

FACTORS AFFECTING LECTURERS' KNOWLEDGE SHARING ACTIVITIES IN UNIVERSITIES IN HO CHI MINH CITY, VIETNAM

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ABSTRACT:

The study is aiming to determine the factors affecting the knowledge sharing of lecturers employing in universities in HCM City. With the analytical tool of SPSS 22.0 with Multivariate Linear Regression Analysis by Ordinal Least Squares – OLS, 350 samples were used in the study to understand that the knowledge sharing of lecturers includes Trust, Teamwork, Communication among Staff, Leadership Support, Commitment, Organizational Rewards, and Information Technology. As a result, teamwork is the most crucial in sharing the knowledge of lecturers and Trust, Commitment and Information Technology are followed. From the study results, recommendations have been formulated to improve knowledge sharing activities of lecturers and knowledge management activities in universities in HCM City.

Keywords: knowledge, knowledge sharing, trust, commitment, organizational culture.

I. INTRODUCTION

Knowledge is becoming the most important resource, the most valuable asset and forms the basis of competitive advantage of an organization (Bock et al., 2005). Besides, knowledge needs to be transferred and shared among individuals and organizations to promote and create their value and revenue (Drucker, 1993; Kimiz, 2005). However, how to get employees ready to take on new challenges and share their accumulated knowledge, or encouraged them to participate in knowledge-based activities, etc. That is an important chain. It can be seen that as traditional competition resources of enterprises such as capital, materials, technology, etc. gradually become saturated, a new alternative competitive resource is human, knowledge. Besides, the resource of knowledge when distributed and shared at a certain level will become a type of public goods (Thanh, 2014).

Knowledge sharing is one of the leaders' biggest challenges because employees often do not want to join in sharing this knowledge. The joining is not only time consuming but also can be a threat to their position in the organizations (Bukowitz & Williams, 1999). Consequently, in knowledge management, knowledge sharing is considered as one of the most difficult activities (Ruggles, 1998). Therefore, knowledge sharing is not consistent with human nature, they are afraid that they will lose the power of their knowledge in the organizations if they shared it with others (Davenport, 1997).

According to Cronin & Davenport (2000), the nature of a university is a knowledge organization, which is recognized as a knowledge business since knowledge is produced,

distributed and applied. Thus, knowledge management is defined as a key function of universities, a strategic tool for universities to achieve and maintain sustainable competitive advantage (Sharmila et al., 2009). However, so far studies related to knowledge management processes in universities are very few. Many previous studies suggested that knowledge management depends entirely on technology and missed many other important factors. A new knowledge management model requires exchange and cooperation among lecturers in a university, creating a better environment for knowledge sharing so that knowledge management strategies are effective, encouraging lecturers to participate more in common knowledge sharing activities. On the other hand, there have been several studies suggesting the implementation of the knowledge management processes in organizations, even in some universities, but there are very few studies to experimentally test such processes (Sharmila & 2008). Therefore, recognizing the importance of building knowledge management processes in universities, testing the factors affecting knowledge sharing activities of lecturers by experiment is the main goal of this research. Thereof, it is the basis for planning policies, plans and proposing strategic solutions to improve and motivate knowledge sharing activities of lecturers and management knowledge activities effectively in universities in Ho Chi Minh City, Vietnam.

II. THEORETICAL BASIS AND HYPOTHESIS

II.1. KNOWLEDGE

Knowledge is defined by Nonaka & Takeuchi (1995) as “a dynamic process of human to prove his/her personal beliefs in what he/she considers to be the truth”. For Davenport & Prusak (1998), knowledge is a collection of experiences, values, contextual information, and deep understanding to provide an evaluation model, coordinatedly creating new experiences and information. They suppose that knowledge originates and is applied right in people’s minds. In organizations, knowledge not only appears in documents but also in organizations’ habits, working processes, practices and standards. Knowledge is often confused with information, in fact, they are two completely different concepts (Gray, 2007). Malhotra (2000) argues that there is confusion between knowledge and information that causes policymakers to spend a lot of time, effort and money on investing in information technology systems, yet it doesn’t work out too well as expected.

Martensson (2000) affirms that knowledge is the basic factor, making organizations to create innovative products and services with the most common definition of knowledge as “ideas or understanding used by individuals to perform effective actions to achieve the organization's goals”. Drucker (1994) concludes that knowledge is the key resource for each individual in particular and organizations in general. Factors of production processes such as land, labor do not disappear but they are no longer important in development processes. It illustrates that knowledge is different from people, money, machines or materials because knowledge is difficult to be scaled up and it is also difficult to develop alternative strategies. In a knowledge economy, nor land or machines is the main asset, yet knowledge, expertise, and innovation are great profitable assets that enhance the competitive advantage of the organization. So, knowledge must be managed effectively. Jain et al. (2007) believe that knowledge is an important input resource in most organizations since it allows organizations to develop and create their competitive advantages, whereas Hsu (2006) emphasizes that knowledge helps in employee evaluations, helps employees perform their tasks and creates the organization's ultimate competitive advantage. Hence, effective management and usage of knowledge help an organization to maintain and improve its competitive advantage and is a key factor for its success.

Kothuri (2002) emphasizes that knowledge in organizations is considered as the intellectual capital and it exists in two main forms of existing and hidden. Existing knowledge is less dependent on people, can be systemized, measurable, popularized and stored, including information, skills in communication and data transmission to others. Hidden knowledge depends very much on individuals and can be created by processing information combined with knowledge and experience. According to Zack (1999), most of the knowledge in organizations is hidden so it is difficult to connect them. The reason is that knowledge is always in each individual's brain, including many cognitive skills such as beliefs, images, intuition, and skills; it is not documents or vouchers, so it is difficult to be interpreted or described clearly.

Knowledge of either form is accumulated through daily experience, so it can be shared during the interactions between individuals in each organization. It should be noticed that knowledge can be lost or no longer in the organization when the employee of ownership no longer works there, or when the organization decides to change the structure of the working team or when they impose other knowledge on working processes. Thus, hidden knowledge is more strategic for the organization because it is created from specific situations and events in working processes, then it is difficult to be copied.

II.2. KNOWLEDGE SHARING

Knowledge sharing is defined as an exchange of knowledge of skills, experience, and understanding among individuals in an organization (Tsui et al., 2006). Geraint (1998) argues that knowledge sharing can help employees share their knowledge and experience to complete projects and plans quickly and economically. Also, sharing knowledge relates to individuals in sharing information, ideas, suggestions, and proficiency with others in the organization.

Maponya (2004) shows that knowledge sharing is based on experience gained from working inside and outside an organization. If knowledge is available within the staff, the organization will minimize duplicate decisions and can solve problems faster. Effective knowledge-sharing activities will help reuse individual knowledge and enhance knowledge to a high level.

Tsui et al. (2006) have defined the mechanisms of knowledge sharing in an organization:

- Contributing knowledge to the organization's database.
- Sharing knowledge during a formal and informal interaction with members inside and outside the working team/group.
- Sharing knowledge in community activities.

Like knowledge, knowledge sharing is also visible or invisible. Visible knowledge sharing can be realized in verbal communication and documentary while invisible one can be found in social activities, observations or consulting activities.

Gurteen (1999) thinks that knowledge is an invisible product, including ideas, processes, information and is increasingly shared in the global economy in many different forms and is an invisible product of the production economy. Knowledge sharing is important because it helps enhance employees' labor turnover. Knowledge sharing plays an important role in creating and improving competitiveness, allowing all parties to protect and expand information during the exchange of knowledge, providing opportunities to discuss

know-what and know-how, helping the organization grow more and more in the future. Activities of transferring knowledge from one person to another help increase the value in an organization's activities.

According to Nonaka & Takeuchi (1995), knowledge sharing culture involves collecting and combining desires, sharing experiences, roles, social standards and ethics to create attitudes and behaviors. Besides, it also supports and encourages employees to share knowledge in personal interaction activities and build their relationships.

II.3. FACTORS AFFECTING THE KNOWLEDGE SHARING BEHAVIORS

Trust is defined as a positive, confident state in the expectation regarding colleagues' behaviors in any situation (it's subjective, entails risks to the opposite-the trusting party) (Baba, 1999). Communication among Staff is defined as the interaction of lecturers through face-to-face conversations and the use of body language while communicating. Interactions among lecturers are supported by the organization's social networking system (Al-Alawi et al., 2007).

The term of Leadership Support refers to the process of influencing others towards achieving some desired goals. They play a guiding role in the knowledge sharing process (Zahidul et al., 2011). The Organizational Rewards is the process of promoting smooth work, is an important tool in assessing behaviors and creating motivation to decide. (Wei et al., 2012). Information Technology is considered as a tool that allows employees to quickly find, access and retrieve and be able to support communication and collaboration among employees in an organization (Mansor and Kenny, 2013). Commitment will affect the future of the organization through the actions of its employees for their organization. If the commitment is high, the employees will work eagerly and the working attitude in the organization will also be professional (Nyaga et al., 2010).

Table 2.1: Summary of factors from previous studies

No.	Factors	Previous studies
1	Trust/ Belief	Von Krogh (1998); McEvily et al. (2003); Ching (2003); Zahidul et al. (2011); Javad et al (2013); Mansor & Kenny (2013).
2	Communication	Davenport & Prusak (1998); Smith & Rupp (2002); Zahidul et al. (2011); Javad et al. (2013).
3	Leadership	Yu et al. (2004); Lin (2007); Zahidul et al. (2011); Javad et al. (2013).
4	Organizational Rewards	Argote & Epple (1990); Leonard (1995); Davenport & Prusak (1998); Oliver & Kandadi (2006); Al-Alawi et al. (2007); Javad et al (2013); Mansor & Kenny (2013).
5	Information Technology	DeSouza & Awazu (2003); Akamavi & Kimble (2005); Bock et al. (2006); Mansor & Kenny (2013).
6	Commitment	Lee (2001); Hislop (2002); Wuyts & Geyskens (2005); Nyaga et al. (2010); Hassan & AL-Hakim (2011); Mansor & Kenny (2013).

Source: Own (2019)

II.4. KNOWLEDGE SHARING MODEL

According to a study by Zahidul et al. (2011) on the relationship between affecting factors and sharing knowledge in service organizations in Bangladesh. The research interviewed lecturers, especially executives, senior leaders, middle leaders and team leaders - who play important roles in the decision of sharing knowledge in their organization. The research showed that the role of leaders at all levels in promoting knowledge sharing is clear in how they allow knowledge to be shared internally and externally. Managers play a model role in building knowledge sharing models and methods as a culture. However, according to the research results, the Organizational Rewards system has no positive relationship to knowledge sharing. This may be due to the fact that in service organizations, regardless they are rewarded or not, most employees may not have the motivation to share their knowledge because of the fear of losing their important role in the organization or being replaced by others.



Figure 2.1: Research theory model 1 (Zahidul et al., 2011)

The study by Zahidul et al. (2013) on the factors affecting knowledge sharing in 38 organizations in Guilan province, Iran results similarly. All three of four affecting factors: "Trust", "Communication" and "Leadership" have a positive impact on knowledge sharing. However, the factor of "Organizational Rewards" is also another factor affecting knowledge sharing in the organization. This result is consistent with previous studies by Al-Alawi et al. (2007) and Oliver & Kandadi (2006) in the conclusion that reward and encouragement have a positive impact on knowledge sharing behaviors.

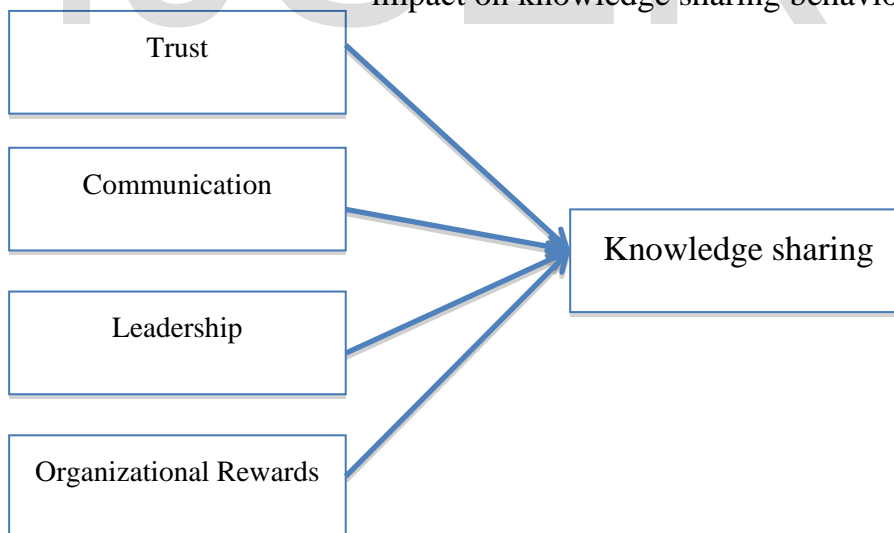


Figure 2.2: Research theory model 2 (Javad et al., 2013)

The research by Javad et al. built a model of factors affecting knowledge sharing in an organization. According to the author's recommendation, the factor of employees' demographics (gender, age, educational level, job title, workplace, working term) is also an important factor affecting knowledge sharing and transferring among employees. Besides, the author also proposed other factors affecting knowledge sharing that is organizational culture (trust, learning from others, motivation), support from colleagues, organizational

rewards (materially and spiritually), Individuals Owning Knowledgeable and commitment. The results of the research show that, except for the factor of demography, the remaining factors play important roles in affecting knowledge sharing.

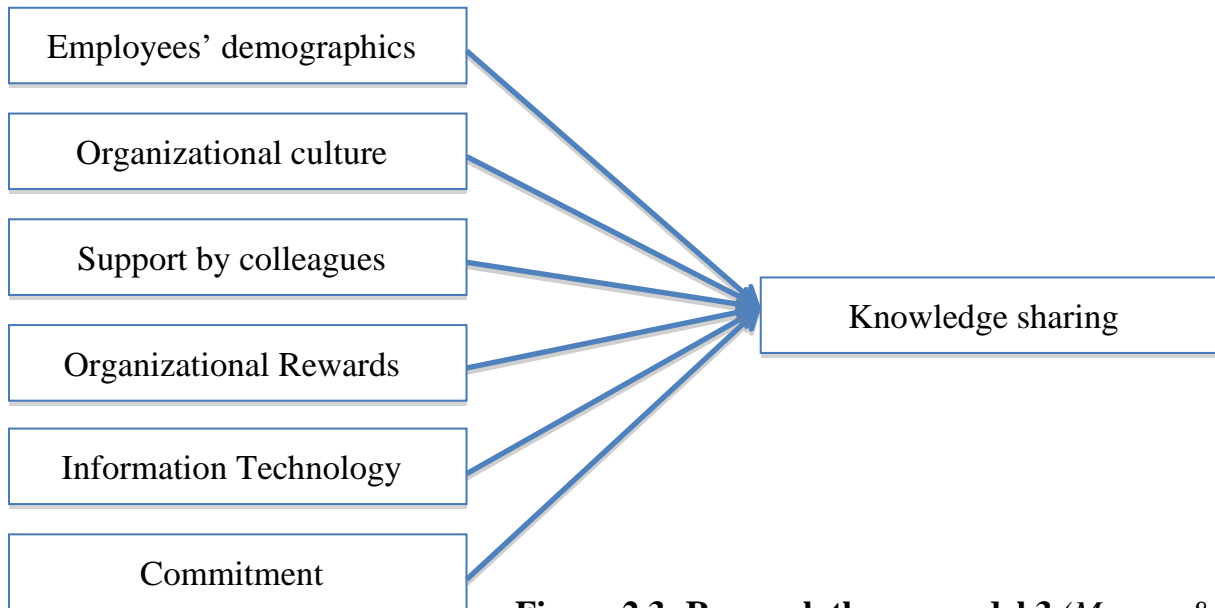


Figure 2.3: Research theory model 3 (Mansor & Kenny, 2013)

According to Lin (2007), carried out in 50 Taiwanese organizations, the knowledge-sharing factor consists of two components: dedication and knowledge gathering, the authors focus on studying the factors affecting knowledge sharing. The research results showed that the factors: "Enjoying helping others" and "Knowledge self-efficacy" are related to the willingness of employees to share knowledge even under pressure conditions. Employees' competitiveness and confidence also affect knowledge sharing. The factor of "Leadership support" in promoting knowledge sharing will also affect employees' knowledge sharing behaviors. Due to the research focuses on knowledge sharing related theories and organizations' innovative capacity, it missed other factors such as the communication environment, employee commitment, level of learning from others and trust that affect knowledge sharing.

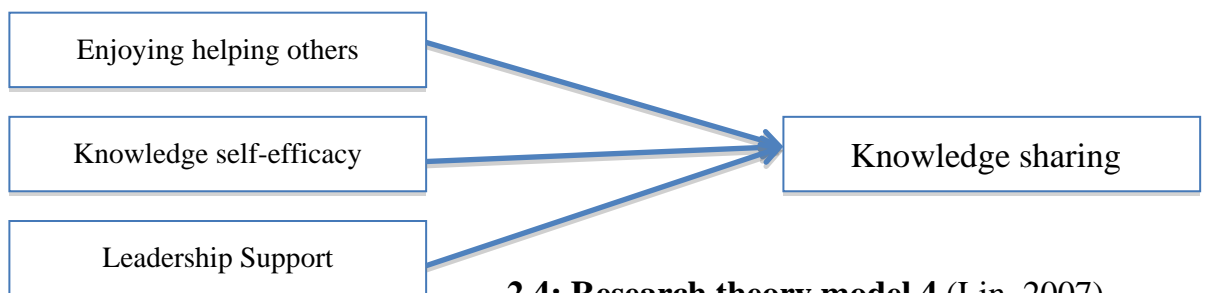


Figure 2.4: Research theory model 4 (Lin, 2007)

Research by Pham & Tran (2011) studied factors affecting the knowledge sharing of doctors in hospitals. It approached by Theory of Planned Behaviors - TPB and the model was added with prefixes of Attitude towards knowledge sharing which is Trust in colleagues, Confidence in personal knowledge, Wish to build relationships to consider their effects on Attitudes towards knowledge sharing of doctors in hospitals. The study defines the affecting level of factors on the knowledge sharing behaviors of doctors in hospitals.

The Attitude towards knowledge sharing has the greatest effect, followed by Behavioral Control and finally the Subjective standard.

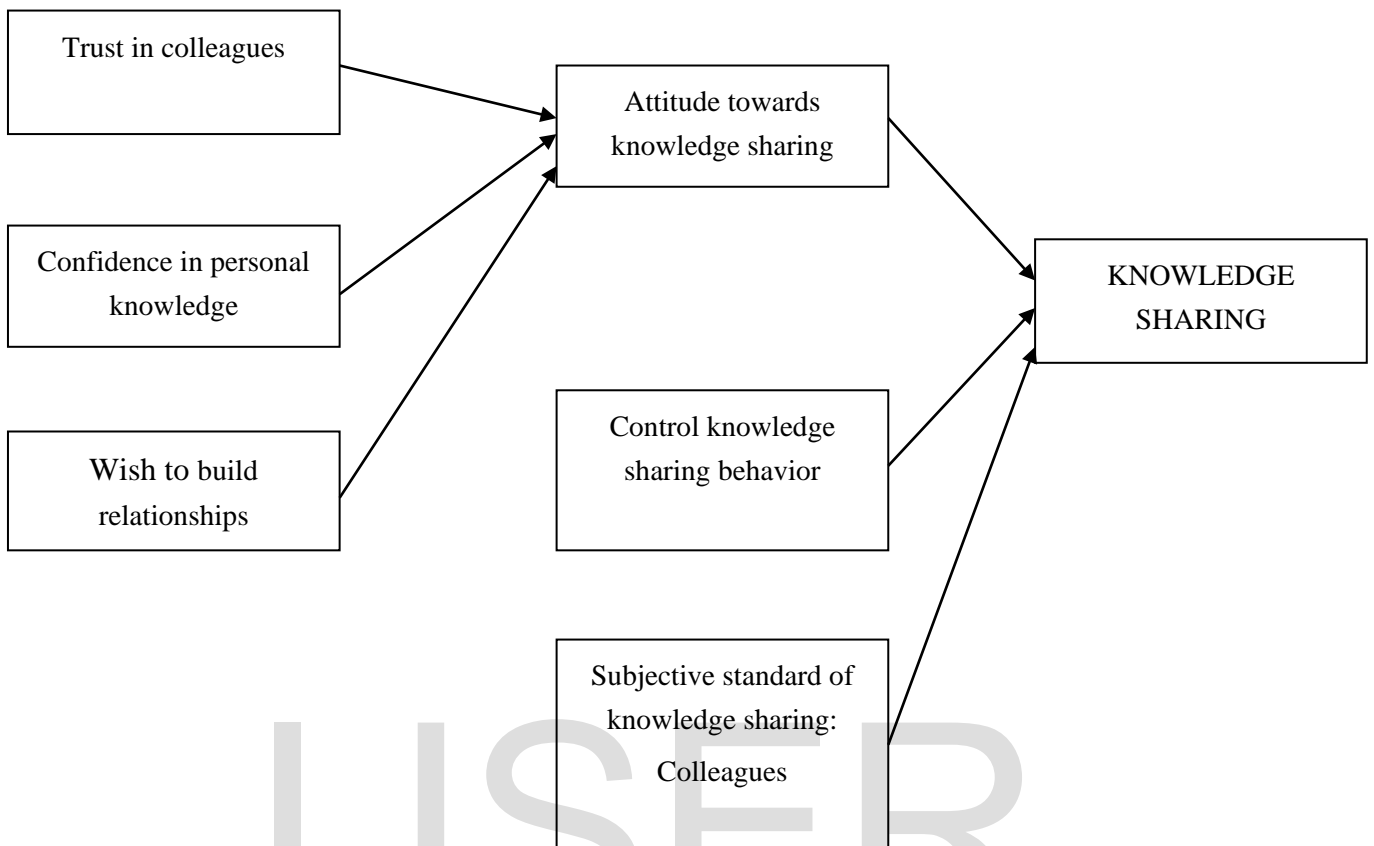


Figure 2.5: Research theory model 5 (Pham & Tran, 2011)

Research by Bui (2014) aims to identify factors affecting knowledge sharing behaviors among lecturers in universities. Survey data were collected from 422 lecturers from 6 universities in HCM City. The results of multiple regression analysis showed that the factors affecting the knowledge sharing behaviors of lecturers in universities include 5 factors in the order of decreasing importance as follows: Organizational Rewards; Organizational Culture; Information Technology; Trust and Orientation to Learn.

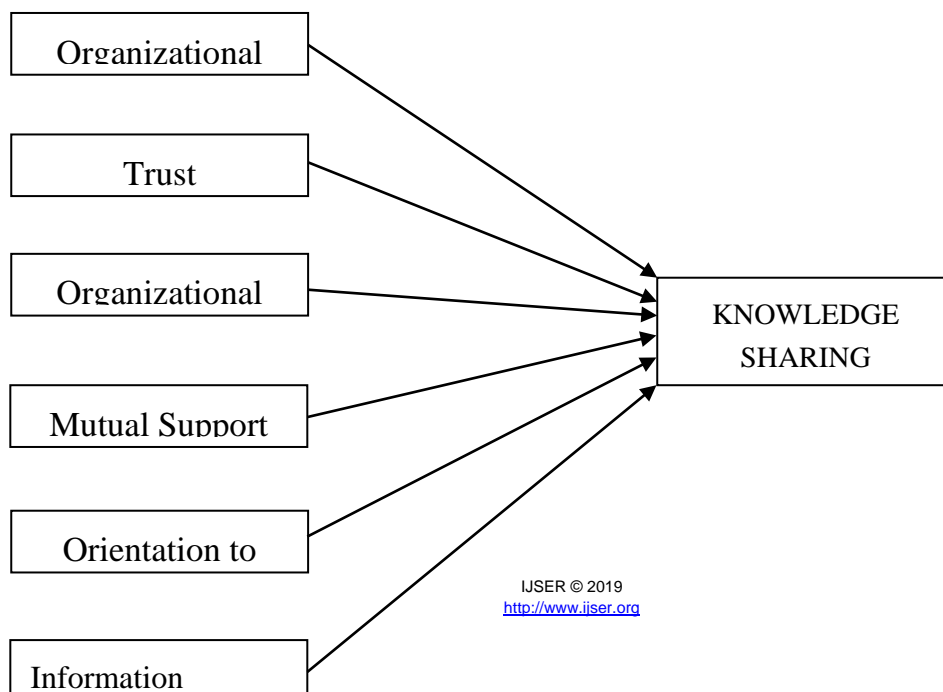


Figure 2.6: Research theory model 6 (Bui, 2014)

II.5. HYPOTHESIS

From the research models and previous studies, the author proposes a theoretical research model as follows: Dependent variable: knowledge sharing; Independent variables: trust, communication among staff, leadership support, commitment, organizational rewards, and information technology.

The research hypotheses are set as follows:

- H1: (+) If lecturers receive trust from colleagues, the knowledge sharing behaviors are much more.
- H2: (+) The more lecturers work together in teamwork, the more knowledge sharing behaviors perform.
- H3: (+) The more lecturers communicate with their colleagues, the more knowledge sharing behaviors perform.
- H4: (+) The more leadership support to share knowledge, the more knowledge sharing behaviors perform.
- H5: (+) The higher commitment among lecturers, the more knowledge sharing behaviors perform.
- H6: (+) The higher the organizational rewards, the more knowledge sharing behaviors perform.
- H7: (+) The more advanced the information technology, the more knowledge sharing behaviors perform.

III. RESEARCH METHODS

III.1. Qualitative research

Qualitative research is done by method of group discussion. The author discussed in groups about knowledge sharing behaviors of lecturers working in universities (there were 02 ten-year, 03 five-year, and 03 two-year experient lecturers). The discussion content consisted of two parts. Part 1: Introduction of the discussion purpose, opening up the subject. Part 2: making suggested questions to find out the factors affecting knowledge sharing behaviors and adjusting the scale to suit the target object of lecturers. To be effective in the discussion, the author explained clearly and specifically the meaning of each factor in the proposed research environment and discussed in depth the related issues.

After the discussion, the results of qualitative research were as follows: the participants in the discussion agreed with the factors in the proposed research model: 07 factors affect the behaviors of sharing knowledge as Trust, Teamwork, Communication among Staff, Organizational Rewards, Leadership Support, Information Technology, Commitment.

III.2. Quantitative research:

Quantitative research is used to measure the factors affecting the knowledge sharing behaviors of lecturers in universities in HCM City. Quantitative research data is collected by a convenient sampling method to survey lecturers in universities. The size of the samples

depends on the analytical method. This research uses the Exploratory Factor Analysis (EFA). Factors analysis needs at least 200 observations - Gorsuch observations (1983). Hachter (1994) said that the size of the samples must be at least 5 times the number of observed variables. In other rules of thumb for determining the size of the samples for the usual EFA, the number of observations (size of samples) must be at least 4 or 5 times the number of variables in factors analysis of Hair et al. (1998). The research has 33 observed variables, so the size of the samples is minimum $5 \times 33 = 165$ observations. Thus, the survey of 339 lecturers in universities in HCM City is sufficient to meet the above criteria and is eligible for EFA. The author organized a direct survey of 350 lecturers working in universities in HCM City.

The research uses SPSS 22.0 software to test the scale by Cronbach Alpha index. After analyzing Cronbach Alpha, the appropriate scales will be tested following by EFA to proper adjust accordingly. The method of CFA is used in this research to test the scale. Multiple linear regression Analysis by Ordinal Least Squares - OLS is implemented. And the Enter method of selecting the variable is used. Adjusted coefficient of determination - R^2 is used to determine the suitability of the model. F ratio is used to affirm the scalability of this model to overall apply as well as the T-test is used to reject the hypothesis of the overall regression coefficients are zero.

IV. RESEARCH RESULTS

IV.1.SAMPLES DESCRIPTIONS

To conduct demography analysis, the author analyzes the surveyed lecturers in groups: gender, age, income, educational degree, seniority, workplace (Department/Unit)

Table 4.1: Demography analysis

Group	Number	Percentage
Gender		
Male	184	54.3
Female	155	45.7
Total	339	100
Age		
Under 30 years old	125	36.9
From 30 to 40 years old	115	33.9
Over 40 years old	99	29.2
Total	339	100
Income		
Less than 10 million dong	136	40.1
From 10 to 15 million dong	122	36
Over 15 million dong	81	23.9
Total	339	100
Degree		
Bachelor	150	44.2
Master	153	45.1
Doctor	36	10.6
Total	339	100

Seniority		
Under 3 years	112	33
From 3-5 years	135	39.8
Over 5 years	92	27.1
Total	339	100
Place of work (Department/Unit)		
Pharmacy Department	71	20.9
Medicine Department	73	21.5
Business Management Department	45	13.3
Accounting Department	49	14.5
Banking and Finance Department	54	15.9
Foreign Language Departments	47	13.9
Total	339	100

IV.2. ASSESS THE SCALE'S RELIABILITY

The scale in quantitative research is officially assessed by: (1) Cronbach's Alpha reliability coefficient (≥ 0.6) and (2) EFA Methods (factor loading ≥ 0.5). Analysis results for the variables are shown in Table IV.2 below:

Table IV.2. Results of exploratory factor analysis - EFA for independent variables

Factors	Variables name	Factor Loading	Cronbach's Alpha
	Scale of Trust		0.915
TR1	Colleagues often consult me at work.	0.868	
TR2	Colleagues often appreciate my opinions.	0.841	
TR3	Colleagues appreciate my work experience.	0.838	
TR4	Colleagues often praise my work results.	0.813	
TR5	Colleagues believe in my professional knowledge.	0.805	
TR6	Colleagues would like to learn from my work experience.	0.758	
	Scale of Teamwork		0.872
TEA1	Colleagues try to accomplish team's goals.	0.827	
TEA 2	Colleagues always share work in a team.	0.799	
TEA 3	I will be more successful if I work with colleagues in the team.	0.773	
TEA 4	My personal experience can become a big idea when working in the team.	0.770	
TEA 5	Team members always listen to one another's opinions.	0.769	
	Scale of Communication among Staff		0.865
COM1	I have a close relationship with my colleagues.	0.845	
COM2	I spend a lot of time working with my colleagues at work.	0.829	
COM3	I often discuss colleagues about work.	0.788	
COM4	I often talk to colleagues.	0.770	
COM5	I always trust my colleagues.	0.757	
	Scale of Leadership Support		0.879
TOP1	Top leaders think that sharing knowledge with colleagues is helpful.	0.855	
TOP2	Top leaders think that knowledge sharing improves the quality of education and training for the university.	0.852	
TOP3	Top leaders provide most of the resources for employees to share knowledge.	0.826	
TOP4	Top leaders believe that knowledge in the university is a competitive advantage.	0.823	
	Scale of Commitment		0.856

COMM1	The university is a great place for me to work.	0.796	
COMM2	I do care about my university's activities.	0.786	
COMM3	I always try harder to contribute to my university succeed.	0.779	
COMM5	I am proud to tell everyone that I work at this university.	0.772	
COMM6	I actively participate in university courses for professional enhancement.	0.760	
Scale of Organizational Rewards			0.886
OR1	The university encourages lecturers to share their knowledge with their colleagues.	0.827	
OR2	Sharing knowledge among staff will be rewarded with a lot of money.	0.824	
OR3	Sharing knowledge among staff is appreciated and considered as good result of work by the university.	0.824	
OR4	Sharing knowledge among staff will be honored by the university.	0.804	
OR5	Sharing knowledge among staff is recognized by the university.	0.794	
Scale of Information technology			0.874
ICT1	Lecturers can widely use data to access knowledge.	0.836	
ICT2	Lecturers can use software, a local network to discuss with colleagues about work.	0.819	
ICT3	The university allows lecturers to use information technology in knowledge sharing with other lecturers in other universities.	0.810	
ICT4	The university allows lecturers to use information technology to share knowledge with colleagues.	0.809	
ICT5	Lecturers are regularly trained in information technology to use to share knowledge.	0.751	
Scale of Knowledge Sharing			0.853
KS1	I am willing to share my understanding with my colleagues.	0.835	
KS2	I am willing to share my information with my colleagues.	0.810	
KS3	I am willing to share my knowledge with my colleagues.	0.778	
KS6	I access materials and information from other departments/units in the university.	0.778	
KS7	In my university, lecturers often share knowledge with colleagues when working.	0.769	
Eigenvalues coefficient			2.202
KMO			0.852
Average Variance Extracts (%)			68.489
Sig			0.000

According to Table IV.2, Cronbach's Alpha coefficients of all the survey scales are highly reliable as all the values are above 0.7. Variable correlation coefficients - the sum of observed variables with the overall scale reaches highly at 0.6, much higher than the minimum of 0.3, which shows the observed variables in the scale are correlated with the overall. Besides, KMO coefficient is 0.784, Bartlett verification for Sig coefficient = 0.000, thereof the statistical significance level of the analysis results is ensured and we can conclude that factor analysis is reliable. The extracted variance is equal to 56.094%, indicating that the variation of factors given by the Exploratory Factor Analysis will explain 56.1% of the variation of the original survey data. Besides, the Eigenvalues factor of the 7th factor is 2,236, which is the smallest value that is bigger than 1, which reaffirms that 7 factors can be derived from the analysis. Moreover, every factor loading of each observed variable represents each factor is greater than 0.5, indicating that the EFA analysis is guaranteed and there is an effect of each observed variable on the factor represented by those variables.

IV.3. REGRESSION ANALYSIS

IV.3.1. Correlation analysis

Table 4.5: Correlation analysis results

	Trust	Team work	Communication among staff	Leadership support	Commitment	Organizational Rewards	Information Technology	Knowledge Sharing
Trust	1	.239**	.152**	.205**	.204**	.198**	.115*	.502**
Team work	.239**	1	.170**	.242**	.241**	.204**	0.044	.536**
Communication among staff	.152**	.170**	1	.142**	.108*	0.106	0.024	.362**
Leadership support	.205**	.242**	.142**	1	.154**	.170**	0.021	.441**
Commitment	.204**	.241**	.108*	.154**	1	.217**	.223**	.510**
Organizational Rewards	.198**	.204**	0.106	.170**	.217**	1	.178**	.441**
Information Technology	.115*	0.044	0.024	0.021	.223**	.178**	1	.362**
Knowledge Sharing	.502**	.536**	.362**	.441**	.510**	.441**	.362**	1

**. Correlation is significant at the 0.01 level (2-tailed).
 *. Correlation is significant at the 0.05 level (2-tailed).

All the results of the correlation analysis between the independent variables and the dependent variables show a high correlation coefficient and a guaranteed significant level. This shows that the independent variables establish a good correlation with the dependent variables. This is a requirement necessary to use independent and dependent variables in regression analysis. Among independent variables, some variables express a highly significant correlation, yet the correlation coefficient is quite low. Therefore, in the analysis process, it is necessary to check the multicollinearity, in which the method used is to check the VIF coefficient of the independent variables in the model.

IV.3.1. Testing the appropriateness of the overall model

The requirements of regression analysis were specified in the part of the research method; the author would like to present the analysis results below.

Table 4.6: Correlation coefficient of the regression model

Model	R	R Square	Adjusted R Square	Durbin-Watson
1	.855 ^a	0.731	0.725	1.985

- The Adjusted R Square corrected in the analysis was 0.725, indicating that the variation of the factors in the model can explain 72.5% of the variation in the satisfaction of knowledge sharing of lecturers in a university. This high rate gives evidence of the relevance of the theoretical model with actual survey data.

Table 4.7: ANOVA analysis results

ANOVA				
	Sum of Squares	Mean Square	F	Sig.
Regression	60.484	8.641	128.442	.000 ^a
Residual	22.267	0.067		
Total	82.752			

In ANOVA analysis, the value of Sig = 0.000 < 0.05, thus ANOVA analysis ensures the statistical significance, thereof the regression analysis results also ensure reliability.

IV.3.2. Research hypotheses testing

In the regression coefficient table, the Sig coefficient of each factor in the model is equal to 0.000. This shows that the variables in the model are correlated with the dependent variable of lecturers' satisfaction, thus the regression model is built up without removing any factors.

IV.3.2.1.1 Table 4.9: Summary of results of research hypothesis testing

Hypothesis	Coefficient t	Sig	Conclusion
Trust positively affects the knowledge sharing of lecturers	0.247	0.000	Accepted
Teamwork positively affects the knowledge sharing of lecturers	0.284	0.000	Accepted
Communication among staff positively affects the knowledge sharing of lecturers	0.193	0.000	Accepted
Leadership support positively affects the knowledge sharing of lecturers	0.221	0.000	Accepted

Commitment positively affects the knowledge sharing of lecturers	0.247	0.000	Accepted
Organizational rewards positively affects the knowledge sharing of lecturers	0.183	0.000	Accepted
Information technology positively affects the knowledge sharing of lecturers	0.224	0.000	Accepted

V. CONCLUSIONS AND RECOMMENDATIONS

Through the analysis, the author figures out some results of the factors affecting the knowledge sharing of lecturers. The assessing results of the research scale showed that the observed variables are not suitable to measure scales, including scale of Teamwork - TEA6 variable, scale of Commitment - COMM4 variable, scale of Sharing - KS4 and KS5 variables. The remaining observed variables of the scales are highly reliable.

The results of Exploratory Factor Analysis with independent and dependent variables all result in a high convergence of the factors in the model. The assessment in factor analysis including the KMO, Battlet, all achieves necessary reliable values. Factors derived from analysis are Independent factors including, Trust, Organizational Reward, Information Technology, Teamwork, Communication among Staff, Commitment, Leadership Support; dependent factor includes information sharing factor.

The results of the correlation analysis show that the independent variables show a strong correlation with the dependent variable. Also, some independent variables have statistical significance, though the correlation coefficient is not big. Therefore, it is necessary to check the multicollinearity in the analysis process. However, in the regression analysis, the value of VIF coefficients of all factors is low, indicating that multicollinearity did not occur.

The results of regression analysis show that the factors in the research model can explain more than 70% of the variation in the evaluation of knowledge sharing, a relatively high rate, giving evidence of high relevance of theoretical models with actual data. Regression tests are guaranteed, so the regression equation is constructed as follows:

$$\text{Knowledge Sharing} = 0.284 * \text{Teamwork} + 0.247 * \text{Trust} + 0.247 * \text{Commitment} + 0.224 * \text{Information Technology} + 0.221 * \text{Leadership Support} + 0.193 * \text{Communication among Staff} + 0.183 * \text{Organizational Rewards}$$

This result shows that Teamwork is very important in sharing knowledge of the lecturers. It's followed by Trust, Commitment and Information Technology which help make up the connection for the sharing. Hence, they also strongly affect the knowledge sharing activities of lecturers. Leadership Support also shows a significant effect, it reflects policies, encouragement from authorities and universities for knowledge sharing activities. The two factors of Communication among Staff and Organizational Rewards show not too strong effect.

To make good use of teamwork in sharing information and knowledge, the universities need to build principles in working, as well as sharing within teams and among working teams. The principles in the process of working and sharing of the

teams of lecturers that need to be most noticed is the respect of the members to one another, the attentive listening, welcoming the opinions of members in meetings, exchange of knowledge and experience. To do this in a good way, during the process of team formation and operation, discipline and fairness in assigning work, speaking and arguing should be fully committed. In a team, members must help each other at work. If teammates are in difficulties, the others should be willing to help them. This will create a bond among team members.

Besides, to effectively implement knowledge sharing, it is essential to organize regular discussions and seminars. This both has a practical effect on sharing knowledge and make a positive contribution to the exchange and bond among a university's lectures. Means of sharing by information technology support very well for knowledge sharing activities in current advanced technology time. So universities need to build the system of exchange channels via Internet, using technology to create convenience for lecturers through improving library management system and continuously updating the university's electronic library, link it to libraries of many other domestic and foreign universities to share the endless knowledge treasure of mankind. Also, in encouraging and motivating knowledge sharing among lecturers, it is necessary to have direction and development of encouraging regulations such as rewards, encouragement, and recognition from leaders for lecturers who are positive in knowledge exchange.

In summary, from 339 official survey forms, the research results show the lecturer's knowledge sharing including Trust, Teamwork, Communication among staff, Leadership Support, Commitment, Organizational Rewards, and Information Technology. It can be seen that Teamwork is very important in sharing the knowledge of lecturers. It's followed by Trust, Commitment and Information Technology which are the factors help make up the connection for the sharing. Hence, they also strongly affect lecturers' knowledge sharing activities. And Leadership Support also shows a significant effect, it reflects policies, encouragement from authorities and universities for knowledge sharing activities.

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