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Perceived Knowledge Quality: A Sensemaking Perspective

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ABSTRACT

Due to ever-increasing uncertainty in the business environment, perceived knowledge quality has become an imperative, not an option, for innovativeness. Despite its growing recognition, few empirical studies have presented to the literature. This study addresses the understudied issue of what perceived knowledge quality is and how its substructures interact with one another. A model, including its antecedent and consequence, is drawn from a sensemaking perspective and validated using survey data. This study shows that perceived knowledge quality consists of perceived intrinsic, contextual, and actionable knowledge quality. Results indicate that knowledge sharing is a critical determinant of perceived knowledge quality and that perceived intrinsic knowledge quality is mostly affected by knowledge sharing. Perceived intrinsic knowledge quality, however, is not enough, and it should be transformed into perceived contextual, actionable knowledge quality to produce innovativeness. The findings have important theoretical and practical implications which are discussed in this paper.

Keywords
Perceived knowledge quality, perceived intrinsic knowledge quality, perceived contextual knowledge quality, perceived actionable knowledge quality, knowledge sharing, innovativeness.

INTRODUCTION

Amid a flood of knowledge, the old adage, “knowledge is power,” is not always the case, and it should be more appropriate that knowledge quality brings power. Given the abundance and variability of knowledge quality, literature recognizes that the identification of high-quality knowledge is difficult (Poston and Speier, 2005) and thus there is a strong need for capturing the richness of perceived knowledge quality. Data, information, and knowledge have a hierarchical structure (Nonaka, 1994), and data quality and information quality have received wide attention from researchers and practitioners (Nelson, Todd and Wixom, 2005; Wang and Strong, 1996). Despite the growing recognition, little research on perceived knowledge quality, however, has been presented to the literature. Knowledge is regarded as a multidimensional construct (Kulkarni, Ravindran and Freeze, 2007; Nonaka, 1994), and its quality cannot be measured by a single dimension. This study has three main purposes which will lead to contributions to the literature. First, it is to deepen the understanding of the holistic view of perceived knowledge quality. This study uses the concept of sensemaking to present three subconstructs of perceived knowledge quality: perceived intrinsic knowledge quality, perceived contextual knowledge quality, and perceived actionable knowledge quality. Second, it is to explore which subconstruct of perceived knowledge quality is mostly affected by knowledge sharing. Although much attention has been given to knowledge sharing, this study especially explores the different impact of knowledge sharing on the individual subconstruct of perceived knowledge quality. Third, it is to build on the literature that which subconstruct of perceived knowledge quality has an influence on innovativeness. Although it is critical in a setting where innovativeness is desired, knowledge is a double-edged sword which can be enabling or constraining (Carlile, 2002). Quantity of knowledge is not always enhancing performance (Pfeffer and Sutton, 2000). Explaining how and why subconstructs of perceived knowledge quality affect innovative behavior remains understudied.

LITERATURE REVIEW AND RESEARCH FRAMEWORK

Knowledge has been viewed from different perspectives: a state of mind, an object, a process, a condition of having access to information, or a capability (Alavi and Leidner, 2001; Kulkarni et al., 2007). The literature defines knowledge as “justified true belief” that “increases an entity’s capacity for effective action” (Alavi and Leidner, 2001; Nonaka, 1994). In the global, dynamic competition, knowledge needs to be rapidly refined, reproduced, or recreated. With its growing importance, there have been studies to empirically examine knowledge quality or similar concepts: “content ratings” (Poston and Speier, 2005), “knowledge content quality” (Kulkarni et al., 2007), and “perceived knowledge quality” (Durcikova and Gray, 2009). These studies, however, have limited their focus primarily on repository-based knowledge quality with a single dimension. Knowledge inherently resides within individuals and people create knowledge (Bock, Zmud, Kim and Lee, 2005; Nonaka...
and Konno, 1998). Consequently, there is a need for examining cognition-based knowledge among social actors. In addition, knowledge is a multifaceted concept (Kulkarni et al., 2007; Nonaka 1994; Yoo, Vonderembse and Ragu-Nathan, 2011) and its quality needs to be considered in multidimensional constructs.

The theory of sensemaking provides a coherent framework for the progress of perceived knowledge quality. The fundamental theme of sensemaking presents that individuals are trying to make sense of “equivocal inputs”, which may be shared by other organizational members, and represent the sense back into the society (Weick, Sutcliffe and Obstfeld, 2005). Sensemaking particularly involves applying generic understanding into a specific situation and it “serves as a springboard to action” (Taylor and Van Every, 2000). Three important elements play a critical role in the process of sensemaking: generic understanding, a specific situation, and action. They lay the foundation for the progressive determination of perceived knowledge quality. In response to knowledge exchanges, an organization’s members notice the intrinsic value of knowledge (i.e., generic understanding) and unfold a new, more useful meaning in their context (i.e., specific situation). Furthermore, the generic understanding and the specific situation have an impact on facilitating actions. This study posits that perceived knowledge quality consists of three progressively complex dimensions: perceived intrinsic knowledge quality, perceived contextual knowledge quality, and perceived actionable knowledge quality.

**Perceived Intrinsic Knowledge Quality**

Knowledge has been described as “opinions”, “insights”, “experiences”, or “justified true belief” (Alavi and Leidner, 2001; Nonaka 1994). Individuals may have different opinions, insights, or belief, and they need to justify the truthfulness of their knowledge (Erden, von Krough and Nonaka, 2008; Nonaka and Takeuchi, 1995). Perceived intrinsic knowledge quality refers to the extent to which knowledge has quality in its own right. It addresses knowledge value in terms of inherent properties of knowledge itself, and it is a traditional view of perceived knowledge quality. This dimension is associated with accuracy, reliability, and believability of knowledge.

**Perceived Contextual Knowledge Quality**

Nonaka and Takeuchi (1995) recognize that the context-specific aspect of knowledge must be taken into consideration. Becerra-Fernandez and Sabherwal (2001) argue that different context needs even different knowledge management. Knowledge cannot be fully understood out of context (Nonaka, 1994; Nonaka and Takeuchi 1995). Accordingly, perceived knowledge quality is beyond the traditional view of perceived intrinsic knowledge quality and it is highly dependent upon individuals’ context. Perceived contextual knowledge quality refers to the extent to which knowledge is considered within the context of the task. It is associated with relevance, appropriateness, and value-addedness.

**Perceived Actionable Knowledge Quality**

There are differences between what organizational members know and what organizational members act on knowledge (Pfeffer and Sutton, 2000). “Knowledge is always about action – the knowledge must be used to some end” (Nonaka and Takeuchi, 1995, p. 57-58). Actionable knowledge quality indicates the pragmatic perspective of knowledge toward unambiguous purposes, and is described as “knowledge that leads to immediate progress” (Cross and Sproull, 2004). This study defines perceived actionable knowledge quality as the extent to which knowledge is expandable, adaptable, or easily applied to tasks.

**Interactions of Perceived Knowledge Quality**

The concept of sensemaking offers a coherent theoretical basis for the interactions of substructures of perceived knowledge quality. Sensemaking engage in the continuous development in the social context of actors that “rationalize what they are doing” by connecting “the abstract with the concrete” (Weick et al., 2005). As knowledge with intrinsic value is exposed to people, individuals begin making plausible senses and take out cues from it according to their circumstances, leading to enactment with the knowledge into reality. In the sensemaking process, two questions are critical: “What’s the story here?” and “Now what should I do?” (Weick et al., 2005) When social actors are exposed to a different set of knowledge, they may involve asking “What’s the story in my case?” The question has an impact of bringing intrinsic knowledge into their context. When social actors then involve asking “Now what should I do?” this question has an influence on bringing meanings into actions (Weick et al., 2005). High-quality intrinsic knowledge will enhance an organization’s members to understand the knowledge in their own context. The high level of contextual knowledge will offer good ground for actionable knowledge. In the midst of knowledge interactions, organizational members make sense of intrinsic knowledge in their circumstances and update their actions in a way that adapts the knowledge into their situations. Because an organization’s members arrange the
intrinsic flux to be relevant to their situations and shape it for effective actions, perceived intrinsic knowledge quality will help members continually redraft their understanding with their own situation and incorporate it into their actions.

**Hypothesis 1 (H1).** Perceived intrinsic knowledge quality is positively related to perceived contextual knowledge quality.

**Hypothesis 2 (H2).** Perceived contextual knowledge quality is positively related to perceived actionable knowledge quality.

As mentioned above, “‘the first question of sensemaking is ‘what’s going on here’, and the second equally important question is ‘what do I do next?’’” (Weick et al., 2005, p. 412) The second question is obviously related to action. More specifically, social actors obtain perceived intrinsic knowledge quality, which leads them to be closely connected to spur individuals to take action. Sensemaking occurs when the state of the world to be different from expectations (Weick et al., 2005). A new set of intrinsic knowledge may provide some differences and thus people simultaneously interpret the knowledge with their given frameworks. Individuals draw upon intrinsic knowledge among members and a bracketed group of noticing coalesces into formulating the basis for action. As validity from perceived intrinsic knowledge quality gained is established, plausible stories from the core value of the knowledge can be stimulated. Perceived intrinsic knowledge quality is salutary, and it leads social actors to actions to engage in examining newly presented relationships. Accordingly, this study asserts the following hypothesis:

**Hypothesis 3 (H3).** Perceived intrinsic knowledge quality is positively related to perceived actionable knowledge quality.

**Direct Impacts of Perceived Knowledge Quality on Innovativeness**

While many outcomes may result from perceived knowledge quality, this study focuses on innovativeness because the uncertain and equivocal nature of innovativeness requires quality of knowledge. As individuals tap into an ongoing sense of knowledge through decreasing its equivocality and increasing its appropriability, and interpret it into actionable knowledge quality, it becomes more critical because it can be used as a source of guidance for further improvement. “A pragmatic knowledge boundary is not just a matter of processing more knowledge” (Carlile, 2002, p. 453), but a matter of processing for adapting knowledge into a task. Perceived actionable knowledge quality facilitates social actors to make cognitive processes in generating and adopting innovativeness more effectively and to bring performance improvement and efficiency more practically. An organization’s members are more likely to engage in innovative behavior when they are believed to have perceived actionable knowledge quality. Accordingly, innovativeness is strongly influenced by perceived actionable knowledge quality and this study presents the following hypothesis:

**Hypothesis 4 (H4).** Perceived actionable knowledge quality is positively related to innovativeness.

Literature shows that innovative processes can be enabled or constrained by context (Murray and O’Mchony, 2007). Knowledge is a critical element of increasing innovativeness, but for knowledge to be meaningful in innovative processes, “individuals must be able to localize knowledge around particular problems” and “alter the knowledge to be embedded within their practices” (Carlile, 2002, p. 446). When knowledge is situated in the particular place and time of the learner, individuals are more likely to internalize the value of the knowledge and to believe that the quality of contextual knowledge will benefit their work. When perceived knowledge is deemed worthy of situations, individuals are able to recombine the contextual knowledge and integrate it with their own context. When social actors accommodate newly acquired knowledge in their own context, it will be critically used for innovative behaviors.

**Hypothesis 5 (H5).** Perceived contextual knowledge quality is positively related to innovativeness.

**The Mediating Role of Perceived Contextual, Actionable Knowledge Quality on Innovativeness**

The mere exposure of knowledge may not directly lead to engage in innovative activities because innovativeness accompanies risks as well as benefits (Yuan and Woodman, 2010). Individuals will go through cognitive processes of underpinning contextual relevance and actionable adaptability of knowledge beyond perceived intrinsic knowledge value prior to engaging in innovativeness. When the intrinsic value of knowledge is deemed meaningful and significant in a social actor’s task, it creates greater possibilities for being used in innovative behavior. In a sensemaking process, knowledge available in an organization is “encyclopedic” and “abstract” initially (Weick et al., 2005). Organizational members may not feel sufficient in undertaking innovative behavior only with the integrity nature of knowledge because the intrinsic property of knowledge is not examined in their situation. Perceived intrinsic knowledge quality itself undermines innovativeness. Instead, when social actors make sense of the perceived intrinsic knowledge quality into their contextual relevance and
practical applications, it will provide more appropriate conduits for them to use knowledge for their innovative behaviors. Accordingly, this study expects perceived contextual knowledge quality and perceived actionable knowledge quality to mediate the effects of perceived intrinsic knowledge quality on innovativeness.

Hypothesis 6 (H6). The effect of perceived intrinsic knowledge quality on innovativeness is fully mediated by perceived contextual knowledge quality and perceived actionable knowledge quality.

Antecedent of Perceived Knowledge Quality

Knowledge sharing involves an individual’s willingness to share with others he or she has obtained or generated (Bock et al., 2005; Choi, Lee and Yoo, 2010). It comprises a wide range of epistemic exchanges, allowing members to combine their existing understanding with newly acquired, created knowledge. While engaging in the exchange of knowledge, individuals realize knowledge they interact, distinguish its “complexities and subtleties”, and integrate it into their “schemes and mental models” (Sussman and Siegal, 2003). Because knowledge is unevenly distributed among the various members of the organization, and knowledge sharing plays a significant role in managing knowledge interdependencies and determining the veracity of knowledge. Consequently, this study hypothesizes:

Hypothesis 7 (H7). The greater knowledge sharing in an organization’s members, the higher perceived intrinsic knowledge quality.

Knowledge sharing reflects knowledge exchanges which are relevant to an organizational member’s needs. It facilitates the process of sensemaking knowledge into another context where the knowledge is needed (Alavi and Leidner 2001; Choi et al., 2010; Weick et al., 2005). As social actors share the intrinsic value of knowledge and further assess it in their own situations (Carlile, 2004), it helps individuals to effectively pull core value of knowledge and associate it with their own context. For effective knowledge interactions, individuals should share not just the intrinsic value of knowledge but also its context where it is introduced (Brown and Duguid, 2001). Because knowledge sharing allows organizational members to notice and bracket a various set of knowledge and to adopt it into their situation, this study examines the following hypothesis:

Hypothesis 8 (H8). The greater knowledge sharing in an organization’s members, the higher perceived contextual knowledge quality.

Knowledge sharing solicits input from other members and bolsters an individual’s understanding. To facilitate actionable knowledge, an organization’s members need to have access to know-how, translation, or expertise (Murray and O’Mahony, 2007). As organizational members share knowledge, they go through sensemaking knowledge, reduce equivocality, and interpret it into actionable knowledge. People with varying degrees of expertise and those who know more help sort through knowledge and decide which action to take (Sussman and Siegal, 2003). Meaningful understanding and insightful problem solving require that knowledge receivers recognize and integrate newly-acquired knowledge into their cognitive structures. The cognitive structure helps guide a response and determine a course of action that seems to best serve their needs (Sussman and Siegal, 2003). Accordingly, this study tests the following hypothesis:

Hypothesis 9 (H9). The greater knowledge sharing in an organization’s members, the higher perceived actionable knowledge quality.

RESEARCH METHODS

The survey methodology was adopted for data collection to test the research model. This study examined the measurement and structural models by using Partial Least Squares (PLS) Graph version 3.00. Instruments for perceived knowledge quality used Wang and Strong (1996) as a starting point and modified them for the perceived knowledge quality context. Items for innovativeness were adopted from McKnight, Choudhury and Kacmar (2002). Knowledge sharing was adapted from Bock et al. (2005). This study was concerned that a level of an individual’s education and duration, and firm size would have an impact on perceived knowledge quality. They were used as control variables. A pilot study was conducted prior to the administration of the large-scale survey. After purifying items through the pilot study, the large-scale survey methodology was used to test the research model. The instruments entering the large-scale survey are listed in Appendix A. The questionnaire asked respondents to answer each question on a scale from 1 to 5 where 1 was “Strongly Disagree”, 3 was “Neutral”, and 5 was “Strongly Agree”. MarketTools, Inc. provided managers and above from various industries. It invited 1,900 people 368 answered the survey, resulting in 19.4% of the response rate. Responses were received from IT (15.8%), telecommunications (9%), manufacturing (28.3%), finance/insurance (25%), biotechnology (1.9%), government (2.4%), retail (3.0%), and others (14.7%). The size of the firm was 100-249 (12.2%), 250-499 (13.3%), 500-999 (9.5%), 1,000-2,499 (16%), and 2,500 and over (48.1%). Their educations level was: high school (20.4%), associated degree (14.4%), bachelor’s (42.7%), master’s (19.8%), and Ph.D. (1.9%). Response/nonresponse bias was assessed by comparing data from early and
late survey respondents on the number of employees and annual sales using a Chi-square test. Results show that there is no significant difference between the early and the late response on the number of employees and annual sales.

**Measurement Model**

An exploratory factor analysis of all reflective measures such as knowledge sharing and innovativeness was conducted. It showed that two factors whose items load more highly on their associated constructs, accounting for 64.39% of total variance. Confirmatory factor analysis was performed to assess convergent and discriminant validity for the reflective measures, using PLS-Graph 3.0. Convergent validity was tested by item loadings, composite reliabilities, and average variance extracted (AVE). All item loadings exceeded 0.70. Internal consistency was assessed with composite reliabilities, which showed that the lowest was 0.83 and were in excess of the 0.7 guideline (Nunnally, 1978). AVE exceeded the 0.5 threshold. The square root of AVE for the reflective constructs was greater than the correlation and provided evidence of discriminant validity. Table 1 shows the results of the measurement analysis.

<table>
<thead>
<tr>
<th>Construct</th>
<th>Reliability</th>
<th>Knowledge Sharing</th>
<th>Innovativeness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge Sharing</td>
<td>0.83</td>
<td>0.79</td>
<td></td>
</tr>
<tr>
<td>Innovativeness</td>
<td>0.86</td>
<td>0.26</td>
<td>0.82</td>
</tr>
</tbody>
</table>

**The diagonal elements (in bold) represent the square root of AVE.**

Table 1. Descriptive Statistics, Correlations, and Average Variance Extracted

Perceived intrinsic, contextual, and actionable knowledge qualities were modeled as formative constructs. Based on the guidance of Petter, Straub and Rai (2007), this study assessed the construct validity and evaluated the reliability. The construct was tested by using principal components analysis to examine the item weightings for measures. All of them were significant. The reliability was tested by examining multicollinearity. If the VIF (variance inflation factor) value is less than 3.3, the formative constructs gain reliability. Results showed that there was no multicollinearity among items for the formative constructs.

Following Podsakoff, MacKenzie, Leong-Yeon and Podsakoff (2003), this study used the PLS model in consistent with Liang, Saraf, Hu and Xue (2007) that examined common method biases. Results showed that the average variance explained by the substantive indicators was 0.668, while the average variance explained by the method was 0.005. Given that the small magnitude of the method variance, the common method bias is unlikely to be a serious problem.

**Structural Model**

Figure 1 displays path results which display statistical significance for each hypothesis. Perceived intrinsic knowledge quality has a significant, positive impact on perceived contextual knowledge quality which in turn positively influences perceived actionable knowledge quality, supporting H1 and H2. Perceived intrinsic knowledge quality also has a positive effect on perceived actionable knowledge quality, supporting H3. Innovativeness is significantly affected by perceived actionable knowledge quality and perceived contextual knowledge quality, supporting H4 and H5. To test the mediation role of perceived actionable knowledge quality and perceived contextual knowledge quality, this study tested the direct effect of perceived intrinsic knowledge quality on innovativeness. The effect of perceived intrinsic knowledge quality lacked statistical significance. Thus, the full mediation hypothesis, H6, was supported. Knowledge sharing has a positive, significant influence on perceived intrinsic knowledge quality, perceived contextual knowledge quality, and perceived actionable knowledge quality, supporting H7, H8, and H9. For control variables, education had a positive, significant influence on perceived actionable knowledge quality. Otherwise, none of the control variables had a significant effect.

Perceived intrinsic knowledge quality, perceived contextual knowledge quality, and perceived actionable knowledge quality collectively explains 15.3% of the variance in innovativeness. In addition, the model explains 20.2% of the variance in perceived intrinsic knowledge quality, 38.9% of the variance in perceived contextual knowledge quality, and 46.6% of the variance in perceived actionable knowledge quality.
**DISCUSSION**

Given that organizations spend a significant amount of time and effort in leveraging intellectual capital, this study makes a contribution to illustrating how perceived knowledge quality helps individuals maximize their innovativeness.

**Implications for Research**

This research is the first to systematically study the progressive development of perceived knowledge quality. Knowledge repositories have played a significant role in managing knowledge, and a few researchers have paid attention to knowledge quality in repositories. Social actors, however, interact with knowledge from other people as well as repositories and integrate knowledge. Accordingly, it is worthwhile to study cognition-based knowledge quality. Research has begun to explore knowledge quality, but they measured it with a single dimension despite the fact that knowledge is generally accepted as a multifaceted concept (Nonaka, 1994). This study opens up a new theoretical perspective on the progressive development of multidimensional knowledge quality beyond its simplistic presentation. A core contribution of this paper is thus to present a comprehensive view of perceived knowledge quality based on the sensemaking perspective and to move the discussion to interplay among substructures of perceived knowledge quality.
This study also began addressing the shortfalls of understanding the dynamics of perceived knowledge quality by investigating theoretical links to knowledge sharing and innovativeness. Although knowledge sharing has been receiving wide attention, the knowledge management literature offers few testable theoretical models to explain the connection between knowledge sharing and perceived knowledge quality. Path coefficients from knowledge sharing to substructures of perceived knowledge quality suggest that knowledge sharing is a critical determinant of perceived knowledge quality. Little research has examined how substructures of perceived knowledge quality have an impact on innovativeness. The results show that perceived contextual, actionable knowledge quality have a significant impact on innovativeness. In addition, the model highlights the mediating role of the perceived contextual, actionable knowledge quality in the relationship between perceived intrinsic knowledge quality and innovativeness. Researchers have investigated why knowledge becomes a source of as well as a barrier to innovativeness. This study offers a plausible explanation of the double-edged sword of knowledge. When knowledge has a high level of perceived intrinsic knowledge quality, but lacks contextual relevance or practical applications, it may not facilitate innovativeness. It is critical to be aware of the multifaceted nature of perceived knowledge quality and understand the progressive development in order to produce innovativeness.

Implications for Management
The magnitude of path coefficients provides useful insights into the relative importance in the interplay of knowledge sharing, perceived knowledge quality, and innovativeness. While knowledge sharing generally stimulates perceived knowledge quality, perceived intrinsic knowledge quality has the highest loading, indicating that it is mostly affected by knowledge sharing. While perceived knowledge quality generally shapes innovativeness, perceived contextual knowledge quality has the highest loading on innovativeness. It illustrates that knowledge sharing enables an organization’s members to entice the intrinsic value of knowledge which may be not lead to innovativeness directly. But perceived intrinsic knowledge quality is not enough, and it should be transformed into perceived contextual, actionable knowledge quality to produce innovativeness. The progressive transition from perceived intrinsic knowledge quality to perceived contextual, actionable knowledge quality will be facilitated by the individuals’ sensemaking process.

CONCLUSIONS
Due to ever-increasing uncertainty, perceived knowledge quality to deal with changes has become an imperative, not an option, for innovativeness. Because this study is one of the initial endeavors to empirically examine the relationships among knowledge sharing, perceived knowledge quality, and innovativeness, this study may open a new avenue for research on how to effectively build and sustain perceived knowledge quality.

REFERENCES


## APPENDIX A. Measurement Items Entering Large-Scale Survey

<table>
<thead>
<tr>
<th>Construct</th>
<th>Acronym</th>
<th>Measurement Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge Sharing</td>
<td>KS1</td>
<td>My knowledge sharing with other organizational members is an enjoyable experience.</td>
</tr>
<tr>
<td></td>
<td>KS2</td>
<td>My knowledge sharing with other organizational members is a wise move.</td>
</tr>
<tr>
<td></td>
<td>KS3</td>
<td>I consider knowledge sharing as a way to gain competitiveness.</td>
</tr>
<tr>
<td>Perceived Intrinsic Knowledge Quality</td>
<td>IKQ1</td>
<td>Knowledge available for my work is accurate.</td>
</tr>
<tr>
<td></td>
<td>IKQ2</td>
<td>Knowledge available for my work is reliable.</td>
</tr>
<tr>
<td></td>
<td>IKQ3</td>
<td>Knowledge available for my work is objectives.</td>
</tr>
<tr>
<td></td>
<td>IKQ4</td>
<td>Knowledge available for my work is believable.</td>
</tr>
<tr>
<td>Perceived Contextual Knowledge Quality</td>
<td>CKQ1</td>
<td>Knowledge available for my work adds value for my decision-making.</td>
</tr>
<tr>
<td></td>
<td>CKQ2</td>
<td>Knowledge available for my work adds value to my operations.</td>
</tr>
<tr>
<td></td>
<td>CKQ3</td>
<td>Knowledge available for my work is appropriate to my jobs.</td>
</tr>
<tr>
<td>Perceived Actionable Knowledge Quality</td>
<td>AKQ1</td>
<td>Knowledge available for my work is actionable.</td>
</tr>
<tr>
<td></td>
<td>AKQ2</td>
<td>Knowledge available for my work is adaptable.</td>
</tr>
<tr>
<td></td>
<td>AKQ3</td>
<td>Knowledge available for my work is expandable.</td>
</tr>
<tr>
<td>Innovativeness</td>
<td>IN1</td>
<td>I experiment with alternative ways to carry out my work.</td>
</tr>
<tr>
<td></td>
<td>IN2</td>
<td>I am innovative in thinking of new or better ways to perform tasks.</td>
</tr>
<tr>
<td></td>
<td>IN3</td>
<td>I like to explore new ways of doing tasks.</td>
</tr>
</tbody>
</table>