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Knowledge Sharing Influence on Innovation: A Case of Textile and Garment Enterprises in Vietnam

Nguyen Dinh HOA¹, Vu Ba THANH², Vu Thanh MAI³, Le Van TUNG⁴, Huynh Vo Thuc QUYEN⁵

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Abstract

The study seeks to investigate the relationship between knowledge sharing and innovation in garment and textile enterprises. While previous research has found many factors influencing knowledge sharing, little research has been done about the influence of knowledge sharing on innovation in enterprises in developing countries like Vietnam. In particular, the textile industry plays an important role in export, but outsourcing is accounting for a high proportion of trade; it is necessary to increase innovation in order to increase the competitive advantage by internal capacity. The data is collected from a survey of 245 employees at 20 textile and garment enterprises in Vietnam to study the knowledge sharing influence on innovation. The methodology includes pilot study and quantitative method. The pilot study tests the questionnaire on the respondents. The quantitative method applies SEM analysis to measure the knowledge sharing influence on innovation. The results identify eight factors that positively impact knowledge sharing: rewarding, teamwork, management support, joy of knowledge sharing, communication, trust, commitment, and information technology. This study also shows that knowledge sharing affects innovation. The main findings are discussed for textile and garment enterprises to apply innovative capacity in the context of increasing global integration.

Keywords: Trust, Management Support, Reward, Teamwork, Knowledge Sharing, Innovation.

JEL Classification Code: M10, M12, M19

1. Introduction

In today's organizations, employee's knowledge needs to be shared through the transfer and reception of knowledge among employees to increase competitive advantage. Knowledge sharing refers to employees exchanging knowledge, skills and experience when they work together to accomplish tasks and develop the organization (Svetlik et al, 2007; Yi, 2009). Knowledge sharing is being applied by managers to increase innovation and help organizations gain a competitive advantage (Scarbrough, 2003; Rhodes, 2008). The sharing of knowledge will help many employees acquire the knowledge to improve work efficiency and innovation, and help organizations develop sustainably. Svetlik et al (2007) indicated that employees are willing to provide and receive knowledge that enables businesses to be highly innovative and quickly achieve excellent performance. Wang (2010) assumed that employees who are ready to exchange their knowledge will produce positive results. In addition, many studies have proved that knowledge sharing is a key factor influence on innovation in enterprises and pushes the enterprises to increase their competitive advantage in the knowledge era (Scarbrough, 2003; Amayah, 2013).

In Vietnam, the textile and garment industry is a focus of development as the country carries out industrialization. With large labor resources and low labor costs, Vietnam can improve its competitiveness to achieve high export value, create jobs for workers, and develop the country's economy. However, after many years, most of the textile and apparel enterprises still service foreign countries, their creative capacity to increase their competitive advantage

¹First Author and Corresponding Author. Faculty of Labor Relations and Trade Unions, Ton Duc Thang University, Vietnam [Postal Address: 19 Nguyen Huu Tho, Tan Phong Ward, District 7, Ho Chi Minh City, 758307, Vietnam] Email: nguyendinhhoa@tdtu.edu.vn

²Faculty of Labor Relations and Trade Unions, Ton Duc Thang University, Vietnam. Email: vbthanh1205@gmail.com

³Faculty of Labor Relations and Trade Unions, Ton Duc Thang University, Vietnam. Email: thanhmaivu2207@gmail.com

⁴Faculty of Labor Relations and Trade Unions, Ton Duc Thang University, Vietnam. Email: levantung.vtrsi@gmail.com

⁵Faculty of Labor Relations and Trade Unions, Ton Duc Thang University, Vietnam. Email: huynhvothucquyen@tdtu.edu.vn

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is still limited. Because of the limited innovative capacity to improve technology and products, most businesses still produce for foreign corporations. It reduces the added value and makes it difficult for local enterprises to compete with foreign corporations.

It is entirely possible to innovate and increase the competitive advantage of the clothing enterprises as a number of companies in this industry have been successfully promoting innovation. Typically, Viettien Garment Corporation is a company with 100% domestic capital; Viettien Garment Corporation operates with a core value of innovation. The company has a high export turnover through Asian and Europe countries, and especially America, where there are strict requirements on commodity standards. Viettien Garment Corporation designs its own clothing and signs cooperation with major domestic designers. From the example of Viet Tien's success, it is possible to believe that other businesses in the industry interested in innovation will enhance their competitive position in the market and develop sustainably.

This study focused on 20 textile and garment enterprises with trade unions joining Ho Chi Minh City Textile and Garment trade Unions, with typical enterprises including Thai Tuan Fashion Group Corporation, Binh Hoa Garment Co., Ltd, Mountech Company Ltd, Saigon Garment Company, 3Q Vina Co., Ltd, Han Mao Garment Company Limited, and Huong Moi Company, with a total employment of 7,586 people. If these enterprises increase their innovation, it is entirely possible to increase the values for their customers. However, there are only six great value innovations in the 20 enterprises in this industry. Typically, there is an innovation that has helped businesses generate 1 billion profit in one year. It is an initiative by Mountech Co., Ltd. based on the idea of taking advantage of dry cloth and excess materials after production to clean machines and clean the work area. However, the ratio of innovations on the quantity of enterprises or the quantity of employees is still low and employees should improve the sharing of knowledge together.

For enterprises to fiercely compete in the textile and garment market in order to increase their competitive advantage, employees should share knowledge to promote innovation. Employees share their knowledge is a relatively new issue with textile and garment enterprises, but it has brought many positive results. If knowledge sharing is widely disseminated, textile and garment enterprises can increase their competitive advantage, develop many products with their own brands, and reduce the processing volume for foreign corporations. Textile and garment enterprises' innovations not only focus on technology innovation or product innovation, but also innovation in work processes in departments such as accounting, human resources, sales and purchasing. Innovation is performed in all parts to be

able to create synchronized and comprehensive innovation in the enterprises.

Up to now, there have been many studies on the factors influencing knowledge sharing (Bock et al., 2005; Sáenz et al., 2009; Wang & Noe, 2010). However, there are not many validated studies on the impact of knowledge sharing on innovation, especially in the textile and garment industry of developing countries. This study fills a gap by examining the problems of knowledge sharing in 20 enterprises. This study's objectives are to measure the knowledge sharing impact on innovation and discuss research results to improve innovation in textile and garment enterprises.

2. Literature Review

2.1. Knowledge Sharing

Svetlik et al (2007) defines knowledge sharing as interaction between employees to exchange knowledge, experience and skills. Similarly, shared knowledge means the skills and experiences exchange including tacit knowledge and implicit knowledge (Nonaka, & Takeuchi, 2007). Besides, knowledge sharing includes transferring, learning and generating own knowledge (Foss et al., 2010). And Chow and Chan (2008) assume that employees sharing knowledge is a necessary exchange of knowledge for work. Svetlik et al (2007) argues the sharing of knowledge can be categorized among employees, groups or enterprises. The sharing of knowledge includes both sharing and acquiring knowledge (Cabrera et al., 2006). For the authors the sharing of knowledge means employees and groups share tacit knowledge and implicit knowledge together in order to use the knowledge to increase organizational innovation and organizational performance.

For Svetlik et al (2007), knowledge sharing is necessary because the organization will improve working performance. Knowledge sharing is important because it enhances personal skills and innovation. Knowledge sharing among individuals and groups is important for enterprises to explore the need and source to acquire, generate and enrich the knowledge in order to increase productivity (Wang et al., 2012). The sharing of knowledge reduces costs, completes projects on time, improves team decision, innovation, and increases revenue (Huang et al., 2010; Mesmer-Magnus & DeChurch, 2009; Wang et al., 2012). Shared knowledge focuses more on gathering and diffusing knowledge, contributing to knowledge learning, usage and knowledge development within the organization (Wang et al., 2012).

There are many factors affecting knowledge sharing, in which three main groups of factors include: individuals, organizations, and technology (Taylor & Wright, 2004; Svetlik et al, 2007). Personal factors include the joy of sharing knowledge, trust, communication and commitment. Most

researchers have found that knowledge sharing is influenced by personal factors including confidence, trust, and the joy of sharing knowledge (Wasko and Faraj, 2005). Enterprise factors include management support, teamwork, and rewards. When managers motivate employees to exchange knowledge to meet their needs and make them feel satisfied, employees will share knowledge (Lin, 2006; Cabrera et al., 2006). Technology factors such as information technology positively relate to the sharing of knowledge because this factor is a means for employees to exchange at work (Kim 2006; Sher & Lee, 2004).

2.2. Innovation

Innovation is the implementation of new thinking by organizations and industries to improve their work (Chen et al., 2010). Innovation is a new way of working, saving time and money, and creating a competitive advantage. Chuang (2005) assumes that innovation is about applying unique and useful concepts to products, services, and ways of doing things. Innovation is the application of new techniques to produce new products. New products have lower costs, improved or create new functions, or products and services that never existed before (Svetlik et al, 2007). Innovation is a new idea for new products, production processes, technologies, structures and management systems and plans (Sáenz et al., 2009; Nieves et al., 2014).

Studies are divided into two main categories of innovation: product innovation and process innovation (Chuang, 2005; Sáenz et al., 2009). This study approaches innovation based on this division. Innovation is considered to be one of the main drivers of enterprises' sustainable competitiveness (Sáenz, 2009; Chen et al, 2010). In the future, the enterprises will face tough competition so innovation is the key factor to decide the survival of enterprises (Rifat et al., 2010, Nieves et al., 2014).

2.3. The Research Hypothesis

2.3.1. Factors Affecting Knowledge Sharing

Trust is one of the factors that influence employee's knowledge sharing (Hsu et al., 2007; Chow & Chan, 2008). The joy of sharing knowledge and helping colleagues is also an individual factor that influences employee's knowledge sharing (Svetlik et al, 2007). Teamwork allows organizations to incorporate the diverse knowledge and skills of employees into problem-solving and promote knowledge sharing. Teamwork brings employees into close contacts and personal relationships, trust each other and promote knowledge sharing (Wang & Noe, 2010; Wickramasinghe et al., 2012).

Communication among colleagues in the organization encourages knowledge sharing (Hooff & Ridder, 2004).

Managers promote knowledge sharing, open discussions, enthusiastic debate, and create for individuals the ability to freely express their ideas and opinions at any job position (Al-Alawi et al., 2007). According to MacNeil (2004), the support and attention of managers will impact on employee awareness about knowledge sharing. The employee's emotional commitment to the organization leads to employees wanting to contribute to the organization and promote knowledge sharing with their colleagues (Cabrera et al., 2006).

Individuals who share knowledge are interested in rewards (Cabrera et al., 2006). Šajeva (2014), employees will be more engaged to share knowledge if managers motivate them to transfer their knowledge. A fair reward regime will motivate employees to be ready to exchange their knowledge (Wickramasinghe et al., 2008). Information technology systems promote the knowledge transfer between employees in the organization (Kim et al., 2006). Rhodes et al. (2008), Information technology system is a factor to motivate employees to share knowledge. Information technology systems create interactions that support daily activities, problem solving and decision making within the organization (Huysman et al., 2006).

The authors agree with the previous research and believes that the trust, joy of knowledge sharing, organizational commitment, teamwork, manager support, reward, communication, and information technology have a positive impact on knowledge sharing of employees in the textile and garment enterprises. Based on the findings of previous studies and the context of the enterprises, the following eight hypotheses are developed:

H1: Trust of the colleagues positively influences knowledge sharing.

H2: Joy of sharing knowledge positively influences knowledge sharing.

H3: Reward positively influences knowledge sharing.

H4: Management support positively influences knowledge sharing.

H5: Organizational commitment positively influences knowledge sharing.

H6: Teamwork positively influences knowledge sharing..

H7: Communication positively influences knowledge sharing..

H8: Information technology positively influences knowledge sharing..

2.3.2. Knowledge Sharing Impacts on Innovation

Previous studies have suggested that employees sharing their knowledge will promote organizational innovation. Svetlik et al (2007) considers the creation of organizational knowledge as the key to enterprises' innovation; an organization that can create knowledge will lead the organization to innovate. Other

studies indicate that employees sharing the knowledge is one of the essential premises for promoting enterprises' innovation (Scarbrough, 2003; Sáenz et al., 2009; Rifat et al., 2010). The authors also agree with the previous research results and argue that knowledge sharing greatly affects innovation in the textile and garment enterprises. Therefore, the authors developed the following hypothesis:

H9: Knowledge sharing positively impacts on innovation.

From the nine research hypotheses, the authors developed a research model to study the impact of knowledge sharing on innovation in textile and garment enterprises as follows (see Figure 1):

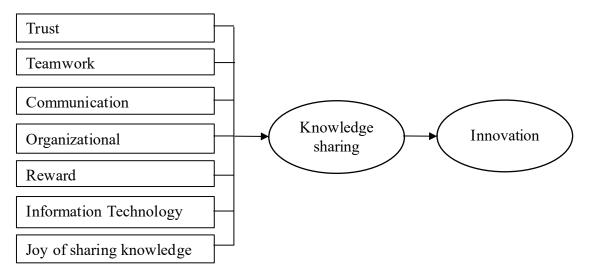


Figure 1: Conceptual research model

3. Research Methodology

3.1. Sample

The rule in determining the sample size for CFA analysis is that the sample size must be at least five times the size of the scales (Hair et al., 1998). The scales of this study have 45 observed variables so the sample size is at least 5 * 45 = 225 observations. Thus, the sample size of 245 respondents at textile and garment enterprises met the above criteria and was eligible for CFA analysis and SEM structure model.

3.2. Scales

This study uses a confidence scale with five observed variables (Svetlik et al, 2007; Hsu et al., 2007), a teamwork scale with five observed variables (Alsharo, 2013), and a communication scale with five variables. observation (Islam, 2011), the executive management support scale has five observed variables (Svetlik et al, 2007), the commitment scale has five observed variables (Wang, 2004), the reward scale has five variables observation (Svetlik et al, 2007), the scale of information system has five observed variables (Svetlik et al, 2007), the scale joy of knowledge sharing has five observed variables (Svetlik et al, 2007), the sharing of knowledge scale has five observed variables (Bock et al.,

2005) and the innovation scale has five observed variables (Svetlik et al, 2007). Each scale uses a 5-point Likert scale ranging from 1 - totally disagree to 5 - totally agree. The authors conducted a pilot study with seven employees to refine the terms before the survey is finalized.

3.3. Data

This study applied convenient sampling when surveying employees working in textile and garment enterprises. The authors sent a questionnaire to 280 employees working in 20 textile and garment enterprises. Each enterprise was sent 14 questionnaires for employees working in production, engineering, human resources, sales, purchasing, and quality management departments. After a week, thanks to the support of union officials, the authors collected 263 responses, of which 245 were valid. This study uses data processing to analyze scale reliability, CFA analysis and SEM structure model analysis.

4. Results

4.1. Sample Profiles

The authors issued a questionnaire to 280 employees working in 20 textile and garment enterprises. Each business

issued 14 questionnaires for employees working in production, engineering, human resources, sales, purchasing, and quality management departments. After a week, thanks to the support of union officials, the authors collected 263 responses, of which 245 were valid. The sample has 129 male employees

(53%); 95 employees (39%) were 35 to 45 year-old; 128 employees (52%) went to university; and 160 employees (65%) had a seniority under five years The study sample was selected according to a convenient method, but represented many demographic groups of employees (see Table 1).

Table 1: Demographic analysis

Respondent's profile	Categories	Frequency	Percent (%)	
Cav	Male	129	53	
Sex	Female	116	47	
	Below 25	34	14	
Age	from 25 to 35	74	30	
	from 35 to 45	95	39	
	over 45	42	17	
Educational level	Postgraduate	117	48	
	University	128	52	
0	Less than 5 years	160	65	
Seniority	From 5 years	85	35	
Total		245	100	

Table 2: Result of descriptive statistics of variables

Variables	Mean	Std. Deviation	
Reward	3.86	0.79	
Teamwork	3.89	0.84	
Senior management support	3.72	0.91	
The joy of sharing knowledge	3.79	0.93	
Communication	3.75	0.98	
Commitment	3.78	0.82	
Truth	3.45	1.01	
Information Technology	3.69	0.99	
Knowledge sharing	3.77	0.71	
Innovation	3.77	0.80	

4.2. Descriptive Statistics

The statistical results describing the variables in the study model in the table below show that trust has the lowest mean value (Mean = 3.45), and teamwork has the highest mean

value (Mean = 3.89). The two dependent variables include knowledge sharing (Mean = 3.77) and innovation (Mean = 3.77). In general, staff awareness of the independent and dependent variables is not high, just above the neutral level, indicating that these factors need to be improved (see Table 2).

Variable	Scales	Items Retained	Cronbach's alpha
Reward	Reward	5	0.888
Teamwork	Team	5	0.773
Senior management support	Topsup	5	0.824
The joy of sharing knowledge	Enjoy	5	0.846
Communication	Comu	5	0.819
Commitment	Commit	5	0.875
Truth	Trust	5	0.886
Information Technology	Techno	4	0.851
Knowledge sharing	Owshare	5	0.928
Innovation	Firm	5	0.911

Table 3: The reliability test results of variable scales

4.3. Reliability of Scales

The reliability of the scales analysis show Cronbach's Alpha > 0.6, the observed variables have the total correlation > 0.3 so the scales achieve reliability and all observed variables are retained for further CFA analysis (see Table 3).

4.4. Results of EFA and CFA Analysis

To analyze CFA, the study first applies EFA to measure the convergence of the scale. All eight independent variables and two dependent variables were included in the factor analysis once by Principal Promax rotation method was used after performing the analysis six times, leading to the elimination of the variables Team5, Reward2, Firm5, Owshare3, Teachno 2 because the load factor is <0.05. The results of EFA analysis with KMO = 0.842> 0.6 indicate that the EFA analysis is suitable. Bartlett's Test has a Sig coefficient of 0.000 < 0.5, indicating the correlation observed in the population. For Eigenvalues = 1,084> 1, the result of rotating the data element is extracted into 10 factors. Extraction variance = 63.7%> 50% of the factors explains 63.7% of data variation and identifies 10 factors as the original concept, of which eight factors are independent variables and two are dependent variable.

After EFA analysis, the authors conducted CFA analysis to verify the factors affecting knowledge sharing. CFA analysis results have Chi-square / df = 1,560 < 3, GFI = 0.823 < 0.9 (Hair et al., 2017), TLI = 0.924 > 0.9, CFI = 0.932 > 0.9, RMSEA = 0.048 < 0.05. Thus, both indexes meet the acceptance threshold of CFA analysis model.

4.5. Results of SEM Analysis

The results of SEM structure analysis have Chi-square / df = 1.699 <3, GFI = 0.811 <0.9 (Forza & Filippini, 1998),

TLI = 0.907 > 0.9, CFI = 0.916 > 0.9, RMSEA = 0.054 > 0.05 (Awang, 2012). Thus, the indicators reached the acceptable level of SEM analysis model. The results of SEM analysis allow the authors to conclude that the model consists of eight independent variables and two dependent variables fully meet testing standards.

5. Discussion

The results of SEM analysis with significance level P also indicate that all the research hypotheses are accepted at significant levels from 0.01 to 0.05 in Table 4.

This study found that the reward system has the strongest influence on the sharing of knowledge ($\beta = 0.250$, P <0.01). This relationship is suitable for the context of textile and garment enterprises, when employees are recognized and rewarded; when they share knowledge, they will motivate them to exchange knowledge with each other. Managers should apply rewards when the employees share knowledge (Cabrera et al., 2006; Wickramasinghe, 2012).

Teamwork has the second strongest impact on the sharing of knowledge ($\beta = 0.234$, P <0.01). This result is consistent with the textile and garment enterprises. When enterprises organize teamwork in the accounting, human resources and design departments, employees have the opportunity to share knowledge with each other. Managers also share knowledge through discussions, planning, and contributing ideas to solve problems that arise at work. Managers should organize teamwork among different skilled employees who will share knowledge (Wickramasinghe et al., 2012; Alsharo, 2013).

The support of senior managers also affects knowledge sharing in this study ($\beta = 0.161$, P <0.05). In the context of this research, if senior managers build a good climate for the sharing of knowledge and exemplify knowledge sharing as well as engage employees to take similar actions in the form of communication, commendation and rewards, the

			Estimate	S.E.	C.R.	Р
KNOWSHARE	<	TRUST	.085	.032	2.671	.008
KNOWSHARE	<	COMMIT	.085	.042	2.028	.043
KNOWSHARE	<	ENJOY	.155	.058	2.675	.007
KNOWSHARE	<	REWARD	.250	.051	4.952	***
KNOWSHARE	<	COMU	.137	.061	2.234	.025
KNOWSHARE	<	TECHNO	.078	.030	2.604	.009
KNOWSHARE	<	TOPSUP	.161	.067	2.399	.016
KNOWSHARE	<	TEAM	.234	.069	3.387	***
FIRM	<	KNOWSHARE	.334	.074	4.509	***

Table 4: Test results of research hypotheses

(*** p<0.01)

employees will be motivated to share knowledge. This result shows that senior managers need to pay attention to supporting employees to share their knowledge (Bock et al, 2005; Lin 2006).

Knowledge sharing pleasure was also found to influence the sharing of knowledge among the employees ($\beta = 0.155$, P <0.05). When employees of the textile and garment enterprises are able to express the joy of sharing knowledge themselves, it will positively increase the process of sharing knowledge among employees. This result shows that managers need to record knowledge sharing behavior so that employees have fun when sharing knowledge (Svetlik et al, 2007; Yu et al., 2010). Communication also impacts on the sharing of knowledge ($\beta = 0.137$, P < 0.05). This relationship can explain communication of the textile and garment industry staff with each other, the opportunity to present ideas or make business argument with colleagues, which is the ways for employees to share knowledge with each other. The result shows that managers need to offer more open communication to share knowledge about work (Alawi et al., 2007; Islam, 2011).

Organizational commitment is a factor that impacts on the sharing of knowledge in this study (β = 0.085, P <0.05). This relationship can be explained when workers in these enterprises are committed to the organization, they develop feelings and want to contribute to the development of the unit through actively knowledge sharing with other colleagues. This result shows that managers need to pay attention on increasing employee's emotional commitment so that they will share knowledge (Hooff & Ridder, 2004; Cabrera et al., 2006).

Trust is the next factor impacting on the sharing of knowledge in the textile and garment enterprises ($\beta = 0.085$, P<0.05). This relationship can be explained when textile and garment industry employees are trusted by their colleagues, especially in the ability and experience to share knowledge with colleagues. The result shows that managers need to

increase trust with employees and employees with each other, so the knowledge sharing will be increased (Svetlik et al., 2007; Hsu et al., 2007).

Information technology system is the last factor that impacts on the sharing of knowledge ($\beta = 0.78$, P <0.05). The authors found that, when textile and garment workers use information technology including e-mail, software to exchange work with colleagues, they will give each other ideas about the work, which will make sharing knowledge greater and easier. Managers should invest in information systems for employees to share knowledge (Sher & Lee, 2004; Kim, 2006; Alawi et al., 2007).

This study found that the sharing of knowledge affects innovation in the textile and garment industry with high confidence ($\beta = 0.334$, P <0.01). The authors found that, when textile and garment workers share knowledge, their competencies improve and they handle work creatively. Finally, the authors imply that managers need to share knowledge to promote innovation in organizations (Svetlik et al, 2007; Sáenz, 2009; Rifat, 2010).

6. Conclusions and Limitations

6.1. Conclusions

Based on the research objectives, the study team proposed a research model of knowledge sharing influence on innovation. This model is established through research hypotheses based on the situation in twenty textile and garment enterprises as well as the review of related literature. The research model has a new feature compared to previous ones, which suggests that the proposal is more complete with eight factors affecting the sharing of knowledge. The study also measures the knowledge sharing impact on innovation. In particular, this study conducted in developing countries, provided more evidence on the important role of knowledge sharing. The authors adopted the variable scales from other

scholars to survey the employees who currently work in 20 enterprises with trade unions under the Textile and Garment Trade Union. The methods used in the study include a pilot study and a quantitative study.

The pilot study was based on interviewing a group of seven employees working in textile and garment enterprises to adjust the scales. Quantitative research was conducted to test nine research hypotheses with a sample size of 245 employees at 20 textile and garment enterprises. Through reliability test, the result shows variable scales are reliable with Cronbach's Alpha> 0.6. The EFA analysis indicates KMO, Sig gave the achieved values and ensure the reliability. Factors extracted from the independent variables were teamwork, organizational commitment, management support, trust, reward, information technology, communication, and joy of sharing knowledge; the dependent variables were knowledge sharing and innovation. The CFA analysis with all variables shows results of high convergence of variable scales. The results of SEM analysis have nine accepted hypotheses with satisfactory tests.

Study results show that the reward and teamwork strongly influence the sharing of knowledge, followed by the joy of sharing knowledge, the senior management support, and communication, which are important elements of knowledge sharing, so they also show a strong impact on the sharing of knowledge. Truth and commitment also show a great influence. The impact of information technology is not too large. The study results are similar to many previous studies and suitable to the knowledge-sharing context of textile and garment enterprises. The study results show that eight factors in the research model positively influence the promotion of the current sharing of knowledge in textile and garment enterprises. The descriptive statistical analysis results also indicate that the employee's perception of these eight factors in the research model is not high. The authors also imply that these enterprises should refer to the scale of these factors to improve solutions to promote knowledge sharing and innovation.

6.2. Limitations of the Study

The study has achieved its research objectives, but there are still limitations that need to be addressed in subsequent studies. Researching convenient samples, the ability of generalizing for the whole is not high. To improve the value of the research, the authors recommend the use of a more representative sampling method such as probability sampling. At the same time, this study was conducted in only 20 textile and garment enterprises with trade unions, so it did not offer a comprehensive overview of the whole textile and garment sectors. This study has not selected the sample of highly innovative enterprises in this sector to compare

then give lessons for the remaining textile and garment enterprises.

The GFI index ranges from 0.8 to 0.9, which indicates that the model is not really perfect, possibly due to inadequate control of research data collection, inconsistent study sample, and a small sample size. Therefore, further research will control data collection and sample selection with homogeneity, and increase the sample size. Because knowledge sharing is a new field, textile and garment enterprises do not have secondary data on the sharing of knowledge. In addition, the authors have limited time to conduct this research, so this study only focuses on testing the research hypotheses, not focusing on in-depth interviews with employees about knowledge sharing behaviors to fully evaluate the strong and weak aspects of knowledge sharing in textile and garment enterprises.

The study also did not test other independent variables such as organizational culture and empowerment impact on the sharing of knowledge. In addition, the study focuses on knowledge-sharing influence on innovation, not measuring the knowledge-sharing influence on other behaviors include job performance, organizational citizen behavior and organization performance. These are topics for further research.

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