

Analysis of The Quality of The Population And Civil Registration Service System In Ogan Ilir Regency Using Importance Performance Analysis Method (IPA)

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ABSTRACT

To determine the quality of the Population Administration and Civil Registration Service website in Ogan Ilir Regency and to determine the level of user satisfaction in this study, the Importance Performance Analysis (IPA) method with a descriptive quantitative approach was used. The variable dimension for the questionnaire used is the E-GovQual (E-Government Quality) method which consists of 5 variables, namely ease of use, trust, reliability, content and appearance of information system, and citizen support distributed to 99 respondents. The IPA method itself has 3 stages of analysis, namely GAP analysis, conformity analysis, and Cartesian diagrams then the data is processed using IBM SPSS version 25. The results of this study indicate that the main priority in improvement is indicators no. 3 and 11. With gap analysis, 17 negative indicators are obtained. and 5 positive indicators which means that almost all attributes have not met user expectations. While the average value of the level of conformity is 97%, which means users are not satisfied with the performance of Admindukcapil services because the value of the level of conformity is <100%. Analysis, Service Quality, Importance Performance Analysis, E-Govqual.

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1. INTRODUCTION

The rise of information technology today has an impact on the human need for information and communication that facilitates all needs [1]. The use of information technology in government will have a major impact on increasing effectiveness, efficiency, transparency and accountability in the working mechanism [2]. One of the government agencies that utilize information technology is the Population and Civil Registry Office of Ogan Ilir Regency.

The Office of Population and Civil Registration of Ogan Ilir Regency is a government agency in the field of administration that is authorized to provide offline population administration services [3]. To provide convenience for the community, the Office of Population and Civil Registration now provides online services based on the website, namely the Population Administration and Civil

Registration Service System kab. Ogan Ilir addressed <https://dukcapiloganilir.online/> which serves as an online service facility managed by 14 staff to facilitate population administration activities.

The quality of the system can be seen through the factors that can affect it. According to [4], to determine the factors that must be tested from the website-based online government service system (E-government) can use the E-govqual method with 6 dimension variables, namely ease of use variables, trust, functionality of the interaction environment, reliability, content and appearance of information, and citizen support [5]. E-Govqual (E-Government Quality) is a method developed to assess the quality of service performance of government agencies (e-government) based on user perception [6].

To analyze the factors in the E-govqual dimension, researchers used the IPA (Importance Performance Analysis) method which is a method that compares the level of expectation / importance with the level of performance given [7]. IPA has 3 stages of analysis, namely conformity analysis, gap analysis and cartesian quadrant analysis [8]. The data management in this study uses SPSS (Statistical Package for Social Science).

The population in this study is a user of the online service system of population administration and civil registry of ogan ilir district. Based on data sources from the Ogan Ilir Admin Dukcapil Field, users from the Population and Civil Registration service system of Ogan Ilir Regency amounted to 8,161 users as of December 22, 2020 and were selected based on the tanjung agung village in Indralaya district which amounted to 1,282 people. To obtain a sample in this study using the formula slovin with an error rate of 10% is 92.76 and set to 99 samples.

Based on the discussion that has been explained, research was conducted on "Analysis of The Quality of The Population And Civil Registration Service System In Ogan Ilir Regency Using Importance Performance Analysis Method (IPA)".

2. ANALYSIS AND PLANNING

a. Population

The population in this study were 8,161 users of the Ogan Ilir Regency Population and Civil Service System website which was calculated as of December 22nd, 2020 but the population was only selected in tanjung agung village in Indralaya district which amounted to 1282 people.

b. Sample

The sample that is part of the characteristics of the population in this study has an active user of the Ogan Ilir District Population and Civil Registration Service System website. Researchers used the Slovin formula in calculating the determination of the number of samples, as follows:

$$n = \frac{N}{1 + Ne^2} \quad [1]$$

Where:

n = Number of samples

N = Population

e = Fault tolerance limit (error tolerance).

Based on the number of user population of 8,161 users of the system selected based on the village of Tanjung Agung in Indralaya District which amounted to 1282 people and was calculated at a level of 10%. The calculation of the number of samples is as follows:

$$\begin{aligned} n &= \frac{1282}{1 + 1282(0,1)^2} \\ n &= \frac{1282}{1 + 12,82} \\ n &= 92,76 \end{aligned}$$

Based on the calculations above, the result obtained is 92.76. But in this study, the sample was made to 99 people or about 7.72% of all users of the Population Service System and Civil Registry of Ogan Ilir Regency based on the village of Tanjung Agung Indralaya District.

c. Measurement Methods

In this study, the technique used to obtain data one of them is to spread a questionnaire that has been created using the E-Govqual method with 5 variables. Then the scale measurement method on the questionnaire used is the likert scale. There are two levels of assessment used in the questionnaire used, namely the level of importance and the level of performance. The scale used in this study is ranging from very important to unimportant at the level of importance that will be given five assessments with the following weights:

Table 1. Importance Level Likert Scale

Level of Importance	Assessment Weights/Scale
Very Important	5
Important	4
Important Enough	3
Less Important	2
Not Important	1

And for Performance Level with a scale very satisfied to dissatisfied at the level of performance will be given five assessments with the following weights:

Table 2. Performance Level Likert Scale

Level of Performance	Assessment Weights/Scale
Very Satisfied	5
Satisfied	4
Quite Satisfied	3
Unsatisfied	2
Very Unsatisfied	1

3. RESULT AND DISCUSSIONS

Each indicator in each variable is given a different code number with the aim of making it easier to distinguish the sequence number of indicators on variables. For example, in variable ease of use using code E with sequence number in each indicator, as well as variable trust using code T, variable reliability using code R, variable content and appearance of information system using code C and variable citizen support using CS code. The test was conducted using the help of Microsoft Excel 2019 and SPSS 25. Here are the results of the tests that have been done:

3.1 Validity Test

In the validity test, tests on indicators on variable importance and performance manually with the help of excel 2019 and used SPSS 25 to ensure the results obtained were correct and accurate. Here's the reliability test:

Table 3. Validity Test of Importance and Performance Variable

No	Variabel	Importance		Performance			
		r_{hitung}	r_{tabel}	Hasil	r_{hitung}	r_{tabel}	Hasil
E1	Ease of Use	0,528	0,1975	Valid	0,580	0,1975	Valid
E2		0,831	0,1975	Valid	0,627	0,1975	Valid

E3		0,543	0,1975	Valid	0,702	0,1975	Valid
E4		0,782	0,1975	Valid	0,641	0,1975	Valid
T1		0,515	0,1975	Valid	0,527	0,1975	Valid
T2	Trust	0,762	0,1975	Valid	0,669	0,1975	Valid
T3		0,859	0,1975	Valid	0,843	0,1975	Valid
R1		0,571	0,1975	Valid	0,876	0,1975	Valid
R2		0,860	0,1975	Valid	0,943	0,1975	Valid
R3	Reliability	0,650	0,1975	Valid	0,884	0,1975	Valid
R4		0,523	0,1975	Valid	0,906	0,1975	Valid
R5		0,759	0,1975	Valid	0,865	0,1975	Valid
C1		0,716	0,1975	Valid	0,486	0,1975	Valid
C2	Content and	0,713	0,1975	Valid	0,788	0,1975	Valid
C3	Appearance	0,897	0,1975	Valid	0,683	0,1975	Valid
C4	of	0,615	0,1975	Valid	0,541	0,1975	Valid
C5	Information	0,695	0,1975	Valid	0,484	0,1975	Valid
C6	System	0,700	0,1975	Valid	0,656	0,1975	Valid
CS1		0,781	0,1975	Valid	0,695	0,1975	Valid
CS2	Citizen	0,528	0,1975	Valid	0,592	0,1975	Valid
CS3	Support	0,729	0,1975	Valid	0,798	0,1975	Valid
CS4		0,516	0,1975	Valid	0,610	0,1975	Valid

From the table of results above based on *Pearson's* shows that all indicators of important variables and performance are declared valid. These valid results can be seen from a value greater than $(r_{hitung} > r_{tabel})$ [18].

3.2 Reliability Test

In reliability tests, the tests are conducted on each important variable and performance manually with the help of excel 2019 and use SPSS 25 to ensure the results obtained are correct and accurate. Here's the reliability test:

Table 4. Importance Reliability Test Result

Reliability Statistics	
Cronbach's Alpha	N of Items
0,944	22

Table 5. Performance Reliability Test Result

Reliability Statistics	
Cronbach's Alpha	N of Items
0,949	22

In table 4 Importance Reliability Test Result and table 5 Performance Reliability Test Result showed values from Cronbach's Alpha were 0.944 and 0.949 out of 22 indicators. Because Cronbach's Alpha value >0.60 , the questionnaire was declared reliable or consistent [11].

3.3 All Importance and Performance Responses

Here are the results of all respondents' assessment answers from questionnaire statements to measure importance and performance levels, namely as follows:

Table 6. All Importance and Performance Responses

No	Variabel	Importance	%	Performance	%
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1.	Ease of Use	4,47	89%	4,29	86%
2.	Trust	4,61	92%	4,47	89%
3.	Reliability	4,53	91%	4,08	82%
4.	Content and Appearance of Information System	4,44	89%	4,44	89%
5.	Citizen Support	4,65	93%	4,63	93%
	Average	4,54	91%	4,38	88%

From the table of respondents' responses from the five variables, the average result of the importance level (expectation) is 4.54 or 91% and the performance rate is 3.38 or 88%. Based on these results, it can be concluded that the level of performance of the website of the Population Administration and Civil Registry service of Ogan Ilir Regency is lower than the level of importance (expectation) expected by users.

3.4 GAP Analysis

Below is the result of processing gap analysis data as a whole variable, as follows:

Table 7. Table of Data Processing Results Gap Analysis Overall Variable

No	Variable	Indicator	Imp	Perf	GAP
E1	Ease of Use	Admin Dukcapil website structure is not cluttered and easy to understand	4,70	4,52	-0,18
E2		Website address /Admin Dukcapil URL is easy to remember	4,40	4,58	0,17
E3		Admin Dukcapil website is easy to search on Google	4,74	4,02	-0,72
E4		Information/help page on Admin Dukcapil website is easy to understand	4,05	4,03	-0,02
Average Ease of Use variable value			4,47	4,29	-0,19
T1	Trust	Data provided by users on the Admin Dukcapil website is securely archived	4,81	4,71	-0,10
T2		Data input on the Admin Dukcapil website is only used for obvious purposes and reasons	4,49	4,37	-0,12
T3		Users' personal data is kept confidential	4,52	4,34	-0,17
Average trust variable value			4,61	4,47	-0,13
R1	Reliability	Documents that have been created or updated can be downloaded quickly	4,48	3,84	-0,65
R2		The Admin Dukcapil website can be accessed anywhere and anytime.	4,44	4,20	-0,24
R3		Admin Dukcapil website responds quickly	4,51	3,87	-0,64
R4		The Admin Dukcapil website works well on any browser default	4,76	4,22	-0,54
R5		All types of referees on the Admin Dukcapil website work well	4,47	4,28	-0,19
Average value of variable Reliability			4,53	4,08	-0,45
C1	Content and Appearance of Information System	Admin Dukcapil website page size can be adjusted automatically on a computer or smartphone	4,44	4,07	-0,37
C2		The information available on the Admin Dukcapil website is accurate and clear	4,38	4,37	-0,01
C3		Information and notifications on the Admin Dukcapil website are updated regularly	4,43	4,66	0,22

C4		Information displayed on the full Admin Dukcapil website	4,80	4,78	-0,02
C5		The colors used on the Admin Dukcapil website do not interfere with the eyes.	4,34	4,67	0,32
C6		The information and notifications on the service's website are easy to understand.	4,22	4,12	-0,10
Average Content and Appearance of Information System variable value			4,44	4,44	0,01
CS1		Employees have the knowledge to answer user questions	4,54	4,68	0,14
CS2	<i>Citizen Support</i>	Employees provide quick answers to user questions	4,70	4,72	0,02
CS3		Submissions received are processed quickly and submitted on time.	4,51	4,37	-0,13
CS4		There is contact and location information on the Admin Dukcapil's website	4,87	4,76	-0,11
Average Citizen Support variable value			4,65	4,63	-0,02

Table 7 above is the average value of GAP or the number of each indicator based on 5 E-Govqual variables. The gap value in table 3.5 shows that there are 17 indicators that are negative and 5 indicators that are positive. This shows that there are several indicators that have not been in accordance with the expectations of system users and the quality of the Admin Dukcapil system is not completely perfect and in accordance with the wishes of the users of the system.

3.5 Conformity Analysis

The level of conformity used to find out whether the performance on the website is given in accordance with the results of the comparison of interest/expectation score with performance score [12]. Below is the result of data from the level of conformity in determining the quality of the Ogan Ilir Regency Admin Dukcapil service system, as follows:

Table 8. Conformity Level Data Processing Results

No	Importance (Y)	Performance (X)	Tki	Persentase
C1	4,70	4,52	96,12903226	96%
C2	4,40	4,58	103,8990826	104%
C3	4,74	4,02	84,86140725	85%
C4	4,05	4,03	99,50124688	100%
T1	4,81	4,71	97,89915966	98%
T2	4,49	4,37	97,30337079	97%
T3	4,52	4,34	96,19686801	96%
R1	4,48	3,84	85,58558559	86%
R2	4,44	4,20	94,54545455	95%
R3	4,51	3,87	85,87443946	86%
R4	4,76	4,22	88,74734607	89%
R5	4,47	4,28	95,71106095	96%
C1	4,44	4,07	91,59090909	92%
C2	4,38	4,37	99,76958525	100%
C3	4,43	4,66	105,0113895	105%
C4	4,80	4,78	99,57894737	100%
C5	4,34	4,67	107,4418605	107%
C6	4,22	4,12	97,6076555	98%
CS1	4,54	4,68	103,1180401	103%
CS2	4,70	4,72	100,4301075	100%

CS3	4,51	4,37	97,08520179	97%
CS4	4,87	4,76	97,71784232	98%
Sum	99,61	96,17	96,61843604	97%

From the percentage results obtained in table 8 above with 5 variables consisting of ease of use, trust, reliability, content and appearance of the information system, and citizen support. Of the 5 variables, the average value of the percentage of conformity rate is $97\% \leq 100\%$ which can be interpreted that the users of the system feel less satisfied with the existing performance of the quality of Ogan Ilir Regency Admin Dukcapil service.

3.6 Mapping Cartesian Diagram

Below is a table of the coordinate point values X and Y which are the average values of expectations/ interests and performance of each indicator. These X and Y values serve to determine the location or point of each indicator on a cartesian diagram [13].

Table 9. Coordinate Point Values X and Y.

Indikator	Importance (Y)	Performance (X)
C1	4,70	4,52
C2	4,40	4,58
C3	4,74	4,02
C4	4,05	4,03
T1	4,81	4,71
T2	4,49	4,37
T3	4,52	4,34
R1	4,48	3,84
R2	4,44	4,20
R3	4,51	3,87
R4	4,76	4,22
R5	4,47	4,28
C1	4,44	4,07
C2	4,38	4,37
C3	4,43	4,66
C4	4,80	4,78
C5	4,34	4,67
C6	4,22	4,12
CS1	4,54	4,68
CS2	4,70	4,72
CS3	4,51	4,37
CS4	4,87	4,76
Σ	99,61	96,17
Average	4,53	4,37

It can be seen in table 9 that the average value X is 3.53 and the average value of Y is 4.37. These two average values are used as the coordinate points of the X and Y axis barriers in cartesian diagrams [14]. Based on the stages that have been done, the output is obtained from the cartesian diagram using SPSS version 25, as follows:

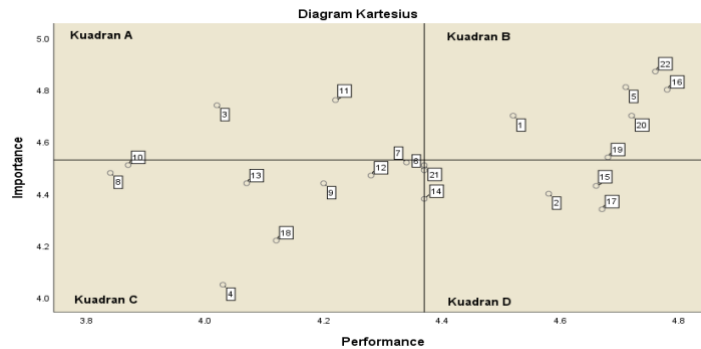


Figure 1. Results of Cartesian Diagram IPA

Based on figure 1, there are 4 indicators grouped in cartesian diagrams; quadrant A, quadrant B, quadrant C, and quadrant D [15]. Here is a breakdown of each indicator in each quadrant in the cartesian diagram:

1. Quadrant A (Top Priority)

Quadrant A contains indicators or factors that expected by users who considered important but the performance of the Admin Dukcapil system is still low and users are not satisfied with the performance, so the indicators in quadrant A should be the main priority of improvement and improvement of service quality [16]. Here are the indicators in quadrant A, as follows:

- a. Indicator 3/E3: This indicator has to take the correct website determination and only one so that users do not feel confused to find it on Google.
- b. Indicator 11/R4: Users are often fooled by problems on the websites they receive so that users find the indicator 11 less satisfactory.

2. Quadrant B (Maintain Achievement)

In quadrant B is a quadrant that contains indicators that considered to have met the expectations of its users so that in other words, indicators in quadrant B are considered to have been successfully implemented and meet the expectations of its users so that existing performance needs to be maintained quality for a long time [17]. There are several indicators that enter quadrant B, among others:

- a. Indicator 1/E1: Users feel the Admin Dukcapil website is structured and neat and easy to understand and understand so that users feel satisfied and also the Admin Dukcapil website has a simple and organized look that makes it easier for users to use this Admin Dukcapil website.
- b. Indicator 5/T1: Admin Dukcapil website integrated with SIAK (Population Administration Information System) makes existing data archived and stored safely so that users feel no need to worry.
- c. Indicator 16/C4: The performance in providing information on the Admin Dukcapil website is in accordance with the user's expectations, namely complete information in accordance with the needs of the user.
- d. Indicator 19/CS1: With the messaging feature through the whatsapp hotline that makes it easier for users to get answers from employees who are on duty through whatsapp to the things they question about population administration.
- e. Indicator 20/CS2: Employees who are in charge of the whatsapp hotline can answer questions about population administration with a standard time in accordance with the active time of service hours, namely during business hours Monday to Friday at 8 am to 4 pm.
- f. Indicator 22/CS4: Whatsapp and the location of the Population and Civil Registry Office of Ogan Ilir Regency have been listed correctly and accurately on the Admin Dukcapil website so that users feel satisfied with it.

3. Quadrant C (Low Priority) Indicators that fall into quadrant C are indicators that less important to users and their performance is considered low. That way, the indicators that are in this quadrant become a low priority [18]. Here are the indicators contained in quadrant C, as follows:

- a. Indicator 4/E4: Users are less able to understand or understand the help information contained on the website but users also do not feel too important with this indicator.
 - b. Indicator 6/T2: Users do not expect more with this indicator because the problem of input users do not really think about functioning for what and just follow the instructions and also the performance that is enough.
 - c. Indicator 7/T3: With the ease of processing each other in the same account makes data confidentiality less good and also users do not attach too much importance to it because it can help each other. Because if the data and information produced are not in accordance with what is expected by the data user, then the quality of the data and information cannot be utilized optimally by the user [19].
 - d. Indicator 8/R1: According to user usage of download speed is not too important.
 - e. Indicator 9/R2: The performance of the Admin Dukcapil website is felt by the user is good enough but the access can not always be smooth. However, it does not always happen and makes users not too concerned with this indicator.
 - f. Indicator 10/R3: User assessment of the speed of a website is not very important because the network connection in some places is not good which makes users feel normal with standard website response speed.
 - g. Indicator 12/R5: There are certain times where the website is accessed by many users at the same time so that its performance decreases. However, the decline in performance does not take place at all times but only at certain times and it is not important because users can still process submissions quite well.
 - h. Indicator 13/C1: Users feel this indicator is not important enough because it is not too influential and also the website's performance on page size changes must still be adjusted manually if you want to zoom in on page size.
 - i. Indicator 18/C5: The contents of incoming notifications are not too important by users and the notification is also only through whatsapp which makes the contents of the message less immediately understood because there is no feature that displays what information is meant.
4. Quadrant D (Excessive) Quadrant D shows indicators whose level of importance or expectations are low but the performance provided is considered very good or excessive, so there is no need for improvement [20]. Below are the indicators in quadrant D, as follows:
- a. Indicator 2/E2: Users are not too hopeful and concerned about the website address but the url linked to the Admin Dukcapil website is very simple, so it is easy to remember by the user.
 - b. Indicator 14/C2: According to users, the information is very appropriate and accurate then users feel it is very suitable beyond what they want.
 - c. Indicator 15/C3: Performance in the form of information notified through the Admin Dukcapil website is very good and exceeds the expectations of its users.
 - d. Indicator 17/C5: Color on the Admin Dukcapil website is a very ordinary thing according to users, there is no more hope and also not very important but the Admin Dukcapil website uses bright colors and soft to look at and not use flashy colors
 - e. Indicator 21/CS3: The performance of the services provided is very good because the submission on the Admin Dukcapil website is processed quickly which is at most 1 day.

4. CONCLUSION

Based on the results of the analysis and discussions that have been conducted, the researchers obtained conclusions about the quality of the Population Service and Civil Registry system of Ogan Ilir Regency. In the results of the assessment of respondents' responses at the level of importance (expectation) which is 4.54 or 91% and the assessment of the level of performance (performance) is 3.38 or 88%, it can be concluded that the level of performance (performance) is lower than the level of importance (expectation) so that it can be stated that the user of the system feels less satisfied with the performance of the service system.

Obtained the results of gap value (GAP) that there are 17 indicators that are negative and 5 indicators that are positive value. The lowest gap value is in the content and appearance variable of information system indicator number 17 with a value of 0.32 and the highest gap is in the ease of use variable, which is at number 3 with a value of -0.72. Then from the analysis of the level of conformity obtained the average percentage of conformity rate is $97\% \leq 100\%$ whose value ranges from 86%-107%. There are some indicators that still low which means that users feel less satisfied with the performance of the service system. The results of the analysis using a cartesian diagram showed that there is a top priority (Quadrant A) to make improvements to indicators number 3 and 11 because according to the user the indicator is important but the performance is still very low. While the indicators that fall into the category of maintaining achievement or are good (Quadrant B) are at numbers 1, 5, 16, 19, 20, and 22.

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