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The Influence of Organizational Culture, Organizational Commitments and Information Technology on Knowledge Sharing

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Abstract

This research was conducted to determine the influence of organizational culture, organizational commitment, and information technology on knowledge sharing. This study is a causal quantitative study, which means that the study analyzes the relationship between two or more variables. In this study, three independent variables (free) and one dependent variable (dependent) are used. The population in this study were the administrators of the NTB Care Application spread over the OPD of the NTB Province, a total of 102 respondents who were also the study samples.The questionnaire's validity and reliability were tested on the instrument,and all question items in the questionnaire were valid,and all question variables were reliable.The analysis used in this study is a multiple regression analysis with three independent variables,namely organizational culture,organizational commitment,and information technology,and one dependent variable,namely knowledge sharing.Based on the results of multiple regression analysis, the three independent variables are known to have a positive effect on Knowledge Sharing with an influence level of 45.9%. In the F-test, the three variables have a positive and significant impact on the Knowledge Sharing variable. In contrast, for each independent variable's partial test, the results show that the Organizational Culture and Information Technology variables positively and significantly affect Knowledge Sharing. Still, for the variable Organizational Commitment, it has a positive and insignificant effect on knowledge sharing.

Keywords: *Budaya Organization; Organizational Commitment; Information Technology; Knowledge Sharing; Regresi Berganda*

Introduction

Knowledge (Knowledge) is an important factor in organizations. The need for Knowledge makes the organization more selective in accepting employees. The organization looks for intellectual workers. Increased use of ICT and knowledge-based work is changing the labor market, so workers must be able to do knowledge-based work and use ICT to increase job completion efficiency and effectiveness. It is supported by research by Torrent-Sellens et al. (2016) which states that employees of knowledge workers have a higher degree of job satisfaction than non-knowledge workers. Based on this data, knowledge management (KM) must be carried out in a company or organization.

Knowledge management is always related to organizational culture, so sometimes it is necessary to recognize market changes that result in a clash between organizational culture and knowledge management Jafari (in Akhavan and Akbar, 2013). One of the most important processes to support the implementation of knowledge management is knowledge sharing, in which leaders and employees jointly relate, communicate, share, and transfer their knowledge.

The factors that influence knowledge-sharing in an organization include the organizational culture, i.e., the beliefs, rules, values , and norms applied in an organization. These factors come from outside the individual and are caused by the environment or other individuals. The next factor is the organization's involvement. This factor is closely related to the ties that individuals establish with the organization where the individual works, meaning that individuals have a sense of involvement and loyalty to the organization. Another factor is information technology. It cannot be separated in almost all activities today from the use of information technology as a medium to support employees in completing their work more quickly and easily. Information technology cannot be separated into an individual life, both in everyday life and in everyday life.

Organizational factors are interesting to study because, in several previous studies, organizational factors do not always positively impact knowledge sharing. Research conducted by Roger, et al. (2013) shows that organizational factors, especially in organizational structuring, hinder knowledge sharing. The organizational commitment factor is interesting to be raised in research because there are still few studies that discuss this factor, while for the Information Technology factor, it is interesting to study because the differences in case studies make the research results different.

The research was conducted on the admin of the NTB Care application in NTB Province, which is spread throughout the NTB Provincial Government's OPD to know the influence of organizational culture, organizational commitment, and technology on knowledge sharing. Furthermore, data analysis was performed using multiple linear regression techniques to determine the effect of the three variables, which can then be analyzed to improve admin sharing knowledge in the NTB Care application.

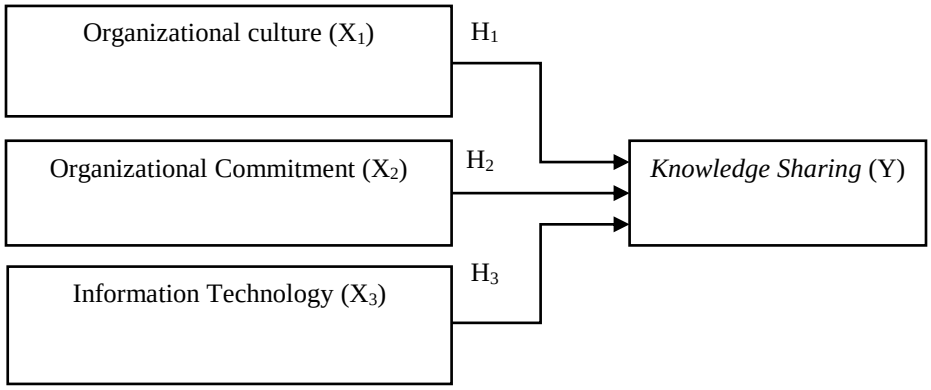
Research Method

This type of research is a quantitative research and causal research objectives, namely, research aimed at analyzing the relationship between two or more variables. The causal relationship in question is the Influence of Organizational Culture, Organizational Commitment, and information technology on knowledge sharing in the NTB Care Application Admin of the West Nusa Tenggara Provincial Government.

The data collection was carried out by distributing questionnaires containing questions related to organizational culture, organizational commitment, information technology, and knowledge sharing to 102 respondents, namely administrators of the NTB Care application, which are spread throughout the NTB provincial government agencies.

This study's scoring technique was carried out by determining the score through various questions asked of the respondents by determining the score according to the Likert scale. The data analysis method in this research is using multiple regression analysis methods using SPSS version 25.0.

The research hypothesis model can be seen in Figure 1 below:



Gambar 1 Model Hipotesis

The formulation of the hypothesis in the study is as follows:

H1: There is a positive and significant influence on organizational culture variables (X1) on knowledge sharing (Y).
H2: There is a positive and significant influence on the variable organizational commitment (X2) on knowledge sharing (Y).
H3: There are many positive and significant influences on Information Technology (X3) variables on knowledge sharing (Y).

Research Result

Respondents in the study amounted to 102 people who were administrators of the NTB Care application in all OPDs of the NTB Provincial Government. The characteristics of the research respondents can be seen in Table 1 below:

Table 1 Characteristics of Research Respondents

Category	***Classification***	***Frequency***	***Percentage (%)***
Age	21 – 30 year	11	10,78
	31 – 40 year	24	23,52
	41 – 50 year	25	24,5
	51 – 60 year	42	41,2
	Head of Service/Bureau/Agency/Board Secretary/Inspector	44	43,1
	Head of Section/Section	10	9,8
	Functional Computer Administration	7	6,8
	General Functional	3	3
	Governor's Expert Staff	3	3
	IT staff	8	7,8
	Administration / Data Processing	14	13,7
	Staff / Employees	10	9,8
Gender	Male	85	83,3
	Female	17	16,7

Years of service	1 – 5 year	14	13,73
	6 – 10 year	14	13,73
	11 – 15 year	17	16,67
	16 – 20 year	9	8,82
	21 – 25 year	10	9,80
	26 – 30 year	22	21,57
	31 – 35 year	15	14,71
	>35 year	1	0,98
Level of education	S3	3	2.94
	S2	42	41.18
	S1	42	41.18
	DIV	5	4.90
	DIII	2	1.96
	DII	1	0.98
	SMA	6	5.88
	SMK	1	0.98

Source: Respondents' Data Processing Results

Table 1 above shows that respondents' most dominant age is 51-60 years with 42 people (41.2%). In the second place, namely the ages of 41-50 years, 25 (24.5%), this is because respondents with positions The OPD head is obliged to be the admin so that the position of the most respondents is the OPD Head where the age of the OPD head ranges from 41 years and over. Respondents with male gender became the dominant respondents amounting to 83.3% and with the most working years of 26-30 years. The highest education levels were S1 and S2, with the same number of 42 respondents.

Validity and Reliability Test

The validity test is carried out to determine the accuracy of the research instrument used in other words. The instrument can measure exactly what should be measured. The technique used in calculating the validity is to use the product-moment correlation technique with a significance level of 5%. The validity test results show that the r_{count} value of each question item is greater than the r_{table} value of 0.1946, so it can be concluded that all the question items in the questionnaire are valid.

The reliability test is used to determine whether the research variables can be trusted and relied upon. The research shows that the independent variable and the dependent variable have a Cronbach alpha value greater than 0.6 so that it can be concluded that these variables are reliable, meaning that the variables are reliable and relatively consistent.

Multiple Regression Analysis

Multiple regression analysis is used to determine the influence of the three independent (free) variables, namely the Organizational Culture (X1), Organizational Commitment (X2), and Information Technology (Y) variables on the dependent (bound) variable, namely Knowledge Sharing. The results of the regression analysis in the study can be seen in Table 2 below:

Table 2 Regression Test Results

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	11.431	4.672		2.446	0.016		
Budaya Organisasi	0.381	0.085	0.338	4.486	0.000	0.970	1.031
Komitmen Organisasional	0.023	0.066	00.026	0.346	0.730	0.967	1.034
Teknologi Informasi	0.612	0.089	.527	6.891	0.000	0.945	1.059

Based on Table 2, the following equation can be made:

$$Y = 0 + 0{,}338\ X_1 + 0{,}026\ X_2 + 0{,}527 X_3$$

The equation above can be seen that the regression coefficient of the three independent variables (free), namely Organizational Culture (X1), Organizational Commitment (X2), and Information Technology (X3), is positive. It indicates a unidirectional relationship between the three variables and the variable dependent (bound) Knowledge Sharing (Y) on the NTB Care application admin in West Nusa Tenggara Province. So if the coefficient value of the independent variable, both the Organizational Culture (X1), Organizational Commitment (X2) and Information Technology (X3) variables is 0, then the Knowledge Sharing value is 0.

Classic assumption test

a. Residual Normality Test

A normality test is done to see whether the data in the study are normally distributed or not. The normality test was carried out using the Kolmogorof-Smirnov non-parametric statistical test by looking at the significance value. The test results can be seen in Table 3 below:

Tabel 1 Hasil Uji Normalitas Residual

Tests of Normality			
	Kolmogorov-Smirnov[a]		
	Statistic	df	Sig.
Unstandardized Residual	0.063	102	0.200

Table 3 shows a significant value that is 0.2 greater than 0.05, which indicates that the data is normally distributed, and the data model meets the assumption of normality.

b. Multicollinearity Test Data

The multicollinearity test of information is carried out by looking at the Tolerance and VIF values. The purpose of the multicollinearity test is to see whether there is a strong correlation or relationship between independent variables or independent variables in the regression model, where a good model should not have a correlation between independent variables Or no symptoms of multicollinearity.

Based on Table 2, the tolerance and VIF values are respectively 0.972, 0.929, and 0.904 greater than 0.10. The VIF values of the three variables, namely 1.029, 1.077, and 1.106, are less than 10, meaning that the data model does not contain multicollinearity problems.

c. Data Heteroscedasticity Test

A heteroscedasticity test is carried out to test whether there is an unequal variation from the residual value from one observation to another in the regression model. The heteroscedasticity test in the study used the Glejser test by looking at the regression's significance value between the independent variables and the regression residuals' absolute value.

The Glejser test results show that the significance value of the three independent variables, respectively 0.057, 0.394, and 0.983 is greater than 0.05, so it can be concluded that the regression model has no heteroscedasticity problems.

Hypothesis Testing

a. F Test

The F test is carried out to see whether the study's model is suitable to be used to predict the effect of the independent variable on the dependent variable. The results of the F test can be seen in Table 4 below:

Table 4. F Test Results

Model	Sum of Squares	df	Mean Square	F
Regression	424.593	3	141.53	27.686
Residual	500.985	98	5.112	
Total	925.578	101		

Table 4 above shows that the value of F_{count} in the study is 27.686, as for the Ftable value with a df1 value equal to 3 and df2 equal to 98 with a significant level of 5% (because it is two-way, then $\alpha = 0.05 / 2 = 0.025$) is 3 , 2524. So that F_{count} is greater than the F_{table} value. The three independent variables significantly influence the dependent variable Knowledge Sharing (Y), and the research model built is feasible to use.

b. T-test (Partial Coefficient Test)

Partial coefficient test with t-test is done to find out whether each variable partially affects the dependent variable Knowledge Sharing. The results of the t-test showed that the t value of each independent variable was 4.486; 0.346; and 6.891, the value of t table with a significance level of 5% and with df 98 is 1.9845.

The t-count value of the Organizational Culture variable is 4.486, which is greater than t table 1.9845, so Ho is rejected, and Ha is accepted. The t-count value of the organizational commitment variable is 0.346 smaller than the 1.9845 t-table, so Ho is accepted, and Ha is rejected. The information technology variable's t-count value is 6.891, meaning that it is greater than the t-table value, which is 1.9845 so that Ho is rejected and Ha is accepted.

Multiple Correlation Analysis (R)

Multiple correlation analysis is used to determine the relationship between the independent and dependent variables, namely Knowledge Sharing. The multiple correlation test value (R) is 0.67. It indicates that the relationship between the independent variables Organizational Culture (X1), Organizational Commitment (X2), and Information Technology (X3) on the dependent variable Knowledge Sharing is very strong.

Analysis of the Coefficient of Determination (R^2)

Analysis of the coefficient of determination is used to find out how much the independent variable Organizational Culture (X1), Organizational Commitment (X2), and Information Technology (X3) affect the dependent variable Knowledge Sharing. The coefficient value can use the following equation:

$$R^2 = \left(R_{x1,x2,x3,y}\right)^2 .100\%$$

$$= (0{,}677)^2 .100\% = 45{,}9\%$$

The coefficient of determination is 45.9%. This shows that the influence of the three independent variables on Knowledge Sharing is 49.7%. There are 54.1% (100% - 45.9%) other variables that affect Knowledge Sharing, which were not examined in the study. Here, examples of other variables not examined in this study are work motivation, work environment, family problems, and many more factors that can affect Knowledge Sharing.

Discussion

Organizational Culture Influences Knowledge Sharing

This study showed that the results of Organizational Culture have a positive and significant effect on Knowledge Sharing in the administration of the NTB Care Application so that hypothesis 1 (H1) in the study is accepted. It means that the organizational culture that applies to the organization of each administrator has a positive and significant effect on the desire of employees to share knowledge with other employees.

Research supporting the research conducted is research by Akosile and Olatokun (2019). Their study shows that there is a significant influence of the organization on Knowledge Sharing at Bowen University. In addition, research conducted by Utari, Diyah et al. (2017) states that factor variables have a significant influence on the sharing of knowledge in the IT division, namely organizational factors, knowledge sources, individual factors, and technology. The study conducted by Roger et al. (2013), organizational factors adversely affect or hinder the process of knowledge sharing. A case study in this research is located in the academic section.

Organizational Commitment Influences Knowledge Sharing

In the research conducted, the results show that Organizational Commitment has a positive and insignificant effect on Knowledge Sharing, so that the second hypothesis in the study which states "There is a positive and significant influence on the Organizational Commitment variable (X2) on Knowledge Sharing (Y)" is rejected.

Research conducted by Tandayong and Edalmen (2019) on employees of PT. Katopas Jaya Abadi has different results. The results of his research show a significant and positive influence of the

Organizational Commitment variable on the company's knowledge sharing culture. The results of this study can be based on several facts that exist within the agency; these facts include:

1. Knowledge sharing is not the response shown by employees because of the commitments they make with the agency.

2. Knowledge sharing activities carried out by agency employees have an important role in completing work that is poorly understood, especially for PNS employees who are required to be able to complete all work even though it is not their area of expertise.

3. The NTB Care application is the Governor's flagship program in realizing NTB Gemilang so that application management is highly considered by the leadership and is required to carry out their duties properly. These demands require that the NTB Care application admin learn the system's technical work either formally through training or informally by asking questions the leading sector of application developers.

Information Technology Influences Knowledge Sharing

In this study, the results obtained are that the Information Technology variable has a positive and significant influence on Knowledge Sharing in the NTB Care application admin. So that the 3rd hypothesis of the study, which states, "There is a positive and significant influence on Information Technology (X3) variables on Knowledge Sharing (Y)," is accepted. This research is supported by Iriani and Susanty (2015) research, which states that partially Information Technology has a significant direct effect on Knowledge Sharing. Besides, Karampoura and Bojarpour (2012) also support research that explains the influence of factors perspective in information technology and a community of practice on Knowledge Sharing. However, Akosile and Olatokun (2019) research states that there is no influence from the Information Technology variables given to Knowledge Sharing. It shows that the differences in the use of Information Technology in organizations have different effects on the organization's Knowledge Sharing culture.

Conclusion

Based on the research results, it can be concluded that; 1) Organizational Culture has a positive and significant influence on Knowledge Sharing. It shows that the organizational culture owned by the respective agency admin applications influences knowledge sharing activities, meaning that the higher the value of Organizational Culture in the agency, the higher the value of Knowledge Sharing carried out within the agency. 2) Organizational Commitment has a positive and insignificant effect on Knowledge Sharing. It shows that employees' organizational commitment is not a factor that significantly influences knowledge sharing activities within agencies. So it can be said that although the level of commitment owned by employees has increased or decreased, it will not affect the value of Knowledge Sharing in the NTB Care application's admin. 3) Information Technology has a positive and significant influence on Knowledge Sharing. This shows that Information Technology is one of the factors that influence information sharing activities. It means that the higher the Information Technology used and used by the NTB Care application's admin, the higher the cultural value of sharing knowledge, on the other hand, if Information Technology is lower, the value of Organizational Culture will also decrease.

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