Knowledge Sharing Activities among Lecturers and its Impact on their Performance in Binus University: A Case Study of Lecturers of School of Business Management

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ABSTRACT

The purpose of this study is to identify factors that drive knowledge sharing among lecturers in conducting research that can support faculty performance, and examine the effect of knowledge sharing and its impact on the performance of lecturers. A cluster random sampling method was used to recruit 106 out of 164 lecturers in the School of Business Management as respondents for this study. Structural Equation Modeling (SEM) with WarpPLS Software 4.0 is used for data analysis. The most influential factor is knowledge sharing motivator. Knowledge sharing had the positive and significant effect on the performance of lecturers. It means that lecturers already conduct knowledge sharing to improve their research quality.

Keywords: Knowledge sharing, lecturer, performance

INTRODUCTION

Higher education institutions strengthen the nation's competitiveness through a new paradigm that focuses on quality, access, equity, as well as autonomy. The focus is on improving regional competitiveness (2015-2020) and international competitiveness (2020-2025). From this perspective, the benchmarks of educational power are no longer determined by national standards, but more than that, is the ability of graduates to develop and fill regional and international employment opportunities. Lecturers are required to implement Three Principles (Tri Dharma) of Higher Education. Besides teaching, lecturers should expand and

develop their knowledge through research. According to Permenpan and RB No.17 in 2013, a lecturer should be more active in conducting research. Research accounts for 25% - 45% of the lecturer's workload. Data shows a lack of publication of scientific papers. A 2012 data from DIKTI 2,777 publications by lecturers from Public Higher Education and only 429 publications by lecturers from Private Higher Education.

The differences of knowledge among individuals should be reduced to maximise efficiency. So, knowledge sharing among managers of higher education becomes very important to improve the human ability to think logically which will generate innovation. Thus, innovation is a process of ideas through research and development to produce a prototype that could be commercialised. The development of Binus University to attain World Class University standard means it must adapt to environmental demands. This is a reflection of acceleration of changes made possible using information and communication technology.

The purpose of this study is to identify the factors of knowledge sharing among lecturers in conducting research that can support faculty performance and examine the effect of knowledge sharing and its impact on lecturers' performance.

LITERATURE REVIEW

Rašula, Bosilj Vu kš and Indihar Štemberger (2012) found the positive influence of Knowledge Management (KM) on organisational performance, which is the starting point for managers to apply it to the organisation. The KM applications include business process restructuring initiative, development of human capital, knowledge mapping, introduction of teams, cross-functional work, increased emphasis on collaboration, and use of formal channels for sharing knowledge. Boediprasetya et al. (2012) stated Institutions of Higher Learning is an organisation based on knowledge (knowledge-based organisation). Recent research showed organisations, especially those with knowledge-based, receive great benefit by implementing KM. The critical stage of successful implementation of KM is knowledge sharing, and it is indispensable (Susanty, Salwa, Chandradini, Evanisa, & Iriani, 2016). Knowledge sharing activities in higher educational institutes occur among the lecturers in order to implement the Three Principles (Tri Dharma) of higher education, particularly in research areas. However, research output is still low, at least based on the number of research publications produced by lecturer. It may be caused by the less effective knowledge sharing. There are three types of KM, namely knowledge transfer, knowledge sharing, and knowledge barrier. Knowledge sharing and knowledge transfer are defined in two ways, which depend on the perspective of the use of knowledge. Researchers that viewed knowledge as an object tend to use the term 'knowledge transfer' (Paulin & Suneson, 2012). Others that view knowledge as a process tend to use the term 'knowledge

sharing.' Sharing knowledge is considered as an important process in knowledge management. Pradana (2012) said that to overcome internal and external barriers to knowledge sharing motivating factors are required, namely Internal Incentives likereward, and External Incentives, such as attention and cooperation among employees by familiarising them with the work environment.

Higher education institutions are not automatically able to apply KM as the academics are not aware of its the importance to improve the quality of its implementation (Prabowo, 2010). With improved quality, higher education gets a great benefit, especially to improve its performance and its ability to compete. In implementing knowledge management, the change of mindset is needed, especially

among lecturers who are the main actors of KM.

MATERIALS AND METHODS

This is an exploratory and descriptive-associative research and a cross-sectional study that sampled 106 lecturers at School of Business Management (SOBM). This is a time horizon study that can be done with data collected only once, which is daily, weekly or monthly (Sekaran, 2007). A random sampling technique was used to recruit the respondents and data was analysed using Structural Equation Modelling (SEM).

RESULTS AND DISCUSSIONS

Measurement Model Assessment (Outer Model) Constructs Knowledge Sharing

Table 1
Calculation results loading factor knowledge sharing variable

Indicator	Factor Loading	SE	P Value	Significance
Knowledge activity				
KsAc1	0,413	0.075	<0.001	Significant
KsAc2	0,522	0.075	<0.001	Significant
KsAc3	0,753	0.075	<0.001	Significant
KsAc4	0,584	0.075	<0.001	Significant
KsAc5	0,547	0.075	<0.001	Significant
KsAc6	0,569	0.075	<0.001	Significant
KsAc7	0,272	0.075	<0.001	Significant
KsAc8	0,555	0.075	<0.001	Significant
KsAc9	0,570	0.075	<0.001	Significant
KsAc10	0,081	0.075	<0.141	Significant
KsAc11	0,431	0.075	<0.001	Significant

Table 1 *(continue)*

Indicator	Factor Loading	SE	P Value	Significance
Knowledge sharing technologies				
KsT1	0,638	0.075	<0.001	Significant
KsT2	0,834	0.075	<0.001	Significant
KsT3	0,666	0.075	<0.001	Significant
General Attitude towards Knowledge sharing				
KsAt1	0,508	0.075	<0.001	Significant
KsAt2	0,403	0.075	<0.001	Significant
KsAt3	0,574	0.075	<0.001	Significant
KsAt4	0,636	0.075	<0.001	Significant
KsAt5	0,26	0.075	<0.001	Significant
KsAt6	0,251	0.075	<0.001	Significant
KsAt7	(0,018)	0.075	<0.406	Significant
KsAt8	(0,01)	0.075	<0.445	Significant
KsAt9	0,593	0.075	<0.001	Significant
KsAt10	0,611	0.075	<0.001	Significant
KsAt11	0,255	0.075	<0.001	Significant
KsAt12	0,06	0.075	<0.001	Significant
Knowledge sharing motivators				
KsM1	0,654	0.075	<0.001	Significant
KsM2	0,752	0.075	<0.001	Significant
KsM3	0,802	0.075	<0.001	Significant
KsM4	0,747	0.075	<0.001	Significant
KsM5	0,272	0.075	<0.001	Significant
KsM6	0,399	0.075	<0.001	Significant

Notes: KsAc - Knowledge Sharing Activities, KsT - Knowledge Sharing Technologies, KsAt - *General Attitude towards Knowledge sharing*, KsM - Knowledge Sharing Motivators

The biggest loading factor of knowledge sharing activity at 0.753 is sharing the results of the seminar/workshop. Knowledge sharing technologies at loading factor of 0.834 provide valuable information to work and last, general attitude towards knowledge sharing is that sharing helps each other with loading factor of 0.636. Knowledge sharing motivator is a reciprocal with loading factor of 0.802. This result shows dimensions of knowledge sharing technologies are the most important in describing its construct.

Measurement Model Assessment (Outer Model) Constructs Lecturer Performance

Table 2
Calculation of loading factor on lecturer's performance

Indicator	Factor Loading	SE	P Value	Significance
Knowledge (Subject Knowledge)				
Ksk1	0,294	0.075	<0.001	Significant
Ksk2	0,346	0.075	<0.001	Significant
Ksk3	0,644	0.075	<0.001	Significant
Ksk4	0,651	0.075	<0.001	Significant
Ksk5	0,759	0.075	<0.001	Significant
Ksk6	0,698	0.075	<0.001	Significant
Ksk7	0,495	0.075	<0.001	Significant
Testing (Assessment Procedures)				
Tap1	0,311	0.075	<0.001	Significant
Tap2	0,493	0.075	<0.001	Significant
Tap3	0,717	0.075	<0.001	Significant
Tap4	0,79	0.075	<0.001	Significant
Tap5	0,718	0.075	<0.001	Significant
Tap6	0,657	0.075	<0.001	Significant
Student-Teacher Relations				
Str1	0,805	0.075	<0.001	Significant
Str2	0,805	0.075	<0.001	Significant
Organisational Skills				
OS1	0,441	0.075	<0.001	Significant
OS2	0,725	0.075	<0.001	Significant
OS3	0,754	0.075	<0.001	Significant
OS4	0,6	0.075	<0.001	Significant
OS5	0,684	0.075	<0.001	Significant
Communications Skills				
CS1	0,864	0.075	<0.001	Significant
CS2	0,864	0.075	<0.001	Significant
Subject Relevance				
SR1	0,788	0.075	<0.001	Significant
SR2	0,814	0.075	<0.001	Significant
SR3	0,522	0.075	<0.001	Significant
Utility of Assignments				
UoA1	0,839	0.075	<0.001	Significant
UoA2	0,839	0.075	<0.001	Significant

Notes: Ksk - Knowledge (Subject Knowledge), Tap - Testing (Assessment Procedures), Str - Student-Teacher Relations, OS - Organisational Skills, CS - Communications Skills, SR - Subject Relevance, UoA - Utility of Assignments

Among seven dimensions that formed the construct of lecturer performance, the dimensions that have the biggest loading factor of communications skills are building a good learning environment and courteous and facilitate communication and clear information in concepts and attitudes with each loading factor of 0.864. Subject relevance is the question related to learning modules that have been approved with the loading factor of 0.814. This means that the dimension of the communications skills is the most capable to describe the construct of lecturer performance. Full SEM model results indicated a significant p value for all the variables observed and latent variables. Dimension sharing motivator parameter estimation at 0.824 are the greatest parameter estimation among other dimension to the value of R square 0.680. This means that the knowledge sharing in the assessment of the respondent will be successful if sharing motivator is the reference.
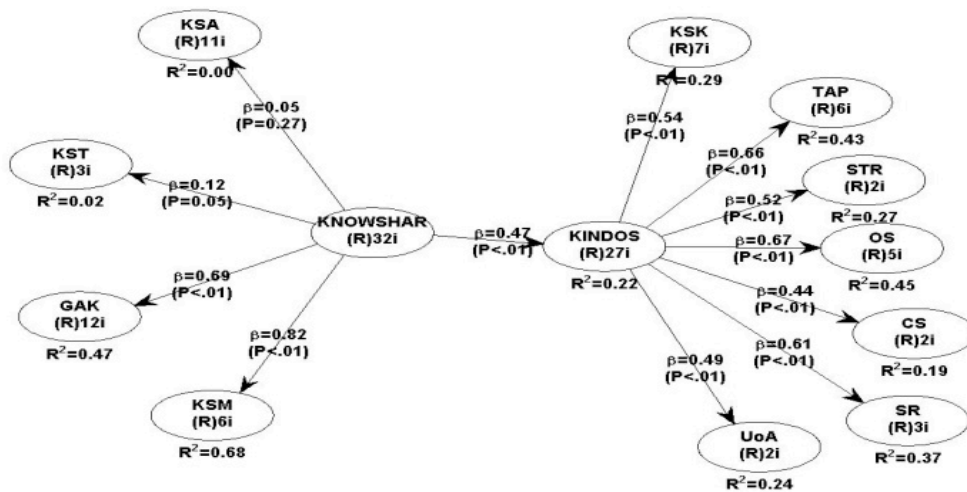

Figure 1. Full model of SEM

Knowledge sharing will be successful if there is high motivation to do research. While knowledge sharing activities have the smallest parameter estimation with R square 0,002, organisational skills dimensio has 0.668 parameter estimation which the greatest parameter estimation among other dimension with the value of R square 0.446. Knowledge sharing has positive and significant effect on the performance of lecturers. It has an estimated parameter of 0.47 in relation to the performance of the lecturers. The determinant coefficient of 0.22 means that the variables of lecturer performance can be explained by the variable knowledge sharing by 77.91%, while the rest is explained by other factors not studied here. Statistical test results

indicate the views from the highest of the variable forming knowledge sharing is the sub variable knowledge sharing motivators, the need for motivation in doing research that affect the performance of lecturers.

Managerial Implementation

As stated in Law No. 14/2005, lecturers are professional educators and their main task is to transform, develop, and disseminate knowledge, technology and arts through education, research, and service. As a professional, a lecturer's performance needs to be periodically assessed and appraised. The existence of knowledge management is to answer the question which is the process of converting tacit knowledge into knowledge that is easily communicated and easily documented. The result is called explicit knowledge. The core of successful knowledge management application is knowledge sharing. Knowledge sharing, whether spontaneous, structured, or unstructured, is extremely vital to the success of company. Moreover, knowledge sharing is only possible if each member has an opportunity to express their opinions, ideas, criticisms, and comments to other members in the organisation. Knowledge sharing will bring new ideas and which contributes to creativity and a critical minded scholar (Lin, 2007).

Effort or willingness is an attempt that can be measured by the willingness in doing something. Motivation to learn from one another, the motivation to help others as the reciprocity and self-satisfaction and

to get an award or recognition showed the overview of ability (Boediprasetya et al., 2012). The process of knowledge sharing is also knowledge exchange and cooperation between individuals in creating new knowledge to create synergies between individuals in achieving organisational goals (Van Den Hooff & de Ridder, 2004). Each individual's knowledge contains values that may imply their status, power, and awards. Award or reward motivates individual for knowledge sharing. A person will be motivated to share knowledge if the knowledge sharing can improve their reputation and if a person does the right things for the organisation they will get a reward. The reward is not only in the form of compliment that can boost individual morale but there is tangible reward as well.

According to Lucas and Ogilvie (2006), intrinsic motivation has two significant roles in the process of knowledge transfer. First, intrinsic motivation for personal reward and second, intrinsic motivation pushes the individual to share knowledge.

CONCLUSION

Knowledge sharing activities, knowledge sharing technologies, general attitude towards knowledge sharing, and knowledge sharing motivators are crucial for the performance of lecturers. The most influential factor is knowledge sharing motivator. Therefore, knowledge sharing has a positive and significant effect on the lecturers' performance.

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APPENDIX

QUESTIONNAIRE

General Information

1. Gender
    a. Male   b. Female

2. How long have you been working in Binus University?
    a. < 5 years
    b. 5 – 10 years
    c. 11 – 20 years
    d. > 21 years

3. Designation
    a. Instructor   c. Associate Professor
    b. Assistant Professor   d. Professor

4. Employment status
    a. AFM
    b. FM (SCC, SCS, Structural)

Mark (X) or circle every statement below with assessment:

5 = Strongly Agree

4 = Agree

3 = Not Sure

2 = Disagree

1 = Strongly Disagree

Knowledge Sharing Variable							
Dimension	No	Statement	Respondent Assessment				
			5	4	3	2	1
Knowledge sharing activities	1	Publishing books, journals, or other academic materials					
	2	Sharing articles in books, journals or magazines					
	3	Sharing of experience in seminars, workshops					
	4	Attending /participating in Web/Video Conferences					
	5	Discussing projects with peers within and/or outside organisation					
	6	Presenting at symposiums, Public lectures and conferences					
	7	Attending training program					
	8	Attending/ participating in symposiums and Public lectures					
	9	Sharing research findings					
	10	Attending /participating in meetings in (university / faculty					
	11	Participating in others events for example competition					
Knowledge sharing technologies	1	Work related information and knowledge are stored, classified and updated in a scientific and regular manner					
	2	The organisation's IT system provides valuable and useful information/data for my work					
	3	The organisation's IT system facilitates the sharing of knowledge and information among members					
General Attitude towards knowledge sharing	1	I feel that it is important to share knowledge with other academics for the benefit of all					
	2	Academics should share knowledge with their peers only when approached					
	3	Academics should voluntarily share their knowledge with peers					
	4	I feel that ''sharing is caring''					
	5	It is better to avoid sharing information with peers whenever possible					
	6	I am willing to share information with my colleagues					
	7	My colleagues are willing to share information with me					
	8	My colleagues are willing to share their lecture notes, power point slides and other resources with me					
	9	Knowledge management implementation will not make any positive changes in the company					

Knowledge Sharing Variable

Dimension	No	Statement	Respondent Assessment				
			5	4	3	2	1
	10	Sharing knowledge reduces competitiveness among peers					
	11	Knowledge sharing is time consuming					
	12	Knowledge sharing seems to be an additional responsibility					
Knowledge sharing motivators	1	To learn from each other					
	2	To help others					
	3	As an exchange or feedback					
	4	Self-satisfaction					
	5	To obtain reward or recognition					
	6	To cultivate image of expertise					

The Performance of Lecturer

Dimension	No	Statement	Respondent Assessment				
			5	4	3	2	1
Knowledge (subject knowledge)	1	Declare knowledge from facts and concepts					
	2	Knowledge give procedures					
	3	Motivating efforts and consistency in moving forward					
	4	Content of knowledge					
	5	Ability to coordinate, integrate, organise, and adaption of concepts					
	6	Drive good thinking into teaching					
	7	Deep knowledge is get from election and application of knowledge					
Testing (Assessment procedures)	1	Formulate and develop test materials					
	2	Prepare learning objectives					
	3	Develop syllabus					
	4	Prepare handouts and other additional materials					
	5	Using a variety of media or technology to learn, to clarify and generate student interest in learning					
	6	Organise learning and presentation					
Student-teacher relations	1	Promotion of student participation					
	2	Activity of participation in the class					
Organisational skills	1	Bureaucracy ability to well conduct and well organise the class					
	2	Sufficient number of assignments and tests					
	3	Manage the time of study					
	4	Manage and coordinate guest speaker					

The Performance of Lecturer							
Dimension	No	Statement	Respondent Assessment				
			5	4	3	2	1
	5	Creating facilities for the implementation of a class discussion and student learning activities					
Communications skills	1	Information must be clearly communicated					
	2	Have a good and respectful learning environment					
Subject relevance	1	Fair and appropriate evaluation methods					
	2	Questions match to approved learning module					
	3	Books and other learning material are recommended by teachers					
Utility of assignments	1	Assignments contribute to learning outcome					
	2	Assignments must be interesting and challenging to students					