

A Dynamic Perspective on the Impact of Interpersonal Trust on Tacit Knowledge Sharing Intention: The Mediating Role of Cognitive Well-Being (Postprint)

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Abstract

[Purpose / Significance] This study aims to examine the dynamic nature of tacit knowledge sharing and further investigate the underlying mechanism through which interpersonal trust influences knowledge workers' willingness to share tacit knowledge.

[Method / Process] Tacit knowledge sharing is subdivided into two dimensions: knowledge acquisition and knowledge contribution. Based on the happy-person hypothesis, a non-recursive model mediated by cognitive well-being is constructed, and empirical analysis is conducted using survey questionnaires from 350 knowledge workers in the Jiaodong Peninsula region of Shandong.

[Results / Conclusion] Knowledge contribution and knowledge acquisition willingness are interwoven and mutually influential; interpersonal trust exerts a significant positive effect on cognitive well-being; cognitive well-being partially mediates the positive influence of interpersonal trust on both tacit knowledge contribution and acquisition willingness.

Full Text

Abstract

[**Purpose/Significance**] This study aims to examine the dynamic nature of tacit knowledge sharing and further explore the internal mechanism through which interpersonal trust influences knowledge workers' willingness to share tacit knowledge. [**Method/Process**] By subdividing tacit knowledge sharing into two dimensions—knowledge acquisition and knowledge contribution—and based on the happiness assumption, this study constructs a non-recursive model mediated by cognitive well-being. Using survey data from 350 knowledge workers

in the Jiaodong Peninsula region of Shandong Province, empirical analysis was conducted. **[Result/Conclusion]** The results show that tacit knowledge contribution and acquisition willingness are mutually interactive and integrated; interpersonal trust significantly promotes cognitive well-being; cognitive well-being partially mediates the positive influence of interpersonal trust on both tacit knowledge contribution and acquisition willingness.

Keywords: interpersonal trust; cognitive well-being; tacit knowledge contribution; tacit knowledge acquisition

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Tacit knowledge and its transfer and sharing have always been central concerns in knowledge management and knowledge engineering [1]. As a key challenge in contemporary knowledge management [2], effective tacit knowledge sharing constitutes a critical link in driving successful R&D and innovation of complex products and improving research performance [3]. Therefore, how to effectively promote continuous tacit knowledge sharing represents an important issue that both industry and academia in the knowledge management field urgently need to address. Since tacit knowledge can only be exchanged at the individual level—regardless of whether inter-organizational knowledge exchange is intentional or unintentional, it occurs only between individuals in communication activities, namely through social interactions among organizational employees [4]—an increasing number of scholars have actively examined the significance of interpersonal networks (formed through face-to-face interactions) for tacit knowledge sharing. The higher the level of trust between individuals, the more willing they are to share knowledge. Without sound interpersonal relationships, no organizational incentives or technical support can be effective, and knowledge sharing behaviors cannot be realized. However, a review of the literature reveals that few studies have explored the influence mechanism of interpersonal trust on tacit knowledge sharing among knowledge workers in the context of Chinese relational culture from the perspective of tacit knowledge flow, and relevant empirical tests are also lacking.

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1. Theoretical Background and Hypotheses

1.1 Dynamic Investigation of Tacit Knowledge Sharing

Previous scholars have primarily defined knowledge sharing from communication and knowledge learning perspectives, yet no unified definition has been formed. Dimension division criteria for knowledge sharing include knowledge attributes and behavioral agents, but none can fully grasp the dynamic nature of knowledge sharing [9]. Building on the perspective of foreign scholars B. V. D. Hooff et al. [10], this study divides tacit knowledge sharing into two dimensions from the knowledge flow perspective: (1) tacit knowledge contribution, referring to employees' behaviors of sharing their skills, inspiration, insights, or know-how with others within the organization or providing help; and (2) tacit knowledge acquisition, referring to employees' behaviors of obtaining tacit knowledge or supportive actions from other members within the organization.

Tacit knowledge sharing is a social interaction based on reciprocal relationships, thereby generating knowledge exchange and innovation behaviors. This reflects the bidirectional flow, mutual benefit, and reciprocal exchange nature of tacit knowledge sharing, further indicating that tacit knowledge contribution and acquisition coexist and are mutually accessible. Blindly giving or taking does not align with the traditional value of "courtesy demands reciprocity," making it difficult to maintain and enhance interpersonal relationships, especially as motivations for tacit knowledge sharing have shifted from pure altruism to mutual benefit. Under such circumstances, sustainable knowledge exchange and co-creation become difficult to achieve. In other words, these two dimensions are not independent but interrelated. Based on the above analysis, we propose the following hypothesis:

H1: Tacit knowledge contribution willingness and tacit knowledge acquisition willingness are mutually interactive and influential.

1.2 Tacit Knowledge Sharing and Interpersonal Trust

The concept of interpersonal trust can be defined in both narrow and broad senses. In its narrow sense, N. Panteli et al. defined interpersonal trust as an individual's firm belief and positive expectations toward another party [11]. In its broad sense, interpersonal trust refers to the degree of confidence a trustor has in the trustee's words, actions, and decisions, and the extent to which the trustor takes action based on this confidence [12]. Combining current research, this study defines interpersonal trust as the confidence and positive expectations individuals have toward others' words, actions, and decisions, based on social interactions and emotional bonds, and their willingness to act accordingly.

In the knowledge management field, existing research has shown that interpersonal trust is a fundamental condition for knowledge sharing mechanisms. Previous literature indicates that both information provision and information receiving willingness are closely related to trust relationships among people [13].

W. S. Chow et al. believe that trust positively influences colleague relationships and can motivate individuals to acquire knowledge from others and contribute their own knowledge [14]. Without trust, advice and role modeling from knowledge source units are often met with skepticism and resistance from knowledge recipients, preventing successful knowledge transfer and making it difficult to obtain knowledge from other sources [15]. Tan Yunqing's research demonstrates that trust propensity positively predicts service providers' tacit knowledge acquisition [16]. According to social network theory of interpersonal relationships, relationship strength between individuals has a strong positive correlation with knowledge transfer. Knowledge workers in an atmosphere of good interpersonal trust have more stable cooperative relationships, which further reduces relational costs and uncertainty disturbances in tacit knowledge sharing, providing a convenient and smooth channel for tacit knowledge sharing. Based on the above analysis, we propose the following hypotheses:

H2: Interpersonal trust has a positive effect on knowledge workers' tacit knowledge contribution willingness.

H3: Interpersonal trust has a positive effect on knowledge workers' tacit knowledge acquisition willingness.

1.3 Mediating Role of Cognitive Well-being

Cognitive well-being reflects the quality of employees' cognitive effectiveness at work and is associated with work-related cognitive evaluations from the perspective of subjective well-being research [17]. Essentially, cognitive well-being is the perception of one's behavioral capabilities and can significantly influence one's cognitive and behavioral power. Higher cognitive well-being means positive perception of one's own cognitive and thinking abilities. On the one hand, individuals with higher cognitive well-being have stronger self-cognitive efficacy, demonstrating more confidence and sense of control. To further improve their work capabilities and efficiently complete various innovative and complex tasks, they continuously search for external resources and support, and also contribute their knowledge to obtain lasting work motivation. On the other hand, scholars have pointed out that there is a strong relationship between emotion and cognitive well-being. Although few studies have directly explored the relationship between cognitive well-being and tacit knowledge sharing, an increasing number of scholars have begun to focus on the social facilitation function of emotion in tacit knowledge sharing. Positive emotion is an important concept in analyzing tacit knowledge sharing [18]. Li Changhong et al. introduced emotion into the SIR model and used simulation to show that most positive emotions and a small amount of negative emotions are significantly related to tacit knowledge sharing [19]. Employees with high cognitive well-being exhibit more positive and optimistic attitudes. According to social contagion theory, such positive emotions spread rapidly and infect each other within the organization, thereby inducing continuous exploratory interactive communication among employees, making them more willing to provide support to others, actively share their experiences

and know-how, and be eager to learn and acquire relevant knowledge from others. Conversely, employees with negative and burnout emotions may engage in workplace personal attacks, sabotage, withdrawal, and other undesirable behaviors, making it difficult for them to actively help others, resulting in low collaboration efficiency, naturally reducing their knowledge sharing intention, and making it difficult to obtain needed knowledge and skills from others.

Existing literature shows that interpersonal relationship quality is strongly associated with well-being [20]. Individuals with higher-quality interpersonal relationships are more likely to obtain well-being at work [21]. Lack of trust can trigger negative emotions and even harm physical and mental health [22]. W. Yip et al. pointed out that employees' participation levels in organizational activities and mutual trust among colleagues have positive effects on their health and well-being [23]. Additionally, J. F. Helliwell et al.'s research indicates that groups with higher trust levels have members with stronger well-being [24]. Therefore, this study believes that employees in a good interpersonal trust environment will obtain more support and non-redundant, valuable, high-effectiveness information and knowledge, reduce stress and troubles, improve individual psychological comfort and health, enhance individual vitality, and thus more easily improve their cognitive well-being. Based on the above analysis, we propose the following hypotheses:

H4: Cognitive well-being mediates the relationship between interpersonal trust and knowledge workers' tacit knowledge contribution willingness.

H5: Cognitive well-being mediates the relationship between interpersonal trust and knowledge workers' tacit knowledge acquisition willingness.

2. Research Methods

2.1 Research Sample

This study selected knowledge workers from knowledge-intensive enterprises in the Jiaodong Peninsula region of Shandong Province as research subjects, including professional R&D personnel, mid-to-senior marketing staff, and white-collar workers with higher education. A random sampling method was employed, distributing questionnaires via email and paper formats. A total of 500 questionnaires were distributed, with 452 returned, of which 350 were valid, yielding an effective response rate of 70%. Sample basic information is shown in .

2.2 Variable Measurement

All measurement items in this study were adapted from mature scales published in authoritative domestic and international journals. Based on expert opinions, a research team of three members was formed to ensure accurate translation of English semantics. A field pre-test was conducted with 50 questionnaires, and based on feedback, items were revised and improved to form the final survey questionnaire. Except for basic sample information, all other variables were

measured using a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree).

Tacit knowledge contribution and tacit knowledge acquisition were primarily integrated from knowledge sharing willingness scales used by multiple foreign scholars [14,25-27], with four items measuring each variable (e.g., “When I ask colleagues for advice, they will teach me their skills”). Cronbach’s α values were 0.877 and 0.891, respectively. Cognitive well-being was adapted from Huang Liang’s [17] scale for Chinese knowledge workers’ cognitive well-being with adjustments, using four items such as “I feel I can easily concentrate on thinking, and my mind feels clear,” with a Cronbach’s α value of 0.899. Interpersonal trust adopted W. S. Chow et al.’s [14] interpersonal trust scale, with four measurement items such as “When communicating with colleagues, it is easy to gain their trust” and “When communicating with colleagues, I can basically obtain their recognition,” with a Cronbach’s α value of 0.820. Additionally, gender, age, education, work tenure, and other variables were included as control variables to obtain more accurate research data.

3. Data Analysis

3.1 Variable Reliability, Validity, and Common Method Bias Test

shows that the composite reliability (CR) of all variables exceeds 0.7, and the average variance extracted (AVE) is above 0.5. The square root of AVE for each variable is greater than 0.7 and exceeds the correlation coefficients between factors in the corresponding column, indicating good scale reliability and validity. Additionally, confirmatory factor analysis was conducted using Amos 21.0, as shown in . Following the common method bias test procedure adopted by P. M. Podsakoff [28] and Zhou Hao [29], the Harman single-factor model showed poor fit indices, indicating that no single factor explains most of the variance in this study. The four-factor model demonstrated acceptable fit indices with overall good model fit and good discriminant validity for each variable. Further testing using the unmeasured latent factor method showed that compared with the four-factor model, the change in fit indices for the five-factor model was less than 0.02. According to the criteria of G. W. Cheung [30] and Zheng Jianjun et al. [31], there was no significant difference between these two models. Therefore, common method bias is not considered a serious issue in this study.

3.2 Descriptive Statistics and Correlation Analysis

Descriptive statistics and correlation coefficients are presented in . The results show significant positive correlations among tacit knowledge contribution, tacit knowledge acquisition willingness, cognitive well-being, and interpersonal trust. All correlation coefficients between research variables are significantly below 0.65, again demonstrating high discriminant validity and suggesting that multicollinearity is not severe. Meanwhile, control variables such as gender, age, education, and work tenure have certain significant correlations with the main

variables, laying a foundation for subsequent analysis.

3.3 Hypothesis Testing

Hierarchical regression was used to test the hypotheses. As shown in , all control variables (gender, age, education, work tenure, etc.) were included in Models M1, M3, and M7. Models M4 and M5 analyzed the effects of interpersonal trust on knowledge workers' tacit knowledge contribution willingness and tacit knowledge acquisition willingness, respectively. The results show that interpersonal trust has significant positive relationships with both tacit knowledge contribution willingness ($\beta=0.454$, $P<0.001$) and tacit knowledge acquisition willingness ($\beta=0.454$, $P<0.001$). When cognitive well-being was included as the dependent variable in Model M2, the analysis revealed that interpersonal trust has a significant positive effect on cognitive well-being ($\beta=0.614$, $P<0.01$). When cognitive well-being was added to Models M5 and M9, it showed significant positive effects on both tacit knowledge contribution willingness ($\beta=0.287$, $P<0.001$) and tacit knowledge acquisition willingness ($\beta=0.347$, $P<0.001$). With the intervention of cognitive well-being, the influence of interpersonal trust on tacit knowledge contribution willingness (decreasing from 0.454 to 0.269) and tacit knowledge acquisition willingness (decreasing from 0.585 to 0.362) weakened but remained significantly positive. Cognitive well-being still showed significant positive correlations with both tacit knowledge contribution and acquisition willingness, additionally explaining 4% and 6% of the variance, respectively. Thus, Hypotheses 4 and 5 are supported. In Model M6, tacit knowledge acquisition willingness has a significant positive effect on tacit knowledge contribution willingness ($\beta=0.397$, $P<0.001$). In Model M10, tacit knowledge contribution willingness has a significant positive effect on tacit knowledge acquisition willingness ($\beta=0.300$, $P<0.001$). Therefore, Hypothesis 1 is empirically supported.

To further test the robustness of the mediating effect of cognitive well-being, this study also adopted the bias-corrected nonparametric percentile Bootstrap method with 5,000 samples and a 95% confidence interval to verify the mediating effect of cognitive well-being between interpersonal trust and both tacit knowledge contribution willingness and tacit knowledge acquisition willingness. In the first path, the mediation test results did not include zero (LLCI=0.1726, ULCI=0.3904), indicating a significant mediating effect with a size of 0.2682. Moreover, after controlling for the mediating variable, interpersonal trust still significantly influenced tacit knowledge acquisition willingness (LLCI=0.2051, ULCI=0.5606). Therefore, cognitive well-being plays a mediating role in the relationship between interpersonal trust and tacit knowledge contribution willingness, but not a complete mediation—rather, a partial mediation. Similarly, in the second path, the mediating effect of cognitive well-being is significant (LLCI=0.1737, ULCI=0.4766) with a value of 0.3174. After controlling for cognitive well-being, interpersonal trust remains significantly related to tacit knowledge acquisition willingness (LLCI=0.3732, ULCI=0.6968). Thus, cognitive well-being partially mediates the relationship between interpersonal trust

and tacit knowledge acquisition willingness. In summary, Hypotheses 4 and 5 are further corroborated.

4. Discussion

4.1 Main Research Conclusions

This study subdivides tacit knowledge sharing into two dimensions—tacit knowledge contribution and knowledge acquisition—based on knowledge flow direction, and introduces cognitive well-being as a mediating variable based on the happiness assumption to construct a mediated non-recursive model. Empirical research demonstrates that tacit knowledge contribution and acquisition willingness are mutually interactive and integrated. This breakthrough advances beyond existing literature that has remained at the static process level of tacit knowledge sharing and verifies the inseparable interactive relationship between tacit knowledge contribution and acquisition willingness. Interpersonal trust significantly promotes cognitive well-being, which aligns with scholars such as W. Yip et al. [23] and J. F. Helliwell et al. [24] who view interpersonal trust as an important antecedent of well-being. Cognitive well-being partially mediates the positive influence of interpersonal trust on both tacit knowledge contribution and acquisition willingness. This not only echoes the social facilitation function of positive emotions in tacit knowledge sharing [19] but also explores and confirms the mediating role of cognitive well-being in the process from interpersonal trust to tacit knowledge contribution and acquisition willingness, representing a beneficial extension and deepening of H. F. Chumg et al.'s [8] research on well-being and knowledge sharing.

4.2 Research Significance and Limitations

The theoretical significance of this study lies in compensating for the insufficient attention to the dynamic process of tacit knowledge sharing in previous literature. By drawing on prior research and subdividing tacit knowledge sharing into contribution and acquisition dimensions based on knowledge flow, this study verifies that these two dimensions influence each other and form an integrated whole. It reveals the mechanism of tacit knowledge sharing from the happiness assumption perspective, further expanding research ideas on knowledge sharing. By integrating interpersonal trust, cognitive well-being, and tacit knowledge sharing into one analytical framework, this study tests the rationality and effectiveness of happiness theory in explaining the mechanism from interpersonal trust to tacit knowledge sharing, enriches understanding of the relationship between interpersonal trust and tacit knowledge sharing, and further develops theories on knowledge workers' tacit knowledge sharing in the Chinese context.

The research conclusions provide important practical implications for enterprises. First, managers should facilitate both tacit knowledge contribution and acquisition among knowledge workers by establishing and improving scientific

evaluation and incentive mechanisms for organizational tacit knowledge contribution and acquisition to promote sustained and healthy development of these activities. Second, attention should be paid to enhancing good interpersonal trust relationships among knowledge workers. Finally, cultivating knowledge workers' cognitive well-being should be incorporated into knowledge management activities, encouraging and guiding knowledge workers to form and improve their own cognitive well-being.

This study also has certain limitations. Due to data availability, the research subjects are mainly distributed in the eastern coastal region of Shandong, which may affect the external validity of the conclusions. Additionally, the study has not segmented industries or sectors; future research could focus on a specific industry to increase the pertinence of conclusions. Finally, the hypothesized model may be incomplete, addressing only the cognitive well-being dimension of employees. Well-being may also be influenced by other individual and organizational characteristics, and interpersonal trust was not divided into multiple dimensions. Future research could comprehensively consider these factors to construct a more rigorous and complete theoretical model, thereby improving the comprehensiveness of research conclusions.

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Note: Figure translations are in progress. See original paper for figures.

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