The Impact of Role Conflict, Role Ambiguity, and Locus of Control on Organizational Knowledge Sharing Practices

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Abstract

Knowledge management (KM) literature identifies numerous barriers that inhibit employees’ knowledge sharing practices. Presently, there is a research gap that examines what factors promote such barriers and their direct impact on knowledge seeking and knowledge contributing behaviors via information and communication technologies (ICTs). To bridge the gap, a content analysis study of 104 KM articles identified three contributors to common KM barriers. A proposed causal model based on the contributors was tested using structural equation modeling technique on the responses collected from 314 ICT users. The results demonstrate that role conflict, role ambiguity, and locus of control predicted knowledge seeking and knowledge contributing behaviors via ICTs.

1. Introduction

This article builds upon prior research-in-progress study [1] by expanding the scope, refining the model and providing the final results of the research.

While extant literature demonstrates that sustainability of competitive advantage for any firm is achieved through the effective dissemination of knowledge between employees [2], a gap exists in the understanding of how to effectively promote knowledge sharing within organizations. For example, a recent study demonstrated that the mere existence of organizational procedures to share knowledge does not guarantee the occurrence of knowledge sharing. In fact, while 62% of organizations report having formal procedures for documenting experiential knowledge, 89% of their employees never engage in knowledge exchange [3]. Similarly, some studies suggest that information and communication technologies (ICTs) can facilitate the flow of knowledge [4], while others have shown little evidence of such success [5]. In fact, US firms spend nearly $4.5 billion on ICTs without realizable benefits to the knowledge sharing processes [6].

Furthermore, knowledge transfer success rate is measured as mediocre 13% among European and US organizations [7]. It seems the problem is not rooted in the technology, but in series of factors that underlie widely accepted knowledge sharing barriers such as employees’ poor communication skills, lack of time, and lack of trust [8, 9].

To truly understand this problem it is necessary to examine the behavioral characteristics of knowledge sharing and determine potential factors that may impact these characteristics. For this purpose, the goal of this study is to answer two questions: 1) What are the potential factors that contribute to the common knowledge sharing barriers?, and 2) How do these factors impact employees’ use of ICTs for the purposes of knowledge seeking and knowledge contributing? A predictive knowledge sharing model was developed to explain the impact of the proposed factors on employees’ knowledge sharing behaviors via ICTs.

2. Knowledge Sharing Process

Knowledge sharing, the process of continuous dissemination, absorption, and utilization of information among employees for the purposes of integrated learning, consists of two practices: knowledge contributing (donation) and knowledge seeking (collection) [10]. Examination of the process through the prism of these two distinct behavioral blocks will allow an adequate exploration of the unique drivers that impact each behavior and a determination of potential contributors to the lack of knowledge sharing success. Furthermore, a set of inhibitors (barriers) to each behavior are proposed.

2.1 Knowledge Seeking

Knowledge seeking involves behavior associated with actively searching for information for the purposes of fulfilling specific information needs [11]. Such needs typically stem from the existence of
ambiguous problems in need of knowledge on potential courses of action [12]. Belkin [13] argued that knowledge seeking behavior consists of: 1) the seeker’s awareness of knowledge disparity; 2) a quest for gathering relevant information, and 3) an awareness of reduced knowledge disparity.

A theory that explains this behavior is the information foraging theory proposed by Pirolli and Card [12] who suggested that valuable information is viewed as prey that is often hidden in the environment (e.g. online documentation, books, media, people, etc). Since it may take longer to locate a piece of information from a file drawer than from an online database, information foragers, similar to predators, are forced to make decisions whether to hunt for hard-to-locate prey, or focus on accessing prey that “maximize the rate of gain of information relevant to their task,” (p. 646). As a result, the foragers consider certain information more valuable when the amount of time and effort taken to locate it is minimal and will not seek additional information if efficiency has been achieved. The theory also explains that in order to locate the more ‘profitable’ information, foragers “will modify their strategies or the structure of the environment to maximize their rate of gaining valuable information,” (p. 643).

KM research suggests that a key inhibitor to knowledge seeking behaviors is lack of time. Time constraints were characterized as the employees’ unwillingness to devote time and resources for knowledge sharing [14], lack of contact time and interaction between knowledge sources and recipients [8], tools available to share knowledge are very time consuming [14], stress and fears of retribution for failing to meet a deadline [15].

Perceived time pressure is frequently attributed to the characteristics of the tasks assigned to employees. For example, pressure to complete large workloads cause severe time constraints that often lead employees to seek knowledge from highly accessible sources via ICTs [16]. Task uncertainty and task interdependence lead seekers to widen the search for knowledge sources[17] while task complexity and high demanding work are associated with an increased need for problem solving information and general-purpose sources [18]. Moreover, individuals engage in greater feedback seeking behaviors in environments characterized by higher role ambiguity [19].

2.2. Knowledge Contributing

Knowledge contributing is a behavior that involves exchange of knowledge, information, and assistance between individuals and groups [20].

KM researchers have relied on the social exchange theory to explain knowledge contributing behaviors [21]. The theory suggests that individuals constantly weigh the individual costs and benefits before making a determination whether to engage in specific behaviors as individuals who share expertise with others risk losing the competitive advantage, or damage to their reputation (in the cases of providing the wrong information) [22].

Extant KM literature provides a host of extrinsic motivators, such as status change, promotions, and raises, positively affect knowledge contributing behavior [23]. Work-related characteristics, such as in-role behavior, work and task conflict, decentralization, and work engagement also drive knowledge contributing behaviors [24].

Additionally, a blend of intrinsic and organizational factors has also been found to impact knowledge contributing behaviors. For example, enjoyment in helping others, reciprocity, agreeableness, conscientiousness, openness to experience, and role breadth self-efficacy are key factors that impact employees’ knowledge contributing practices [25, 26]. Moreover, ethical culture, sense of belonging, and social ties are all positively related to knowledge contributing [27]. Knowledge contributing behaviors are also impacted by community identity, social awareness, and knowledge sharing self-efficacy [28]. Finally, anticipated reciprocal relationships and sense of self worth also drive attitudes toward knowledge contribution and subjective norms (e.g. normative beliefs and motivation to abide by them) and organizational climate (fairness, innovativeness, and affiliation) impact individual intentions to share knowledge [22].

One essential element for knowledge contributing is communication, since it is used to establish relationships among individuals that lead to the development of trust, shared language, collegiality, and openness [21]. As a result, it can be argued that knowledge contribution is inhibited by constraints such as poor interpersonal communication skills and lack of trust.

The review of literature revealed a host of individual characteristics and extrinsic factors that fostered both knowledge seeking and knowledge contributing behaviors. Three major inhibitors to both behaviors were recognized (lack of time, poor communication, and lack of trust). Next, three underlying factors that potentially contribute to these barriers (i.e. role conflict, role ambiguity, and locus of control) were examined.
3. Contributors to Knowledge Sharing Behaviors

To extract potential contributing factors to the identified knowledge sharing barriers, a content analysis study was conducted following the six stages identified by [29]. The first stage included the design of the method, definitions of context, data source exploration, and identification of barriers. The manifest approach, focusing on identification of the physical occurrences of the common knowledge barriers within each article, was selected [30]. This process was followed by the selection of journal articles as the unit of analysis. A purposive sample of articles examined during the literature review was selected from the discipline of knowledge management from a variety of domains (e.g. information systems, information technology consulting, healthcare, education, research, and new product development). 104 KM articles were extracted from the domains of information systems, information technology consulting, healthcare, education, research, new product development, and information sciences databases as recommended by [31]. The databases included: ABI/Inform Complete-ProQuest, ACM Digital Library, IEEE Computer Society Digital Library, Computers and Applied Sciences Complete - EBSCO host, Wiley Online Library - Blackwell Publishers, IBI Global Science Direct – Elsevier, Taylor & Francis, JSTOR, ProQuest Computing – ProQuest, and SpringerLink - Springer.

A single coder used both inductive and deductive approaches to discover sentences and paragraph references that percolated to three potential contributing factors. Berg [30] suggested that during the inductive approach, the researcher becomes absorbed in the articles to determine the theme or meaning of the authors’ message, while the deductive approach relied on schemes grounded in theory.

The coding unit used in the study was a mixture of words and textual references. The categories for the coding were words that represented specific themes. For example, coded sentences, or paragraphs that describe increased task conflict, task interdependence, as well as any associated synonyms were categorized under the category job complexity. These categories were assigned to specific concepts that constituted variables [30]. These concepts were determined during the content analysis review of each article. The final grouping of the categories percolated to a single concept (e.g. role conflict, role ambiguity, and locus of control).

Testing the reliability of the coding was performed at two separate intervals using random selection of units as recommended by [32]. Measurement to determine whether a perfect agreement or agreement by chance has occurred was performed using kappa statistic [33]. Kappa of .7 was achieved and was considered an acceptable reliability level.

During the coding phase, 61 sources (a total of 199 references) were found to contain the categories that percolated to the concepts of role conflict, role ambiguity, and locus of control. Role conflict percolated through seven different categories that collectively appeared 89 times throughout the sources. Two of these categories (job complexity and job interdependence) accounted for more than 60% of the references. The role ambiguity variable emerged through five different categories that appeared 123 times. One of these categories (job clarity) accounted for 76% of all references. Finally, the locus of control variable percolated through four different categories that appeared 39 times. One of these categories (job awards) accounted for 62% of all references.

3.1 Role Conflict

Role conflict is defined as the occurrences of two or more role pressures for an employee, where the compliance with one makes it difficult to comply with the other [34]. It is characterized as over-demand on employees to complete specific tasks that they perceive as excessive on their time availability [35]. According to the organizational role theory (ORT), in the workplace, employee behaviors are determined by a set of rules, norms and specific social positions that are directed by normative expectations and organizational demands [34]. Role conflicts arise due to a combination of multiple and sometimes conflicting supervisory expectations and lack of sufficient employee training [36]. Moreover, role conflicts are observed as a result of changes in organizational culture and job responsibilities as a result of new enterprise technologies propagation [37, 38]. [39] proposed that leading conditions for role conflict include lack of sufficient time to perform the new role and stress caused by the inability to meet expected requirements and behaviors.

Information systems research suggests that the lack of time barrier stems from the introduction of new technology, conflicting expectations and norms of employees’ roles in the enterprise. For example, an investigation of the impact of ICT-created stress on employees’ role stress and productivity showed that an increase in role stress resulted in time pressures and a need for multitasking [40]. Employees are
overloaded by information quantity, the introduction of new technology, and leaner organization structures.

In this study, it is proposed that employees seek to resolve their role conflicts by engaging in knowledge seeking about their roles, expectations and values from internal sources (colleagues and supervisors), and external groups (sources outside their work group) [41]. As a result:

**H1a. Role conflict positively impacts knowledge seeking behaviors via ICTs.**

According to the social exchange theory, individuals will perform favors to others with the expectation of forthcoming return. This expectation is predicated on the existence of a long-term relationship between individuals [26]. It is argued that as employees experience role conflict and engage in knowledge seeking with others, they will also reciprocate by contributing knowledge to their peers in order to solidify long-term relationships. Therefore, it is proposed that:

**H1b. Role conflict positively impacts knowledge contributing behaviors via ICTs.**

### 3.2 Role Ambiguity

Role ambiguity is defined as the level to which clear information is lacking regarding the expectation associated with a specific position [34, 42]. It is related to conflicting supervisory expectations, ambiguous definitions of tasks, and lack of clarification of duties. Role theory suggests that individuals experiencing role ambiguity will engage in attempts to resolve the issues associated with the vagueness of their positions since new or changing roles have the potential to increase ambiguity in conditions of novel technologies, rapid organizational growth, reorganizations, and shifts in managerial philosophies.

Employees engage in knowledge seeking tactics from their supervisors and colleagues in order to reduce uncertainty about their roles [43]. Those who engage in greater knowledge seeking experience reduced levels or role ambiguity and role conflict. Conversely, those who do not engage in knowledge seeking experience higher levels of role ambiguity and role conflict. Employees who rely on third-parties as information-seeking sources while excluding their supervisors are expected to encounter higher levels of ambiguity and role conflict than the ones relying on both third-party and supervisors for information sources. Those who relied on indirect questions and disguised conversation for information sources are also expected to experience higher role ambiguity and role conflict than the ones who less frequently used such tactics.

A higher level of uncertainty with a work role is positively related to information-seeking via the use of indirect knowledge-seeking tactics. Such tactics are positively related to role ambiguity, while overt tactics (direct solicitation of information) were negatively related to role ambiguity [44]. Finally, perceived lack of competence also inhibits knowledge seeking behaviors [45].

Role ambiguity has a negative effect on job performance and strong impact on empowerment as ambiguous tasks or goals introduce a great level of uncertainty into employees’ work which results in increased expectations from multiple stakeholders [46]. Correspondingly, access to information helps to reduce uncertainty, increase understanding of work roles and increase employee empowerment. A meta-analysis of 96 journal articles found that role ambiguity negatively correlates with feedback from others (knowledge contribution) because individuals learn their roles primarily through such feedback [47].

Consistent connectivity to an ICT enhances work speed, increases workload levels and increases employees’ perceived work overload. For example, consistent connectivity to an ICT (e.g. email) results in frequent interruptions to employees’ work practices, while changes to the ICT results in role ambiguity due to new learning demands. Workload and role ambiguity become the dominant stressors that lead to exhaustion and turnover intentions [48].

Individuals faced with expectations of their duties tend to seek clarification and engage in information seeking behaviors in order to exchange tacit knowledge that can assist them in completing their roles [49]. As a result, it is proposed that under conditions of low ambiguity:

**H2a. Role ambiguity positively impacts knowledge seeking behaviors via ICTs.**

Employees use ICTs to share information usually exchanged in informal places (e.g. by the water cooler or when bumping in the hallway), for discussions, clarification, informal communication, and problem solving [50]. These conversations lead to sharing of random ideas, noteworthy items, or other personal experiences that can clarify ambiguities. At the same time, social exchange theory posits that individuals assess the benefit and costs before engaging in interactions with others [21]. When high role ambiguity exists, costs to contribute
knowledge will be greater than the benefits due to perceived time pressure. In contrast, when low role ambiguity is present, individuals will focus on seeking task-specific knowledge to achieve higher benefits at lower costs. Therefore it is proposed that under conditions of low ambiguity:

\[ H2b. \text{Role ambiguity positively impacts knowledge contributing behaviors via ICTs.} \]

### 3.3 Locus of Control

Locus of control (LOC) is the extent to which employees believe that events in their lives are either contingent upon their own behaviors or on the actions of others [51]. According to the social learning theory (SLT), people’s motivations to engage in a specific behavior are impacted by the results of previous behaviors [52]. Since individuals strive to minimize negative consequences while maximizing positive results, they will engage in behaviors that are expected to have a high probability of resulting in positive outcomes [51]. Positive results will either reinforce or weaken repetitions of that behavior, depending on whether an individual believes that the reinforcement resulted from his or her personal behavior or from an outside entity. This personal locus (location) of control is characterized as internal or external.

Individuals with high internal LOC (internals) believe their behaviors determine what occurs to them. Extant literature shows that internals tend to engage in word-of-mouth communication with out-group members (colleagues) and in increased level of information seeking in order to remain in control of their environment. Internals score themselves as more knowledgeable of the product class than externals and are reported to find greater enjoyment in face-to-face and computer mediated communication with others [53, 54].

Studies have demonstrated relationships between internal LOC, information acquisition, and learning motivation. For example, internals process information better than externals so much so that if internals were added to a team, the team experiences an increased information-processing capacity, greater information acquisition behavior, and better team performance [55]. As a result, it is proposed that:

\[ H3a. \text{Internal locus of control positively impacts knowledge seeking behaviors via ICTs;} \]

Individuals with high external LOC (externals) believe that factors such as luck, fate, or powerful others determine what happens to them [51]. They tend to be more withdrawn, less likely to take risks, and rely more on information from their inner circle since this makes them feel safe.

A meta-analysis study of 106 articles found that externals learned more and had higher transfer levels of declarative knowledge [56]. Furthermore, externals were found to communicate via ICTs for the purpose of inclusion [54] and shared more appropriate and less premature information than internals [57]. As a result, it is proposed that:

\[ H3b. \text{External locus of control positively impacts knowledge contributing behaviors via ICTs.} \]

![Figure 1. Proposed model](image-url)

### 5. Methodology

#### 5.1 Scales

Role conflict and role ambiguity were measured using a 7-point scale ranging from very false (1) to very true (7) developed by Rizzo, House and Lirtzman [42]. Spector [58] Work Locus of Control Scale (WLOC) was used to measure locus of control. The original scale was measured via a 7-point Likert scale with anchors on 1 = strongly disagree and 7 = strongly agree. External WLOC was represented by high scores, while internal WLOC by low scores.

Knowledge seeking and knowledge contributing behaviors were measured via a scale originally developed by Van Den Hooff and De Ridder [10]. The original instrument used a 5-point Likert scale and consisted of a total of eight items. The scale was modified to a 7-point Likert scale and the wording adjusted to fit the ICT context of the study. To determine the understandability of the questions and the loading of the modified instrument, the scale was validated with a purposive sample of six experts. Extant literature demonstrates that such sample sizes were sufficient to determine instrument clarity [59, 60]. The experts in the current study matched the characteristics of the targeted population for this study (full-time employees that fulfilled the job
function of analyst and used ICTs to share knowledge within their organizations). Furthermore, knowledge of survey preparation techniques was a prerequisite in order to leverage recommendations for improvement of the instrument items.

5.2 Population and Sample Size

The population for this study was considered employees who used ICTs at work (e.g. email, instant messaging, forums, and knowledge repositories) to seek and contribute knowledge. Employees in supervisory roles experience higher levels of ambiguity and uncertainty with their job duties than non-supervisory employees [61]. As a result the sample was delimited to participants with the job function of analyst from across a variety of industries since this position was consistent across organizations in terms of its non-supervisory duties. Furthermore, part-time employees experience significantly greater role ambiguity than their full-time counterparts due to perceived job strain as a result of reduced information training, job information, and social support [62]. In order to control for this variable, only full-time employees were invited to take part in the study. Finally, the sample was restricted to employees who resided only in the United States. Moreover, since structured equation modeling (SEM) was used to analyze the data, a sample size of at least 200 participants was targeted [63, 64].

Survey invitations were sent to 1,368 employees of organizations from a variety of industries. Each respondent was pre-qualified prior to taking the final survey to ensure the delimitations criteria were met. As part of the pre-qualification process, participants were asked whether they used any of the following systems at work: email, instant messaging, online forums, or knowledge repositories. Only users of these ICTs were allowed to proceed with the survey. The survey process returned 498 responses. Of these, 173 were excluded during the pre-qualification process, leaving 326 useful responses (a response rate of 23.8%).

6. Results

6.1 Demographics

The final sample used for the analysis consisted of 314 participants (Mahalanobis distance statistics for p-value of 0.001 were used to identify and remove twelve multivariate outliers[65]). The sample contained 55% males and 45% females. Nearly 70% of the respondents were between the ages of 30 and 60. Three quarters of the sample had attained an associate’s or higher college degree. Over 60% had between one and 10 years of work experience and the majority (nearly 90%) earned an annual income of $50,000 or higher. Approximately 60% of the participants worked in mid-size companies with over 500 employees, while the largest industry represented by the sample (22%) was government, followed by financial services (12.7%), and telecommunications and internet (6.7%).

6.2 Exploratory Factor Analysis

Exploratory factor analysis (EFA) was conducted to assess construct validity. Principal components analysis with varimax rotation, and Kaiser normalization was performed on all constructs. Several items were removed to arrive to a clean pattern matrix without cross-loadings. The procedure produced a five-factor model with factor loadings ranging from 0.70 to 0.89 (eigenvalues >1) that explained 71% of the total variance.

6.3 Confirmatory Factor Analysis

Confirmatory factor analysis (CFA) was performed prior to the SEM in an effort to establish a good fit of the measurement model [66]. The model estimation was performed using the maximum likelihood estimator (ML) as it fit the study’s sample size and data type [67]. Model fit was assessed based on criteria proposed by [68].

Table 1 provides the reliability and validity values for the estimated model. To determine whether the measures were unrelated, a test for discriminant validity was performed and the square root values of all AVEs (on the diagonal) were evaluated. All values were below the established threshold of <.85 [69]. As a result, it was established that the criteria for construct reliability, convergent validity, and discriminant validities were satisfied.

Since all the survey data was collected through the same questionnaire during the same period of time, systematic measurement error can impact the estimates of the relationships between the constructs. Such error, attributed to common method variance (CMV), often stems from the measurement method. Williams and Brown [70] argued that when there is CMV present, the measurement intercorrelation can be either inflated or deflated, resulting in measurement errors. Common latent factor (CLF) was added to the model to determine the variance that is common to all factors. This method uses the CLF to capture the common variance among all observed
variables in the model. The standardized regression weights from the model were compared to the standardized regression weights of a model without the CLF to determine whether differences will require the retention of the CLF during the computation of the structural model [71]. Since none of the compared values exceeded .08, it was concluded that the presence of CMV was not of significant size to impact the interpretations of the results.

Table 1. Reliability and Validity Values

<table>
<thead>
<tr>
<th></th>
<th>CR</th>
<th>AVE</th>
<th>MSV</th>
<th>ASV</th>
<th>WLOC</th>
<th>KnowSeek</th>
<th>KnowContr</th>
<th>RoleConf</th>
<th>RoleAmb</th>
</tr>
</thead>
<tbody>
<tr>
<td>WLOC</td>
<td>0.84</td>
<td>0.19</td>
<td>0.52</td>
<td>0.107</td>
<td>0.764</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KnowSeek</td>
<td>0.857</td>
<td>0.667</td>
<td>0.549</td>
<td>0.150</td>
<td>0.173</td>
<td>0.817</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KnowContr</td>
<td>0.855</td>
<td>0.597</td>
<td>0.549</td>
<td>0.148</td>
<td>0.097</td>
<td>0.741</td>
<td>0.773</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RoleConf</td>
<td>0.899</td>
<td>0.503</td>
<td>0.163</td>
<td>0.227</td>
<td>0.041</td>
<td>0.043</td>
<td>0.708</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RoleAmb</td>
<td>0.803</td>
<td>0.530</td>
<td>0.163</td>
<td>0.129</td>
<td>0.139</td>
<td>0.301</td>
<td>0.404</td>
<td>0.769</td>
<td></td>
</tr>
</tbody>
</table>

WLOC = Work Locus of Control
CR = Composite Reliability
AVE = Average Variance Extracted
MSV = Maximum Shared Variance
ASV = Average Shared Variance

Table 2. Hypotheses Testing Results

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Hypothesized Path</th>
<th>Path Coefficient (β)</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1a KnowSeek --&gt; RoleConf</td>
<td>0.08</td>
<td>Rejected</td>
<td></td>
</tr>
<tr>
<td>H1b KnowContr --&gt; RoleConf</td>
<td>0.14***</td>
<td>Supported</td>
<td></td>
</tr>
<tr>
<td>H2a KnowSeek --&gt; RoleAmb</td>
<td>0.17*</td>
<td>Supported</td>
<td></td>
</tr>
<tr>
<td>H2b KnowContr --&gt; RoleAmb</td>
<td>0.21*</td>
<td>Supported</td>
<td></td>
</tr>
<tr>
<td>H3a KnowSeek --&gt; WLOC</td>
<td>0.19***</td>
<td>Supported</td>
<td></td>
</tr>
<tr>
<td>H3b KnowContr --&gt; WLOC</td>
<td>0.14*</td>
<td>Supported</td>
<td></td>
</tr>
</tbody>
</table>

*p ≤ .05; **p ≤ .10

6.4 Structural Equation Modeling

The SEM model (Figure 2) was specified using the CFA measurement model. The model estimation was performed using ML. The model fit was considered estimated when the established threshold criteria values were met (χ²/df=2.815, GFI=.892, RMSEA=.076, NFI=.875, AGFI=.854, CFI=.915, PGFI=.662, PNFI=.721).

Figure 2. SEM model

6.5 Hypotheses Testing

Table 2 shows the results of the hypotheses testing. The results showed that role conflict and role ambiguity positively influenced knowledge contributing behaviors. Thus, H1b and H2b were supported. In addition, role ambiguity was also found to positively influence knowledge seeking behaviors, thus H2a was supported.

To determine the impact of internal versus external LOC on the knowledge seeking and knowledge contributing behaviors, each case was coded for high (external LOC) versus low (internal LOC) values as recommended by [58]. Next, the SEM model was tested for each group. The results demonstrated support for both H3a and H3b were supported.

Finally, role conflict was found to have no significant impact on knowledge seeking behaviors; therefore H1a was rejected.

7. Implications, Limitations and Future Research

The current gap in the KM literature on how to effectively promote knowledge sharing among employees in organizations exists because barriers that inhibit knowledge sharing practices are poorly understood. This study enhanced the KM body of knowledge by providing an in-depth view of three of these barriers that are often disregarded in KM studies: lack of time, poor communications skills, and lack of trust. A six-stage content analysis study was conducted on 104 articles and a total of 199 references that percolated to three observed major contributors to these barriers: role conflict, role ambiguity, and locus of control. The responses were analyzed from 314 full-time analysts who used ICTs at their places of employment to share knowledge. The final results confirmed that the proposed contributors predicted employees’ knowledge sharing behaviors via ICT.

The present study extended prior KM models by incorporating employees’ knowledge-sharing behaviors via specific technology agents. For example, Connelly and Kelloway [20] questioned whether separate knowledge sharing practices existed among different occupations and how these practices were influenced by employees’ commitment to their roles. The current study provided partial answers to these questions. The results showed that the conflict and ambiguity influenced knowledge sharing behaviors via ICTs. Moreover, the study demonstrated that employees’ personal LOC also influenced these behaviors.
The results of the present study extend prior research [72] which sought an answer to the question of how perceived time pressure influenced knowledge seekers’ behaviors. The researchers found that perceived time pressure prevented participants from sharing their knowledge as it fostered feelings of preoccupation. The current study showed that perceived time pressures were in fact symptoms of the conflict and ambiguity in the roles of individuals, and it was precisely these contributors that influenced the knowledge seeking and contributing practices. Furthermore, the results demonstrated that these contributors positively influenced the behaviors in question.

The present research provides several practical implications for organizations. First, the study adds value to the organizational decision making process by highlighting the contributors to employees’ lack of time to exchange knowledge, mainly role conflict and role ambiguity. Management is encouraged to be mindful of the level of conflicting job expectation that can result in increased employee role stress. Furthermore, while organizations frequently invest in ICTs in order to improve employees’ productivity, increase communication, and decrease production time [73], management needs to recognize that new technology also increases employees’ role conflict and role ambiguity. Such investments result in increased lack of time due to increased need to learn how to use the new technology. If an employee’s role conflict is also increased at such times, the level of perceived time pressure will inhibit knowledge sharing behaviors. Future research is needed to demonstrate whether the type of ICT can act as a moderator on the relationships between role conflict, role ambiguity, and knowledge sharing behaviors.

This study also demonstrated that internal LOC is a good predictor of knowledge seeking behaviors. Since employees with external LOC are known to be communication apprehensive, organizations should also consider implementing training programs that are designed to improve communication skills among these employees. These programs will help employees overcome the communication barriers created by their LOC and help them engage more freely in knowledge seeking behaviors.

A limitation of this study is its generalizability across certain job types. This study was delimited to respondents who occupied the position of analyst. It is plausible that the selection of respondents with this specific job function led to the rejection of the H1a hypothesis. It is also possible that results of this study would not apply to employees with jobs where role conflict, role ambiguity, and ICTs are not present (e.g. certain trade jobs). Furthermore, it is probable that the impacts of exogenous on the endogenous variables may be much more pronounced in jobs with greater demand on the use of ICTs (e.g. system administrators, software developers, or content managers).

Future research can test the model with a sample from a different job function type. Moreover, future research can focus on expanding understanding of the effects of ICT systems on knowledge sharing behaviors. First, specific ICT capacities that complement knowledge users’ needs and contribute to the increase in knowledge seeking and knowledge contributing practices should be examined. For example, future studies should explore what effects have specific groupings of ICTs (both synchronous and asynchronous) on knowledge sharing behaviors. Future studies should also examine whether there is an optimum number of ICT systems for each specific behavior (knowledge seeking versus knowledge contributing). These studies should also investigate the optimum level of knowledge sharing that can be achieved through the unique characteristics of each ICT type.

8. References