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The Effect of Archives Infrastructure and Competency of Archives Officers on the Effectiveness of Work in the Development of Marga and Construction Development of North Sumatra Province

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Abstract

The aims of this study to find out the effect of archives infrastructure and competency of archives officers on the effectiveness of work in the development of marga and construction development of North Sumatra Province. The type of research used in this study is a causal relationship research with a quantitative approach. The quantitative approach is a systematic scientific study of the parts and phenomena and their relationships. The result shows that the relationship between the arrangement of archives, infrastructure and the competence of archiving officers on the effectiveness of work in the Department of Highways and Construction of North Sumatra Province that the R Square value obtained is 0.218 or 21.8%. This shows the ability of the Archives Arrangement variable (X1), Infrastructure (X2) and Archive Officer Competence (X3) simultaneously or together to affect Work Effectiveness by 21.8%.

Keywords
archives infratucture;
effectiveness of work;
develovement of marga

I. Introduction

Archives can be deduced from the term language and some of the meanings above that the archive acts as a memory center or source of information and as a monitoring tool that is needed by every organization in the context of activities. Archives are very helpful for organizations in carrying out activities such as planning, analyzing, developing, formulating, policy, decision making, reporting, accountability, assessment, and control as precisely as possible.

Archiving is one type of office work or administrative work that is mostly carried out by government agencies, as well as private entities. Archiving involves work related to the storage of archives or letters, and other office documents. (Sugiarto and Wahyono, 2015; 2) said that: "Archives are the basis for maintaining letters: they contain the process of compiling and storing documents in such a way that letters/files can be recovered when needed. The most important properties that must be owned by an archival system are trustworthiness and accessibility, apart from other properties such as tidiness, cleanliness and others.

The explanation above can mean that the archive is a process starting from the creation, receipt, collection, arrangement, control, maintenance and care and storage of documents according to a certain system which when needed can be found quickly and precisely found. Listening to archives plays an important role for the smooth running of the organization, namely as a source of information and as a memory center. Archives are an important component in life, from past lives we see a series of history contained in archives. Likewise with modern life today archives remain an important component considering that life cannot be separated from the presence of archives. The importance of

archives, among others, is authentic evidence concerning the status, rights, ownership and role of an institution. The various important meanings of the archives mentioned above, the authors are interested in studying more deeply about the arrangement of archives, infrastructure and the competence of archive officers on the effectiveness of the work carried out, especially Administration (General Subdivision / Administration) which has the authority to handle mail archives,

It's just that handling archives is often not given much attention and becomes an unattractive job in the office. In fact, the function is very important for the smooth running of activities, among others, can be used as a reference source if certain information is needed, or can be used as evidence in accordance with legal provisions. In addition, archives can also provide data or information needed by leaders as material in carrying out their leadership functions, namely in terms of planning, organizing, moving, and supervising.

An organization in treating archives has different ways according to the needs of the organization but in accordance with the times, the handling of records is also developed according to the needs of the organization or agency. The implementation of archive handling is inseparable from the HR factor. This is because the human factor is the subject or driving factor that plays an important role in determining the success or failure of the implementation of archive handling. Although supported by facilities and infrastructure as well as a fairly good system, if human resources do not have the ability or do not know the field of archives, the implementation of archive handling will not run smoothly. Therefore, to carry out their duties, employees who work in the archives unit are not only supported by the willingness to work. But also must be equipped with special skills in the field of archives, needed in an archive management unit.

According to Sedarmayanti (2015; 93) states that the archive arrangement system or archive system (Dutch language) or also known as the filling system (English) is an activity of organizing and compiling archives in a systematic and logical order, storing and maintaining archives for use safely and economically. The function of infrastructure basically has the aim of creating comfort, creating satisfaction, accelerating the work process, facilitating the work process, increasing productivity. Meanwhile, the benefits of infrastructure facilities are providing data and information in order to facilitate the supervision and control of archiving, preparing data and information in order to determine and plan needs, and so on.

II. Review of Literature

2.1 Archive

In Law Number 43 of 2009 concerning archives it is stated that "Archives are recordings of activities or events in various forms and media in accordance with the development of information and communication technology made and accepted by State institutions, regional government institutions, educational institutions, companies, political organizations, community organizations, and individuals in the implementation of social, national and state life.

In the Regulation of the Head of the National Archives of the Republic of Indonesia Number 7 of 2017 concerning the National Movement for Awareness of the Order of Archives. Archives are recordings of activities or events in various forms or media according to the development of information and communication technology made and accepted by state institutions, regional government administrators, community organizations, educational institutions, companies and individuals in the implementation of

social, national and state life. Archives can be deduced from the term language and some of the meanings above that the archive acts as a memory center or source of information and as a monitoring tool that is needed by every organization in the context of activities

2.2 Archive Storage System

An archive storage system is a system used for document storage in order to facilitate the work of storing and facilitating the retrieval of documents whenever needed. Every organization that has archives or documents will definitely store the archives/documents in a storage system that has been agreed upon by the organization in advance. Basically, company leaders also want archives/documents that are stored neatly and well organized to make it easier to store and find archives. Therefore, to make it easier to manage archives, accuracy and skills are needed to process archive storage. In selecting an archive storage system, several criteria are needed, an archive storage system can be said to be good if it meets the following criteria:

1. Easy to implement.
2. Save equipment, time and money.
3. Simple.
4. Flexible.
5. In accordance with the main functions and duties of the organization.

The storage system in principle is to store based on words - catch (captions of stored scripts in the form of letters and numbers arranged in alphabetical and numerical order.

2.3 Work Effectiveness

Effectiveness comes from the word "Effect" which means a causal relationship, effectiveness can be seen as a cause of other variables. Effectiveness means that the previously planned goals can be achieved or in other words, the goals are achieved because of the process. According to James L Gibson (Pasolong, 2013; 4) effectiveness is the achievement of the goals of a joint effort. Meanwhile, according to Ravianto (2014: 11) effectiveness is how well the work is done, the extent to which people produce outputs as expected. This means that if a job can be completed in accordance with the plan, both in time, cost, and quality, it can be said to be effective. Effectiveness is a measure of the success or failure of achieving the goals of an agency or organization (Mardiasmo, 2017;134). Meanwhile, according to Dwiyanti, Agus (2012; 50) Performance effectiveness is a measure of the agency or organization to achieve a more optimal work process in completing its main tasks. According to the Big Indonesian Dictionary (KBBI) Effectiveness is usability, activity, and the existence of conformity in an activity between someone who carries out a task with the goal to be achieved.

Effectiveness is a successful work to achieve predetermined goals, because the word "effective" is a state of success in achieving targets or goals that are really useful. While (Handayaningrat 2002) provides an explanation that effectiveness is a measurement in the sense of achieving the predetermined targets or goals. Clearly, if the target or goal has been achieved as it is planned before, it is called effective. In its principle, the definition of effectiveness is an assessment of whether an activity/a system is achieved or not. (Sugandha in Kuswati, 2019)

It can be concluded that in general what is meant by work effectiveness is a measure and ability to carry out the functions, tasks, programs or missions of an agency or organization in accordance with the right target based on the goals that have been set or planned.

III. Research Methods

The type of research used in this study is a causal relationship research with a quantitative approach. The quantitative approach is a systematic scientific study of the parts and phenomena and their relationships.

This research was conducted at the Office of the Highways and Construction Services of North Sumatra Province, which is located at Jl. Sakti Lubis No.7 R, Sitirejo II Kec. Medan Amplas, Medan City, North Sumatra 20217. The reasons the researchers chose the location are:

a. Researchers know the research locations
b. The research location is close to the researcher's residence
c. Researchers are familiar with certain informants, so they can easily get the data needed.

Table 1. Total Population employees of the Office of Highways and Provincial Construction Development North Sumatra

Part	Number of Employees
Secretariat	51
Development Sector	22
Maintenance Field	24
Planning and Evaluation Bidang	30
Construction Development Sector	28
Amount	155

Source: Department of Highways and Construction of North Sumatra Province

The steps taken in the use of this analysis are:

a. Create an answer distribution table table
b. Summing up the score of respondents' answers with the provisions of a predetermined score.
c. Summing up the answer scores obtained from each respondent.
d. Enter the answer score.
e. The results obtained were consulted with the category table
f. Conclusion by category.

$$\% = \frac{n}{N} \; x \; 100 \; \%$$

Information:

Mn : Total score obtained
N : Total ideal score (number of respondents x number of statements x highest score)
% : Success rate achieved

Multicollinearity means that between the variables contained in the regression model, there is a perfect relationship. One way to identify it is by correlating between variables and if the correlation is significant, then multicollinearity occurs between the independent variables. Detection of multicollinearity can also be used with VIF (Variant Inflation Factor) values, if the VIF value is below 10 and the tolerance value is above 0.1, it means that the data is free of multicollinearity (Ghozali, 2007: 91). Multiple regression analysis was used to determine the magnitude of the relationship between the variables of archive arrangement, infrastructure and officer competence (with the variable of employee work effectiveness either partially or simultaneously. The stages of multiple regression analysis are as follows:

$$Y = a + b1x1 + b2x2 + b3x3$$

Information :
Y : Work Effectiveness
a : Regression Coefficient (constant)
b1: Regression coefficient for archive structuring
b2: Regression coefficient for infrastructure
b3: Regression coefficient for archivist competence
x1: Archive setup
x2: Infrastructure
x3: Competency of archivists

The t test is used to test the regression coefficient partially or separately from other independent variables.

a. If the significance value t < (0.05) or the significant t coefficient at the level < 5%, then H o is rejected and Ha is accepted, which means that the arrangement of archives, infrastructure and officer competencies affects the effectiveness of the employee's work.
b. If the significance value of t > (0.05) or the significance t coefficient at the level > 5%, then Ho is accepted and Ha is rejected, which means that the arrangement of archives, infrastructure and officer competencies does not affect the effectiveness of the employee's work.

The decision to determine whether the independent variable has a significant effect on the dependent variable is as follows:

a. If F is significant at <5% level, then Ho is rejected and Ha is accepted, meaning that simultaneously the arrangement of archives, infrastructure and competence of officers affects the effectiveness of employees' work.
b. If F is significant at the level > 5%, then Ho is accepted and Ha is rejected, meaning that the arrangement of archives, infrastructure and competence of officers does not affect the effectiveness of employees' work.

The coefficient of simultaneous determination (R 2) is used to determine the magnitude of the influence of archive arrangement and archive officer competence on service quality from the research results. If the R 2 obtained is close to 1, it can be said that the stronger the model in explaining the variation of the independent variable to the dependent variable, on the other hand if R 2 is close to zero, the weaker the variation of the independent variable explains the dependent variable.

The coefficient of partial determination (r2) is used to determine the extent of the contribution of each independent variable, if the other variables are constant to the dependent variable, the greater the variation in their contribution to the dependent variable. To help the data processing process accurately and quickly, the data processing can be done using the SPSS program.

IV. Results and Discussion

Table 2. Results of Testing the Validity of Archives Arrangement Variables

Variable	Question Items	r-count	r-table	Sig	Criteria
Archive Setup	1	0.414	0.361	0.008	Valid
	2	0.648	0.361	0.000	Valid
	3	0.493	0.361	0.001	Valid
	4	0.820	0.361	0.000	Valid
	5	0.683	0.361	0.000	Valid
	6	0.806	0.361	0.000	Valid
	7	0.574	0.361	0.000	Valid

	8	0.477	0.361	0.002	Valid
	9	0.384	0.361	0.014	Valid
	10	0.429	0.361	0.006	Valid

Source: Research Results 2021 (Processed with SPSS 25)

The results of the calculations in table 2s show that the question instrument of the Archive Arrangement variable has an r-count value greater than 0.361, an instrument is said to be valid if r-count > r-table. Thus, it can be concluded that all the question instruments from the Archive Arrangement variable used are valid and can be used in research. This conclusion is reinforced by the significance value (2-tailed) for all instruments which is smaller than the value of 5% or equal to 0.05.

Table 3. Results of the Validity Testing of Infrastructure Variables

Variable	Question Items	r-count	r-table	Sig	Criteria
Infrastructure	1	0.582	0.361	0.000	Valid
	2	0.379	0.361	0.016	Valid
	3	0.473	0.361	0.002	Valid
	4	0.629	0.361	0.000	Valid
	5	0.469	0.361	0.002	Valid
	6	0.765	0.361	0.000	Valid
	7	0.605	0.361	0.000	Valid
	8	0.456	0.361	0.003	Valid
	9	0.537	0.361	0.000	Valid
	10	0.435	0.361	0.005	Valid

Source: Research Results 2021 (Processed with SPSS 25)

The results of the calculations in table 3 show that the question instrument of the Sarana Prasarana variable has an r-count value greater than 0.361, an instrument is said to be valid if r-count > r-table. Thus, it can be concluded that all the question instruments from the Infrastructure variables used are valid and can be used in research. This conclusion is reinforced by the significance value (2-tailed) for all instruments which is smaller than the value of 5% or equal to 0.05.

Table 4. Results of Testing the Validity of Work Effectiveness Variables

Variable	Question Items	r-count	r-table	Sig	Criteria
Work Effectiveness	1	0.616	0.361	0.000	Valid
	2	0.678	0.361	0.000	Valid
	3	0.456	0.361	0.003	Valid
	4	0.472	0.361	0.002	Valid
	5	0.434	0.361	0.005	Valid
	6	0.367	0.361	0.020	Valid
	7	0.613	0.361	0.000	Valid
	8	0.600	0.361	0.000	Valid
	9	0.806	0.361	0.000	Valid
	10	0.538	0.361	0.000	Valid

Source: Research Results 2021 (Processed with SPSS 25)

The results of the calculations in the table show that the question instrument of the Work Effectiveness variable has an r-count value greater than 0.361, an instrument is said to be valid if r-count > r-table. Thus, it can be concluded that all question instruments from the Work Effectiveness variable used are valid and can be used in research. This conclusion is reinforced by the significance value (2-tailed) for all instruments which is smaller than the value of 5% or equal to 0.05.

Reliability test is a measure of the consistency and stability of a score (Measurement Scale). Reliability test is carried out by testing questions that have been declared valid in the Validity Test whose reliability will be determined with the help of the SPSS 25 for Windows program. Variables are declared reliable with the following criteria:

Table 5. Reliability Test Results

Variable	***Cronbach's Alpha***	***r-table***	**Information**
Archive Setup	0.789	0.60	Reliable
Infrastructure	0.728	0.60	Reliable
Archival Officer Competence	0.687	0.60	Reliable
Work Effectiveness	0.730	0.60	Reliable

Source: Research Results 2021 (Processed with SPSS 25)

From table 5 above, it can be seen that the value of r alpha > r table (0.60), thus all statement items are declared reliable.

Table 6. Respondents' Answers Per Question Item Archive Setup Variables

NO	Question	Respondent's Answer Scale										**SCORE**
		5	%	4	%	3	%	2	%	1	%	
1	Q1	1	2.5	28	70	11	27.5	0	0	0	0	**75.0%**
2	Q2	3	7.5	25	62.5	11	27.5	1	2.5	0	0	**75.0%**
3	Q3	1	2.5	36	90	3	7.5	0	0	0	0	**79.0%**
4	Q4	1	2.5	16	40	18	45	5	12.5	0	0	**66.5%**
5	Q5	1	2.5	20	50	16	40	3	7.5	0	0	**69.5%**
6	Q6	2	5	16	40	17	42.5	5	12.5	0	0	**67.5%**
7	Q7	5	12.5	29	72.5	6	15	0	0	0	0	**79.5%**
8	Q8	1	2.5	26	65	13	32.5	0	0	0	0	**74.0%**
9	Q9	6	15	31	77.5	3	7.5	0	0	0	0	**81.5%**
10	Q10	3	7.5	31	77.5	6	15	0	0	0	0	**78.5%**

Table 7. Overall Frequency Recapitulation of Answer Items in Archive Arrangement Variables

SCORE	INFO	Frequency (F)	SXF
5	Strongly agree	25	120
4	Agree	258	1032
3	Less Disagree	104	312
2	Disagree	14	28
1	Strongly Disagree	0	0
TOTAL		400	1492

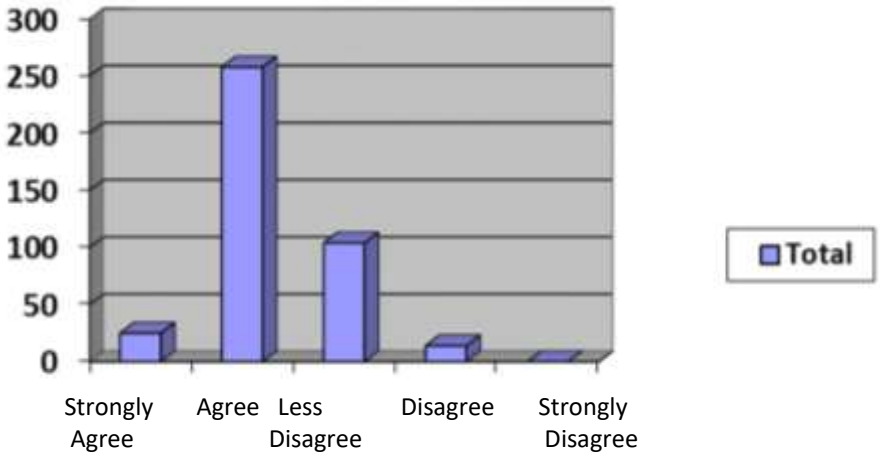


Figure 1. *Archive Setup Variables*

The percentage result is the result of:

$$\frac{\sum S\ X\ F}{\sum Skor\ Mak}\ \text{X}\ 100\%$$

So it can be seen that with the highest score of 5 where people who strongly agree as much as 6%, score 4 where people who agree as much as 51.6%, score 3 where people who express less agree as much as 15.6%, score 2 where people who stated disagree as much as 1.4%, a score of 1 where people who stated strongly disagree as much as 0%. And from the results of the calculations above, it can be seen that 51.6% of respondents answered "Agree" that a good archive arrangement can provide convenience in filing and filing service administration.

The conclusion from the above calculation: the results of the questionnaire about the Archive Arrangement variable, namely 0.746 are in the interval 0.60 - 0.799 with a "High" level of relationship. Which means that a good archive arrangement can provide convenience in filing and filing service administration with a "High" level of relationship. The following is an explanation of the respondents' answers regarding the Infrastructure variable which can be seen in table 8 below:

Table 8. Respondents' Answers per Question Item Variable Facilities

NO	Question	Respondent's Answer Scale										**SCORE**
		5	%	4	%	3	%	2	%	1	%	
1	Q11	0	0	24	60	13	32.5	3	7.5	0	0	**70.5%**
2	Q12	0	0	33	82.5	7	17.5	0	0	0	0	**76.5%**
3	Q13	0	0	35	87.5	3	7.5	2	5	0	0	**76.5%**
4	Q14	1	2.5	26	65	11	27.5	2	5	0	0	**73.0%**
5	Q15	1	2.5	26	65	12	30	1	2.5	0	0	**73.5%**
6	Q16	1	2.5	24	60	13	32.5	2	5	0	0	**72.0%**
7	Q17	5	12.5	26	65	9	22.5	0	0	0	0	**78.0%**
8	Q18	0	0	31	77.5	9	22.5	0	0	0	0	**75.5%**
9	Q19	1	2.5	33	82.5	6	15	0	0	0	0	**77.5%**
10	Q20	1	2.5	35	87.5	4	10	0	0	0	0	**78.5%**

Based on the questionnaire distribution of the Sarana Prasarana variable, 40 respondents gave their answers and then processed using the percentage formula P = F/NX 100%. Below is the presentation of the recapitulation of the overall data for the variable frequency of Infrastructure in table 9 as follows:

Table. 9 Overall Recapitulation of Frequency on Answer Items for Infrastructure Variables

SCORE	INFO	Frequency (F)	SXF
5	Strongly agree	10	50
4	Agree	293	1172
3	Less Disagree	87	261
2	Disagree	10	20
1	Strongly Disagree	0	0
TOTAL		400	1503

From the results of research conducted on 40 respondents, obtained a score of 1503 if the percentage:
% = 1503 x 100 = 75.2% = 0.752
2000

Then it is obtained 0.752, if it is interpreted as being in the interval category of 0.60 - 0.799, which means that the available infrastructure with technological support will assist in the process of work efficiency with a "High" level of relationship.

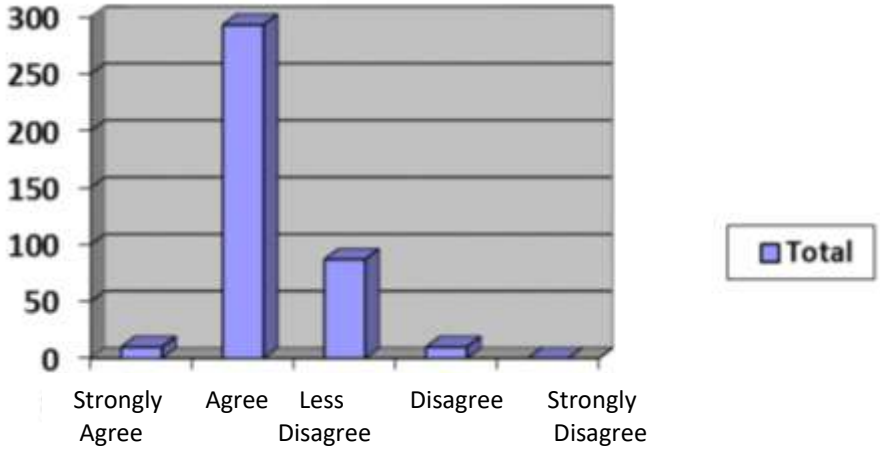


Figure. 2. *Infrastructure Variables*

The percentage result is the result of:

$$\frac{\sum S\,X\,F}{\sum Skor\ Mak}\ \text{X } 100\%$$

So it can be seen that the highest score is 5 where people who state strongly agree as much as 2.5%, score 4 where people who agree are 58.6%, score 3 where people who express less agree are 13.05%, score 2 where people who disagreed as much as 1%, a score of 1 where people who stated strongly disagreed as much as 0%. From the calculation results, it can be seen that 58.6% of respondents answered "Agree" that the available infrastructure will help in the process of work efficiency.

The conclusion from the above calculation: the results of the questionnaire about the Sarana Prasarana variable that is equal to 0.752 are in the interval 0.60 - 0.799 with a "High" relationship level. Which means that the available infrastructure will help in the process of work efficiency with a "High" level of relationship.

Table 10. Respondents' Answers Per Item Variable Competency of Archives

NO	Question	Respondent's Answer Scale										SCORE
		5	%	4	%	3	%	2	%	1	%	
1	Q21	2	5	29	72.5	9	22.5	0	0	0	0	**76.5%**
2	Q22	0	0	28	70	12	30	0	0	0	0	**74.0%**
3	Q23	0	0	33	82.5	7	17.5	0	0	0	0	**76.5%**
4	Q24	6	15	24	60	8	20	2	5	0	0	**77.0%**
5	Q25	5	12.5	24	60	9	22.5	2	5	0	0	**76.0%**
6	Q26	3	7.5	30	75	6	15	1	2.5	0	0	**77.5%**
7	Q27	3	7.5	28	70	9	22.5	0	0	0	0	**77.0%**
8	Q28	1	2.5	29	72.5	10	25	0	0	0	0	**75.5%**
9	Q29	1	2.5	34	85	5	12.5	0	0	0	0	**78.0%**
10	Q30	1	2.5	32	80	6	15	1	2.5	0	0	**76.5%**

Table. 11 Overall Recapitulation of Frequency on Answer Items for Archive Officer Competency Variables

SCORE	INFO	Frequency (F)	SXF
5	Strongly agree	22	110
4	Agree	291	1164
3	Less Disagree	81	243
2	Disagree	6	12
1	Strongly Disagree	0	0
TOTAL		400	1529

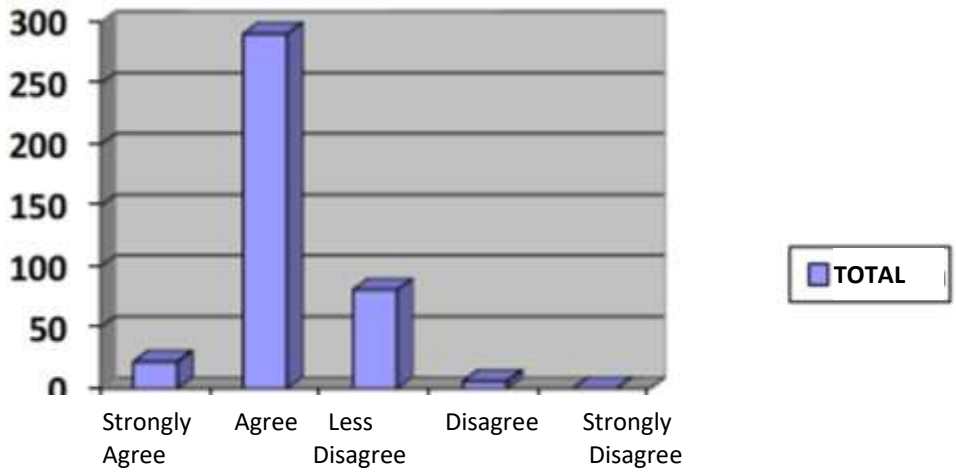


Figure 3. *Archive Officer Competency Variables*

The percentage result is the result of:

$$\frac{\sum S\,X\,F}{\sum Skor\ Mak} \text{ X } 100\%$$

So it can be seen that with the highest score of 5 where people who strongly agree as much as 5.5%, a score of 4 where people who agree as much as 58.2%, a score of 3 where people who express less agree as much as 12.5%, a score of 2 where people who disagree as much as 0.6%, a score of 1 where people who state strongly disagree as much as 0%. And from the results of the calculation above, it can be seen that 58.2% of respondents

answered "Agree" that the Competence of a competent Archive Officer with a linear educational background can create good archiving

The conclusion from the above calculation: the results of the questionnaire about the Archive Officer Competency variable, which is 0.765, is in the interval 0.60 - 0.799 with a "High" level of relationship. Which means that the Competency of a competent Archive Officer with a linear educational background can create a good archive with a "High" level of relationship.

Table 12. Respondents' Answers per Question Items Work Effectiveness Variables

NO	Question	Respondent's Answer Scale										**SCORE**
		5	%	4	%	3	%	2	%	1	%	
1	Q31	2	5	17	42.5	19	47.5	2	5	0	0	**69.5%**
2	Q32	0	0	33	82.5	7	17.5	0	0	0	0	**76.5%**
3	Q33	0	0	29	72.5	9	22.5	2	5	0	0	**73.5%**
4	Q34	3	7.5	23	57.5	13	32.5	1	2.5	0	0	**74.0%**
5	Q35	3	7.5	17	42.5	18	45	2	5	0	0	**70.5%**
6	Q36	5	12.5	29	72.5	6	15	0	0	0	0	**79.5%**
7	Q37	4	10	25	62.5	10	25	1	2.5	0	0	**76.0%**
8	Q38	2	5	30	75	8	20	0	0	0	0	**77.0%**
9	Q39	1	2.5	33	82.5	5	12.5	1	2.5	0	0	**77.0%**
10	Q40	1	2.5	32	80	6	15	1	2.5	0	0	**76.5%**

Table. 13 Overall Frequency Recapitulation of Answer Items for Work Effectiveness Variables

SCORE	INFO	Frequency (F)	SXF
5	Strongly agree	21	105
4	Agree	268	1072
3	Less Disagree	101	303
2	Disagree	10	20
1	Strongly Disagree	0	0
TOTAL		400	1500

In table 13 we can see the total score for the Work Effectiveness variable is 1500 and the categorization is based on the ideal range of values:

a. Total Maximum Score: Highest Score times Number of Questions times Number of Respondents, 5 X 10 X 40 = 2000
b. Total Minimum Score: Lowest Score times Number of Questions times Number of Respondents, 1 X 10 X 40 = 400
c. Score Range: (Maximum Score – Minimum Score) : 5, (2000 – 400) : 5 = 320

From the results of research conducted on 40 respondents, obtained a score of 1500 if the percentage:

% = 1500 x 100 = 75.0% = 0.750
2000

Then 0.750 is obtained, if it is interpreted as being in the 0.60 - 0.799 interval category, which means that Work Effectiveness can be created if there is a good Archive Arrangement, the availability of Infrastructure and Competency of Archives Officers with a "High" level of relationship.

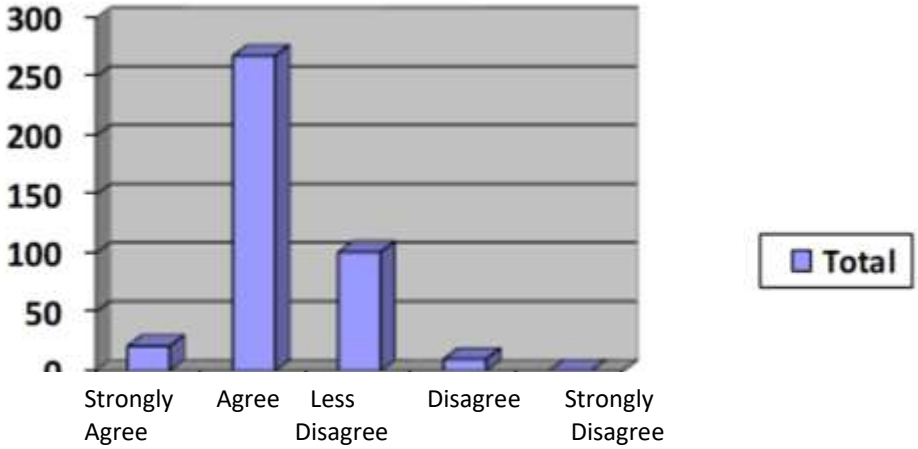


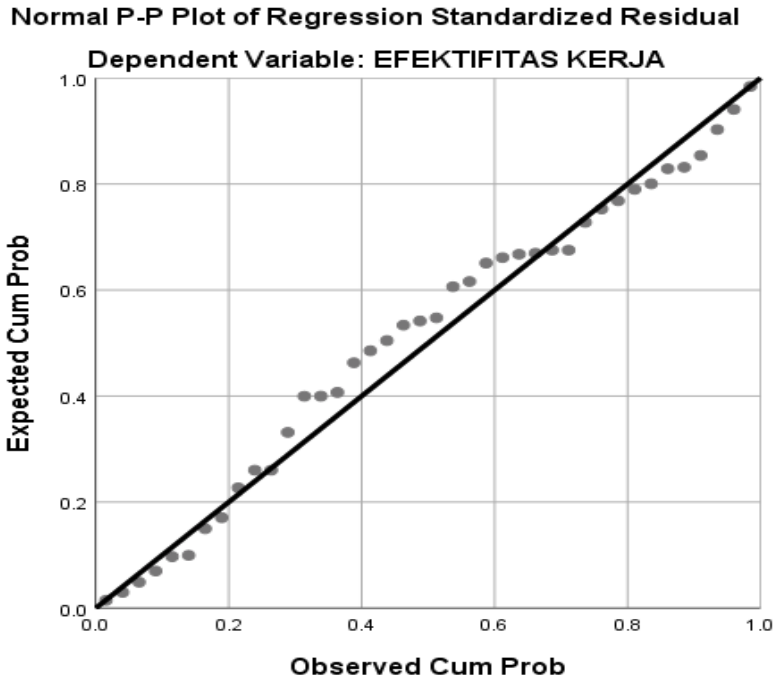
Figure 4. *Work Effectiveness Variable*

The percentage result is the result of:

$$\frac{\sum S\ X\ F}{\sum Skor\ Mak}\ \text{X}\ 100\%$$

The conclusion of the above calculation: the results of the questionnaire on the Work Effectiveness variable, which is 0.750, are in the interval 0.60 - 0.799 with a "High" level of relationship. Which means that Work Effectiveness can be created if there is a good Archive Arrangement, the availability of Infrastructure and Competency of Archives Officers with a "High" level of relationship.

Normality test is used to determine whether the data distribution follows or approaches the normal distribution.



Source: SPSS 25 (2021) Management

Figure 5. *Normality Graph Approach*

Based on the Normality Test with the Graph approach above, it can be seen that the data has a normal distribution or distribution, this can be seen from the spread of points around the diagonal axis of the graph. Multicollinearity test in this study was used to see whether there were symptoms of multicollinearity between the independent variables. In Table 14, the results of the Multicollinearity Test can be seen by looking at Tolerance and VIF.

Table 14. Multicollinearity Test

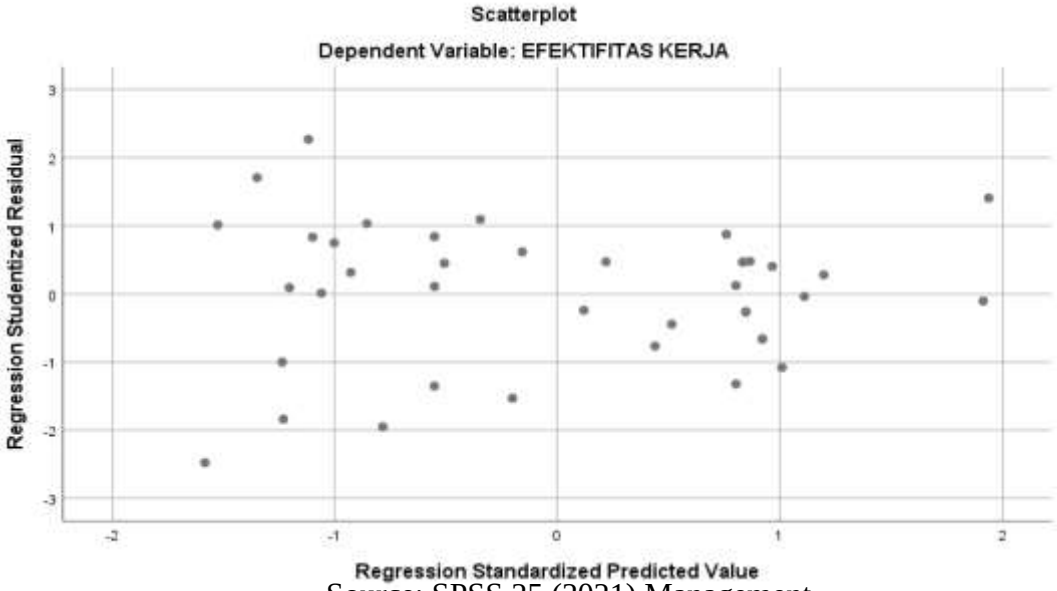
Coefficientsa

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	15.131	7,870		1,923	.062		
	ARCHIVES SETUP	.127	.182	.139	.697	.490	.545	1,835
	INFRASTRUCTURE	.063	.196	.057	.321	.750	.681	1.469
	COMPETENCY OF ARCHIVES	.399	.191	.356	2,089	.044	.749	1.335

a. Dependent Variable: WORK EFFECTIVENESS

Source: SPSS 25 Processing (2021)

Heteroscedasticity test is used to see how big the role of the independent variable is to the related variable. To see whether there is heteroscedasticity in the model used, the Hateroscedasticity Test (Scatter Plot) is carried out. The following are the results of the Scatter Plot Heteroscedasticity Test.



Source: SPSS 25 (2021) Management

Figure 6. *Scatter Plot Heteroscedasticity Test*

Based on the Heteroscedasticity Test above, it is known that the distribution points on *Scatter Plot* does not show a certain pattern and the distribution is above and below zero, so the regression model used does not experience heteroscedasticity. In this study, multiple linear regression analysis was used to determine the relationship and influence of Archive Arrangement Variables (X1), Infrastructure Variables (X2) and Archives Officer Competence Variables (X3) on Work Effectiveness Variables (Y) of the Highways and Construction Services Office of North Sumatra Province. . The results of multiple linear regression calculations can be seen in the following table 15:

Table 15. Multiple Linear Regression Analysis Results

Coefficientsa

Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	T	Sig.	Collinearity Statistics Tolerance	VIF
1	(Constant)	15.131	7,870		1,923	.062		
	ARCHIVES SETUP	.127	.182	.139	.697	.490	.545	1,835
	INFRASTRUCTURE	.063	.196	.057	.321	.750	.681	1.469
	COMPETENCY OF ARCHIVES	.399	.191	.356	2,089	.044	.749	1.335

a. Dependent Variable: WORK EFFECTIVENESS

Source: SPSS 25 Processing (2021)

The results of multiple linear regression analysis table 15 obtained the following equation:

Y = 15.131 + 0.127 X1 + 0.063 X2 + 0.399 X3

Based on these equations, it can be seen that:

1. The constant of 15.131 which is positive indicates that if all the independent variables are the Archive Arrangement Variable (X1), the Infrastructure Variable (X2) and the Archives Officer Competency Variable (X3) are zero (0), then the Work Effectiveness Variable (Y) is 15.131.
2. The regression coefficient of the Archive Arrangement Variable variable (X1) is positive, indicating a unidirectional relationship of 0.127. This means that the higher the influence of the Archive Arrangement Variable and an increase in one unit, the higher the Work Effectiveness (Y) of the Office of Highways and Construction of North Sumatra Province with an increase of 0.127.
3. The regression coefficient for the Infrastructure (X2) variable is positive, indicating a unidirectional relationship of 0.063. This means that the higher the influence of the Infrastructure Variable (X2) and an increase in one unit, the higher the Work Effectiveness (Y) of the Office of Highways and Construction of North Sumatra Province with an increase of 0.063.
4. The regression coefficient of the Archives Officer Competency Variable (X3) is positive, indicating a unidirectional relationship of 0.399. This means that the higher the influence of the Archive Officer Competency Variable (X3) and an increase in one unit, the higher the Work Effectiveness (Y) of the Office of Highways and Construction of North Sumatra Province with an increase of 0.399.

The results of the partial test (t test) can be seen in the following table 16:

Table 16. Partial Test Results (t Test)

Coefficientsa

Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.	Collinearity Statistics Tolerance	VIF
1	(Constant)	15.131	7,870		1,923	.062		
	ARCHIVES SETUP	.127	.182	.139	.697	.490	.545	1,835
	INFRASTRUCTURE	.063	.196	.057	.321	.750	.681	1.469
	COMPETENCY OF ARCHIVES	.399	.191	.356	2,089	.044	.749	1.335

a. Dependent Variable: WORK EFFECTIVENESS

Source: SPSS 25 Processing (2021

Simultaneous Test Results (Test F) can be seen in Table 17 below:

Table 17. Simultaneous Test Results (Test F)

ANOVAa

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	81.478	3	27,159	3.342	.030b
	Residual	292.522	36	8.126		
	Total	374,000	39			

a. Dependent Variable: WORK EFFECTIVENESS
b. Predictors: (Constant), ARCHIVES OFFICERS COMPETENCE, INFRASTRUCTURE, ARCHIVES SETUP
Source: SPSS 25 Processing (2021)

Based on Table 17 above, it can be seen that the calculated F value is 3.342 and the F table value at 5% alpha is 2.86. Thus, the Fcount (3.342) > F table (2.86) with a significance level of 0.030 <0.05, it means that together or simultaneously the variables of Archive Arrangement (X1), Infrastructure (X2) and Archives Officer Competence (X3) have a positive and significant effect on Work Effectiveness. So, based on the criteria for testing the hypothesis, Ha is accepted and H0 is rejected.

Table 18. Simultaneous Coefficient of Determination Test Results (R2)

Model Summary b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.467a	.218	.153	2.85055	.961

a. Predictors: (Constant), ARCHIVES OFFICERS COMPETENCE, INFRASTRUCTURE, ARCHIVES SETUP
b. Dependent Variable: WORK EFFECTIVENESS
Source: SPSS 25 Processing (2021)

From table 18 above that the value of R Square obtained is 0.218 or 21.8%. This shows the ability of the Archives Arrangement variable (X1), Infrastructure (X2) and Archive Officer Competence (X3) simultaneously or together to affect Work Effectiveness by 21.8%. Meanwhile, 78.2% is influenced by other variables.

From the results of the t test Archive Arrangement variable does not have a positive and insignificant effect on Work Effectiveness, this can be seen from the value of t count (0.697) < t table (2.02) with a significance level of 0.0490 > 0.05. Then from the analysis of the percentage description it can be seen that with the highest score of 5 where people who strongly agree are 6%, a score of 4 where people who agree are 51.6%, a score of 3 where people who disagree are 15.6%, score 2 where people who disagree as much as 1.4%, a score of 1 where people who state strongly disagree as much as 0%. And from the results of the calculations above, it can be seen that 51.6% of respondents answered "Agree" that a good archive arrangement can provide convenience in filing and filing service administration.

Based on the results of the simultaneous test, it is known that the calculated F value is 3.342 and the F table value at alpha 5% is 2.86. Thuss, the Fcount value (3.342) > F table (2.86) with a significance level of 0.030 <0.05, meaning together or simultaneously, the variables of Archive Arrangement (X1), Infrastructure (X2) and Archives Officer

Competence (X3) have a positive and significant effect on Work Effectiveness. So, based on the criteria for testing the hypothesis, Ha is accepted and H0 is rejected. The results of the percentage description analysis show that with the highest score of 5 where people who strongly agree are 5.25%, a score of 4 where people who agree are 53.6%, a score of 3 where people who disagree are 15.15%, a score of 2 where people who disagree as much as 1%, a score of 1 where people who strongly disagree as much as 0%. And from the results of the calculation above, it can be seen that 53.6% of respondents answered "Agree" that Work Effectiveness can be created if there is a good archive arrangement, the availability of infrastructure and competence of competent archive officers. Although in the partial test of the archive arrangement variable, infrastructure does not affect work effectiveness, but indirectly these two variables certainly have a role in work effectiveness, then in the partial test the archive officer's competence variable has an influence on work effectiveness. A good archive arrangement and by utilizing ideal infrastructure will form a more organized archival management pattern, minimizing the risk of damage, loss and difficult to find or find.

V. Conclusion

The effectiveness of work at the Office of Highways and Construction of North Sumatra Province can be influenced by the multiple regression equation Y = 15.131 + 0.127 X1 + 0.063 X2 + 0.399 X3, meaning that the regression coefficient value is b1 = 0.127, b2 = 0.063 and b3 = 0.399 indicates that the archival arrangement (X1), infrastructure (X2) and officer competence (X3) archives are good or increase in one unit, the work effectiveness (Y) will be good or increase as well.

Based on the F test, it is known that the calculated F value is 3.342 and the F table value at 5% alpha is 2.86. Thus, the Fcount value (3.342) > F table (2.86) with a significance level of 0.030 < 0.05, meaning that together or simultaneously the variables of Archive Arrangement (X1), Infrastructure (X2) and Archives Officer Competence (X3) have a positive and significant effect on Work Effectiveness.

The relationship between the arrangement of archives, infrastructure and the competence of archiving officers on the effectiveness of work in the Department of Highways and Construction of North Sumatra Province that the R Square value obtained is 0.218 or 21.8%. This shows the ability of the Archives Arrangement variable (X1), Infrastructure (X2) and Archive Officer Competence (X3) simultaneously or together to affect Work Effectiveness by 21.8%.

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