to provide incomplete information to other organizational members"). Three of the intentions to hoard knowledge items were adapted from Connelly et al. (2011) to suit the retirement context and a fourth item was added based on the results of Pilot Study One qualitative interviews.

Attitude towards knowledge sharing. Seven items assessed retiring employees' attitudes, towards knowledge sharing (e.g., "Before retiring, it is important that employees share their knowledge with organizational stakeholders").

Personal Perceived Knowledge Value. Ten items (e.g., "Once I am retired, my organization will be better off if it has my knowledge") assessed retiring employees' personal perceived knowledge value.

Affective commitment. To measure retiring employees' affective organizational commitment, seven of eight items in Allen and Meyer's (1990) scale were used. The item querying "I would be happy to spend the rest of my career with this organisation" was removed given the retirement context.

Job satisfaction. To measure level of job satisfaction among the participants, three items (e.g., "In general, I have liked working here") from Cammann, Fichman, Jenkins, and Klesh (1983) were used.

Perceived organizational support. Perceived organizational support was measured using eight items (e.g., "My organization really cares about my well-being") by Rhoades et al. (2001).

Policies and practices. Nine items (e.g., "Before I retire, my organization thinks I should

share how to effectively do my job with organizational stakeholders before I retire") about organizational policies and practices were developed for this study to understand the extent to which organizations had policies and practices in place.

Financial Stake. To measure the role financial stake (e.g., stock options, pension plans) played, retiring employees were asked to what extent they financially depend on the performance of the organization once retired. They were also asked what types of financial stake, if any, they had in their organization. Those who indicated that they did not have any financial stake in the organization were not included in the financial stake moderation analysis.

Stakeholder affiliation. To determine retiring employees' affiliation with organizational stakeholders in general, four items (e.g., "There are people at the organization that I am close to") by Prentice, Miller, and Lightdale (1994) were used. To create consistent scale anchors throughout the survey, the scale was adapted to use the strongly disagree through strongly agree format (from *not at all important* through *of supreme importance* scale anchors).

Model Testing Procedure

The model was tested using Structural Equation Modelling. Consistent with best practices for model testing (Millsap & Meredith, 1994; Williams, Bozdorgan, & Aiman-Smith, 1996) the fully mediated proposed model was compared to a partially mediated model and a direct effects model. Given that examination of the intentions to share knowledge factor structure indicated three distinct intention types (tacit, explicit, and hoarding), the fully mediated, partially mediated, and direct effects models were assessed with three intention types as the outcome, as well as separately for each intention type in order to determine best fit (see Figures 2a-4d). In all of the models, the work attitudes were allowed to correlate, and all parameters were set to one in the model (Weston & Gore, 2006). Only complete cases for entire scales were used in the

analyses; when a response(s) was missing in a scale, that respondent was removed from that analysis (see Table 4). Given that missing data were present, a maximum likelihood estimator was used (Tabachnick & Fidell, 2007). The models were assessed using the Chi Square to Degrees of Freedom Ratio (χ^2/df), the Comparative Fit Index (CFI), Tucker-Lewis Index (TLI), and Root Mean Square Error of Approximation (RMSEA). The fit statistics were considered acceptable if they met the following conditions: A chi square ratio between 1 and 3 (Arbuckle & Wothke, 1999), CFI and TLI above .90 (Bentler, 1992), and a RMSEA of .08 or below (Bentler, 1992). The Akaike Information Criterion (AIC) statistic was used to compare models, where the lowest AIC value indicated the best fitting model (Akaike, 1974).

CHAPTER THREE: RESULTS

The hypothesized model was tested in three steps. First, to assess the measurement model, which examines the facture structure of the scales used in the survey, I ran an exploratory factor analysis for each of the eight scales. Second, I assessed the fit of the model to the data using *AMOS* to determine the best fitting model. Third, consistent with best practices for model testing, I compared the hypothesized model to alternative models (Millsap & Meredith, 1994; Williams, Bozdorgan, & Aiman-Smith, 1996).

Table 4 displays the correlations among the predictors, mediator and outcome variables. Inspection of the correlations in Table 4 revealed that in support of H1A-C attitudes towards knowledge sharing significantly positively correlated with intentions to share tacit and explicit knowledge, as well as significantly negatively correlated with intentions to hoard knowledge. Moreover, work attitudes -- affective commitment, job satisfaction, and perceived organizational support -- all significantly positively correlated with attitude towards knowledge sharing, providing supporting evidence for H2-H5.

Measurement Model

Intentions to share knowledge. Upon conducting the exploratory factor analysis for intentions to share knowledge, and reviewing the factor structure (see Table 5), intentions to share tacit and explicit knowledge, and intentions to hoard knowledge loaded on three distinct factors.

Intentions to share tacit knowledge. Five of the tacit items loaded together ($\alpha = .92$) on one factor. The sixth item ("Before I retire, I intend to not share what I've learned through my experience of how I do my work with organizational stakeholders") , which was reverse coded, then subsequently recoded for the analysis, did not load with the rest, and was therefore removed

from the scale.

Intentions to share explicit knowledge. All five of the explicit items loaded together ($\alpha = .96$).

Intentions to hoard knowledge. All of four items loaded together ($\alpha = .86$).

Attitude towards knowledge sharing. Three items loaded together and one factor was extracted ($\alpha = .81$; see Table 6).

Personal Perceived Knowledge Value. Seven items loaded on one factor ($\alpha = .85$; see Table 7). The items which queried to what extent retiring employees would be valued more if they shared their knowledge and to what extent their knowledge was valuable to their organization did not load with the rest of the items.

Affective commitment. One item (e.g., "I do not enjoy discussing my organization with people outside") was reverse coded and after re-coding for the analysis, the item did not with the rest of the items. Given that the scale is well established, the item was not removed ($\alpha = .82$).

Job satisfaction. All three items loaded together on one factor ($\alpha = .83$).

Perceived organizational support. All eight items ($\alpha = .92$) loaded together on one factor.

Policies and practices. Eight items loaded together on one factor ($\alpha = .94$; see Table 8). The ninth item (e.g., "My organization does not ask me about my knowledge") which was negatively framed and then subsequently reverse coded for the analysis did not load with the other items.

Stakeholder affiliation. All four items ($\alpha = .87$) loaded together on one factor.

Model Estimation

The fully, partially, and direct effects models (see Table 9) were first tested with the three

intentions types (tacit, explicit, and hoarding) modelled together (see Figures 2a, 3a, and 4a).

Models with tacit, explicit, and hoarding intentions. The results from the fully mediated model suggested that the RMSEA was of reasonable fit (RMSEA = .08), the $\chi^{2\,/df}$ ratio (2.49) was of good fit, and the CFI (.89) and TLI (.87) values were approaching good fit. The test of the partially mediated model suggested that the RMSEA was of reasonable fit (RMSEA = .08), the $\chi^{2\,/df}$ ratio (2.43) was of good fit, and the CFI (.89) and TLI (.87) values were approaching good fit. Lastly, the test of the direct effects model suggested that the RMSEA was of reasonable fit (RMSEA = .08), the $\chi^{2\,/df}$ ratio (2.44) and CFI (.90) were of good fit, and the TLI (.88) value was approaching good fit.

The partially mediated model produced the best fit statistics and lowest AIC value (AIC = 1475.44) in comparison to the fully mediated (AIC = 1513.80) and partially mediated (AIC = 1507.42) models, suggesting that the partially mediated model was the best fitting.

Further investigation of the partially mediated model indicated a significant positive indirect effect of job satisfaction on intentions to share tacit (β = .06, *CI* = .001 to .251, $p < .01$) and explicit (β = .20, *CI* = .052 to .404, $p < .01$) knowledge, and a significant negative indirect effect on knowledge hoarding intentions (β = -.18, *CI* = -.368 to - .074, $p < .01$) via attitude towards knowledge sharing. Furthermore, three direct effects were also uncovered. Job satisfaction had a significant positive direct effect on intentions to share tacit (β = .46, $p < .001$) and explicit (β = .23, $p < .01$) knowledge, and a significant negative direct effect on intentions to hoard knowledge (β = .41, $p < .001$). The allowance of the direct paths improved the fit of the model.

Given that the maximum likelihood factor analysis for intentions to share indicated three distinct intention types (tacit, explicit, hoarding), the model was further tested separately for each

intention type.

Models with tacit knowledge intention type. In testing the hypothesized, fully mediated model (see Table 10) with intentions to share tacit knowledge, the RMSEA indicated that the model was of reasonable fit (RMSEA = .07), and the CFI (.91) and $\chi^{2/df}$ ratio (2.38) suggested that the model was of good fit. The TLI (.89) value indicated that the model was approaching good fit. When testing the partially mediated model, the RMSEA suggested that the model was of reasonable fit (RMSEA = .07), and the CFI (.92), TLI (.90) and $\chi^{2/df}$ ratio (2.32) suggested that the model was of good fit. Lastly, testing of the direct effects model indicated that the RMSEA was of reasonable fit (RMSEA = .08), and the CFI (.91) and $\chi^{2/df}$ ratio (2.44) suggested that the model was of good fit. The TLI (.89) value indicated that the model was approaching good fit.

After assessing the AIC values, the partially mediated model produced the lowest AIC value (AIC = 785.17), indicating the best fitting model in comparison to the fully mediated (AIC = 801.55) and direct effects (AIC = 816.54) models. The partially mediated model also produced good fit statistics.

Further investigation of the partially mediated model indicated a significant positive indirect effect of job satisfaction (β = .17, *CI* = .012 to .209, $p < .01$) on intentions to share tacit knowledge via attitude towards knowledge sharing. Furthermore, one direct effect was also uncovered. Job satisfaction (β = .31, $p < .001$) had a significant positive direct effect on intentions to share tacit knowledge. The allowance of this direct path improved the fit of the model.

Models with explicit knowledge intention type. In testing the hypothesized, fully mediated model (see Table 11) with intentions to share explicit knowledge, the fit statistics

suggested that the model was of reasonable (RMSEA = .08) and good fit (CFI = .91, TLI =.90, χ^2 $^{/df}$ ratio = 2.49). When testing the partially mediated model, the RMSEA suggested that the model was of reasonable fit (RMSEA = .08), and the CFI (.92), TLI (.90) and $\chi^{2\,/df}$ ratio (2.46) suggested that the model was of good fit. Lastly, testing of the direct effects model indicated that the RMSEA was of reasonable fit (RMSEA = .08), and the CFI (.91) and $\chi^{2\,/df}$ ratio (2.57) suggested that the model was of good fit. The TLI (.89) value indicated that the model was approaching good fit.

After assessing the AIC values, the partially mediated model produced the lowest AIC value (AIC = 821.59), indicating the best fitting model in comparison to the fully mediated (AIC = 831.38) and direct effects (AIC = 852.83) models. The partially mediated model also produced the best fit statistics.

Further investigation of the partially mediated model indicated a significant positive indirect effect of job satisfaction (β = .12, *CI* = .031 to .210, $p < .01$) on intentions to share explicit knowledge via attitude towards knowledge sharing. Furthermore, one direct effect was also uncovered. Job satisfaction (β = .38, $p < .001$) had a significant positive direct effect on intentions to share tacit knowledge. The allowance of this direct path improved the fit of the model.

Models with knowledge hoarding intention type. In testing the hypothesized, fully mediated model (see Table 12) with intentions to hoard knowledge, the RMSEA indicated that the model was of reasonable fit (RMSEA = .08), and the CFI (.90) and $\chi^{2\,/df}$ ratio (2.64) suggested that the model was of good fit. The TLI (.87) value suggested that the model was approaching good fit. When testing the partially mediated model, the RMSEA suggested that the model was of reasonable fit (RMSEA = .08), and the CFI (.90) and $\chi^{2\,/df}$ ratio (2.46) suggested

that the model was of good fit. The TLI (.87) value suggested that the model was approaching good fit. Lastly, testing of the direct effects model indicated that the RMSEA was of reasonable fit (RMSEA = .08), and the $\chi^{2/df}$ ratio (2.76) suggested that the model was of good fit. The CFI (.89) and TLI (.86) fit indices indicated that the model was approaching good fit.

After assessing the AIC values, the partially mediated model produced the lowest AIC value (AIC = 803.54), indicating the best fitting model in comparison to the fully mediated (AIC = 805.25) and direct effects (AIC = 835.28) models. Nonetheless, the TLI fit statistic of .87 suggests that although the partially-mediated model is the best fitting model, it is only approaching good fit. The other fit statistics suggest that the partially-mediated model fits the data reasonably well in an absolute sense.

Further investigation of the partially mediated model indicated a significant negative indirect effect of job satisfaction (β = -.18, *CI* = -.31 to -.08, $p < .01$) on intentions to hoard knowledge via attitude towards knowledge sharing. Furthermore, one direct effect was also uncovered. Job satisfaction (β = -.39, $p < .001$) had a significant negative direct effect on intentions to share tacit knowledge. The allowance of this direct path improved the fit of the model.

Moderator Estimation

Financial stake, personal perceived knowledge value, stakeholder affiliation, and organizational policies and practices were hypothesized as moderators between attitudes towards knowledge sharing and intentions to share knowledge. After determining that the partially mediated models for each separate intentions type fit the data the best, the proposed moderators were tested on the models (see Table 13).

Model with tacit intention type. When testing the partially mediated model with

intentions to share tacit knowledge, organizational policies and practices (β = .17, *SE* = .08, p < .01) was a significant moderator between attitudes towards knowledge sharing and intentions to share tacit knowledge, thus supporting H8A. The greater the extent of organizational policies and practices in place, the stronger the relationship between attitudes towards knowledge sharing and intentions to share tacit knowledge. Personal perceived knowledge value (β = .20, *SE* = .07, p < .01) was also a significant moderator where the greater the extent to which retiring employees' personal perceived knowledge value was, the stronger the relationship between attitudes towards knowledge sharing and intentions to share tacit knowledge became, which supports H6A. Stakeholder affiliation (β = .04, *SE* = .08, p = .29) and financial stake (β = -.18, *SE* = .12, p = .08) were nonsignificant.

Model with explicit knowledge intention type. When testing the partially mediated model with intentions to share explicit knowledge, organizational policies and practices (β = .24, *SE* = .12, p < .05) was a significant moderator between attitudes towards knowledge sharing and intentions to share explicit knowledge, thus supporting H8A. When the extent to which organizational policies and practices were in place increased, there was a stronger relationship between attitudes towards knowledge sharing and intentions to share explicit knowledge. Personal perceived knowledge value (β = .37, *SE* = .11, p < .001) was also a significant significant moderator where the greater the extent to which retiring employees' personal perceived knowledge value was, the stronger the relationship between attitudes towards knowledge sharing and intentions to share tacit knowledge became, which supports H6B. Unlike the model with intentions to share tacit knowledge, financial stake (β = .40, *SE* = .18, p < .05) was a significant moderator, thus supporting H5A. For retiring employees who had a financial stake in their organizations, the greater the extent to which they depended on the financial stake

post-retirement, the stronger the relationship between attitudes towards knowledge sharing and intentions to share explicit knowledge. Stakeholder affiliation (β = .03, *SE* = .11, *p* = .40) was nonsignificant.

Model with knowledge hoarding intention type. When testing the partially mediated model with intentions to hoard knowledge, stakeholder affiliation (β = -.006, *SE* = .05, *p* = .46), financial stake (β = .06, *SE* = .09, *p* = .26), organizational policies and practices (β = .06, *SE* = .09, *p* = .31), and personal perceived knowledge value (β = .06, *SE* = .05, *p* = .13) were nonsignificant moderators between attitudes towards knowledge sharing and intentions to hoard knowledge.

CHAPTER FOUR: DISCUSSION

The results from the study provided insight into my research question: What are retiring employees' attitudes and intentions towards knowledge sharing before retirement? The correlation matrix suggested that attitudes towards knowledge sharing is a moderate predictor ($.30 > r > .50$; Cohen, 1988) and strong predictor ($r > .50$; Cohen, 1988) of intentions to share tacit and explicit knowledge, respectively, as well as a moderate negative predictor of knowledge hoarding. Moreover, the data indicated that the hypothesized predictors have a moderate relationship with attitudes towards knowledge sharing.

Model Results

The partially mediated models produced the best fit statistics. When intentions to share was assessed separately for each intention, better fit statistics and lower AIC values were produced than when the models were assessed with all intention types in the outcome.

The partially mediated models suggest that job satisfaction can have positive and negative indirect and direct effects on intentions to share tacit and explicit knowledge, and hoard knowledge, respectively. In allowing the direct paths from the predictor to the outcomes, the fit of the models was improved. Gagné (2009) suggests that satisfaction can have an indirect effect on intentions to share knowledge via attitude towards knowledge sharing. Furthermore, de Vries, van den Hooff, and de Ridder (2004) found empirical support for the assertion that knowledge sharing attitudes mediated the relationship between job satisfaction and intentions to share knowledge. Essentially, retiring employees' degree of job satisfaction can assist in shaping their attitudes towards knowledge sharing, which in turn can predict their intentions to share knowledge. With respect to the direct effect, Bateman and Organ (1983) suggest that there is a significant relationship between job satisfaction and organizational citizenship behaviours, where the degree of satisfaction at work can have a direct impact on positive workplace behaviours,

which could include knowledge sharing. Furthermore, Cabrera, Collins, and Salgado (2006) found a positive relationship between a measure of internalization (which included job satisfaction) and knowledge sharing, which supports the positive direct relationship between job satisfaction and intentions to share tacit and explicit knowledge, and the negative direct relationship with intentions to hoard knowledge, where intentions are a proximal predictor of behaviours (Fishbein & Ajzen, 1975). Moreover, since the direct effects models did not fit the data better than the partially mediated model, it suggests that affective commitment and perceived organizational support assist in shaping attitudes towards knowledge sharing which in turn predict knowledge sharing intentions.

Similar to the models with tacit and explicit intentions to share knowledge, the best fitting model with intentions to hoard was the partially mediated model; however, the TLI value for the model suggested the model fit only reasonably well in an absolute sense. The data likely did not fit the model with hoarding intentions as well as intentions to share tacit and explicit knowledge for several reasons. First, the tacit and explicit outcomes are positive acts (i.e., knowledge sharing), whereas the hoarding outcome is a negative act (i.e., knowledge hoarding). Second, as uncovered in the independent *t*-tests, the mean for knowledge hoarding in the SSI sample was significantly different than the snowball sample, which indicates that responses to hoarding may differ across samples; thus this discrepancy in data may have impacted the overall fit. Third, given that hoarding intentions were very low ($M = 2.13$), social desirability (Edwards, 1957) may have been a factor contributing to low model fit where certain respondents may have actually had higher intentions to hoard, but responded differently in order to appease socially constructed values. Lastly, retiring employees may not realize that they are hoarding their knowledge. They may not realize the extent of their knowledge (Haldin-Herrgard, 2000) and simply not

consciously realize that they are not sharing it (Calo, 2008), thus they may have responded differently to the survey, unaware of their true hoarding intentions.

Moderation Results

The partially mediated models with the tacit and explicit knowledge sharing intention types contained significant moderation effects, whereas the model with the hoarding intention type did not. Personal perceived knowledge value and organizational policies and practices were significant moderators in the models with the intentions to share tacit and explicit knowledge. Financial stake was a significant moderator in the model with intentions to share explicit knowledge. Stakeholder affiliation was not a significant moderator.

Retiring employees' perceptions of perceived knowledge value strengthened the relationship between attitudes towards knowledge sharing and intentions to share tacit and explicit knowledge. Retiring employees with higher perceptions of personal knowledge value are more inclined to share their knowledge when they believe their organizations can benefit from it (Allee, 1997). Essentially, retiring employees with higher knowledge self-efficacy have higher intentions to share their tacit and explicit knowledge regardless of their attitudes towards knowledge sharing because they are confident in their knowledge, and understand the value in their knowledge and how it can be useful to their organizations. Organizations may want to increase ways by which to increase retiring employees' personal perceived knowledge value (e.g., increasing their knowledge self-efficacy and telling them that their knowledge is valuable to the organization), which in turn may increase retiring employees' propensity to share their knowledge.

Organizational policies and practices also strengthened the relationship between attitudes towards knowledge sharing and intentions to share tacit and explicit knowledge. When

organizations have knowledge sharing policies and practices in place, knowledge sharing can be simply encouraged or completely mandatory depending on the organization (Hislop, 2003). Thus, even when retiring employees have lesser intentions to share their tacit or explicit knowledge, organizational policies and practices in place (e.g., weekly mentorship meetings) may increase their intentions to share. This suggests that organizational knowledge sharing policies and practices can enhance the relationship between knowledge sharing attitudes and intentions.

Financial stake significantly moderated the relationship between attitudes towards knowledge sharing and intentions to share explicit knowledge. Retiring employees with financial stake in their organizations may feel an increased need to share their explicit knowledge with organizational stakeholders when they have financial stake in the organization in order to assist the organization in maintaining its existing financial performance levels, which in turn may lead to personal financial benefit. When considering sharing tacit knowledge and how it might affect them monetarily, retiring employees may conduct a cost-benefit analysis, and be more inclined to share their explicit knowledge for several reasons. First, tacit knowledge is often the foundation of creativity and a catalyst in creating more efficient and effective ways of doing things through 'tips and tricks' (Nonaka & Konno, 1998), thus sharing tacit knowledge, especially ideas that have the potential to greatly enhance financial performance and require time and effort to develop, may not be a priority for retiring employees. Second, retiring employees may not perceive the potential returned financial rewards for their knowledge sharing to be large enough to significantly benefit from sharing their knowledge (Joia & Lemos, 2010), especially given the amount of time and effort exerted to share tacit knowledge. Third, retiring employees may consider the possibility that they may not receive full credit or be able to further develop the

ideas generated from their tacit knowledge sharing when they are retired (Haldin-Herrgard, 2000). Ultimately, retiring employees may not perceive as many benefits of sharing tacit as explicit knowledge.

Stakeholder affiliation was not a significant moderator in any of the models. Even though retiring employees in this sample generally had a high sense of stakeholder affiliation (M = 4.53, SD = 1.01), the degree of perceived closeness with organizational stakeholders did not strengthen the relationship between attitudes towards knowledge sharing and intentions to share knowledge. Retiring employees' may believe that organizational stakeholders already know what they know or they may not know which organizational stakeholders may benefit from their knowledge (Haldin-Herrgard, 2000; Renzl, 2008).Thus, even if retiring employees have a high sense of perceived closeness with organizational stakeholders, they may not increase their knowledge sharing intentions.

Organizational policies and practices, personal perceived knowledge value, financial stake, and stakeholder affiliation were not significant moderators between attitudes towards knowledge sharing and intentions to hoard knowledge. This could be attributed to the reasons previously outlined in the model section regarding the uniqueness of knowledge hoarding.

Theoretical Implications

This research was developed to understand a pertinent, practical issue at hand: Retaining retiring employees' knowledge before they retire, especially during a looming demographic shift. The study at present applied Commitment Theory (affective commitment; Allen & Meyer, 1991), Self-determination Theory (Deci & Ryan, 1985), and Organization Support Theory (Levinson, 1964) to describe how work attitudes shape attitudes towards knowledge sharing. The study also utilized Theory of Reasoned Action and Planned Behaviour (Ajzen & Fishbein, 1977;

Fishbein & Ajzen, 1975; Ajzen, 1991) to describe the relationship between knowledge sharing attitudes and intentions where the theory was used to explore moderation relationships that were postulated to strengthen the relationship between knowledge sharing attitudes and intentions. The results uncovered that the relationship between attitudes and intentions to share knowledge could be moderated (strengthened) when organizational policies and practices (tacit and explicit), personal perceived knowledge value (tacit and explicit), and financial stake (explicit) were in place. Altogether, this study utilized several prominent theories in order to support a model of retiring employees' knowledge sharing attitudes and intentions.

The research contributed to theory in several ways. First, the research contributed to the knowledge sharing literature by specifically examining retiring employees' attitudes and intentions towards knowledge sharing. The extensive body of literature on knowledge sharing was integrated and utilized to focus on retiring employees' attitudes and intentions. Second, the research explored both knowledge sharing and knowledge hoarding. Knowledge hoarding is a relatively new construct with limited empirical examination to date. Third, the personal perceived knowledge value construct created for the purposes of this study extends self-efficacy theory (Bandura, 1982), where it used aspects of self-efficacy theory to explain the how knowledge self-efficacy can strengthen or weaken the relationship between knowledge sharing attitudes and intentions. The construct in general, as well as the personal perceived knowledge value scale created, may be used by future researchers to explain how people perceive the value of their knowledge. Fourth, Theory of Reasoned Action and Planned Behaviour (Ajzen, 1991; Ajzen & Fishbein, 1977; Fishbein & Ajzen, 1975) was tested to include moderation relationships which assisted in explaining how certain factors can strengthen the relationship between knowledge sharing attitudes and intentions.

Practical Implications

With the looming demographic changes, the subsequent labour shortage (Conference Board of Canada, 2009), and the many perceived negative impacts of losing retiring employees' knowledge (Collins, 2007; Strack, et al., 2008), retaining knowledge is an important issue for organizations to consider (Argote, 1999; Argote & Ingram, 2000; Cong & Pandya, 2003). Organizations may want to especially pay close attention to retiring employees' work attitudes and consider how more favourable attitudes towards knowledge sharing may increase knowledge sharing.

The study suggested that the partially mediated models with intentions to share tacit and explicit knowledge were of good fit. The partially mediated model, where job satisfaction had significant indirect and direct effects, suggested that job satisfaction is predicts intentions to share tacit and explicit knowledge via attitude towards knowledge sharing, as well as directly predicts intentions to share tacit and explicit knowledge. Therefore, organizations may want to be especially cognizant of the extent to which its employees' needs are met (Deci & Ryan, 1985) in order to enhance knowledge sharing attitudes and intentions. The model also showed that there was a moderate correlation between perceived organizational support and affective commitment with attitude towards knowledge sharing.

The moderation findings uncovered that organizational policies and practices and personal perceived knowledge value strengthen the relationship between attitudes towards knowledge sharing and intentions to share tacit and explicit knowledge. Financial stake was also a significant moderator with intentions to share explicit knowledge. To begin, organizational policies and practices could play a key role in retaining the knowledge retiring employees have amassed before they retire. Regardless of retiring employees' attitudes towards knowledge

sharing, organizational policies and practices can increase knowledge sharing intentions. Even though this may seem simple in theory, it may not be occurring in practice. A review of the overall scale means showed that organizational policies and practices (M = 3.74, SD = 1.30) was the lowest in the dataset. Even if retiring employees recognize that there are knowledge sharing policies and practices in place, or if they perceive that their organization wants them to share their knowledge, organizational policies and practices may not be actually implemented. Thus, organizations may want to consider ways of more strongly stating the importance of knowledge sharing, increasing awareness of knowledge sharing policies and practices among retiring employees, as well as creating mandatory knowledge sharing sessions (e.g., weekly meetings with successors/co-workers). By incorporating knowledge sharing into retiring employees' work routines (e.g., mentorship programs, weekly meetings, file sharing, etc.) more knowledge sharing could take place.

Organizations may also want to consider ways by which to increase retiring employees' perceptions of personal perceived knowledge value. Personal perceived knowledge value (M = 3.74, SD = .99) also had the lowest overall mean across all variables. Thus, organizations may want to develop knowledge management plans aimed at increasing employee knowledge sharing where retiring employees are encouraged to share their knowledge through knowledge promotion campaigns set out by their organizations.

Lastly, organizations may want to make retiring employees feel like they are still a part of the organization post-retirement, especially those who have a financial stake in the organization. By making financially vested employees feel like 'part of the family' (Allen & Meyer, 1991) post-retirement and encouraging them to share their knowledge, suggesting that knowledge

sharing can assist in maintaining and/or increasing the financial status of the organization which in turn affects the financially vested employees, may increase their knowledge sharing.

Beyond the theories tested in the model, the work history items collected may also provide insight into retaining retiring employees' knowledge before they retire. Items about succession planning were also collected in this study for exploratory purposes given that succession planning is an important component of knowledge management (Whelan & Carcary, 2011). When participants were asked if they knew who would be their successor upon retirement, 52 percent of the respondents indicated that they did not know who their successor would be. Lack of knowledge about who will be taking over retiring employees' position is a paramount issue for organizations to consider. Given retiring employees' age and associated increased health risks (Flynn, 2010), knowledge sharing should be on-going (e.g., successor knowledge sharing relationships, phased retirement programs, etc.), especially before retiring employees announce their retirement. It is imperative for employees close to retirement age to share their knowledge with organizational stakeholders, especially successors, given that retiring workers are more likely than non-retiring workers to unexpectedly leave their organizations sooner than planned with the possibility of not returning (Flynn, 2010). Overall, given retiring employees' age and tenure, organizations may want to consider ways to develop and/or enhance their knowledge sharing programs.

Limitations

There were some limitations to this study; however, the limitations of this study have created opportunities to further advance and develop the research topic. First, although the model fit statistics suggested reasonable model fit, some enhancements to the scales and model may improve the fit statistics of future models. For example a good RMSEA value is considered .05

or less, whereas a reasonable RMSEA value is considered when it is greater than .05 or less than .08 (Bentler, 1992). None of the models produced a good RMSEA value. Furthermore, even though a CFI value of .90 is good, a .95or higher is more desirable (Bentler, 1992).Ideally, the best fitting models could have had a lower RMSEA and a higher CFI; however, the values were generally acceptable across all models tested.

The models likely did not have exceptional fit, but rather good fit, for several reasons. To begin, the sample size may have been too small given the number of free parameters. Even though a general 'rule of thumb' in structural equation modelling is to have at least 200 participants (Barrett, 2007), Bentler and Chou (1987) recommend having at least five participants per parameter, thus a larger sample size (e.g., 265 *df* in a partially mediated model may require $N = 1{,}325$) may have produced a lower RMSEA and higher CFI.

Beyond the complexities of sample size, the participants in this study limited the study in some ways. First, the study was limited to retiring employees in general, rather than focusing on retiring employees in a specific job role or sector. Thus, a deeper understanding of retiring employees' attitudes and intentions towards knowledge sharing in specific roles or sectors could not be explored. Second, this research only obtained responses from a single-rater which creates a common method bias (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). It was the original intent of the study to collect data from organizations where both retiring employees and human resource professionals could respond to the survey; however, given that the study did not take place in specific organizations, data from different types of respondents could not be easily obtained. Third, there is the possibility that some who responded to the survey may not have fit the "retiring employee" definition where they may actually choose to delay retirement beyond

two years. Thus, some responses collected may have been from employees farther away from retirement to be contemplating knowledge sharing before they leave.

There were some limitations to this study due to the cross-sectional nature of the study design. Ideally a longitudinal study was desired because it can control for individual characteristics, and causal inference can be more easily established (Kramer, 1983). However, given the difficulty in securing participants, the amount of time required to collect longitudinal data (i.e., collect data before and after retirement), and the large costs associated with longitudinal data collection, cross-sectional data were obtained.

Beyond participants and study design, there were some theoretical limitations associated with this study. First, this study only explored intentions, which are a proximal predictor of behaviours (Fishbein & Ajzen, 1975), thus retiring employees' intentions to share knowledge may not fully emulate their actual knowledge sharing behaviours. Second, after reviewing literature on knowledge sharing before leaving an organization or being promoted and leaving an existing role, variables such as knowledge sharing climate and communication in organizations (Yang, 1997; Webber, 1993) have been used in these literatures and could have been considered in this study as well. Third, given that the hoarding variable did not produce good fit statistics across all indices, a different model of knowledge hoarding could be designed. For example, personality variables such as the Six Factor Personality Questionnaire (SFPQ; Jackson, Paunonen, & Trembley, 2000), facet level support and satisfaction variables (e.g., co-worker, supervisor), and theories such as need for power (Lawler & Bacharach, 1987) may have better suited the knowledge hoarding context. Moreover, since knowledge hoarding is a somewhat contentious issue, a social desirability scale could have also been included in the survey as a

means to remove responses that suggested that participants are responding in a way that conforms to social norms.

Future Research

Knowledge sharing is a relatively new area of research with many opportunities. Using the current study materials, the study at present could be expanded in several ways for future studies. First, it may be interesting to explore the difference in intentions to share knowledge between retiring employees in organizations with and without knowledge sharing policies and practices, in order to further understand how such policies and practices strengthen or weaken the relationship between knowledge sharing attitudes and intentions. Second, it may also be valuable to further investigate which types of knowledge sharing policies and practices (e.g., file sharing, mentorship meetings, etc.) have the greatest ability to strengthen or weaken the relationship between knowledge sharing attitudes and intentions. This could be done by examining existing organizational policies and practices and exploring retiring employees' attitudes and intentions towards knowledge sharing when specific policies and practices are in place. Third, it may be interesting to further examine attitudes towards knowledge sharing, and explore whether and to what extent retiring employees' attitudes towards tacit and explicit knowledge sharing , as well as attitude towards knowledge hoarding differ. That is, the existing attitude towards knowledge sharing scale could be replicated and measured for each intention type. Fourth, this study only explored intentions, which are a proximal predictor of behaviours (Fishbein & Ajzen, 1975), rather than examining behaviours. For example, certain factors could increase (e.g., mandatory knowledge sharing sessions) or decrease (e.g., logistical constraints, illness) their knowledge sharing behaviours, regardless of their intentions. Therefore, longitudinal data could be collected to explore knowledge sharing behaviours. Fifth, the study could assess specific types of

knowledge, rather than knowledge sharing more generally. Retiring employees' attitudes, intentions, and behaviours towards a specific type of knowledge sharing (e.g., safety knowledge sharing) in a specific sector could take place. Furthermore, other perspectives such as younger employees or managers could be explored as well in the study in order to further understand how different perspectives perceive the knowledge sharing process. Lastly, different types of movement within organizations could be studied. For example, a similar study could be conducted among employees who are promoted or leave a job within a given organization to another job within the same organization. After reviewing literature on knowledge sharing before leaving an organization or being promoted and leaving an existing role, variables such as knowledge sharing climate and communication in organizations (Yang, 1997; Webber, 1993) have been examined and could be examined in future studies. Overall, there are many possible research opportunities stemming from this study.

Conclusion

This study was designed to gain an understanding of retiring employees' attitudes and intentions towards knowledge sharing. Existing literature on knowledge sharing, and data collected from Pilot Study One and Two were used to develop a model of knowledge sharing which was tested using 252 responses from retired and retiring employees across Canada. The results suggested that affective commitment, job satisfaction, and perceived organizational support predicted attitudes towards knowledge sharing which in turn positively predicted tacit and explicit knowledge sharing intentions, as well as negatively predicted intentions to hoard knowledge. In addition, job satisfaction had significant positive and negative direct effects on intentions to share tacit and explicit knowledge, and intentions to hoard knowledge, respectively. The research also provided evidence that moderators such as organizational policies and

practices, stakeholder affiliation, and financial stake can impact tacit and explicit knowledge sharing intentions.

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Appendix A – Pilot Study One Study Invite (e-mail)

Subject: Knowledge sharing in Organizations – Study Participation

Hello _____,

_____ mentioned that you recently retired (are retiring within the next two years). Currently I am conducting research retired (retiring) employees' experiences with sharing knowledge before retirement. Today I invite you to participate in a study on this topic.

If you are interested in participating in a one-on-one interview taking 30-45 to complete, please let me know. I am very flexible in regards to time of the day, day of the week, and location. Please just let me know what works sharing best for you.

For further details about the interview, please see the attached consent form and study overview. The form provides a further explanation of what is entailed in the interview. Please keep the document for your own records. I will bring a hard-copy of the form to the interview for you to sign if you choose to participate.

If you have any further questions, please let me know.

Kindest Regards,

Kasey Martin
MSc Student - Business Administration
I.H. Asper School of Business
(204) 880-3345

Appendix B – Pilot Study One Consent Form (electronic and hard-copy)

[UofM header here]

My name is Kasey Martin and I am graduate student at the University of Manitoba (UofM) working on a study about knowledge in organizations. Today, I invite you to participate in a one-on-one interview about the knowledge you held before retiring, as well as review a survey for a future study. You are not required to indicate your planned or actual date of retirement. The tasks will take approximately 30-45 minutes to complete. Your experiences may be used to further a larger study on knowledge in organizations. If you are willing to participate in this study, and thus allow me to collect the data you provide, please give your consent in writing at the end of this page. All of the data collected will be generalized and contained within a master's thesis at the UofM. The data will be stored in a locked cabinet and will be destroyed in five years. In no way will the information be traced back to you. If you require further information about this study, the data collected, and/or how it will be used, please contact me at ummar435@cc.umanitoba.ca or Krista Uggerslev (thesis advisor), Associate Professor at the Asper School of Business, at uggersle@cc.umanitoba.ca. Furthermore, if you would like to receive a summary of the larger study on knowledge sharing, then please provide your e-mail address on the sign-up sheet provided by the researcher. Lastly, please note that a $25 gift card will be presented to you in appreciation for your time.

By signing this form, you indicate that you understand to your satisfaction the information pertaining to your participation in this study. In agreeing, in no way will your legal rights be violated. Furthermore, by consenting to this form, you declare that you are at least 18 years of age. Finally, at any point you are free to withdraw from this study, and all information collected will be destroyed.

If you chose to participate, your planned or actual date of retirement, as well as all of the information collected will remain confidential. Should you have any complaints pertaining to this research, the Human Ethics Secretary may be contacted at 204-474-7122 or margaret_bowman@umanitoba.ca.

Thanks for taking the time to consider being a part of this research.

_____ _____

First and Last Name Date

_____

Signature

Appendix C –Pilot Study One Interview Questions

Interviewer's questions for retired (retiring) employees' one-on-one interviews:

Note: Before beginning, ensure interviewee has read, understood and signed consent form.

Introduction:

- MSc student at Asper
- Researching retiring employees' attitudes and intentions towards KNOWLEDGE SHARING
- Starting off with interviews to uncover types of knowledge and how knowledge is shared
- Interviews will be used to further develop a survey
- Survey will be sent to several hundred retiring employees

Definitions:

Knowledge sharing – the process of retiring employees sharing their knowledge before they leave the organization.

1. How many years have/did you work in total? At your most recent workplace? Please describe your role? How much advanced notice for retirement? Who took over your position?

More Definitions:

Tacit Knowledge – the "know what" knowledge; may be difficult to verbalize or to write down; the knowledge you know that you don't know that you know that others may not know

Explicit Knowledge – the "know how" knowledge; can be more easily explained, codified or stored on electronic or paper files [ask respondents to explain the difference to you to ensure clarity]

2. During your career, you would have accumulated lots of knowledge and insights into how to perform your job most efficiently and effectively. Tell me about what types of types of tacit and explicit knowledge you have/held pertaining to job tasks? Work processes? The organization? Customer and client relations? [expand on the difference between the tacit and explicit]

3. Can you please describe how the sharing of your tacit versus explicit knowledge may/might have differed? How do/did you share those things that you knew that your organization may not have known?

4. Is knowledge sharing something that the retiring employee should do before they leave? Why or why not?

5. Can you describe if and how other employees share their knowledge with their organization before they retire? If not, can you explain why they may not?

6. How did you share (or will you share) your knowledge with organizational members when you retire (are retired)? Why or why not?

7. To what extent do/did you have unique knowledge in comparison to other organizational members? How to what extent do/did you think the organization will depend on that knowledge?

8. How was/is there knowledge sharing within your organization? In your workgroup? [existence of]

9. How was/is knowledge sharing promoted at your organization? In your workgroup? [promotion of]

10. Please describe any formal knowledge sharing processes that were/are in place (e.g., training sessions)? [implementation]

11. Overall, to what extent did/do you feel like you should share your knowledge with organizational stakeholders? Why or why not?

12. Overall, to what extent did/do you freely share your knowledge with organizational stakeholders? Why or why not?

13. In what instances did/might you not share your knowledge? Why? Were/are there any obstacles to sharing your knowledge?

14. Are (were) you more or less likely than other retiring employees to share your knowledge before retiring? Why?

15. Please describe your involvement with your organization and workgroup post-retirement

Participant Debrief [read to participants after interview]:

You just participated in an interview about your attitude and intentions to share knowledge, as well as others' receptiveness towards knowledge sharing. This information will be used to help further develop larger study on knowledge sharing in the workplace.

Appendix D – Pilot Study One Survey Item Review (hard-copy)

Note: After each one-on-one qualitative interview, each participant was asked to go through this document and indicate areas of ambiguity and inconsistency.

[UofM header here]

Knowledge sharing in Organizations: Survey Review

Please refer to the following definitions when reviewing the survey:

Stakeholders – refers to corporate executives, successors, other members of the work group such as peers and subordinates, managers, and human resources.

Tacit Knowledge – the "know what" knowledge; may be difficult to verbalize or to write down; the knowledge you know that you know (very personalized) that others may not know

Explicit Knowledge – the "know how" knowledge; can be more easily explained, codified or stored on electronic or paper files

---

Each item will be on a 7-point scale where a 1 indicates *Strongly Disagree* and a 7 indicates *Strongly Agree*. Actual survey respondents will be asked to indicate how strongly they feel about each statement. Please review this survey from the point of view of an employee within two years of retirement.

ATKS

Before retiring, it is important that employees share their knowledge with organizational stakeholders.

1. There is value in having employees share their knowledge and experience with organizational stakeholders before they retire.
2. I like to share my knowledge with others.
3. I am looking forward to sharing my knowledge with organizational stakeholders before I retire.
4. Knowledge sharing before retirement is important to me.
5. Knowledge sharing before retirement is important to my workgroup.
6. Knowledge sharing before retirement is important to my organization.

ITSK

7. I intend to share my most important hard-copy work reports and official documents with organizational stakeholders before I retire.
8. I intend to share my most important electronic-copy work reports and official documents with organizational stakeholders before I retire.
9. I intend to direct organizational stakeholders to the most important documents related to my job before I retire.
10. I intend to share my methodologies and models for how I effectively conduct my work with organizational stakeholders before I retire.

11. I intend to share my client/customer notes with organizational stakeholders before I retire.
12. I intend to share what I've learned through my experience of how I do my work with organizational stakeholders before I retire.
13. I intend to share what I've learned about the places I do my work with organizational stakeholders before I retire.
14. I intend to share the expertise I've gained from my education and/or training with organizational stakeholders before I retire.
15. I intend to reflect on knowledge that I possess in order to share knowledge that may not be so apparent to other organizational stakeholders.
16. I intend to share the common, specialized knowledge that my work group possesses with organizational stakeholders before I retire.
17. I intend to allow organizational stakeholders to observe my day-to-day tasks in order to collect my knowledge.

PPKV

18. I have knowledge that is unique within my organization.
19. I hold expert knowledge.
20. My knowledge is valuable.
21. I have knowledge that my organization will miss when I have retired.
22. My organization will be worse off if it does not have my knowledge.
23. My organization will be better off if it has my knowledge.
24. My organization will value me more if I share my knowledge before I retire.
25. My organization will wish they knew what I know when I retire.
26. My organization will appreciate how much I know once I am not there to share it with them.
27. My organization is dependent on what I know for its success/performance.

PP

28. Before I leave my organization, my organization will ask me to share my personal, work-related knowledge (e.g., personal work documents stored on a computer) with other organizational stakeholders.
29. Before I leave my organization, my organization will arrange a formal session (e.g., with procedures, training manuals and/or other formal documents used) where I will inform the required organizational stakeholders about the tasks associated with my job.
30. My organization has policies and procedures in place to promote knowledge sharing before retirement.
31. My organization values knowledge sharing before retirement.
32. My organization thinks that I should share my experiences at this organization with other organizational stakeholders.
33. My organization thinks that I should share how to effectively do my job with organizational stakeholders before I retire.
34. My organization thinks that I should share what I have learned at this organization with organizational stakeholders before I retire.
35. My organization thinks that I should share any important knowledge that I possess that others may not know, before I retire.

Appendix E – Pilot Study Two Survey Item Assessment (electronic)

Slide 1: During this survey you will be asked to respond to statements about knowledge in organizations. Please respond truthfully and honestly to each statement by indicating how strongly you feel about each statement. When answering the questions, please imagine that you are leaving an organization. If you are retired or are retiring in the next 2 years, please answer the questions as if you were leaving the organization in order to retire.

Slide 2: When responding to the items please remember the following:

- Imagine that you are leaving an organization
- Select the response that most closely represents how strongly you feel about the statement
- Please respond truthfully -- no responses will be linked back to you
- Stakeholders - refers to successors, other members of the work group such as peers and subordinates, managers, and human resources

Slide 3: When responding to the items please remember the following:

- Imagine that you are leaving an organization
- Select the response that most closely represents how strongly you feel about the statement
- Please respond truthfully -- no responses will be linked back to you
- Stakeholders - refers to successors, other members of the work group such as peers and subordinates, managers, and human resources

Note: All items were on a 7-point scale (strongly disagree through strongly agree with an 'not applicable' option.)

1. Before leaving, it is important that employees share their knowledge with organizational stakeholders.
2. There is value in having employees share their knowledge and experience with organizational stakeholders before they leave.
3. I like to share my knowledge with others.
4. Before I leave, I am looking forward to sharing my knowledge with organizational stakeholders.
5. Knowledge sharing before leaving is important to me.
6. Knowledge sharing before leaving is important to my workgroup.
7. Knowledge sharing before leaving is important to my organization.

Slide 4: When responding to the items please remember the following:

- Imagine that you are leaving an organization

- Select the response that most closely represents how strongly you feel about the statement
- Please respond truthfully -- no responses will be linked back to you
- Stakeholders - refers to successors, other members of the work group such as peers and subordinates, managers, and human resources

1. I have knowledge that is unique within my organization.
2. I hold expert knowledge.
3. My knowledge is valuable.
4. I have knowledge that my organization will miss when I am gone.
5. My organization will be worse off if it does not have my knowledge.
6. My organization will be better off if it has my knowledge.
7. My organization will value me more if I share my knowledge before I leave.
8. My organization will wish they knew what I know when I am gone.
9. My organization will appreciate how much I know once I am not there to share it with them.
10. My organization is dependent on what I know for its success/performance.

Slide 5: When responding to the items please remember the following:

- Imagine that you are leaving an organization
- Select the response that most closely represents how strongly you feel about the statement
- Please respond truthfully -- no responses will be linked back to you
- Stakeholders - refers to successors, other members of the work group such as peers and subordinates, managers, and human resources

1. Before I leave, I intend to share my hard-copy work reports and official documents with organizational stakeholders.
2. Before I leave, I intend to share my electronic-copy work reports and official documents with organizational stakeholders.
3. Before I leave, I intend to direct organizational stakeholders to the most important documents related to my job.
4. Before I leave, I intend to share my methodologies and models for how I effectively conduct my work with organizational stakeholders.
5. Before I leave, I intend to share my client/customer notes with organizational stakeholders.
6. Before I leave, I intend to share what I've learned through my experiences of how I do my work with organizational stakeholders.
7. Before I leave, I intend to share what I've learned about the physical locations of where I do my work with organizational stakeholders.
8. In order to share knowledge that may not be so apparent to other organizational stakeholders, I intend to reflect on knowledge that I possess.
9. I intend to allow organizational stakeholders to observe my day-to-day tasks in order to collect my knowledge.
10. Before I leave, I intend to share the expertise I've gained from my education and/or training with organizational stakeholders.

11. Before I leave, I intend to share the common knowledge that my work group possesses with organizational stakeholders.
12. Before I leave, I intend to share the specialized knowledge that my work group possesses with organizational stakeholders.

Slide 6: When responding to the statements, I responded as if...

When responding to the statements, I responded as if...

- I was starting at a new organization.
- I was leaving an organization.
- Other (please describe): _____

Are you retired or planning to retire in the next 2 years?

- Yes
- No
- I am already retired

What is your sex?

- Male
- Female

What age category do you fall into?

- <20
- 21-30
- 31-40
- 41-50
- 51- 60
- 61-70
- 70+

Which type of industry do you currently work in?

□ Biotechnology/Pharmaceuticals
□ Communications/Computers
□ Construction/Manufacturing
□ Energy/Utility/Natural Resources
□ Finance/Banking/Insurance
□ Health Care/Personal Services
□ Professional Services
□ Retail
□ Government/Education/Non-profit
□ Transportation/Distribution
□ I am a Student
□ Other, please describe_____

What factors might prevent you from sharing your knowledge before you leave an organization?

_____

Slide 7: Study Results and Prize

If you would like to receive the results from this study please enter your e-mail address below.

If you would like to be entered into a draw for a $25 please enter your e-mail below.

Please note that your e-mail address will only be used for the purposes of the draw and/or communicating the study results. Furthermore, your e-mail address will be stored separately from your survey data to assure your confidentiality and anonymity

□ Yes, I would like to be entered into a draw for a $25 gift card

□ Yes, I would like to receive the results of this study

□ Please provide your email address in the space provided below (Please note that email address will be separated and stored separately from your survey.)

Slide 8: Study Debrief

Thank you for participating!

Some of the statements you responded to were focused on a new construct within the knowledge sharing realm called Personal Perceived Knowledge Value (PPKV). PPKV looks at how individuals value their knowledge as well as how reliant they perceive organizations to be on their knowledge. Other statements asked you about your attitudes and intentions towards knowledge sharing. Your responses will be analyzed using various statistical analyses to determine the best, most relevant items to use in the finalized scale. The scale will then be used for a future study about knowledge sharing in organizations. If you have any further questions, please contact me at ummar435@cc.umanitoba.ca or Krista Uggerslev (thesis advisor), Associate Professor at the Asper School of Business, at uggersle@cc.umanitoba.ca.

Appendix F – Pilot Study Two Study Invite (e-mail)

Subject: Knowledge in Organizations – 7 to 10 Minute Survey

Hello,

I am conducting research on knowledge in organizations. Today I invite you to participate in a short survey taking 7-10 minutes to complete. Participants may enter to win a $25 gift card. To find out more about this study, please click on the link below or copy and paste the link into your browser:

http://asper.qualtrics.com/SE/?SID=SV_b7bEbz27Oaaq90M

Thanks for taking time to consider being part of this academic research.

Kasey Martin
MSc Student - Business Administration
I.H. Asper School of Business

Appendix G – Pilot Study Two Study Consent Form (electronic)

Knowledge in Organizations

My name is Kasey Martin and I am graduate student at the University of Manitoba (UofM) working on a study about knowledge in organizations. Today, I invite you to participate in a survey about knowledge in organizations. This will take approximately 7-10 minutes to complete. This survey will be used to further develop a knowledge scale which in turn will support a larger study on knowledge in organizations. If you are willing to participate in this study, and thus allow me to collect the data you provide, please give your consent by selecting "yes" below. Participants in this study may enter to win a $25 gift card (odds of winning are approximately one in 30).

All of the data collected will be generalized and contained within a Master's thesis at the UofM. The data will be stored on a secure USB drive and will be destroyed in five years. In no way will the information be traced back to you. If you require further information about this study, the data collected, and/or how it will be used, please contact me at ummar435@cc.umanitoba.ca or Krista Uggerslev (thesis advisor), Associate Professor at the Asper School of Business, at uggersle@cc.umanitoba.ca.

By selecting "yes" below, you indicate that you understand to your satisfaction the information pertaining to your participation in this study. In agreeing, in no way will your legal rights be violated. Furthermore, by consenting to this form, you declare that you are at least 18 years of age. Finally, at any point you are free to withdraw from this study, and all information collected will be destroyed. If you chose to participate, all of the information collected will remain confidential. Should you have any complaints pertaining to this research, the Human Ethics Secretary may be contacted at 204-474-7122 or margaret_bowman@umanitoba.ca.

Thanks for taking the time to consider being a part of this research.

I understand that by clicking "I agree" below, I will be providing consent for this study:

☐ Yes, I agree to participate. I understand that by checking this box, I will be providing consent for this study.

☐ No, I do not want to participate.

Appendix H – Focal Study Survey

Participant Eligibility

Please select the category that best describes you from the dropdown menu below:

- I retired less than a year ago.
- I plan on retiring in the next two years
- Other

Prize Entry Form and General Instructions

Enter to Win One of Six $250 Gift Cards

Provide your e-mail address in the space below if you would like to enter to win:

_____

Did someone refer you to this survey?

Provide the e-mail address of the person who did in the space below:

_____

Note: At the beginning of the survey all participants were given these instructions below. They were periodically reminded of these instructions throughout the survey.

General Instructions

1. Throughout this survey you will be asked to respond to items about knowledge in organizations.
2. For statistical reliability purposes, similar questions will be asked throughout the survey to capture your thoughts about knowledge sharing.
3. Please **read the instructions on each slide** before responding.
4. Please respond **truthfully** and **honestly** to each item. (*No responses will be linked back to you*.)

Survey Items

Note: For newly created and combined scales, the italicized items indicate the items that were used in the final analyses.

Attitude Towards Knowledge sharing

1. *Before retiring, it is important that employees share their knowledge with organizational stakeholders.*
2. *Before retiring, there is value in having employees share their knowledge and experience with organizational stakeholders.*
3. Before retiring, I am not looking forward to sharing my knowledge with organizational stakeholders.
4. Knowledge sharing before retirement is important to my workgroup.
5. Knowledge sharing before retirement is important to my organization.
6. *Knowledge sharing before retirement is important to me.*
7. I like to share my knowledge with organization stakeholders who I am closest to in my organization.

Intentions to Share Knowledge

Explicit

1. *Before I retire, I intend to share my key hard-copy work reports and official documents with organizational stakeholders.*
2. *Before I retire, I intend to share my key electronic-copy work reports and official documents with organizational stakeholders.*
3. *Before I retire, I intend to direct organizational stakeholders to the most important documents related to my job.*
4. *Before I retire, I intend to share my methodologies and models for how I effectively conduct my work with organizational stakeholders.*
5. *Before I retire, I intend to share my client/customer notes with organizational stakeholders.*

Tacit

1. Before I retire, I intend to not share what I've learned through my experience of how I do my work with organizational stakeholders.
2. *Before I retire, I intend to share what I've learned about the physical locations of where I do my work with organizational stakeholders (e.g., offices, site locations, etc.).*
3. *Before I retire, I intend to reflect on knowledge that I possess in order to share knowledge that may not be so apparent to other organizational stakeholders.*
4. *Before, I retire I intend to allow organizational members to observe my day-to-day tasks in order to collect my knowledge.*
5. *Before I retire, I intend to share my expertise from my education and/or training with organizational stakeholders.*
6. *Before I retire, I intend to share the common, specialized knowledge within my work group with organizational stakeholders.*

Hoarding Tactics

1. *Before I retire, I intend to play dumb when others ask me to share my knowledge.*

2. *Before I retire, I intend to stall in providing information to other organizational members.*
3. *Before I retire, I intend to provide incomplete information to other organizational members.*
4. *Before I retire, I intend to only share with organizational stakeholders who want to know what I know.*

Personal Perceived Knowledge Value

1. *Once I am retired, my organization will be worse off if it does not have my knowledge.*
2. *Once I am retired, my organization will be better off if it has my knowledge.*
3. Once I am retired, my organization will value me more if it has my knowledge.
4. *Once I am retired, my organization will wish they knew what I know.*
5. *Once I am retired, my organization will appreciate how much I know once I am not there to share it with them.*
6. *Once I am retired, my organization will be dependent on what I know for its success/performance.*
7. *My organization already knows what I know.*
8. My organization does not care about what I know.
9. I have knowledge that is valuable to my organization.
10. *I have knowledge that my organization will miss when I have retired.*

Affective Commitment

1. I do not enjoy discussing my organization with people outside.
2. I really feel as if this organization's problems are my own.
3. I do not think I could become as attached to another organization as I am to this one.
4. I feel like ‘part of the family’ at my organization.
5. I do not feel 'emotionally attached' to this organization.
6. Question response check: Please select strongly agree.
7. This organization has a great deal of personal meaning for me.
8. I feel a strong sense of belonging to my organization.

Job Satisfaction

1. All in all, I have been satisfied with my job.
2. In general, I have not liked my job.
3. In general, I have liked working here.

Perceived Organizational Support

1. My organization really cares about my well-being.
2. My organization strongly considers my goals and values.
3. My organization shows little concern for me.
4. My organization cares about my opinions
5. My organization is willing to help me if I need a special favour.
6. Help is available from my organization when I have a problem.
7. Question response check: Please select strongly disagree.
8. My organization would forgive an honest mistake on my part.
9. If given the opportunity, my organization would take advantage of me.

Policies and Practices

1. *Before I retire, my organization will ask me to share my personal, work-related knowledge (e.g., personal work documents stored on a computer) with organizational stakeholders.*
2. *Before I retire, my organization will arrange a formal session (e.g., with procedures, training manuals and/or other formal documents used) where I will inform the required organizational stakeholders about the tasks associated with my job.*
3. *Before I retire, my organization thinks I should share my experiences at this organization with other organizational stakeholders.*
4. *Before I retire, my organization thinks I should share how to effectively do my job with organizational stakeholders before I retire.*
5. *Before I retire, my organization thinks I should share what I have learned at this organization with organizational stakeholders before I retire.*
6. *Before I retire, my organization thinks I should share important knowledge that I possess with organizational stakeholders who may not know.*
7. *My organization has policies and procedures in place to promote knowledge sharing before retirement.*
8. *My organization values knowledge sharing before retirement.*
9. My organization does not ask me about my knowledge.

Financial Stake

1. What type of financial stake do you have in your organization? [Check all that apply]
   - □ Organizational stocks
   - □ Organization-sponsored pension plan
   - □ Other _____ please specify
   - □ I have no financial stake in the organization
2. To what extent will your organization's performance after you retire affect you financially (e.g., stocks, pension plan)? - 1 indicates *not at all* and a 7 indicates *to a great*

Stakeholder Affiliation

1. There are people at the organization that I feel close to.
2. There are people at the organization that I am close to.
3. There are people at the organization who influence my decisions.
4. There are people at my organization who I feel obliged towards.

Open-ended, Demographic and Work History Questions

1. Age: _____

2. Gender: □ Male □ Female

3. When do you plan to retire? _____ (month) _____ (year)

4. How was your retirement decided? [Check all that apply]
   - □ My organization asked me to retire
   - □ I do not want to work anymore

□ I can afford to retire
□ I have reached normal retirement age (55-64)
□ I have reached full pension
□ I want to work somewhere else
□ I want to reduce my number of work hours
□ Other, please describe _____

5. How do you plan on spending your time once you are retired [Check all that apply]
   □ Travel
   □ Volunteer
   □ Recreational Activities (e.g., golf, poker, etc.)
   □ Take care of elderly or young family members
   □ Seek part- or full-time employment at my current organization
   □ Seek part- or full-time employment at a different organization
   □ Other, please describe _____

6. Are you satisfied with your financial retirement package?
   □ Yes
   □ No
   □ Will not be receiving one

7. What types of rewards did you receive in exchange for sharing your knowledge?
   □ Monetary
   □ Non-monetary (e.g., gift, acknowledgement from a superior, time off)
   □ Did not receive a reward

8. To what extent do you want to retire? (Not At All …To a Great Extent)

9. To what extent do you intend on returning to your current organization (e.g., full- or part-time basis) once you retire? (Not At All …To a Great Extent)

10. Which of the following best describes your cultural identity, regardless of birthplace?

□ First Nations	□ Chinese	□ Korean	□ South-Asian
□ African	□ Filipino	□ Latin-American	□ South-East Asian
□ Caucasian	□ Japanese	□ Middle-Eastern	□ Other, please describe _____

11. Which of the following best describes the highest level of education you have completed?

□ High School Diploma	□ Graduate/Professional Degree
□ College Diploma	□ Other, please describe _____
□ University Degree	

12. What is your current employment status? □ Full-time □ Part-time □ Unemployed

13. How long have you been employed at your current organization? _____ years

14. Which department do you currently work in?

- □ Finance
- □ Human Resources
- □ Accounting
- □ Operations
- □ Marketing
- □ Strategy
- □ Sales
- □ Research and Development
- □ General Management
- □ Other, please describe _____

15. What type of industry do you currently work in?

- □ Biotechnology/Pharmaceuticals
- □ Communication/Computers
- □ Construction/Manufacturing
- □ Energy/Utility/Natural Resources
- □ Finance/Banking/Insurance
- □ Health Care/Personal Services
- □ Professional Services
- □ Retail
- □ Government/Education/Nonprofit
- □ Transportation/Distribution
- □ Education
- □ Other, please describe _____

16. What is the approximate size of your organization?

- □ 1-50 employees
- □ 51-150 employees
- □ 151-500 employees
- □ 501-1000 employees
- □ 1001-5000 employees
- □ 5001-10,000 employees
- □ Over 10,000 employees

17. What type of organization do you work for?

- □ Unionized

□ Non-unionized
□ Both
□ Neither
□ Other, please describe _____

18. What best describes your organization?

□ Local
□ National
□ Multi-National

19. What type of organization do you work for?
□ Public
□ Private
□ Not for Profit
□ Other, please describe _____

Debrief

Thanks for Participating

Thanks for participating in the study. The study looked at your attitudes and intentions towards knowledge sharing, as well as work attitudes that may influence your attitude towards knowledge sharing. If you have any further questions, please contact me at ummar435@cc.umanitoba.ca or Krista Uggerslev (thesis advisor), Applied Research Fellow at the Northern Alberta Institute of Technology, at KristaU@nait.ca.

If you would like to **earn additional entries** for the draw for **one of six $250 Visa gift cards** then refer your friends who are retiring in two years or who retired one year ago to this study. For each eligible friend that participates you get one additional entry into the draw. Simply forward the study invitation e-mail or send your friends the link below:

Survey Link: http://asper.qualtrics.com/SE/?SID=SV_en4Q2aKho3KqtlW

Appendix I – Focal Study Invite (electronic and hard-copy)

Hello _____ [Name \ Membership Organization],

Are you planning on **retiring in the next two years** or **did you retire in the last year**? If not, do you **know anyone who is** planning on retiring in the next two years or retired in the last year? If so, participate in a study about knowledge sharing by clicking the link below or by sharing the link with people who fit the above description. In addition to contributing to this academic research, for participating or for forwarding the survey, you could **win one of six $250 Visa gift cards**. For each eligible participant that you refer, you earn one additional entry into the draw.

Survey link: http://asper.qualtrics.com/SE/?SID=SV_en4Q2aKho3KqtlW

The survey takes approximately 25-30 minutes to complete. You may also request the study results, which may be of personal interest or of value to your own organization in terms of knowledge in organizations.

Thanks so much in advance!

For further questions, please contact Kasey Martin at ummar435@cc.umanitoba.ca or (204) 880-3345.

Regards,

Kasey Martin, BMgt

Appendix J – Focal Study Consent Form (electronic)

Knowledge in Organizations

Thank you for your interest in this study. Please read the following consent form and indicate whether you are willing to participate in this study. This consent form, a copy of which you may print out for your records, is only part of the process of informed consent. This form should give you a basic idea of what the research is about and what your participation will involve. If you would like more information, please contact Kasey Martin, master's student at the University of Manitoba (UofM), at ummar435@cc.umanitoba.ca. Please take the time to read this carefully.

Employee knowledge and organizational work environments are important components of business. This study will look at how you perceive your work environment, as well as your knowledge within the organization as you prepare to retire. If you are retired, the survey will ask you about your perceptions before you retired. You will be asked to respond to a series of items in the survey. **In no way will your desired retirement date or any of your thoughts about sharing knowledge be released to your employer.** Please respond honestly and to your best of knowledge. The task will take approximately 20-30 minutes to complete. All participants' responses in this study will be analyzed and reported at the aggregate level (i.e., only averages will be used rather than individual responses).

In appreciation for your time you may choose to **enter to win one of six $250 Visa gift cards**. Chances of winning are one in 50, approximately. Please note that your e-mail address will not be linked to your responses to the survey.

For this study, the online survey is being administered by ©Qualtrics, Inc., an American software company. As such, your responses are subject to U.S. laws, including the USA Patriot Act. The responses that you provide will be stored on a secure USB drive and will be subsequently destroyed by deletion and overwriting five years after the research has been published. Dr. Krista Uggerslev, Applied Research Fellow at Northern Alberta Institute of Technology (NAIT), and Kasey Martin will be the only people with the results. Also, please understand that your expected date of retirement, as well as any information you provide, including your IPP address, will be kept strictly confidential.

Selecting "I agree" below indicates that you have understood to your satisfaction the information regarding participation in the research project. In no way does this waive your legal rights nor release the researchers, sponsors, or involved institutions from their legal and professional responsibilities. You are free to withdraw from the study at any time, and /or refrain from answering any questions you prefer to omit, without prejudice or consequence. Your continued participation should be as informed as your initial consent, so you should feel free to ask for clarification or new information throughout your participation.

This research has been approved by the Joint Faculty Research Ethics Board at the UofM. If you have any concerns or complaints about this project you may contact any of the above-named

persons or the Human Ethics Coordinator at 474-7122. Please print a copy of this consent form to keep for your records and reference.

The University of Manitoba Research Ethics Board(s) and a representative(s) of the University of Manitoba Research Quality Management / Assurance office may also require access to your research records for safety and quality assurance purposes.

I understand that by clicking "I agree" below, I will be providing consent for this study:

 Yes, I agree to participate. I understand that by checking this box, I will be providing consent for this study.

 No, I do not want to participate.

Table 1. Pilot Test Two: Exploratory Factor Analysis Using Maximum Likelihood Estimation for Intentions to Share Knowledge (Tacit and Explicit Items Only)

Item	Factor 1	Factor 2
Before I leave, I intend to share my hard-copy work reports and official documents with organizational stakeholders. (E)	*.913*	.212
Before I leave, I intend to share my electronic-copy work reports and official documents with organizational stakeholders. (E)	*.926*	.323
Before I leave, I intend to direct organizational stakeholders to the most important documents related to my job. (E)	*.940*	.313
Before I leave, I intend to share my methodologies and models for how I effectively conduct my work with organizational stakeholders. (E)	.660	.542
Before I leave, I intend to share my client/customer notes with organizational stakeholders. (E)	.582	.706
Before I leave, I intend to share what I've learned through my experiences of how I do my work with organizational stakeholders. (T)	.519	.750
Before I leave, I intend to share what I've learned about the physical locations of where I do my work with organizational stakeholders. (T)	.141	*.459*
In order to share knowledge that may not be so apparent to other organizational stakeholders, I intend to reflect on knowledge that I possess. (T)	.621	.523
I intend to allow organizational stakeholders to observe my day-to-day tasks in order to collect my knowledge. (T)	.149	*.918*

Note: Factor loadings above .450 appear in italics.(E) denotes explicit items and (T) denotes tacit items.

Table 1 Continued

Item	Factor 1	Factor 2
Before I leave, I intend to share the expertise I've gained from my education and/or training with organizational stakeholders. (T)	.362	*.716*
Before I leave, I intend to share the expertise I've gained from my education and/or training with organizational stakeholders. (T)	.514	.647
Before I leave, I intend to share the common knowledge that my work group possesses with organizational stakeholders. (T)	.440	*.979*
α	.98	.89
Eigenvalues	7.36	1.76
% of Variance	61.32	14.66
N	27	27

Note: Factor loadings above .450 appear in italics.(E) denotes explicit items and (T) denotes tacit items.

Table 2. Pilot Test Two: Exploratory Factor Analysis Using Maximum Likelihood Estimation for Attitude Towards Knowledge Sharing

Item	Factor 1	Factor 2
Before leaving, it is important that employees share their knowledge with organizational stakeholders.	*.916*	.134
There is value in having employees share their knowledge and experience with organizational stakeholders before they leave.	*.831*	.087
I like to share my knowledge with others.	.034	*.739*
Before I leave, I am looking forward to sharing my knowledge with organizational stakeholders.	.127	*.954*
Knowledge sharing before leaving is important to me.	.221	*.849*
Knowledge sharing before leaving is important to my workgroup.	*.572*	.124
Knowledge sharing before leaving is important to my organization.	*.574*	.057
α	.80	.89
Eigenvalues	2.68	1.79
% of Variance	38.33	25.58
N	27	27

Note: Factor loadings above .450 appear in italics.

Table 3. Pilot Test Two: Exploratory Factor Analysis Using Maximum Likelihood Estimation for Personal Perceived Knowledge Value

Item	Factor 1	Factor 2
Before leaving, it is important that employees share their knowledge with organizational stakeholders.	.154	*.951*
There is value in having employees share their knowledge and experience with organizational stakeholders before they leave.	.060	*.780*
I like to share my knowledge with others.	.073	*.648*
Before I leave, I am looking forward to sharing my knowledge with organizational stakeholders.	.163	.060
Knowledge sharing before leaving is important to me.	.347	*.504*
Knowledge sharing before leaving is important to my workgroup.	*.768*	.193
Knowledge sharing before leaving is important to my organization.	*.714*	.132
α	.88	.80
Eigenvalues	4.30	1.93
% of Variance	42.99	19.27
N	27	27

Note: Factor loadings above .450 appear in italics.

Table 4. Correlations Among Predictors, Mediator, and Outcome Variables in Focal Study

	M	*SD*	*N*	Attitude Towards Knowledge sharing	Affective Commitment	Job Satisfaction	Overall Fairness	Perceived Organizational Support	Organizational Policies and Practice	Intentions to Share Tacit Knowledge	Intentions to Share Explicit Knowledge
Attitude Towards Knowledge sharing	5.03	.84	242								
Affective Commitment	3.83	.97	241	.38							
Job Satisfaction	4.88	.97	240	.35	.46						
Overall Fairness	4.34	1.08	236	.29	.45	.60					
Perceived Organizational Support	4.02	1.09	234	.36	.49	.53	.87				
Organizational Policies and Practices	3.74	1.30	236	.36	.42	.26	.52	.55			
Intentions to Share Tacit Knowledge	4.99	1.07	188	.37	.23	.52	.46	.43	.49		
Intentions to Share Explicit Knowledge	4.86	1.29	170	.43	.26	.34	.28	.26	.49	.64	
Intentions to Hoard Knowledge	2.13	1.12	249	-.47	-.18	-.35	-.24	-.25	-.24	-.34	-.30

Note: All variables were significant at $p < .01$

Table 5. Exploratory Factor Analysis Using Maximum Likelihood Estimation for Intentions to Share Knowledge

Item	Factor 1	Factor 2	Factor 3
Before I retire, I intend to share my key hard-copy work reports and official documents with organizational stakeholders. (E)	.124	*.933*	-.110
Before I retire, I intend to share my key electronic-copy work reports and official documents with organizational stakeholders. (E)	.077	*.975*	-.087
Before I retire, I intend to direct organizational stakeholders to the most important documents related to my job. (E)	.147	*.084*	.036
Before I retire, I intend to share my methodologies and models for how I effectively conduct my work with organizational stakeholders. (E)	.338	*.553*	.093
Before I retire, I intend to share my client/customer notes with organizational stakeholders.(E)	.258	*.525*	.000
Before I retire, I intend to not share what I've learned through my experience of how I do my work with organizational stakeholders. (T)	.094	.263	-.460
Before I retire, I intend to share what I've learned about the physical locations of where I do my work with organizational stakeholders (e.g., offices, site locations, etc.). (T)	*.520*	.283	.031
Before I retire, I intend to reflect on knowledge that I possess in order to share knowledge that may not be so apparent to other organizational stakeholders. (T)	*.807*	.213	-.174

Note: Factor loadings above .450 appear in italics. (E) denotes explicit items, (T) denotes tacit items, and (H) denotes hoarding items.

Table 5 Continued

Item	Factor 1	Factor 2	Factor 3
Before, I retire I intend to allow organizational members to observe my day-to-day tasks sharing in order to collect my knowledge. (T)	*.844*	.135	-.153
Before I retire, I intend to share the common, specialized knowledge within my work group with organizational stakeholders. (T)	*.828*	.135	-.179
Before I retire, I intend to play dumb when others ask me to share my knowledge. (H)	-.097	.009	*.941*
Before I retire, I intend to provide incomplete information to other organizational members. (H)	-.085	-.015	*.931*
Before I retire, I intend to only share with organizational stakeholders who want to know what I know. (H)	-.079	-.035	*.812*
Before I retire, I intend to only share with organizational stakeholders who want to know what I know. (H)	-.144	-.025	*.467*
Eigenvalues	4.31	3.10	2.27
% of Variance	28.70	20.68	15.18
N	158		

Note: Factor loadings above .450 appear in italics. (E) denotes explicit items, (T) denotes tacit items, and (H) denotes hoarding items.

Table 6. Exploratory Factor Analysis Using Maximum Likelihood Estimation for Attitude Towards Knowledge Sharing

Item	Factor 1
Before retiring, it is important that employees share their knowledge with organizational stakeholders.	*.845*
Before retiring, there is value in having employees share their knowledge and experience with organizational stakeholders.	*.925*
Before retiring, I am not looking forward to sharing my knowledge with organizational stakeholders.	.269
Knowledge sharing before retirement is important to my workgroup.	.300
Knowledge sharing before retirement is important to my organization.	.320
Knowledge sharing before retirement is important to me.	*.503*
I like to share my knowledge with organization stakeholders who I am closest to in my organization.	.094
I like to share my knowledge with organization stakeholders who rely on my knowledge to perform their jobs.	.330
Eigenvalues	3.36
% of Variance	41.96
N	247

Note: Factor loadings above .450 appear in italics.

Table 7. Exploratory Factor Analysis Using Maximum Likelihood Estimation for Personal Perceived Knowledge Value

Item	Factor 1
Once I am retired, my organization will be worse off if it does not have my knowledge.	*.655*
Once I am retired, my organization will be better off if it has my knowledge.	*.589*
Once I am retired, my organization will value me more if it has my knowledge.	.428
Once I am retired, my organization will wish they knew what I know.	*.806*
Once I am retired, my organization will appreciate how much I know once I am not there to share it with them.	*.797*
Once I am retired, my organization will be dependent on what I know for its success/performance.	*.607*
My organization already knows what I know.	*.462*
My organization does not care about what I know.	.012
I have knowledge that is valuable to my organization.	.447
I have knowledge that my organization will miss when I have retired.	*.713*
Eigenvalues	3.79
% of Variance	37.86
N	250

Note: Factor loadings above .450 appear in italics.

Table 8. Exploratory Factor Analysis Using Maximum Likelihood Estimation for Organizational Policies and Practices

Item	Factor 1
Before I retire, my organization will ask me to share my personal, work-related knowledge (e.g., personal work documents stored on a computer) with organizational stakeholders.	*.745*
Before I retire, my organization will arrange a formal session (e.g., with procedures, training manuals and/or other formal documents used) where I will inform the required organizational stakeholders about the tasks associated with my job.	*.728*
Before I retire, my organization thinks I should share my experiences at this organization with other organizational stakeholders.	*.923*
Before I retire, my organization thinks I should share how to effectively do my job with organizational stakeholders before I retire.	*.965*
Before I retire, my organization thinks I should share what I have learned at this organization with organizational stakeholders before I retire.	*.946*
Before I retire, my organization thinks I should share important knowledge that I possess with organizational stakeholders who may not know.	*.938*
My organization has policies and procedures in place to promote knowledge sharing before retirement.	*.569*
My organization values knowledge sharing before retirement.	*.702*
My organization does not ask me about my knowledge.	.421
Eigenvalue	5.64

Note: Factor loadings above .450 appear in italics.

Table 8 Continued.

% of Variance	62.63
N	236

Note: Factor loadings above .450 appear in italics.

Table 9. Model fit statistics when tested with tacit, explicit, and hoarding intentions.

Model Type	*df*	χ^2	χ^2/df	Akaike	CFI	TLI	RMSEA
Fully Mediated	518	1291.80	2.49	1513.80	.89	.87	.08
Partially Mediated	509	1235.44	2.43	1475.44	.89	.87	.08
Direct Effect	509	1243.47	2.44	1507.42	.90	.88	.08

Table 10. Model fit statistics when tested with intentions to share tacit knowledge.

Model Type	*df*	χ^2	χ^2/df	Akaike	CFI	TLI	RMSEA
Fully Mediated	268	637.55	2.38	801.55	.91	.89	.07
Partially Mediated	265	615.17	2.32	785.17	.92	.90	.07
Direct Effect	268	652.54	2.44	816.54	.91	.89	.08

Table 11. Model fit statistics when tested with intentions to share explicit knowledge.

Model Type	*df*	χ^2	χ^2/df	Akaike	CFI	TLI	RMSEA
Fully Mediated	268	667.38	2.49	831.38	.91	.90	.08
Partially Mediated	265	651.59	2.46	821.59	.92	.90	.08
Direct Effect	268	688.83	2.57	852.83	.91	.89	.08

Table 12. Model fit statistics when tested with intentions to hoard knowledge.

Model Type	*df*	χ^2	χ^2/df	Akaike	CFI	TLI	RMSEA
Fully Mediated	245	647.25	2.64	805.25	.90	.87	.08
Partially Mediated	242	639.54	2.64	803.54	.90	.87	.08
Direct Effect	245	677.28	2.76	835.28	.89	.86	.08

Table 13. Moderation estimation for partially mediated models with single intention-type (tacit, explicit, hoarding).

Moderator	Outcome	*df*	χ^2	χ^2/df	Akaike	CFI	TLI	RMSEA
Financial Stake	Tacit	289	659.30	2.28	835.30	.91	.89	.07
Financial Stake**	Explicit	289	701.25	2.43	877.25	.91	.89	.08
Financial Stake	Hoarding	265	709.29	2.68	879.29	.89	.86	.08
Organizational Policies and Practices*	Tacit	289	669.23	2.32	845.23	.91	.89	.07
Organizational Policies and Practices**	Explicit	289	705.90	2.44	881.90	.91	.89	.08
Organizational Policies and Practices	Hoarding	265	678.80	2.56	848.80	.89	.87	.08
Personal Perceived Knowledge Value***	Tacit	289	649.34	2.25	825.34	.91	.90	.07
Personal Perceived Knowledge Value***	Explicit	289	685.19	2.37	861.19	.91	.90	.07

Note: Significant moderators *$p < .01$, **$p < .05$, ***$p < .001$

Table 13 Continued.

Moderator	Outcome	*df*	χ^2	χ^2/df	Akaike	CFI	TLI	RMSEA
Personal Perceived Knowledge Value	Hoarding	265	680.58	2.57	850.58	.89	.87	.08
Stakeholder Affiliation	Tacit	289	670.17	2.32	846.17	.91	.89	.07
Stakeholder Affiliation	Explicit	289	709.54	2.46	885.54	.91	.89	.08
Stakeholder Affiliation	Hoarding	265	709.229	2.68	879.29	.89	.87	.08

Note: Significant moderators *$p < .01$, **$p < .05$, ***$p < .001$

***Figure 1*. Hypothesized fully mediated model.**

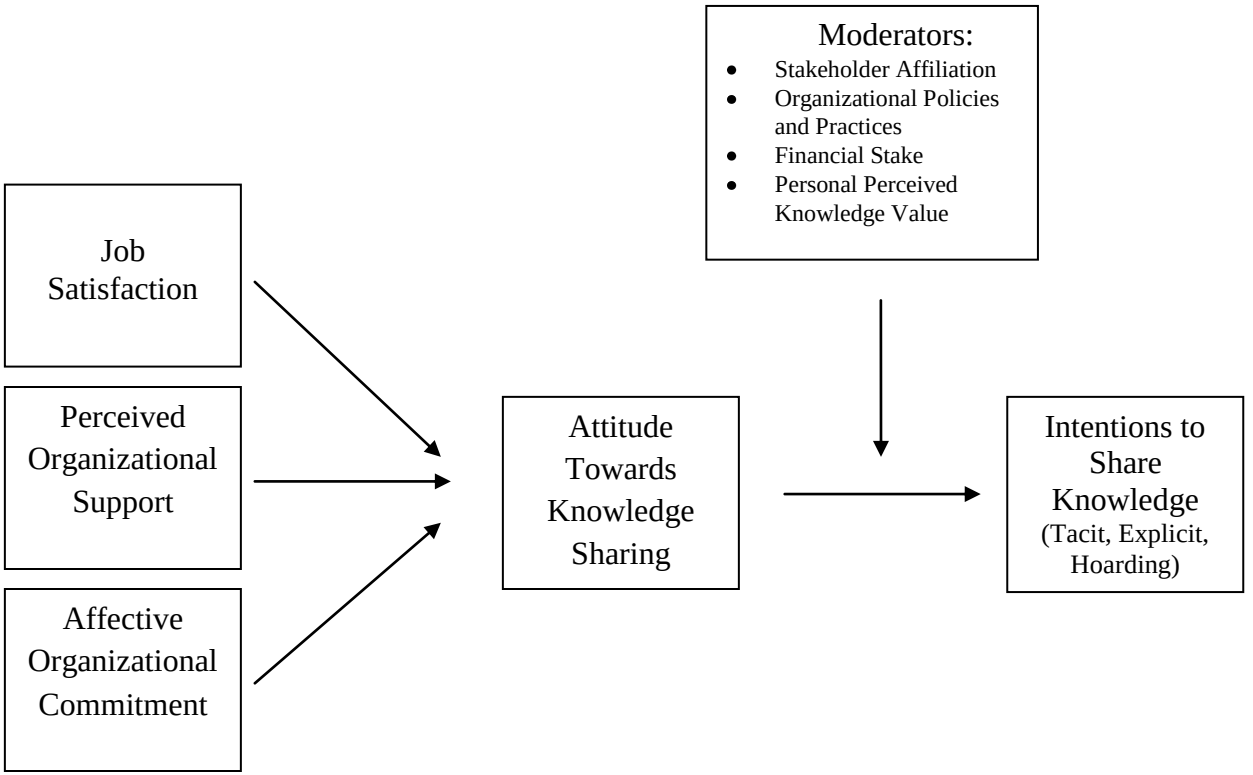

***Figure 2a*. Fully mediated model with tacit, explicit, and hoarding intentions.**

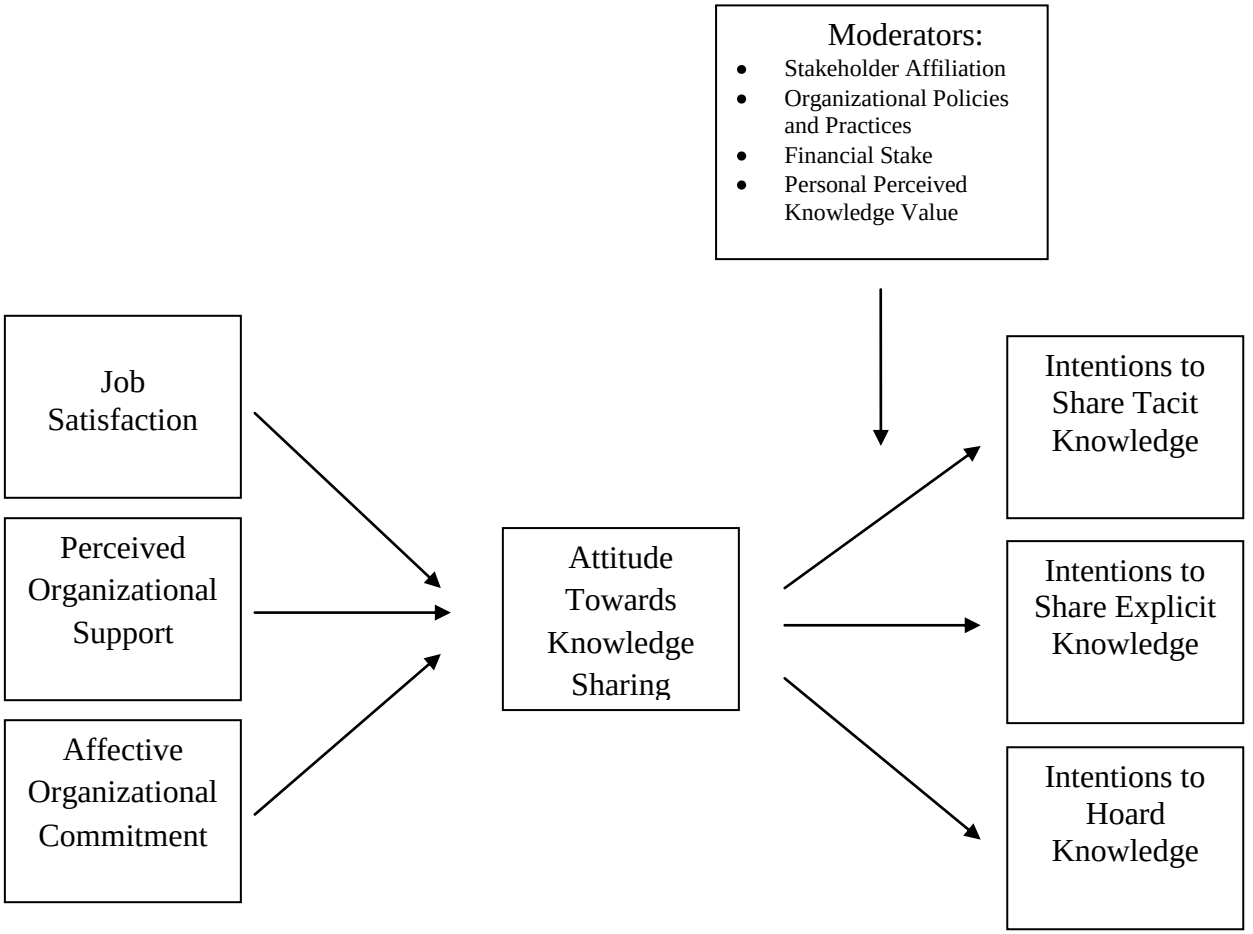

***Figure 2b*. Fully mediated model with intentions to share tacit knowledge.**

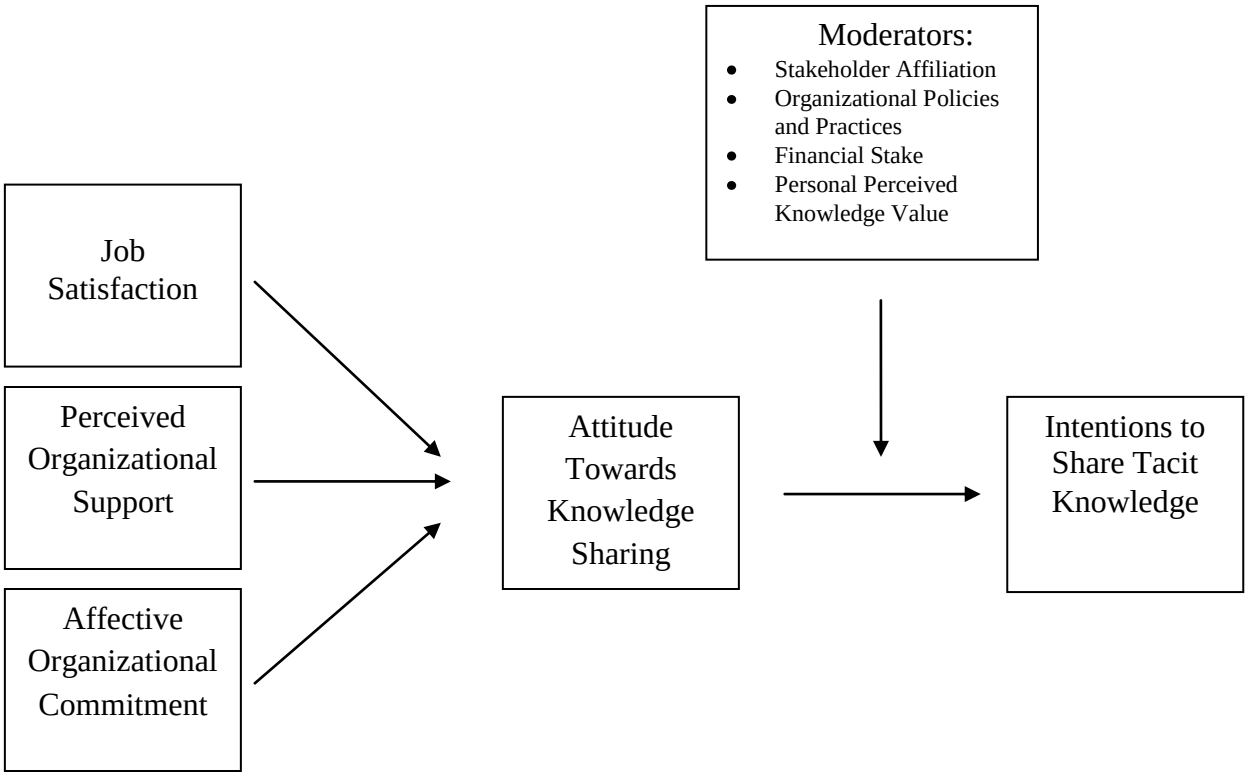

***Figure 2c*. Fully mediated model with intentions to share explicit knowledge.**

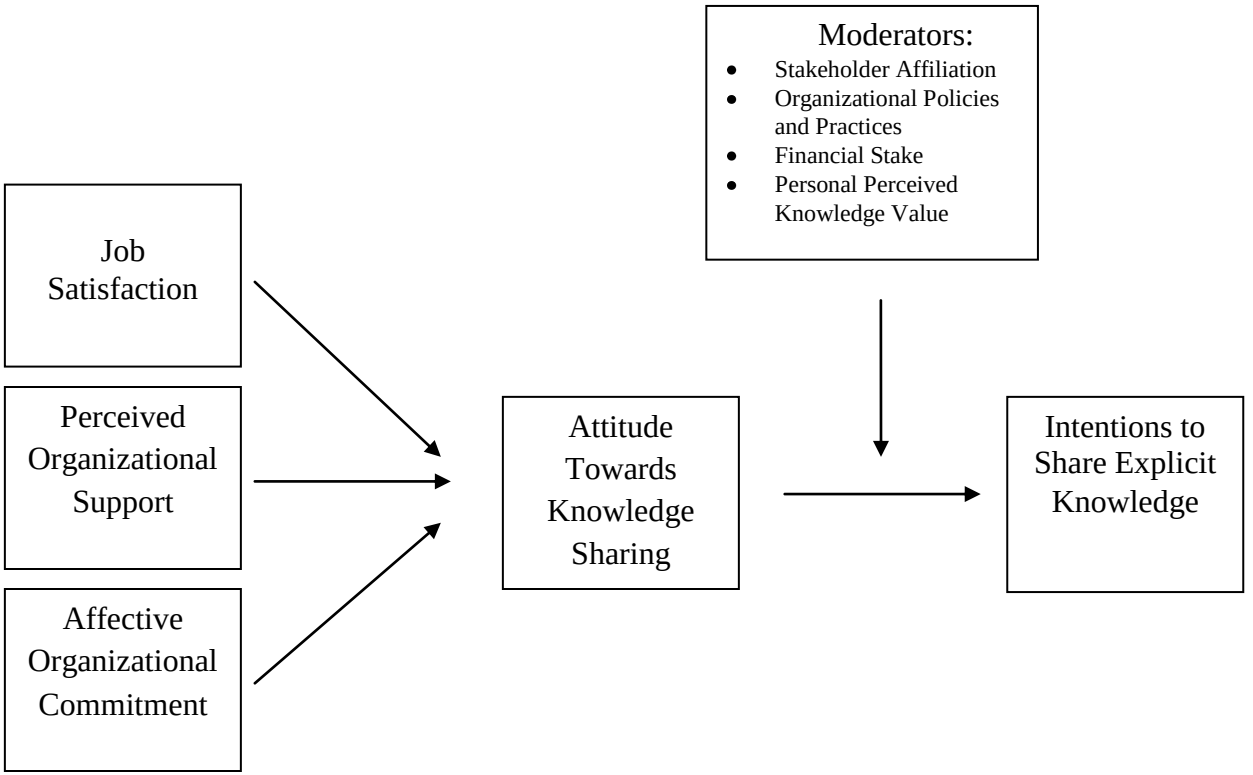

***Figure 2d*. Fully mediated model with intentions to hoard knowledge.**

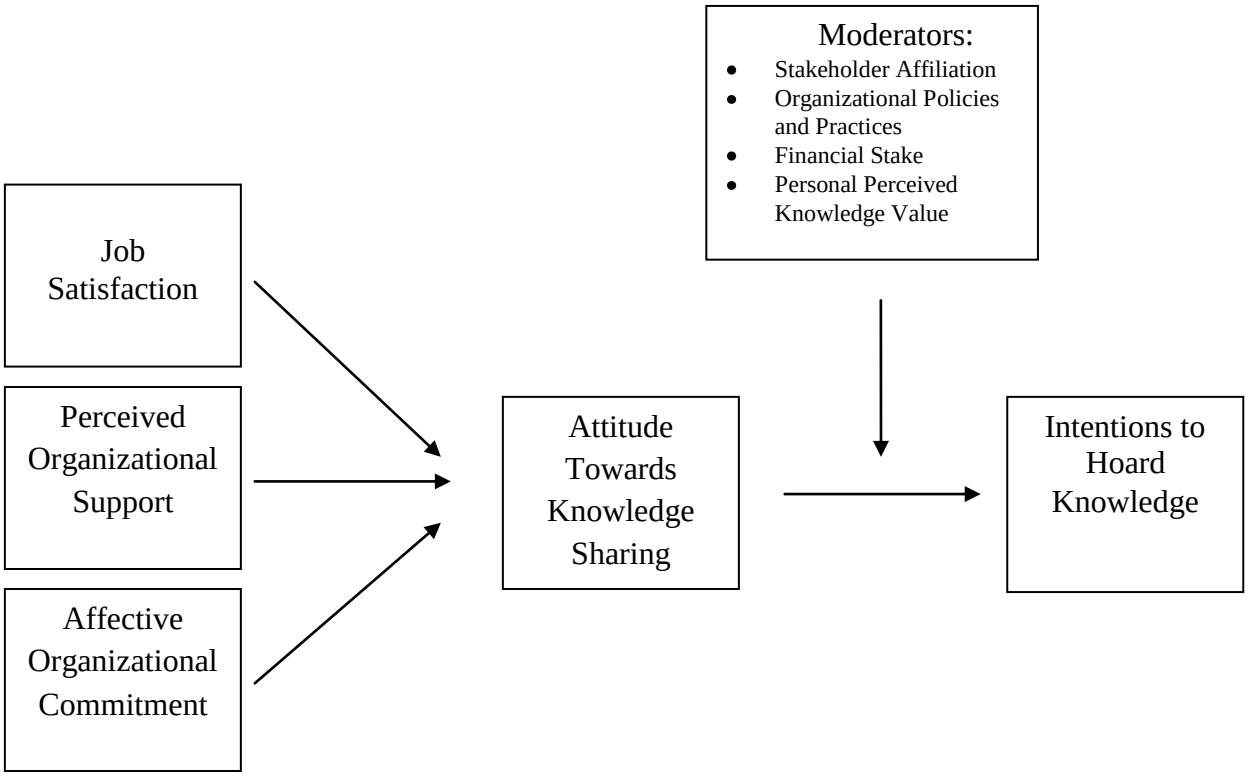

Figure 3a. **Partially mediated model with tacit, explicit, and hoarding intensions.**

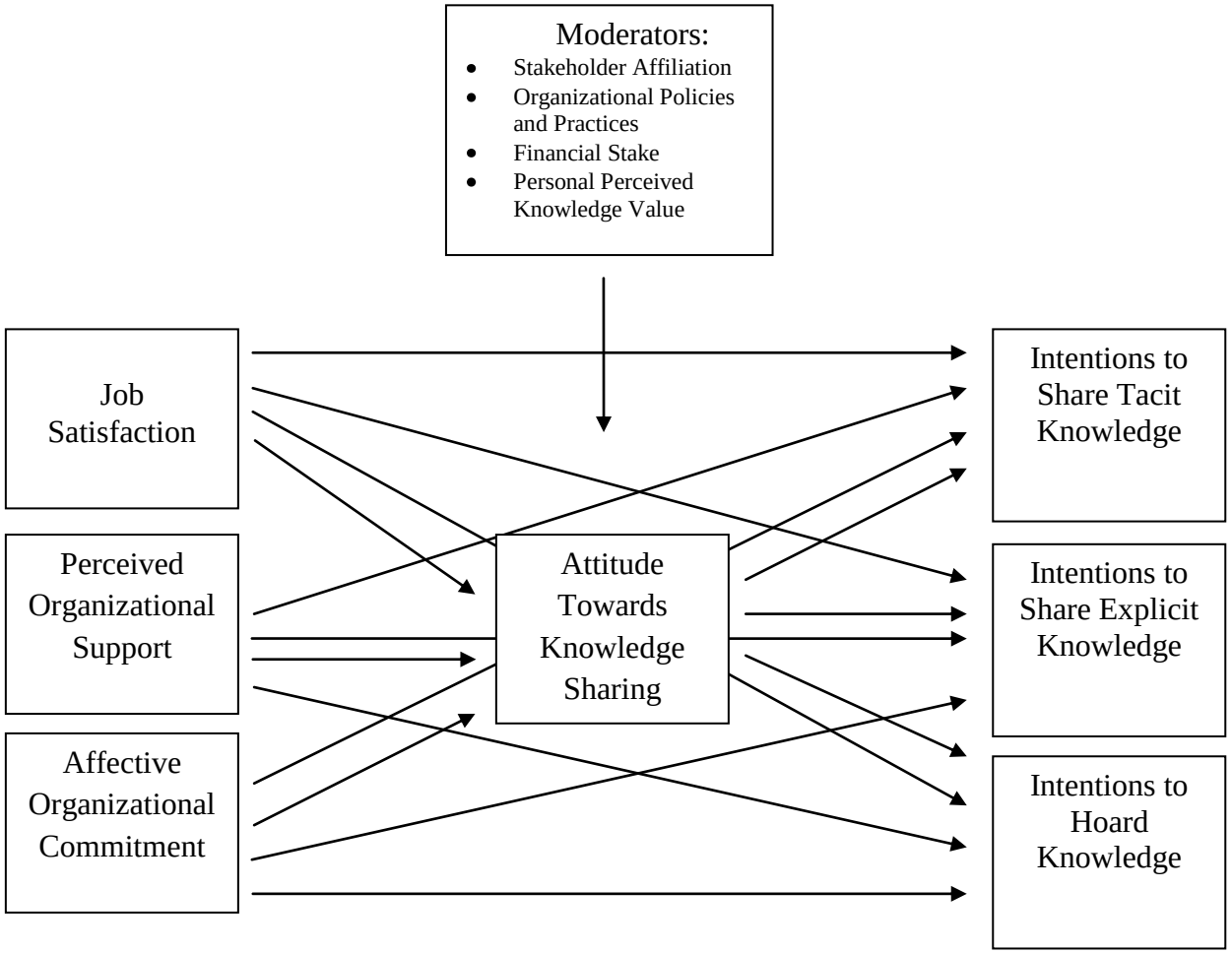

Figure 3b. **Partially mediated model with intentions to share tacit knowledge.**

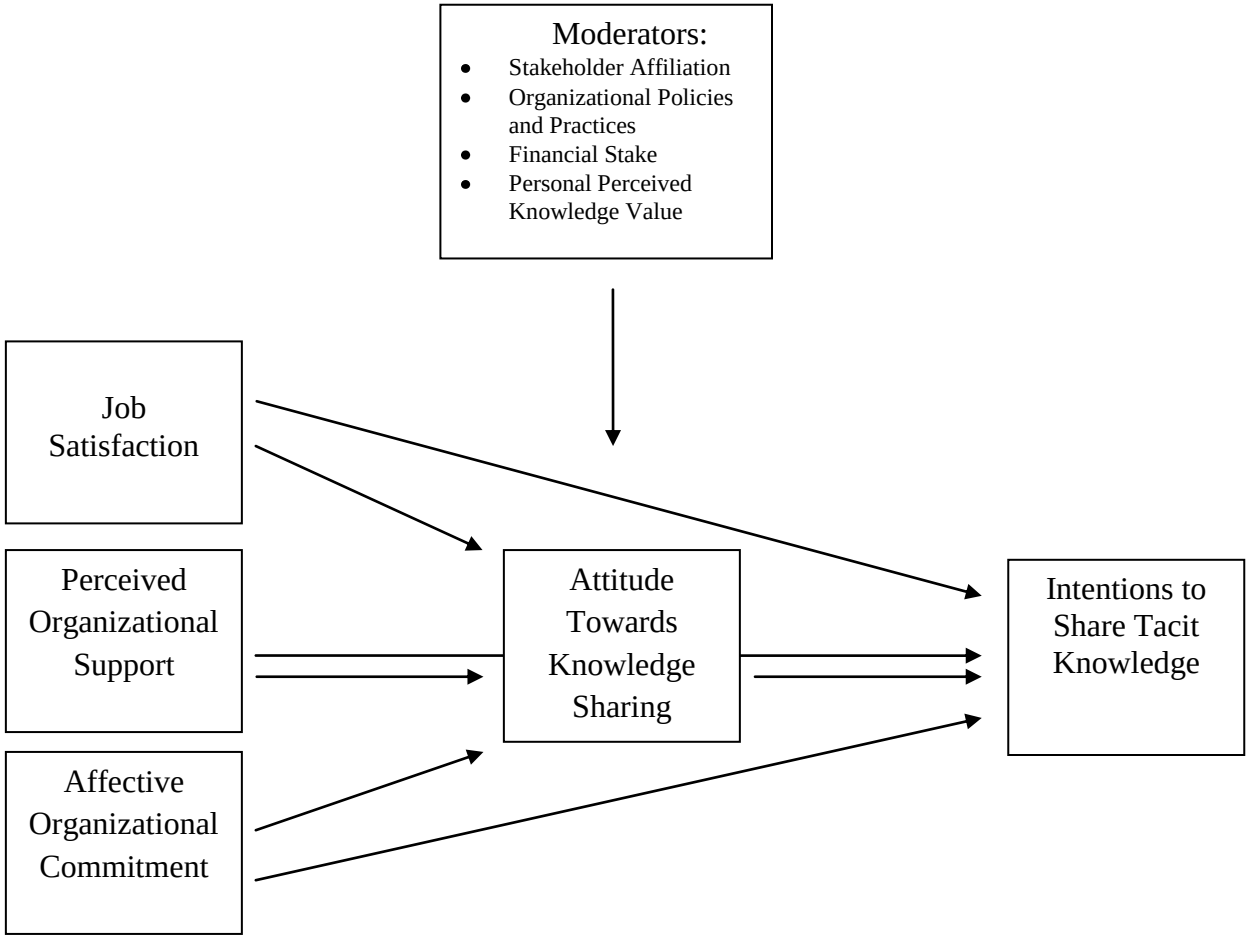

Figure 3c. **Partially mediated model with intentions to share explicit knowledge.**

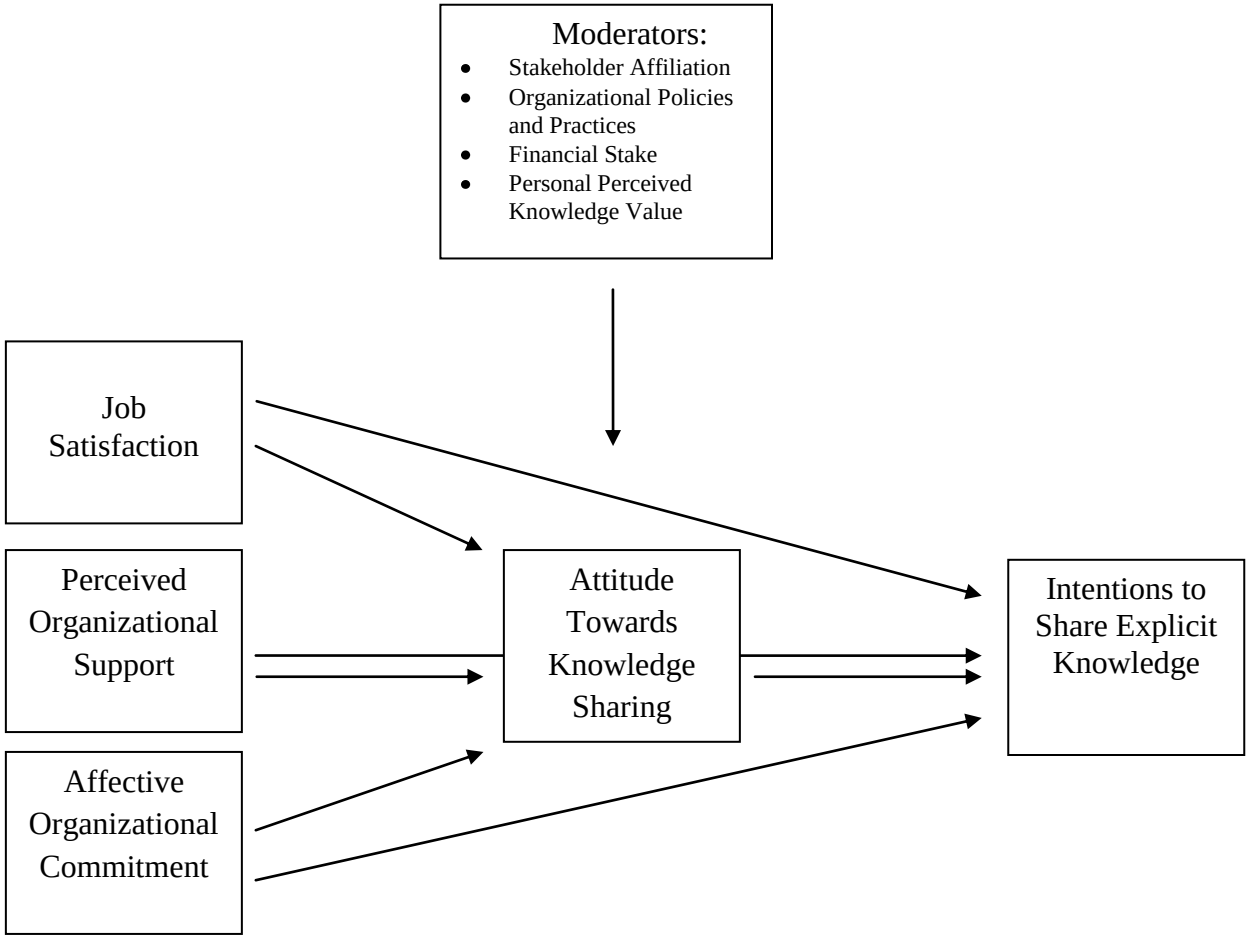

Figure 3d. **Partially mediated model with intentions to hoard knowledge.**

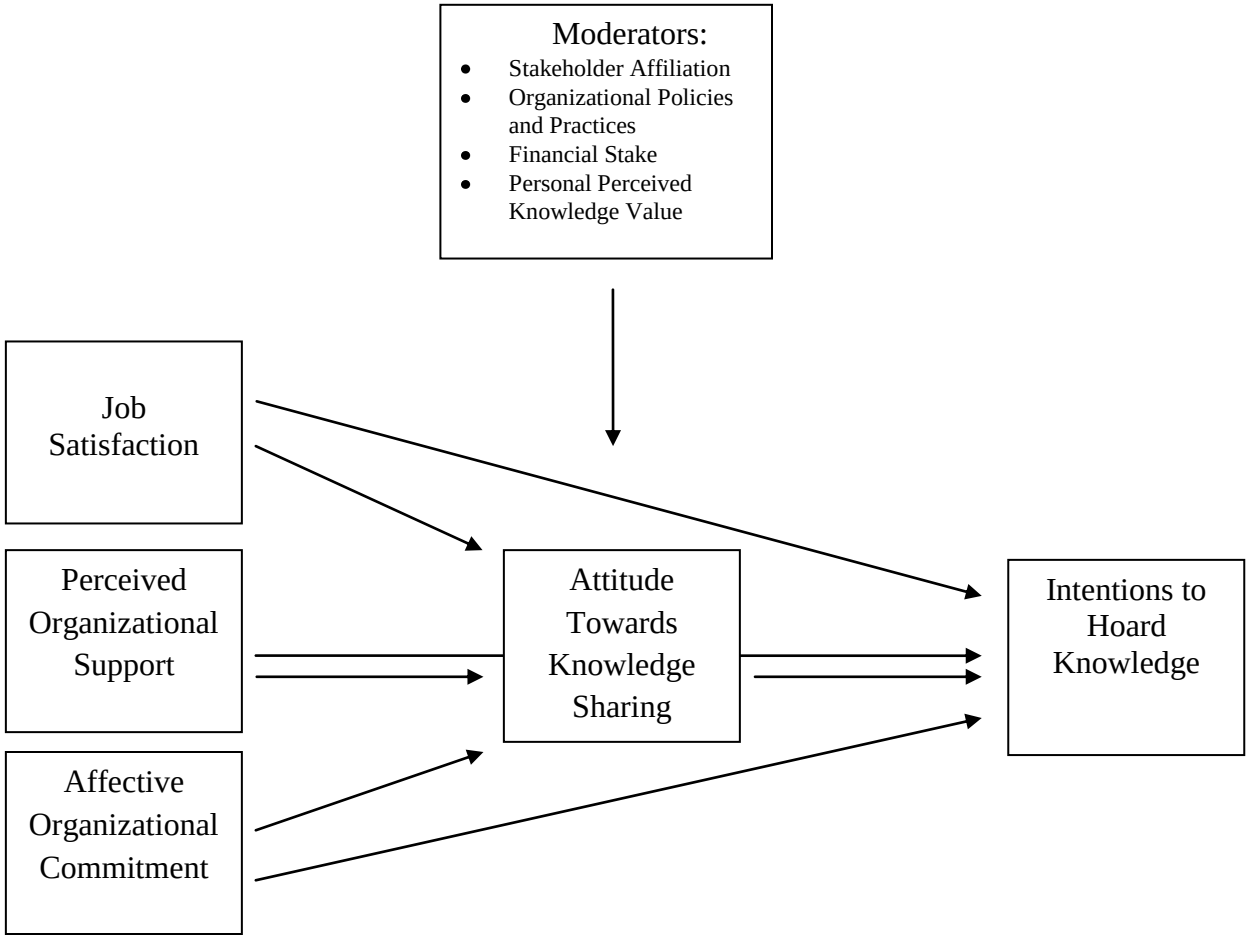

***Figure 4a*. Direct effects model with tacit, explicit, and hoarding intentions.**

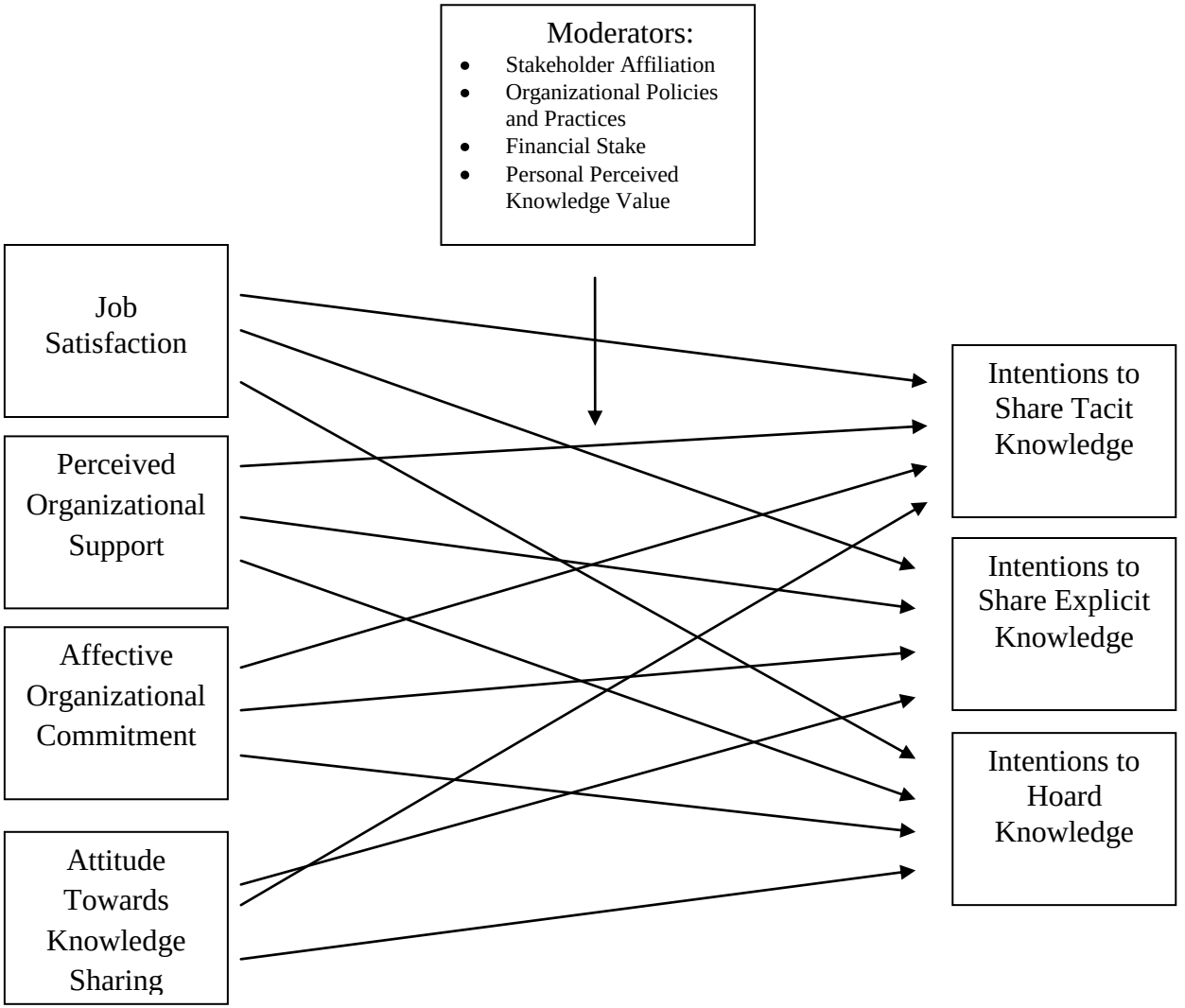

***Figure 4b*. Direct effects model with intentions to share tacit knowledge.**

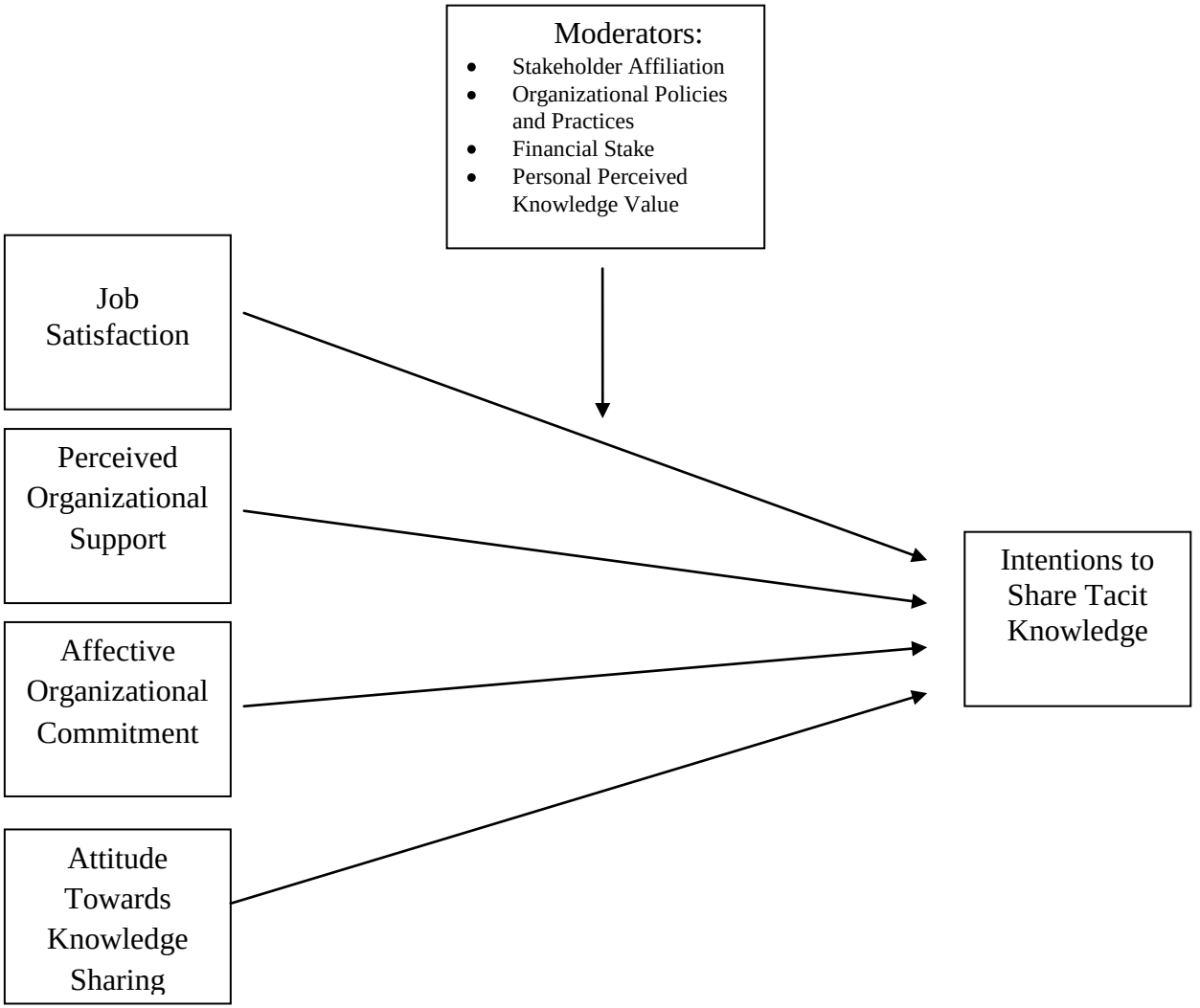

***Figure 4c*. Direct effects model with intentions to share explicit knowledge.**

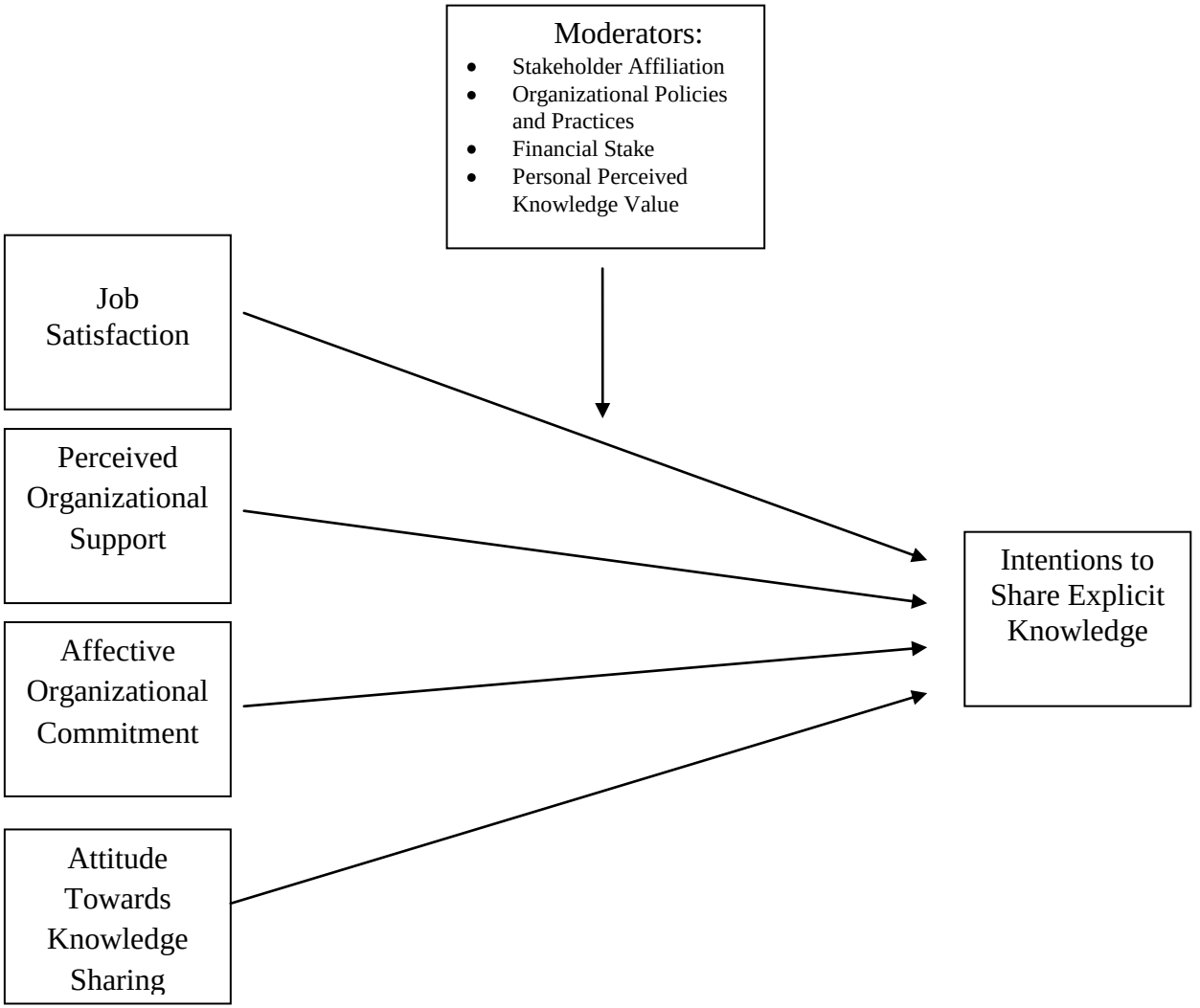

***Figure 4d*. Direct effects model with intentions to hoard knowledge.**