KNOWLEDGE SELF-EFFICACY, REWARDS, AND KNOWLEDGE SHARING BEHAVIOR IN INDONESIA

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ABSTRACT

Objective: The purpose of this study is to investigate the influence of self-efficacy, knowledge, and rewards on knowledge sharing behavior in Indonesia.

Theoretical framework: The theory used in this study consists of independent variables of knowledge self-efficacy, and rewards. While the dependent variable is knowledge sharing behavior.

Method: This study uses quantitative research methods. The data collection technique was carried out by distributing questionnaires. The data that has been collected is then analyzed using the Partial Least Square approach.

Results and conclusions: The results showed that knowledge self-efficacy has a significant positive influence on knowledge sharing behavior. Expected rewards, which are believed by many to be a driver of individuals to share knowledge, are not proven to be a determinant of knowledge sharing behavior, both in terms of extrinsic and intrinsic rewards.

Research implications: This study can contribute to the development of theories on knowledge sharing behavior, regarding how psychological factors such as knowledge self-efficacy and rewards contribute to organizational dynamics.

Originality/value: Uncovering important aspects of knowledge sharing behaviour in an industry/organization, especially when viewed from the individual’s perspective as an important part that contributes to the achievement of organizational goals.

Keywords: knowledge self-efficacy, extrinsic reward, intrinsic reward, knowledge sharing behavior.

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AUTOEFICÁCIA DO CONHECIMENTO, RECOMPENSAS E COMPORTAMENTO DE COMPARTILHAMENTO DE CONHECIMENTO NA INDONÉSIA

RESUMO

Objetivo: O objetivo deste estudo é investigar a influência da autoeficácia, conhecimento e recompensas no comportamento de compartilhamento de conhecimento na Indonésia.

Estrutura teórica: A teoria utilizada neste estudo consiste em variáveis independentes de autoeficácia do conhecimento e recompensas. Enquanto a variável dependente é comportamento de compartilhamento de conhecimento.

Método: Este estudo utiliza métodos de pesquisa quantitativa. A técnica de coleta de dados foi realizada por meio da distribuição de questionários. Os dados que foram coletados são então analisados usando o método Partial Least Square.

Resultados e conclusões: Os resultados mostraram que a autoeficácia do conhecimento tem uma influência positiva significativa no comportamento de compartilhamento de conhecimento. Recompensas esperadas, que são acreditadas por muitos como um motor dos indivíduos para compartilhar conhecimento, não são provados para ser um determinante do comportamento de compartilhamento de conhecimento, tanto em termos de recompensas extrínsecas e intrínsecas.

Implicações da pesquisa: Este estudo pode contribuir para o desenvolvimento de teorias sobre o comportamento de compartilhamento de conhecimento, sobre como fatores psicológicos como autoeficácia do conhecimento e recompensas contribuem para a dinâmica organizacional.

Originalidade/valor: Descobrir aspectos importantes do comportamento de compartilhamento de conhecimento em uma indústria/organização, especialmente quando visto a partir da perspectiva do indivíduo como uma parte importante que contribui para a realização dos objetivos organizacionais.


1 INTRODUCTION

Schools have a responsibility to provide a safe, friendly and orderly environment for students to learn and gain knowledge (Dwidvedi & Kumar, 2023). One of the recognized strategies capital that can generate competitive advantage for organizations is knowledge (Lee & Ahn, 2007; King & Marks Jr, 2008). This introduction stage has become the driving force for many organizations in implementing knowledge management (KM) (King & Marks Jr, 2008; He & Wei, 2009; Abzari et al., 2011).

The dynamic role for the success of higher education institutions is determined by knowledge management, especially by strengthening various aspects, both aspects of planning, regulating, coordinating knowledge management assets with intellectual
capital. In the end, KM can result in enrichment of knowledge sharing and in the end, the overall organizational performance can be produced with this KM (Hossain et al., 2013).

One of many organizations with a knowledge-intensive condition that is often considered by the general public is a higher education institution (HEIs) (Howell & Annansingh, 2013; Ramachandran et al., 2013). One of the important components of KM is the effort to drive knowledge sharing (KS). Knowledge was created by persons who own prior knowledge (Nonaka & Konno, 1998). Therefore, it becomes an important point in creating knowledge management tactics, namely being able to understand individual tasks in the knowledge creation process. Knowledge sharing behavior is highly emphasized. This is because it can make a valuable contribution to the creation of knowledge (Bock et al., 2005). Based on (Davenport & Prusak, 1998) argue that individual's time, effort, and knowledge are restricted so they ultimately think whether their knowledge contribution is valued or not.

The results of empirical studies explain that knowledge sharing will be realized, if "people who have knowledge are willing to share their experiences on work, techniques, and opinions with others in a real way and in the end other people are able to practically apply this knowledge at work" (Saleh, 2022). Literature studies reveal that knowledge sharing is a way in which workers transfer their ideas, experiences, skills, and knowledge through virtual-based means to other parties in a company to provide them with mutual assistance in formulating solutions to problems and for developing ideas (Nguyen & Malik, 2020; Van Den Hooff et al., 2012; Nguyen et al., 2019).

In an effort to develop the determinants of knowledge sharing behavior for a person, researchers have shown the trigger elements of employee knowledge sharing, including: self-efficacy in knowledge, rewards for employees have been proven as antecedents of knowledge sharing behavior (Van Acker et al., 2014; Lin, 2007; Bock & Kim, 2002; Nguyen & Nham, 2019).

The reward is divided into two traits: extrinsic and intrinsic (Benabou & Tirole, 2003; Ryan & Deci, 2000). Therefore, the company has tried to develop knowledge management practices that use rewards in developing a cultural atmosphere in sharing knowledge in an organization. Various previous studies have shown that there is a driving force in the form of motivation that plays a role for someone to want to do
knowledge-sharing behavior (Kankanhalli et al., 2005; Wasko & Faraj, 2005). However, if we take a closer look, the research examining rewards as a determinant of individual sharing behavior remains unclear. The context of this can be seen (Nguyen & Malik, 2020; Kim & Lee, 2006) (Hau et al., 2013; Taylor, 2006; Choi et al., 2008; Al-Alawi et al., 2007; Alam et al., 2009; Jahani et al., 2013) revealed with the results that reward as a determinant of knowledge-sharing behavior, on the other hand different results were conveyed that reward had no effect and had a negative impact as a determinant of knowledge-sharing behavior (Bock & Kim, 2002; Bock et al., 2005; Olatokun & Nwafor, 2012). Moreover, during its implementation, intense rewards are often used as part of the driving force for knowledge-sharing behavior among employees. Theoretically, there is no agreement on the extrinsic and intrinsic reward aspects in the discussion among academics, the question is whether the determinants of knowledge-sharing behavior are from the extrinsic and intrinsic aspects of reward? (Šajeva, 2014).

Management of Knowledge refers to how the best knowledge in an organization can be utilized internally and externally to achieve organizational success. However, one of the challenges of human capital is – how to be the best to integrate knowledge management in the strategic management of human capital (Liebowitz & Yan, 2004). Knowledge Management (KM) or knowledge management is very necessary for Indonesian society, which has a large population of 252.20 million people (Central Bureau of Statistics, 2016). If the development of human resources is managed properly, it will be a demographic bonus. Conversely, if human resources are not managed properly it will become a demographic disaster. Management of knowledge management individually is something that is often done without even realizing it. For example, when saving files in certain folders and then accessing these files at different times, it takes a long time to get those files. This is a reflection of the level of knowledge management possessed by the individual. Furthermore, if the required file cannot be found/accessed, the knowledge must be rewritten. This causes the process of creating and innovating individual knowledge to be inefficient.

In general, knowledge management (Knowledge Management/KM) can be understood as a systematic step in managing intellectual assets/knowledge and various information from individuals/individuals (personal) and organizations to create competitive advantage and maximize added value and innovation. KM is not limited to
hardware and software technology devices (tangible assets), but KM focuses on investing in developing the competencies and knowledge of its workers (intangible assets) so they can innovate. The application of cutting-edge technology in digital transformation has the potential to be a driving force in disrupting status quo processes and unlocking the sector's untapped potential (Sharma & Singh, 2023).

The purpose of this research is presented as an attempt to reveal the important aspects of knowledge-sharing behavior in an industry/organization, especially when viewed from the individual's perspective as an important part that contributes to the achievement of organizational goals. Based on previous literature, research related to knowledge sharing behavior when viewed from the aspect of knowledge self-efficacy, extrinsic reward, and intrinsic reward, especially in higher education institutions is still very minimal, especially in Indonesia. Scientific studies in this study are presented to contribute to the existing research gap, by confirming whether knowledge self-efficacy, extrinsic rewards, and intrinsic rewards are antecedent variables that can predict knowledge-sharing behavior. With this research, it is hoped that it can contribute to research that is useful not only theoretically, but also practically for management development, especially human resource management, focusing on the field of education studies. The theoretical contribution produced in this research is expected to be able to develop motivational theories as an effort to reveal the knowledge-sharing behavior of lecturers. Practical contributions are expected to provide insight for policy makers who focus on the practice of developing human resources in higher education organizations by producing the application of systematic knowledge sharing behavior at the organizational level.

Research conducted (Bock et al., 2005) revealed results related to a person's behavior in sharing knowledge with him/her self, because of the strong motivation and culture as well as the climate in the organization that houses it. Sharing knowledge gives individuals the power to generate knowledge and then turn that knowledge into much greater power (Liebowitz & Yan, 2004). Through sharing knowledge among employees, it becomes easier for an individual to interact in exchanging information and discussing ideas, in the end, the benefits of ideas and the application of ideas to become a feasible solution can be generated (Mura et al., 2013).

In a literature study (Sandra & Burud, 2019) it is explained that how important an employee is to be able to understand and build relationships with many people.
Employees need to establish communication with related relationships, build trust, work interrelated, collaborate needs to be carried out, and be able to work together. Employees need to respect others and respect other people's points of view. These skills are essential if knowledge is to be exchanged, good service needs to be developed, and team performance-based production environments need to be developed effectively. On the other hand, today's competitiveness and self-promotion have reduced the value of the current environment; in this condition, employees become counterproductive when working together and in such conditions, knowledge sharing is an essential aspect for the organization (Wexler, 2002).

The results of an individual's evaluation of his own abilities related to expected behavior is the meaning of self-efficacy (Bandura, 1991). When a person's self-efficacy is high, it becomes possible for a person to perform certain behaviors, this is because the person believes that he or she has the ability to do it (Schunk, 1990). Literature from (Badri & Panatik, 2020) explains that from an organizational perspective, self-efficacy can be associated with an increase in the effectiveness of appraisals (Wood & Marshall, 2008), a reduction in counterproductive behavior in the workplace (Barbaranelli et al., 2019), much greater employee resilience, and higher commitment and success (Ballout, 2009; Silalahi, 2021).

Previous scientific studies related to knowledge sharing, both online and offline, reveal that a person's self-efficacy for knowledge is an important predictor of knowledge-sharing behavior, especially online-sharing behavior (Bordia et al., 2006; Liao et al., 2013). If referring to the theory of motivation, an individual needs a motivation to carry out a type of behavior. Regarding knowledge sharing behavior in an agency, motivation can be started from the knowledge self-efficacy of individual employees when workers are assured with their knowledge so that they can distribute and contribute to the organization.

Knowledge Self-Efficacy (KSE) is a belief/trust in an employee in his ability to convey his valuable experience to other colleagues in an organization (Kankanhalli et al., 2005; Spreitzer, 1995; Priskila, 2021).

If viewed from theory of self-efficacy (Bandura & Walters, 1977), a worker if he has self-efficacy for knowledge with a high value tends to get strong self-motivation (Hsu et al., 2007) and makes them sharing knowledge actively (Lin, 2007; Kankanhalli et al., 2005; Wasko & Faraj, 2005).
The results of empirical studies (Nguyen & Malik, 2020; Van Acker et al., 2014; Kankanhalli et al., 2005; Zhang & Ng, 2012; Binsawad et al., 2017; Phung et al., 2017) show that self-knowledge-efficacy has a significant impact on knowledge sharing behavior.

Based on the research cited above, the hypotheses we propose are:

H1: There is a significant positive effect between knowledge self-efficacy on knowledge sharing behavior.

H2: There is a significant positive effect between extrinsic rewards on knowledge sharing behavior.

H3: There is a significant positive effect between intrinsic reward on knowledge sharing behavior.

Figure 1. Conceptual Framework

Source: Primary data processed by researchers, 2023

2 METHOD

This assessment uses a questionnaire to assess all constructs on the research instrument. In terms of measuring self-efficacy of knowledge, researchers adapting (Bock et al., 2005), knowledge self-efficacy scale, to assess the trust that workers have in their prowess to assist to the organization. Extrinsic rewards are adapted from (Lin, 2007), assessing the real incentives of workers in an organization in terms of sharing knowledge with their fellow co-workers. The explanation regarding intrinsic rewards in this study is an adaptation of (Choi et al., 2008), namely assessing an invisible, but obtainable
incentive for an organization to share knowledge when using online tools to share with colleagues. For knowledge sharing behavior using measurement results adaptation of (Akhavan & Mahdi Hosseini, 2016) and (Kim & Lee, 2013) by assessing employee knowledge sharing behavior which is done online.

2.1 THE SAMPLE AND DATA COLLECTION

This study uses research subjects in the world of education, namely: lecturers of the accounting study program at Universitas Pamulang in the South Tangerang area, Indonesia. The population of this research is 1730 the number of lecturers at Universitas Pamulang. The sample of this study used non-probability sampling with a convenience sampling approach. The first 100 lecturers who filled out the questionnaire were then processed using a structural equation modeling approach - partial least squares. Sample data information can be seen in table 1:

<table>
<thead>
<tr>
<th>Demographic characteristics</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>51</td>
<td>51.0</td>
</tr>
<tr>
<td>Female</td>
<td>49</td>
<td>49.0</td>
</tr>
<tr>
<td>Ages</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 35 years</td>
<td>48</td>
<td>48.0</td>
</tr>
<tr>
<td>35–45 years</td>
<td>30</td>
<td>30.0</td>
</tr>
<tr>
<td>&gt; 45 years</td>
<td>22</td>
<td>22.0</td>
</tr>
<tr>
<td>Job tenure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0–5 year</td>
<td>74</td>
<td>74.0</td>
</tr>
<tr>
<td>6–10 years</td>
<td>18</td>
<td>18.0</td>
</tr>
<tr>
<td>&gt; 10 years</td>
<td>15</td>
<td>15.0</td>
</tr>
</tbody>
</table>

Source: Primary data processed by researchers, 2023

In table 1 above, it can be explained the characteristics of respondents which consist of three categorizations, including: gender, age, and years of services. The gender of the respondents described that 51% of the questionnaires were dominated by men and the rest by female lecturers. The age of the lecturers is 48% with the age group < 35 years and the remaining 30% for the age range 35–45 years, and another 22% are lecturers with the age range > 45 years. The tenure of lecturers is dominated by the working period of 0-5 years by 74%, 6-10 years by 18%, and > 10 years by 15%.
3 RESULTS AND DISCUSSION

3.1 RUNNING STRUCTURAL EQUATION MODEL PARTIAL LEAST SQUARE (SEM-PLS)

Figure 2. Preliminary Research Model

3.2 THE MEASUREMENT MODEL

Composite Reliability (CR) measure reliability and internal consistency of the measured variables representing a latent construct. The information in table 2 states that there is the lowest CR value of 0.887, this value is a value that has exceeded the recommended value of 0.7 (Hair et al., 2010). Average Variance Constructed (AVE) measure convergence among a set of items representing a reflectively measured latent construct. The lowest AVE value in table 2 informs that the lowest AVE value is 0.664. This value also exceeds the recommended value of 0.5 (Hair et al., 2010).
Table 2. Results of reliability and validity tests

<table>
<thead>
<tr>
<th>Variables</th>
<th>CR</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge Sharing Behavior</td>
<td>0.887</td>
<td>0.664</td>
</tr>
<tr>
<td>Knowledge Self-Efficacy</td>
<td>0.920</td>
<td>0.742</td>
</tr>
<tr>
<td>Extrinsic Reward</td>
<td>0.934</td>
<td>0.781</td>
</tr>
<tr>
<td>Intrinsic Reward</td>
<td>0.908</td>
<td>0.712</td>
</tr>
</tbody>
</table>

*Note: CR = Composite Reliability; AVE = Average Variance Extracted.*

Source: Primary data processed by researchers, 2023

Adjusted $R^2$ is used to measure the coefficient of determination which can take into account the number of independent variables to be included in the regression equation and sample size. Our study's $R^2$ value was 0.285 for knowledge sharing behavior, with an adjusted $R^2$ value of 0.262. The measure of the $Q^2$ value of the predictive power of the PLS-SEM model. The $Q^2$ value of our study is 0.165, this means that the prediction accuracy of the path model is acceptable (Hair et al., 2010).

In this case, the approach used by the researcher to validate the multivariate model is bootstrapping, which is describing a large number of subsamples and estimating the model for each subsample (Hair et al., 2010). Table 3 explains shows the bootstrapping results at the 10% real level.

Table 3. Path Coefficient

<table>
<thead>
<tr>
<th>Variable</th>
<th>Original Sample</th>
<th>Sample Mean</th>
<th>Standard Error</th>
<th>T Statistics</th>
<th>P Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge Self-Efficacy $\rightarrow$ Knowledge Sharing Behavior</td>
<td>0.307</td>
<td>0.322</td>
<td>0.146</td>
<td>2.102</td>
<td>0.036</td>
</tr>
<tr>
<td>Extrinsic Reward $\rightarrow$ Knowledge Sharing Behavior</td>
<td>0.021</td>
<td>0.036</td>
<td>0.129</td>
<td>0.165</td>
<td>0.869</td>
</tr>
<tr>
<td>Intrinsic Reward $\rightarrow$ Knowledge Sharing Behavior</td>
<td>0.288</td>
<td>0.271</td>
<td>0.183</td>
<td>1.571</td>
<td>0.117</td>
</tr>
</tbody>
</table>

Source: Primary data processed by researchers, 2023

3.3 HYPOTHESIS TESTING

The path coefficient on knowledge self-efficacy on knowledge sharing behavior is 0.307, with a t-statistic value of $2.102 > 1.64$ (significance level = 0.1).

This figure explains that it is true that there is a significant positive effect of knowledge self-efficacy on knowledge sharing behavior. This research means confirming that the higher a person's knowledge self-efficacy value, the higher his knowledge sharing behavior will be. $H_1 = $ accepted.
The extrinsic reward variable in knowledge sharing behavior has a path coefficient value of 0.021, with a t-statistic value of 0.165 < 1.64 (significance level = 0.1). This reveals that between the extrinsic reward variable and knowledge sharing behavior there is an insignificant relationship. This explains that H2 = rejected.

Path coefficient value on intrinsic reward on knowledge sharing behavior: 0.288. This variable resulted in a t-statistic of 1.571<1.64 (significance level = 0.1). This study shows the results that there is no significant effect between intrinsic rewards on knowledge sharing behavior. This explains that H3 = rejected.

4 DISCUSSION

Overall, this study contributes to some of the main findings and contributes empirically. The contribution focuses on the determinants of knowledge-sharing behavior. This study reinforces previous research, which states that in terms of knowledge self-efficacy there is a significant impact on knowledge-sharing behavior. These findings confirm previous studies (Nguyen & Malik, 2020) (Olatokun & Nwafor, 2012) (Hsu et al., 2007) (Lin, 2007) which has empirical study results in terms of strengthening one's knowledge self-efficacy as a determinant variable of knowledge sharing behavior. The results of this approach recommend the need for human resource managers to design employee self-efficacy reinforcement, because this will trigger knowledge sharing behavior among employees to become increasingly massive and this is necessary for the organization.

The results of this study are the results of the implications of theoretical studies, because the argumentation building in this study is based on a strong theory. And as a practical result of the study of the determinants of knowledge-sharing behavior of lecturers at one of the universities in Indonesia. These results are an important part of providing input on the management of human resource management at universities in order to better understand what approaches can be taken to build knowledge sharing behavior, with a focus on individual aspects. The model proposed in this study only examines the direct impact of individuals on knowledge-sharing behavior. Empirical results reveal consistency in principles (Vroom, 1964) theory of motivation by Vroom, Cognitive social theory(Bandura & Walters, 1977), and previous research that reveals knowledge sharing on aspects of the need for self-efficacy strengths in individual knowledge minds. In this condition, knowledge sharing behavior is effectively developed
from a high level of self-efficacy, especially knowledge self-efficacy. If a worker has confidence in his knowledge, the employee will be more likely to share knowledge. Contributions and practical benefits generated in this research can be followed up in an organization by considering the determination of training to increase worker self-efficacy (Pee & Lee, 2015) so that workers’ self-efficacy knowledge is always high. The high value of knowledge self-efficacy will trigger knowledge-sharing behavior which will ultimately have an impact on organizational productivity, performance, knowledge management effectiveness, and other practical outcomes that are needed by organizations.

In contrast to the theory and the results of previous studies, the results of this study are more factual, revealing that it is not always someone who wants to share knowledge online because it is determined by extrinsic rewards and intrinsic rewards.

5 CONCLUSIONS AND SUGGESTION

The results of the SEM-PLS approach show the determinants of knowledge-sharing behavior on lecturers at universities in Indonesia, when viewed from knowledge-self efficacy. This result explains that an employee does not only want to share because there are extrinsic and intrinsic rewards available to him/her self. Future research needs to consider other motives for determining knowledge sharing behavior. Why? This is because the contribution of this research model is not high enough to explain the determinants of knowledge-sharing behavior, meaning that it is necessary to explain other variables that can provide empirical explanations of what are the determinants of knowledge-sharing behavior, especially in universities.

There are still many other individual factors that need to be developed to explain knowledge-sharing behavior, for example: social interaction bonds, perceived self-pleasure, training, self-competence, etc. Future researchers may also review different industry models, with different countries for more robust testing.
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