

The Impact of Employee Knowledge Sharing Behavior on Corporate Innovation Performance : the Moderating Role of Employee Self-efficacy

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Keywords: knowledge sharing, corporate innovation, self-efficacy, moderating role

Abstract: Because the economy and society are always changing, employees are always passing on and sharing knowledge, which is an important business resource. Through a questionnaire survey of employees at a state-owned enterprise in Shandong Province, this paper looks at the relationship between how employees share their knowledge and how well the company innovates. It also uses data analysis software to look at how self-efficacy affects the first two relationships. The study showed that self-efficacy had a weakening effect on the link between employees sharing their knowledge and how well the business did. In response to the results, this study suggests that businesses build a platform for sharing knowledge, create a positive organizational culture, and improve channels for sharing knowledge and communicating.

1. Introduction

Knowledge is the most significant resource for core competitiveness because it's an organization asset. Liu and Huang found that when employees believe their expertise makes them more valuable, sharing it hurts their competitiveness^[1]. They are unwilling to share their job expertise and professional talents, which leads to low work efficiency, limited independent creativity, risk aversion, and incapacity to attain self-worth. This cycle will reduce corporate competitiveness. This study examines how organizations share knowledge and innovate. It also summarizes earlier ideas. Many studies suggest that knowledge sharing affects how well organizations work. This paper examines how self-efficacy affects organizational knowledge sharing. First, the study offers ideas and methodologies for enterprise knowledge management. By introducing self-efficacy as a moderating variable, it examines how self-efficacy affects intra-organizational knowledge-sharing behaviors.

2. Review of the Literature

Different experts locally and globally have described knowledge-sharing behavior. Wei believes knowledge sharing helps people realize their value through communication and trade^[2]. Senge says knowledge sharing is more about transformation than transfer^[3]. Jin, et al. say information sharing needs certain channels^[4]. Cabrera and others say predicted income predicts employees' propensity to disclose knowledge at work^[5]. Foong believes that a team's feeling of community drives employees to exchange expertise and build knowledge networks^[6].

Early on, financial indicators were used to measure corporate innovation performance; however, data was difficult to obtain and feedback was poor, so Seal and Knight suggested evaluating corporate innovation performance comprehensively^[7], which can be composed of four dimensions: financial, customer, internal business process, learning, and innovation^[8]. Tsai argues that firms can positively affect firm performance through intra- and inter-organizational knowledge sharing^[9]. In the organization's continuous development, the existing knowledge base can also improve organizational performance to some extent. Krogh (2002) studied that effective knowledge exchange within an organization can moderate the way employees believe and communicate, thus improving corporate performance^[10].

The concept of self-efficacy was first introduced by Bandura^[11], who believed that self-efficacy is an individual's judgment of his or her abilities. Zhou, et al. argued that the degree of self-efficacy is processed based on people's past experiences and that one failure does not directly affect self-efficacy^[12]. Refers to an expectation that people have of what they should be able to do in situations they have never been exposed to by comparing them to similar previous experiences and thus by imagining them. The evaluation of individuals by others can also affect their self-efficacy. Self-efficacy increases when the persuader persuades the individual that he or she is capable of performing a task.

3. Theoretical background and hypotheses

3.1 Research Hypothesis

3.1.1 Hypothesis of the Relationship Between Employee Knowledge Sharing Behavior and Corporate Innovation Performance

Knowledge resources are resources of a unique character that are continuously enhanced and contribute value. To become an irreplaceable component of the firm, knowledge resources must be merged with corporate culture and organizational structure. People's knowledge is limited to a single field due to the society's division of labor, and only through collaboration can they acquire sufficient qualifications to compete with the outside world. Knowledge sharing can only provide firms with a sustained competitive advantage through access to resources and cost reductions, thereby accomplishing the goal of enhancing corporate innovation performance. Consequently, this research suggests the following theories regarding the aforementioned studies:

H1: The independent variable employee knowledge sharing behavior is positively related to the variable corporate innovation performance.

3.1.2 Hypothesis of the Moderating Role of Self-efficacy

As a moderating element, self-efficacy dominates organizational and individual behavior. Self-efficacy is a central factor that facilitates or hinders a person's confidence in completing a specific goal when they perceive their environment, exert control over themselves, and fuel their engines. When individuals with high self-efficacy receive support and attention from the organization, they will respond with a positive attitude, hence increasing their sense of responsibility in their subsequent job. On the basis of this paper, the following hypothesis is advanced:

H2: Self-efficacy plays a moderating role in the relationship between employee knowledge-sharing behavior and corporate innovation performance.

3.2 Theoretical Model

The three variables studied in this paper: are employee knowledge-sharing behavior, corporate innovation performance, and self-efficacy. Among them, employee knowledge-sharing behavior is taken as the independent variable, corporate innovation performance is taken as the dependent variable, and self-efficacy is taken as the moderating variable, and the theoretical model of the interaction of the three variables is shown in the following figure.

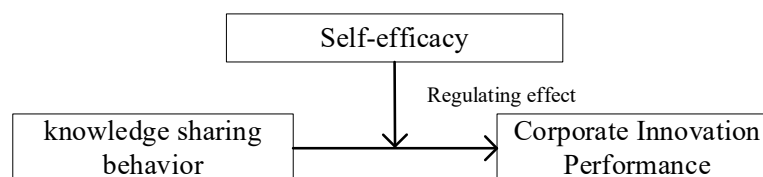


Figure 1 Variable model diagram.

4. Study Design

This study's research sample is primarily selected from Weifang City, Shandong Province, using

an online toolbox to read employees' Star questionnaires and obtain data; the enterprise belongs to the state-owned communications industry; the sample placement is 152, excluding 5 invalid questionnaires; the actual number of valid samples is 147; data analysis is based on the valid recovery of the questionnaire; the effective recovery rate is 96 percent.

4.1 Scale design

4.1.1 Employee Knowledge Sharing Behavior Scale

Lu created the knowledge-sharing scale by merging important foreign scales with China's national and cultural circumstances. With a coefficient of internal consistency of 0.8 and high dependability, the knowledge-sharing behavior of employees can be more accurately reflected from the perspective of personal sharing. The 6-item scale employs a 5-point Likert scale, where 1 and 5 correspond to "totally disagree" and "absolutely agree," respectively.

4.1.2 Corporate Innovation Performance Scale

The selection of a suitable framework for assessing the idea of organizational performance is followed by the selection of relevant indicators for measuring organizational performance, according to Dess and Ribinson. In this article, Lawson's non-financial indicators are used to evaluate the company's innovation performance, and respondents' responses range from "completely disagree" to "absolutely agree," with higher scores indicating greater agreement with the questions.

4.1.3 Self-efficacy scale

The self-efficacy scale utilized in this study was designed by Gilad et al. There are ten items on the scale, and respondents select a number between 1 and 5 for each issue. A high score indicates that the employee has a strong feeling of self-efficacy.

5. Data analysis and hypothesis testing

5.1 Descriptive correlation analysis

Five demographic variables were collected in this paper, namely gender, age, education, job level, and years of experience, of which 50.34% were male and 49.66% were female; 41.5% were 36-46 years old and 8.16% were under 25 years old; 51.7% had a bachelor's degree or higher.

5.2 Confidence Analysis

In this paper, the data were examined by checking the internal reliability; when is greater than 0.90, this indicates that the measuring scale is reliable. The coefficient of determination,, for employee knowledge-sharing behavior is 0.909, indicating that the measured data are satisfactory. The reliability analysis of corporate innovation performance generated an alpha coefficient of 0.976, and the self-efficacy scale yielded an alpha coefficient of 0.956; all three measures were inside the very good reliability range.

5.3 Validity Analysis

In this research, the scale is primarily derived from more mature domestic and international questionnaires, therefore its validity is high. This study uses KMO values to review the data and determine whether it is suitable for factor analysis in order to assess the reliability of the scale; when KMO is greater than 0.6, it indicates that the scale is generally suitable. The KMO of the employee knowledge sharing behavior scale, as determined by the data, is 0.838, and the chi-square value of Bartlett's sphericity test is 1021.63; the KMO of the organizational performance scale is 0.928, and the value of Bartlett's sphericity test is 1718.337; and the KMO of the self-efficacy scale is 0.946. All three p-values were less than 0.001, allowing for factor analysis.

Table 1 KMO and Bartlett test.

		Knowledge-sharing behavior	Corporate Innovation Performance	Self-efficacy
KMO Sampling suitability quantity		0.838	0.928	0.945
Bartlett's sphericity test	Approximate cardinality	1021.634	1718.337	1468.268
	df	15	28	45
	Sig	0.000	0.000	0.000

In addition, public factors were extracted from the scales using principal component analysis. The employee knowledge sharing scale extracted a public factor explaining 76.906% of the variance, the organizational performance scale extracted a public factor explaining 73.102% of the variance, and the self-efficacy scale extracted a public factor explaining 73.102% of the variance.

5.4 Correlation analysis

To explore the strength of the relationship between different variables, correlation analysis was chosen to test, when $r < 0$, the different variables tested were negatively correlated with each other. In this paper, the correlations of the three variables in the model were analyzed and the results are shown in the following table.

Table 2 Correlation analysis table of variables.

	Employee knowledge-sharing behavior	Corporate Innovation Performance	Self-efficacy
Employee knowledge-sharing behavior	1		
Corporate Innovation Performance	0.709**	1	
Self-efficacy	0.511**	0.735**	1
** Significant correlation at the 0.01 level (two-tailed).			

The correlation coefficient between employee knowledge sharing behavior and corporate innovation performance is 0.709, indicating a significant positive correlation; the correlation coefficient between self-efficacy and employee knowledge sharing behavior is 0.511, indicating a significant positive correlation; and the correlation coefficient between self-efficacy and corporate innovation performance is 0.735, also indicating a significant positive correlation.

5.5 Regression analysis

The precise interaction mechanism between the research variables must be characterized and reflected in a regression equation that examines the linear relationship between the independent and dependent variables and the moderating variables in the model. According to the table, based on the regression analysis of the independent variable and the dependent variable, $P < 0.05$, the regression coefficient of the independent variable employee knowledge sharing behavior and corporate innovation performance reached a significant level, indicating that there is a significant linear correlation between employee knowledge sharing behavior and corporate innovation performance, thus supporting hypothesis H1. The innovation performance of an organization is the dependent variable. When the interaction term is included, the climbs from 0.699 to 0.709, reaching a level that is statistically significant, demonstrating that the moderating influence of self-efficacy on employee knowledge sharing behavior and corporate innovation performance does exist.

Table 3 Regression analysis table with interaction terms added.

	model 1	model 2	model 3
Gender	0.028**	0.138*	0.135*
Age	-0.152	-0.058	-0.055
Position	-0.104	-0.032	-0.018
Academic qualifications	-0.124*	-0.088*	-0.092*
Years of work	0.047*	0.038	0.038
Employee knowledge-sharing behavior	0.871	0.556**	0.457*
Self-efficacy	0.493**	0.543*	
Interaction items			-0.262*
AdjustedR ²	0.534	0.699	0.709
ΔR ²	-	0.16	0.012
F-value	123.351	77.439	5.768
VIF value	1.006	1.185	1.355

The equation is obtained from the table:

$$\text{Corporate Innovation Performance} = 0.457 * \text{Knowledge Sharing Behavior} + 0.543 * \text{Self-Efficacy} - 0.262 * (\text{Knowledge Sharing Behavior} * \text{Self-Efficacy}) - 0.125 + \varepsilon \quad (1)$$

The table demonstrates that employees with high self-efficacy lower the firm's innovation performance relative to employees with low self-efficacy, and that self-efficacy has an offline moderating influence on knowledge-sharing behavior and corporate innovation performance.

6. Discussion of empirical results and management recommendations

6.1 Discussion of empirical results

6.1.1 Employee Knowledge Sharing Behavior Has a Significant Positive Effect on Corporate Innovation Performance

In this study, knowledge-sharing behavior has a statistically significant beneficial effect on business innovation performance, and its regression coefficient is 0.871. The findings of this study indicate that employees continuously acquire, absorb, and reprocess effective and new knowledge, thereby forming a knowledge network structure conducive to corporate growth. When an enterprise builds a platform and classification system for effective knowledge management and is able to effectively and reasonably promote mutual transfer and transformation among its members, the gap between the enterprise and the outside world is gradually narrowed, and the enterprise's core competitiveness in the outside world can eventually be established.

6.1.2 Employee Self-efficacy Plays a Moderating Role in the Relationship Between Employee Knowledge Sharing Behavior and Corporate Innovation Performance

The conclusion of the study is that self-efficacy moderates the association between knowledge sharing and corporate innovation performance. Employees with high levels of self-efficacy are confident in their abilities and cherish progression possibilities when they are provided. They perceive information as a scarce resource that boosts their competitiveness and, as a result, are hesitant to share it with other members.

6.2 Management Recommendations

6.2.1 Building a Knowledge Sharing Platform

The knowledge network platform can help employees share knowledge, and through absorbing and organizing internal and external knowledge resources and innovating to a certain extent, the enterprise's knowledge system is formed over time; however, the knowledge absorbed externally must be screened and reconstructed before being incorporated into the enterprise's own knowledge management system, eliminating the knowledge generation gap so that information can flow into the organization more effectively.

6.2.2 Create a Good Organizational Culture

A healthy organizational environment can foster a particular type of human behavior and motivate individuals to engage in productive actions. Through the construction of corporate cultures such as training, propaganda, performance evaluation, and other activities, employees spontaneously engage in knowledge-sharing as a means of enhancing their self-evaluation, gaining positive feedback in the process, and gaining a sense of their value. As a result, they are more willing to share their knowledge skills with colleagues in order to learn.

6.2.3 Improve the Channels of Knowledge Sharing and Communication

Communication is a means of exchanging knowledge; when firms provide effective communication channels, role conflicts amongst employees can be reduced. For instance, if the recommendation process to superiors is flat, superiors may receive timely suggestions so that employees can feel a sense of participation and value, and their identification with the firm can positively boost knowledge exchange and increase corporate innovation performance.

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