

# The Influence of E-Learning and Work Culture on Lecturer Performance with Knowledge Sharing as Mediation

(Case Study at Muhammadiyah University, Riau)

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## ABSTRACT

This research aims to review the influence of use of e-learning and work culture on lecturer performance by using variable mediation knowledge sharing in a pandemic covid-19 at Muhammadiyah University of Riau. This research focuses on lecturers who have a homebase. This research is a quantitative research with purposive sampling method. The research sample was 176 respondents. Data analysis was performed using SmartPLS 3.0. The outcomes showed that e-learning had a positive huge impact on lecturer performance. E-learning has a positive and critical impact on knowledge sharing. Work culture has a positive and huge impact on lecturer performance. Work culture has a positive and huge impact on knowledge sharing. Knowledge sharing has a positive and critical impact on lecturer performance. Furthermore, the results of the analysis show that knowledge sharing intercedes a positive and critical impact between e-learning and work culture on lecturer performance.

**Keywords :** e-learning, work culture, lecturer performance, knowledge sharing.

## 1. INTRODUCTION

The advancement of information technology today has opened up many new possibilities for sharing knowledge, amidst the constraints of distance, time, and location. Muhammadiyah University of Riau has a variety of interconnected information systems, from the Student Academic Information System to the Faculty Academic Information System (SIAM), the Online Lecture Information System (SIKULI), and New Student Registration (PMB UMRI).

The Ministry of Education and Culture of the Republic of Indonesia is developing a distance education program. Distance education is one type of formal education in which students and teachers are not in one room, so it requires the use of an interactive telecommunication system to connect and various services needed. Communication and information media are used to provide teaching materials and facilitate the learning process.

Educators are one of the most important elements in achieving these goals. Lecturers are expected to give satisfactory results. To improve the lecturer's work results, several factors are needed, including high motivation, adequate competence, good leadership, organizational work culture, and a positive work environment. The success of lecturers is an important factor in ensuring higher education quality control. Because the success of lecturers is a measure of their skills and proficiency in carrying out their duties and responsibilities.

In this era, the use of information technology is seen as a cost and quality control solution for multinational companies and educational institutions. Since emerging as a new model in digital education and changing the previous definition of learning, e-learning has prompted numerous progressions in advanced education. E-adapting for the most part alludes to the utilization of PC network innovation, particularly over an intranet or through the Web, to pass on data and

directions to people. The use of web based learning innovation builds the viability of instructing as well as covers the weaknesses of conventional training.

In addition, work culture is the most important asset at risk during Covid-19. According to Luis Diaz Gutierrez, Managing Director of Accenture Consulting, the work culture adopted so far has been influenced by various factors, including organizational structure and management practices; Lecturer life cycle and the idea of work-life balance. Since March 11, 2020, when Covid-19 became a global pandemic, governments in various countries have implemented isolation measures to prevent it. The work culture in various organizations has changed radically, from working together on campus to working from home.

Knowledge sharing is essential to the growth of human resources. Knowledge refers to a person's familiarity with, knowledge, and understanding of facts and details. Knowledge of information systems can be useful in enhancing the success of consumer e-learning and changing cultural trends organizational work. Knowledge needs to be communicated with others, both inside and outside the company. Awareness lecturers will develop as a result of new information, which will have a positive impact on their results.

Findings Athoillah and Joo et al. Support for this hypothesis, which implies that implement and provide all support organizations to improve employee learning will directly foster the sharing of knowledge among employees, thereby improving employee performance more easily achieved.

It aims to improve the competency and make it easier to understand the level of performance of each lecturer this time in order to take steps to provide more value for everyone for skill development.

This study will improve existing research by examining educational issues due to the rapid shift in the need for e-learning media use during the Covid-19 pandemic, as well as improving work culture which aims to increase the efficiency of lecturers through knowledge sharing as a mediator. Organizational internal environmental factors include technology (e-learning) and work culture, while organizational internal factors include sharing information that will be studied in this study to solve problems of access to function, lecturer skills, student skills, and global collaboration to better educate the world.

## **2. THEORETICAL BASIS**

### ***2.1. Lecturer Performance***

According to Rival, success refers to the willingness of a person or group to engage in an activity and expand it to follow the obligations and expectations.

According to Ali Mubarok, a teacher is perhaps the main segments in the arrangement of advanced education. The positions, obligations and duties of instructors are vital in creating quality assets. Competence and integrity should accompany a good result and shows excellent efficiency.

### ***2.2. E-learning***

According to Violante & Vezzetti, E-Learning is an innovation based learning media that incorporates different applications and cycles. E-learning is a type of distance discovering that completely virtualized utilizing an electronic stage (media) like the Web. Lizcano, et, al. Forms of electronic service e-learning has emerged as one of the most important recent innovations in schools and businesses.

The use of Internet technology provides a range of solutions that improve knowledge and efficiency. In addition to the use of Internet technology provides a range of solutions to increase knowledge and results, according to Rosenberg.

According to Hsieh, et al. E-learning is a term that alludes to the utilization of PC network innovation to give data and guidance to people, essentially through an intranet or the Web.

### ***2.3. Work Culture***

According to Robbins, the organization's work culture is a place where members of the organization can hone their ability to work in the organization. Work culture contribute to the unification of shared meaning structure adopted by member companies that distinguish it from others. Work culture is a system of mutually agreed and used in connection with the work, and work experience.

According to Edgar Schein in Mangkunagara, work culture is a set of assumptions or beliefs systems, principles and norms set forth in an organization that serves as a code of conduct for its members to resolve problems of external adaptation and internal integration

### ***2.4. Knowledge Sharing***

According to Matzler et al. Knowledge sharing is a mechanism for individuals to share implicit and explicit

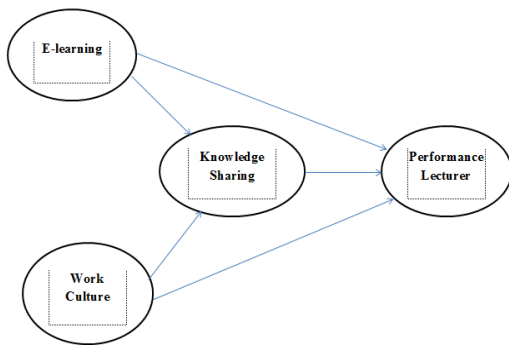
knowledge. Organizations can use knowledge to increase efficiency by processing information such as concepts, facts, skills, and evaluations.

According to Tung et, al. Knowledge sharing is the process of sharing, disseminating, and exchanging information and knowledge between individuals, cultures and communities to communities for the implementation and development of better new knowledge.

**2.5. Conceptual Framework**

The conceptual framework shows the effect of the independent variable on the dependent variable through intervening variables. The dependent variable in this study is lecturer performance. The independent variables include e-learning and work culture. The mediation variable in this study is knowledge sharing.

To provide a clear picture, the conceptual framework of this research can be seen in the following figure:



**Figure 1.** Conceptual Framework

**2.6. Hypothesis**

Based on the conceptual framework above, it can be formulated research hypotheses between variables as follows:

- H1: E-Learning positive and significant effect on the performance of lecturers in a pandemic era covid-19.
- H2: E-Learning positive and significant effect on knowledge sharing on pandemic era covid-19.
- H3: Work culture positive and significant effect on the performance of lecturers in a pandemic era Covid-19.
- H4: Work culture positive and significant impact on knowledge sharing in a pandemic era Covid-19.
- H5: Knowledge Sharing positive and significant effect on the performance of lecturers in a pandemic era Covid-19.

H6: E-learning has a positive and significant effect on lecturer performance through knowledge sharing as a mediation in a pandemic era covid-19.

H7: Work culture has a positive and significant effect on lecturer performance through knowledge sharing as a mediation in a pandemic era covid-19.

**3. RESEARCH METHOD**

The type of analysis used is quantitative research, which tries to evaluate the causal relationship of a phenomenon or problem-solving research to see how much influence exogenous variables have on endogenous variables. Then by using Partial Least Square Software, questionnaires were distributed to 176 lecturers who have a homebase at Muhammadiyah University, Riau.

The sampling technique that will be used is the purposive sampling method, which is included in the non-probability sampling method because it has unique criteria. For example, this particular criterion is considered to know best about what we expect, or perhaps he or she as a person who will make it easier for researchers to explore the objects or social situations studied, Sugiyono.

**4. RESULTS AND DISCUSSION**

**4.1. Research Results**

Examination utilizing SEM approach. The logical device utilized in dissecting SEM demonstrating and speculation testing utilizing PLS with SmartPLS rendition 3.

**4.1.1. Outer Model**

Convergent validity testing is done by looking at the stacking factor or external stacking value >0.5. Furthermore, to find out whether the discriminant validity variable is adequate, it can be seen from the cross-stacking value by comparing the correlation indicator of a variable with other variables.

**Table 1.** Results of test reliability and validity analysis

	Cronbach's Alpha	rho_A	Composite Reliability	AVE
E-learning	0.911	0.926	0.923	0.501
Work Culture	0.876	0.880	0.902	0.536
Lecturer Performance	0.902	0.908	0.919	0.513
Knowledge Sharing	0.914	0.921	0.930	0.598

Source: Primary Data Processed, 2021

In light of the table above, it very well may be seen that the cronbach's alpha, composite unwavering quality,

and AVE meet the measures implying that all assertion things are substantial and solid. The general guideline utilized in this examination is a theory that has a positive beta coefficient with an importance level of the p-worth of 0.05 (5%).

#### 4.1.2. Inner Model

R-square Variation (R<sup>2</sup>) examination to perceive which level of the impact of exogenous factors on endogenous factors.

**Table 2.** R-Square analysis results

	<b>R Square</b>	<b>R Square Adjusted</b>
Lecturer Performance	0.584	0.571
Knowledge Sharing	0.544	0.534

Source: Primary Data Processed, 2021

Presentation of data in table 2 above, the R square of lecturer performance is 0.584, meaning that the e-learning and work culture variables explain the lecturer

**Table 3.** Result of Direct Hypothesis Test

	<b>Original Sample (O)</b>	<b>Sample Mean (M)</b>	<b>Standard Deviation (STDEV)</b>	<b>T Statistics ( O/STDEV )</b>	<b>P Values</b>
E-learning -> Lecturer Performance	0.565	0.561	0.119	4.755	0.000
E-learning -> Knowledge sharing	0.203	0.205	0.088	2.318	0.021
Work culture -> Lecturer Performance	0.179	0.185	0.068	1.989	0.047
Work culture -> Knowledge Sharing	0.603	0.610	0.072	8.314	0.000
Knowledge sharing -> Lecturer Performance	0.503	0.504	0.116	4.338	0.000

Source: Primary Data Processed, 2021

**Table 4.** Estimation of Indirect Variable Coefficients

	<b>Original Sample (O)</b>	<b>Sample Mean (M)</b>	<b>Standard Deviation (STDEV)</b>	<b>T Statistics (O/STDEV)</b>	<b>P Values</b>
E-learning -> Knowledge sharing -> Lecturer Performance	0.102	0.104	0.051	2.018	<b>0.044</b>
Work culture -> Knowledge Sharing -> Lecturer Performance	0.303	0.308	0.082	3.687	<b>0.000</b>

Source: Primary Data Processed, 2021

performance variable by 58.4%, other constructs explain the rest outside of this study.

Knowledge sharing R-square of 0.544 means that the performance of lecturers, e-learning and work culture explains the knowledge sharing variable by 54.4%, while the rest is clarified by different developments inspected in this investigation

#### 4.1.3. Hypothesis Testing Result

Hypothesis testing is done to see the immediate impact, backhanded impact and the complete impact between factors. This test is done by working bootstrapping on the SmartPls 3.0 program to acquire the connection between exogenous factors and endogenous factors.

#### 4.1.4. *The direct influence hypothesis*

Hypothesis testing the immediate impact is made by taking a gander at the t-insights  $>1.96$  created by the Internal model and a P-Values value  $<0.05$ , which is 0.010. Here are the results of the direct hypothesis test.

Hypothesis 1: The first hypothesis show that the e-learning variable with lecturer performance shows a t statistic of 4.755. This value is under the t table (1.96). This result means that there is a significant influence between e-learning and lecturer performance.

Hypothesis 2: The second hypothesis indicate that the e-learning variable with knowledge sharing shows a statistical t value of 2.318. This worth is more noteworthy than the worth of t table (1.96). These outcomes show a critical impact between e-learning on information sharing.

Hypothesis 3: The third hypothesis shows that the work culture variable with lecturer performance shows a t value of 1.986. This value is greater than the t table (1.96). This shows that there is a significant influence between work culture and lecturer performance.

Hypothesis 4: The fourth hypothesis shows that the work culture variable with knowledge sharing shows the t statistical value of 8.314. This worth is more prominent than the worth of t table (1.96). This outcome implies that there is a huge impact between work culture and information sharing.

Hypothesis 5: The fifth hypothesis indicate that the knowledge sharing variable to lecturer performance shows a statistical t value of 4.338. This is more significant than the t table value (1.96). These results indicate a significant influence between knowledge sharing on lecturer performance.

#### 4.1.5. *The indirect effect hypothesis*

Hypothesis 6: In light of table 4 over the coefficient worth of the aberrant variable, the t-measurement worth of the backhanded impact of e-learning on instructor execution through information sharing is  $2.018 > 1.96$ , with the first example of 0.102, it very well may be reasoned that e-learning significantly affects teacher execution. through information sharing.

Hypothesis 7: Estimation of the coefficient of circuitous factors got the t-measurement worth of the

backhanded impact of work culture on instructor execution through information sharing of  $3.687 > 1.96$  unique example 0.303, it very well may be reasoned that e-learning significantly affects teacher execution through information sharing.

## 4.2. *Discussion*

Variables e-learning positive and significant impact on the performance of lecturers. This shows that the benefits felt by lecturers can improve performance. The results of the study are based on Zhang, et al. found that IT skills cyberspace generally related to digital selection of the user, and then enhance the work of individual and team information. Learners in a learning environment that develops well collaborate to create awareness for educational interaction, Yeh & Lin

Factors e-learning positive and critical effect on the Information sharing. Innovative angles just independent with the goal that the accomplishment of information the executives won't be accomplished as a result of the component of innovation just as a method for supporting the way toward conveying and supporting information spread and information on the human component (individuals).

Work culture variables have a positive impact and are important for the success of lecturers. This result is in line with Pidarta's research which states that self-awareness is the heart of personal career growth and a source of demands for self-realization.

Knowledge sharing is positively influenced by the diverse work community. This result is supported by Kreitner's research which found that information management will fail without organizational culture. Culture that promotes knowledge sharing and increase the spread of tacit knowledge required for effective knowledge management.

Lecturer success is influenced by variables positively sharing information and meaningful. These results are consistent with research Xiongfei Cao, et al. which found that the exchange of information through social media improve the performance of employees in solving problems efficiently, which in turn improves performance.

The use of e-learning and work culture positive and significant impact on the performance of lecturers

through knowledge sharing. The knowledge sharing variable will increase the impact of e-learning and work culture on lecturer performance and provide a positive mediating effect, according to this study. When e-learning and work culture well applied at the University of Muhammadiyah Riau, it will produce a successful lecturer performance. These results are in line with the findings of Tong et al. which found that sharing information is a significant mediator variable in the relationship between organizational culture and job satisfaction of ICT practitioners in Hong Kong. The examination likewise expresses that the impact of authoritative culture on worker work fulfillment were not genuinely huge, in order to incorporate the variable offer information, social relations are considered.

## 5. CONCLUSIONS AND SUGGESTIONS

### 5.1. Conclusion

Based on the hypothesis testing that has been done, it very well may be closed as follows

1. The investigation show that e-learning has a positive and significant impact on lecturer performance.
2. The examination show that the e-learning variable has a positive and significant impact on knowledge sharing. This implies that the better e-learning will reinforce knowledge sharing.
3. The examination reason that work culture has a positive and critical impact on lecturer performance. This implies that the more work culture, the seriously reinforcing the performance of the lecturers.
4. The investigation show that work culture has a positive and critical impact on information sharing. This implies that the better the work culture will reinforce information sharing.
5. The investigation show that information sharing has a positive and critical impact on lecturer performance. This implies that the better knowledge sharing will fortify the performance of lecturers.
6. The investigation show that knowledge sharing mediates a positive and and huge impact between e-learning on lecturer performance.
7. The investigation show that knowledge sharing mediates a positive and huge impact between work culture on lecturer performance.

### 5.2. Suggestion

Based on the research conclusions, there are suggestions that can be used as a reference for related parties. The recommendations for this study are:

1. In further research it is suggested to test other variables related to lecturer performance.
2. For practitioners, the results of this study are very helpful in designing green marketing strategies.

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