

Analysis of the Quality of the Personnel Management Information System at the Civil Service Police Unit of East Nusa Tenggara Province

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Abstract

Human Resource Management is the science or method of managing the relationship and role of the workforce efficiently and effectively to achieve organizational goals. This study discusses the issue of implementing the Personnel Management Information System (SIMPEG) and its influence on employee career development at the Civil Service Police Unit of Pematangsiantar City. The absence of SIMPEG may disrupt information stability, risk the loss of archives due to manual methods, and reduce employee performance efficiency and effectiveness. Observations revealed delays in promotions and a lack of clarity regarding career advancement opportunities, negatively impacting employee development. Therefore, it is necessary to analyze whether the implemented SIMPEG website meets user satisfaction and fulfills its intended purpose. This study employs the Webqual 4.0 method, using variables such as usability, information quality, service interaction quality, and user satisfaction. The purpose of this study is to evaluate the quality of the SIMPEG website based on user perceptions. The final result of this study provides a deeper understanding of the quality of SIMPEG implementation and offers input for system development or improvement, aiming to enhance the user experience and support more optimal career development for employees.

Keywords: *Analysis, Effectiveness, Personnel Management Information System, WebQual*

1. Introduction

The Civil Service Police Unit (Satpol PP) can be established at the provincial and regency/municipal levels. At the provincial level, the unit is led by a head who reports to the governor through the regional secretary. At the regency or municipal level, the unit is headed by a leader who reports to the regent or mayor through the regional secretary. The regulations regarding Satpol PP are stipulated in Government Regulation of the Republic of Indonesia Number 6 of 2010, which serves as a refinement of previous regulations aimed at improving the organizational structure, main duties and functions, and standardizing nomenclature across the country.[1]. This regulation is further reinforced by the Regulation of the Minister of Home Affairs Number 40 of 2011 concerning the Guidelines for the Organization and Work Procedures of the Civil Service Police Unit, which also includes the development of the Civil Defense Unit (Linmas) as one of its duties and functions.[2].

In carrying out its tasks and functions, the Civil Service Police Unit has utilized information technology, including the implementation of the Personnel Management Information System (SIMPEG), which serves as a platform for civil servants to access personnel information in an integrated system. However, the implementation of SIMPEG has not been fully optimized, as several processes and archiving activities are still carried out manually.

According to Sugiyono (2019), a questionnaire was distributed to 30 employees to gather their opinions on the implementation of SIMPEG and its effect on career development. The empirical results show a coefficient of determination (Kd) of 33.8%, meaning SIMPEG implementation affects career development by 33.8%, while the remaining 66.2% is influenced by other variables not examined in this study.[3]. This indicates that SIMPEG has a positive and significant influence—both simultaneously and partially—on the career development of civil servants.

The quality of an application can significantly affect user satisfaction. For instance, if the system is easy to learn, users are more likely to feel satisfied. Website users generally expect the platform to be user-friendly, easily accessible, visually appealing, content-relevant, and secure in protecting shared data. Observations conducted at the Provincial Satpol PP show instances of delayed promotions and unclear promotion signals that impact employee advancement.

Based on the description in the background above, the author is interested in conducting a research entitled Quality Analysis of Personnel Management Information System in the East Nusa Tenggara Province Pamong Praja Police Unit Using the WebQual 4.0 Method.

2. Methodology

The methodology in this study uses the webqual 4.0 method, with the research stages starting from data collection to the stage of presenting results that form a systematic flow. This research stage is used as a research guideline in the implementation of research so that the results are achieved with the goals that have been determined beforehand.

3. Result and Discussion

3.1. Population and sample

Sugiyono (2018), stated that samples are part of the number and characteristics possessed by the population. The population used as a sample in the study The population used as a sample in the study is the parishioners of the Reinha Rosari Larantuka Cathedral. Because the population is known, the sampling technique in this study is probability sampling using simple random sampling (Simple Random Sampling). Because the population in this study is known, in taking the sample number the author used Slovin:

$$n = \frac{n}{1 + n \cdot e^2}$$

Information:

n = sample size

N = population size

e = percent of the leeway of inaccuracy due to sampling errors that are still tolerable.

This study uses a reliability level of 95% because it uses an inaccuracy relaxation rate of 5%, so the number of samples determined is:

Known:

N = 25

e = 0.05

Questioned: n ?

Answer:

$$n = \frac{25}{1 + 25 \cdot (0,05)^2}$$

$$n = 23,51 \approx 23$$

So for this study, a sample of 23 people consisting of employees of the East Nusa Tenggara provincial Civil Service Unit will be used.

3.2. Data collection methods

In this study, the author uses a descriptive method, which is a method that describes a situation or problem that is currently occurring based on the facts and data obtained and collected at the time of conducting the research. The data collection carried out in this study was by means of observation, interviews and questionnaires

Table 1: Questionnaire Planning

Variabel	Indicator Description	Statement
Quality of Information	Provide timely information	Information provided on the Personnel Management Information System on time?
	Provide relevant information	Is the information presented by the Personnel Management Information System relevant?
	Provide easy-to-understand information	The information presented by the Personnel Management Information System is easy to understand?
	Provide information at the right level of detail	Information on the Personnel Management Information System is presented in detail?
	Provide information that is appropriate to the format	The information presented by the Personnel Management Information System is the appropriate format?
Service Interactions	Has good reputation	Personnel Management Information System has a good reputation?
	Security of personal information	Does the Personnel Management Information System provide a sense of security in registration?
		Does the Personnel Management Information System provide a sense of security for personal information?
		Personnel Management Information System provides services according to what is presented?
	Creating flavor Personalized	Personnel Management Information Systems make room for user personalization?
Conveying a sense of community	The Personnel Management Information System provides space for	
Easy to communicate with admins	Contents	Personnel Management Information System provides space to communicate with organizations?
		Personnel Management Information System provides the right information as needed?
User Satisfaction		Does the information provided meet your needs?

		The Personnel Management Information System provides reports that seem to be just about what is needed?
Accuracy		Are you satisfied with the accuracy of the information from the Personnel Management Information System?
Format		Outputs presented in an appropriate format?
		Personnel Management Information System provides clear information?
Ease to use		Personnel Management Information System easy to understand?
		Is the Personnel Management Information System easy to use?
Timeliners		Do you get the information you need on time?
		Personnel Management Information System provides the latest information?

3.3. Data analysis

Based on the calculation of the number of samples using the slovin method, the target sample of 25 employee populations is 23 samples. Furthermore, questionnaires were distributed to the 23 samples. After the questionnaire answers are collected, data analysis is carried out using SPSS version 20.

3.3.1. Validity Test

The results of the test of 23 respondents, with a significant level of 5% resulted in a degree of freedom value of 25 and the value of the table used was 0.396. The results obtained by testing using spss software are presented as follows:

		U1	U2	U3	U4	U5	U6	U7	U8	Kemudahan
U1	Pearson Correlation	1	.439 [*]	.662 ^{**}	.448 [*]	0.258	0.174	0.137	.711 ^{**}	.740 ^{**}
	Sig. (2-tailed)		0.022	0.000	0.019	0.194	0.385	0.495	0.000	0.000
	N	27	27	27	27	27	27	27	27	27
U2	Pearson Correlation	.439 [*]	1	.574 ^{**}	0.311	.541 ^{**}	0.116	0.306	0.287	.673 ^{**}
	Sig. (2-tailed)	0.022		0.002	0.115	0.004	0.563	0.120	0.147	0.000
	N	27	27	27	27	27	27	27	27	27
U3	Pearson Correlation	.662 ^{**}	.574 ^{**}	1	.425 [*]	.474 [*]	0.302	0.068	.512 ^{**}	.779 ^{**}
	Sig. (2-tailed)	0.000	0.002		0.027	0.012	0.125	0.737	0.006	0.000
	N	27	27	27	27	27	27	27	27	27
U4	Pearson Correlation	.448 [*]	0.311	.425 [*]	1	0.318	-0.105	0.208	.397 [*]	.613 ^{**}
	Sig. (2-tailed)	0.019	0.115	0.027		0.106	0.601	0.298	0.040	0.001
	N	27	27	27	27	27	27	27	27	27
U5	Pearson Correlation	0.258	.541 ^{**}	.474 [*]	0.318	1	0.289	.441 ^{**}	0.310	.701 ^{**}
	Sig. (2-tailed)	0.194	0.004	0.012	0.106		0.143	0.021	0.115	0.000
	N	27	27	27	27	27	27	27	27	27
U6	Pearson Correlation	0.174	0.116	0.302	-0.105	0.289	1	0.224	0.310	.446
	Sig. (2-tailed)	0.385	0.563	0.125	0.601	0.143		0.261	0.115	0.020
	N	27	27	27	27	27	27	27	27	27
U7	Pearson Correlation	0.137	0.306	0.068	0.208	.441 ^{**}	0.224	1	0.250	.473
	Sig. (2-tailed)	0.495	0.120	0.737	0.298	0.021	0.261		0.208	0.013
	N	27	27	27	27	27	27	27	27	27
U8	Pearson Correlation	.711 ^{**}	0.287	.512 ^{**}	.397 [*]	0.310	0.310	0.250	1	.738 ^{**}
	Sig. (2-tailed)	0.000	0.147	0.006	0.040	0.115	0.115	0.208		0.000
	N	27	27	27	27	27	27	27	27	27
Kemudahan	Pearson Correlation	.740 ^{**}	.673 ^{**}	.779 ^{**}	.613 ^{**}	.701 ^{**}	.446 [*]	.473 [*]	.738 ^{**}	1
	Sig. (2-tailed)	0.000	0.000	0.000	0.001	0.000	0.020	0.013	0.000	
	N	27	27	27	27	27	27	27	27	27

Fig. 1: Validity test results of usability variables

The usability variable has a calculation value for each question ranging from 0.446 to 0.779. This indicates that all statements are valid.

		I1	I2	I3	I4	I5	I6	I7	Kualitas_1 nformasi
I1	Pearson Correlation	1	0.214	0.366	.447	.532	.388	.580	.745
	Sig. (2-tailed)		0.283	0.060	0.019	0.004	0.045	0.002	0.000
	N	27	27	27	27	27	27	27	27
I2	Pearson Correlation	0.214	1	.505	.556	0.114	.497	0.165	.604
	Sig. (2-tailed)	0.283		0.007	0.003	0.571	0.008	0.410	0.001
	N	27	27	27	27	27	27	27	27
I3	Pearson Correlation	0.366	.505	1	.489	.515	.622	0.305	.764
	Sig. (2-tailed)	0.060	0.007		0.010	0.006	0.001	0.122	0.000
	N	27	27	27	27	27	27	27	27
I4	Pearson Correlation	.447	.556	.489	1	0.334	.627	0.206	.728
	Sig. (2-tailed)	0.019	0.003	0.010		0.089	0.000	0.303	0.000
	N	27	27	27	27	27	27	27	27
I5	Pearson Correlation	.532	0.114	.515	0.334	1	.434	0.308	.672
	Sig. (2-tailed)	0.004	0.571	0.006	0.089		0.024	0.118	0.000
	N	27	27	27	27	27	27	27	27
I6	Pearson Correlation	.388	.497	.622	.627	.434	1	0.355	.773
	Sig. (2-tailed)	0.045	0.008	0.001	0.000	0.024		0.070	0.000
	N	27	27	27	27	27	27	27	27
I7	Pearson Correlation	.580	0.165	0.305	0.206	0.308	0.355	1	.619
	Sig. (2-tailed)	0.002	0.410	0.122	0.303	0.118	0.070		0.001
	N	27	27	27	27	27	27	27	27
Kualitas_1 nformasi	Pearson Correlation	.745	.604	.764	.728	.672	.773	.619	1
	Sig. (2-tailed)	0.000	0.001	0.000	0.000	0.000	0.000	0.001	
	N	27	27	27	27	27	27	27	27

Fig. 2: Validity test results of variable information quality

The information quality variable has a calculated value for each question ranging from 0.604 to 0.773. This indicates that all statements are valid.

		S1	S2	S3	S4	S5	S6	S7	Kualitas Layanan
S1	Pearson Correlation	1	.612	0.361	.537	0.098	-0.121	.407	.618
	Sig. (2-tailed)		0.001	0.065	0.004	0.626	0.546	0.035	0.001
	N	27	27	27	27	27	27	27	27
S2	Pearson Correlation	.612	1	.670	.541	0.124	0.141	0.293	.741
	Sig. (2-tailed)	0.001		0.000	0.004	0.539	0.484	0.138	0.000
	N	27	27	27	27	27	27	27	27
S3	Pearson Correlation	0.361	.670	1	0.325	0.162	0.091	.385	.634
	Sig. (2-tailed)	0.065	0.000		0.098	0.418	0.653	0.048	0.000
	N	27	27	27	27	27	27	27	27
S4	Pearson Correlation	.537	.541	0.325	1	.517	0.354	.507	.841
	Sig. (2-tailed)	0.004	0.004	0.098		0.006	0.070	0.007	0.000
	N	27	27	27	27	27	27	27	27
S5	Pearson Correlation	0.098	0.124	0.162	.517	1	.539	0.224	.615
	Sig. (2-tailed)	0.626	0.539	0.418	0.006		0.004	0.261	0.001
	N	27	27	27	27	27	27	27	27
S6	Pearson Correlation	-0.121	0.141	0.091	0.354	.539	1	0.046	.489
	Sig. (2-tailed)	0.546	0.484	0.653	0.070	0.004		0.820	0.010
	N	27	27	27	27	27	27	27	27
S7	Pearson Correlation	.407	0.293	.385	.507	0.224	0.046	1	.596
	Sig. (2-tailed)	0.035	0.138	0.048	0.007	0.261	0.820		0.001
	N	27	27	27	27	27	27	27	27
Kualitas Layanan	Pearson Correlation	.618	.741	.634	.841	.615	.489	.596	1
	Sig. (2-tailed)	0.001	0.000	0.000	0.000	0.001	0.010	0.001	
	N	27	27	27	27	27	27	27	27

Fig. 3: Validity test results of variable Service Interaction Quality

The Interaction Service Quality variable has a calculated value for each question ranging from 0.489 to 0.841. This indicates that the entire statement is valid

		Y1	Y2	Y3	Y4	Overall
Y1	Pearson Correlation	1	0.294	0.074	.468*	.608**
	Sig. (2-tailed)		0.136	0.712	0.014	0.001
	N	27	27	27	27	27
Y2	Pearson Correlation	0.294	1	.593**	.440*	.808**
	Sig. (2-tailed)	0.136		0.001	0.022	0.000
	N	27	27	27	27	27
Y3	Pearson Correlation	0.074	.593**	1	0.335	.728**
	Sig. (2-tailed)	0.712	0.001		0.087	0.000
	N	27	27	27	27	27
Y4	Pearson Correlation	.468*	.440*	0.335	1	.753**
	Sig. (2-tailed)	0.014	0.022	0.087		0.000
	N	27	27	27	27	27
Overall	Pearson Correlation	.608**	.808**	.728**	.753**	1
	Sig. (2-tailed)	0.001	0.000	0.000	0.000	
	N	27	27	27	27	27

Fig. 4: Overall Validity test results

The Overall Variable has a calculated value for each question ranging from 0.608 to 0.808. This indicates that all statements are valid.

3.3.2. Reliability Test

The reliability value requirement is less than 0.6, then it is not reliable, while if it is more than 0.6, the data is reliable or well acceptable.

Table 2: Reliability Test Results

Variabel	Test Results	Condition	Information
Usability Variables	0,776	0,6	Reliabel
Information Quality Variables	0,820	0,6	Reliabel
Interaction Variables	0,767	0,6	Reliabel
Satisfaction Variables	0,692	0,6	Reliabel

From the results of the above test, it can be concluded that the data used in this study is reliable because the test results are higher than 0.6.

3.3.3. Descriptive Statistical Test

		Statistics			
		Kemudahan	Kualitas Informasi	Kualitas Layanan	Kepuasan
N	Valid	27	27	27	27
	Missing	0	0	0	0
Mean		33.26	29.74	28.59	16.30
Std. Deviation		3.482	3.096	3.016	1.660
Variance		12.123	9.584	9.097	2.755
Range		11	11	13	8
Minimum		26	23	20	11
Maximum		37	34	33	19
Sum		898	803	772	440

Fig. 5: Descriptive Statistical Test Results

The results of descriptive statistics on the Usability variable (X1) consisting of eight indicators (X1.1 to X1.8), obtained a mean value ranging from 3.93 to 4.30, with the highest value being found in the X1.3 indicator (mean = 4.30) and the lowest value in X1.2 (mean = 3.93). The median value of all indicators shows a figure of 4, which indicates that most respondents give a high rating on the usability of the system. The range varies between 2 and 3, indicating a slight variation in answers between respondents. The lowest minimum value is 2 and the highest maximum value is 5 on all indicators. The highest total score (sum) was achieved by X1.3 of 116, while the lowest was X1.2 of 106. The number of respondents on all indicators was 27 people. When converted to a percentage scale, the indicators on this variable obtained a value between 79% and 86%, with the highest percentage also being at X1.3. In general, these results show that respondents give a positive assessment of the usability of the system studied

Descriptive statistical results for the Information Quality variable (X2) consisting of seven indicators (X2.1 to X2.7), obtained a mean value ranging from 4.07 to 4.59. The highest average value is found in the X2.6 indicator with a mean of 4.59, while the lowest value is found in X2.5 which is 4.07. All indicators had a median of 4, except for X2.6 which had a median of 5, which indicates that most respondents gave a very high rating on the quality of information on the indicator. The range varies from 1 to 3, with X2.6 having the smallest variation of answers (range = 1), indicating the high consistency of respondents towards the indicator. The minimum value ranges from 2 to 4, and the maximum value of the entire indicator is 5. The highest total value (sum) is achieved by X2.6 of 124, while

the lowest is X2.5 of 110. The number of respondents on all indicators was 27 people. In percentage terms, all indicators are in the range of 81% to 92%, with the highest value on the X2.6 indicator. Overall, these results show that respondents give an excellent assessment of the quality of the information provided, especially on the aspects measured by the X2.6 indicator.

Descriptive statistical results for the Service Interaction Quality (X3) variable consisting of seven indicators (X3.1 to X3.7), a mean value ranging from 3.70 to 4.37 was obtained. The highest average value is found in the X3.2 and X3.3 indicators with a mean value of 4.37, while the lowest value is found in the X3.6 indicator which is 3.70. All indicators had a median of 4, which indicates that most respondents gave a high rating to the quality of service interactions. The range values ranged from 2 to 3, indicating a variation in answers between respondents. The minimum score ranged from 2 to 3, and the maximum score on all indicators was 5, indicating that there were respondents who gave the highest rating for all aspects. The highest total score (sum) was obtained by the X3.2 and X3.3 indicators of 118, respectively, while the lowest was X3.6 with 100. The number of respondents remained consistent across all indicators, namely 27 people. In percentage terms, all indicators are in the range of 74% to 87%, with the highest percentages in X3.2 and X3.3, and the lowest in X3.6. These results show that in general, respondents give a good assessment of the quality of service interactions, although there are several indicators whose values are still relatively lower and can be of concern for future improvement.

From the results of descriptive statistics, it can be analyzed that the results of descriptive analysis show the results obtained from the respondents' answers to each variable. Respondents who provided statements regarding usability obtained a score of 33.15 with a percentage of 66.3%. Respondents who provided statements about the quality of information obtained a score of 29.74 with a percentage of 59.5%. The respondents who provided statements regarding the quality of service interaction were 28.59 with a percentage of 57.2%. Based on the table above, the highest score was obtained from the usability variable with an average score of 33.15 and a percentage of 66.3% while the lowest variable was the quality of service interaction with a score of 57.2%.

Table 3: Scale range

Scale range	TCR
85%-100%	Excellent
66%-84%	Good
51%-65%	Enough
36%-50%	Not Good
0-35%	Bad

Based on the analysis of the percentage of achievement from the three variables studied, the usability variable obtained a percentage of 66.3% which shows that the level of achievement is in the "good" category. Meanwhile, the information quality variable received a percentage of 59.5% which was classified as "adequate", and the service interaction quality variable had the lowest percentage of 57.2%, also in the "adequate" category. Overall, these results show that the quality of the information system in the Dapodik application is quite good for users, although there are still several aspects that need to be improved.

Especially in the variable quality of service interaction, the indicator with the lowest achievement was in the aspect of ease of providing input, which was reflected in the percentage of 57.2%. This indicates that users experience obstacles in conveying suggestions or opinions through the application. Therefore, the improvement recommendations that can be given are for the application provider to add assistance or guidance features that make it easier for users when they have difficulty accessing application features. In addition, it is also recommended that a comment or suggestion feature be added, so that users have space to submit feedback directly. These steps are expected to improve the quality of service interaction and provide a better and interactive user experience for Dapodik application users.

3.3.4. Coefficient Determination Test

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.788 ^a	.621	.572	1.086

a. Predictors: (Constant), Interaksi, Kegunaan, Kualitas

Fig. 6: Determination Coefficients test results

Based on the above output, the adjusted r square value (determination coefficient) is 0.572; This means that the influence of usability, information quality, and service interaction quality variables on user satisfaction was only 57.2% while the remaining 42.8% came from variables that were not studied in this study.

4. Conclusion

Based on the results of the research that has been conducted, it can be concluded that of the three indicators of the SIMPEG Application system quality measurement variable using the Webqual method, namely the usability variable, information quality, and service interaction quality, which consists of 26 questions in the questionnaire, there are two questions that are declared invalid, while the rest are declared valid and reliable, so that they have met the requirements for validity and reliability. The variables of user ease or usability in the SIMPEG application are on a good range scale, which shows that this application is quite easy to use by its users. Meanwhile, the variables of information quality and service quality of interaction are each on a sufficient range scale, which indicates that even though the information provided and service interaction are adequate, there is still room for improvement. Furthermore, based on the results of

the determination coefficient (R square) test, a value of 57.2% was obtained, which means that the three variables together have an influence of 57.2% on the level of user satisfaction of the SIPEGEG application. This means that factors such as ease of use, information quality, and service interaction quality are significant in shaping user satisfaction with this application. In general, the results of the analysis show that the three variables have been perceived quite well by the users. However, in order to further improve user satisfaction, it is recommended that application managers continue to evaluate and improve, especially in the aspects of service interaction and the provision of more responsive and interactive information.

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