

# Analysis of e-Service Quality - performance at BKPSDM Lubuklinggau web based using e-Govqual and Importance performance analysis (IPA) methods

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**Abstract** The Agency for Personnel and Human Resources Development (BKPSDM) uses the E-Kinerja service system. E-performance is a system for measuring employee performance. E- Govqual is a method that has attributes for assessing service quality. E-Government Importance Performance Analysis (IPA) is an assessment analysis method to measure the quality of a service based on the level of importance and level of performance perceived by the user. The research was conducted with the concept of measuring service quality in the form of electronic services focused on a government website called E-Government Quality (E-Govqual). The results of the gap analysis at this stage are carried out to determine the level of gap or difference in expectations between user interests and perceived system performance or user perceptions of the service quality of the E-Kinerja system. In the analysis of the level of conformity, the measurement is carried out by calculating the comparison between the reality of the service perceived by the user and the expectation of the service that the user wants. Furthermore, the analysis process is carried out with Importance Performance Analysis (IPA) using quadrant analysis whose results are mapped into Cartesian with the importance and performance axes. Based on the final results, the calculation shows the average level of conformity of each indicator in the four E-Govqual variables. From the table, it can be seen that all the average values of the suitability level of the 4 dimensions are 101%. These results indicate that the performance of each attribute in the E-Kinerja application can meet the expectations of users. Based on the final result of the variable calculation, the largest gap occurs in the Trust variable with an average value of 0.05, then the smallest gap is in the Reliability Variable with an average value of -0.05 variable.

**Key Words** :E-Service, E-Government; E-Govqual; Importance Performance Analysis (IPA).

## INTRODUCTION

Advances in information technology today have had a very significant impact, especially in terms of communication. Therefore, with the development of this technology, all work can be done quickly. Before the advent of technology, work activities were very slow and took a long time to complete. With technology, all activities can be completed in a shorter time, especially in the field of information management.

The Personnel and Human Resources Development Agency or the abbreviation (BKPSDM) which was previously the Regional Personnel Agency for Lubuklinggau City. BKPSDM Lubuklinggau City is an agency engaged in the service sector which is closely related to the

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information sector. In carrying out its activities, one of the computerized systems at the Lubuklinggau BKPSDM is the E-Kinerja service system.

Electronic Government (E-Government) also plays an important role for ASN (State Civil Apparatus) employees in E-Kinerja services. The analysis of the existing system for the purposes of this survey itself is user satisfaction with the E-Kinerja service system at the Lubuklinggau City Personnel and Human Resources Development Agency (BKPSDM). This is done from the point of view of the user of the information system itself, and the system is of high quality.

E-performance is a system for measuring employee performance. The purpose of establishing the E-performance system is the availability of ASN employee performance data by utilizing information technology. The E-Kinerja system periodically measures and monitors ASN performance, as one of the reference data for the provision of performance bonuses received by employees, and to map ASN performance under the performance system, the E-Kinerja mechanism consists of ASN recording data on SKP (Employee Performance Targets)

Therefore, it is necessary to analyze the E-Kinerja service system at BKPSDM Lubuklinggau City based on an assessment from the user's side. E-Govqual is a method that has attributes that contain various user assessment factors on the quality of E-Government services (Sulaiman et al., 2017). The E-Govqual method has 6 (six) assessment criteria, namely Ease of Use (user convenience), Trust (trust), Functionality of the Interaction Environment (functionality from environmental interaction), Reliability (reliability), Content and Appearance of Information (content and information display), and Citizen Support (Septa et al., 2019).

However, after being empirically validated, there are only 4 (four) criteria, namely Reliability, Efficiency, Trust, and Citizen Support (Napitupulu, 2016). These four criteria will later be used as reference material to make a survey to analyze the E-Kinerja service system at the BKPSDM Lubuklinggau City with the Importance Performance Analysis (IPA) analysis technique.

The purpose of this study is to analyze an E-Kinerja service system at the BKPSDM Lubuklinggau City using the E-Govqual method and Importance Performance Analysis (IPA).

## LITERATURE REVIEW

### E-performance

BKPSDM Lubuklinggau City is an institution that has used a computerized system. In carrying out its activities, one of the computerized systems at BKPSDM Lubuklinggau City is the E-Kinerja service system. E-Kinerja is a system for measuring employee performance. The purpose of establishing the E-performance system is the availability of ASN employee performance data by utilizing digital technology.

### E-Government

E-Government is a use of information technology in the field of government. By implementing E-Government itself, it will create good governance and improve the quality of public services that are effective and efficient (Perdanakusuma et al., 2019).

E-government is also a solution for improving management systems and work processes in the government environment by optimizing the use of digital technology and increasing transparency and accountability in governance and public participation (Saputra et al., 2018).

### IPA (Importance Performance Analysis)

IPA (Importance Performance Analysis) is a technique for identifying quality measurement attributes for products or services that most require improvement or potential cost savings without significantly affecting overall quality (Wahyuni, et al., 2017).

### Relevant Research

a. Based on the results of the research entitled EGovernment Service Quality Analysis with the EGovqual & IPA approach, research related to the analysis of the quality of public services in the City Government X can be drawn several conclusions, namely the quality of public services in the City Government X evaluated with the E-Govqual approach consisting of 4 dimensions namely

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efficiency (efficiency) , trust (trust), reliability (reliability) and support to the public (citizen support) with a total of 21 measurement variables that are valid and reliable. Analysis of the gap between service performance and public expectations shows that in general service performance is still below public expectations, meaning that the public is not satisfied with the quality of services provided by the City Government X. top priority for improvement. These factors are mostly related to non-technological factors, namely employees are responsive to user problems, employees have adequate knowledge to answer public questions, employees have the ability to deliver services with trust and confidence and adequate information about services. Suggestions for further research that can be done is to analyze whether all of the measured factors have a significant effect on the quality of EGovernment services (Darmawan Napitulu, 2016)

Based on the results of a study entitled Evaluation of the Service Quality of Population Information Systems Using the EGovqual and IPA Methods (Case Study at the Pasuruan City Population and Civil Registration Service), a study has been carried out regarding the assessment of the quality of the Population Information System website using the egovqual method and importance performance analysis (IPA). , it can be concluded as follows: 1. The quality of the performance of the Pasuruan City Population Information System website service from user assessments, it is stated that users are not satisfied with the quality of the website because they have not been able to meet the expectations of users. This can be seen based on the results of the assessment of the level of conformity of less than 100% for each dimension contained in e-govqual and the results of the gap assessment 0 on each dimension contained in egovqual. The results of the quadrant analysis of each egovqual attribute are in quadrant I there are 6 variables, quadrant II there are 12 variables, quadrant III there are 6 variables and quadrant IV there are 2 variables. 2. Recommendations for improvement are given for each variable contained in quadrant I and quadrant III, namely: a) Recommendations for improvement in quadrant I, namely improving the search feature of the SIP website, providing training for Dinas employees on a regular basis to be able to solve problems faced by village registration officers when accessing the SIP website, improving the SIP website into a SIP website that is able to adapt to the platform with a neat layout, improving the quality of the content of the SIP website information according to the purpose of the SIP website, improving the display quality and speed of displaying the SIP website with various types of browsers, as well as improve the speed to access to SIP websites. b) Recommendations for improvement in quadrant III, namely the need to improve affordability in accessing the SIP website within 24 hours, fix the file size of population data to be downloaded, update information periodically and provide a statement on the website that the information has been updated, improve the format for responding to complaints on sms center, speeding up replies to questions asked by village registration officers, providing regular training for Service employees (Nerissa et al, 201

## METHOD

### Analysis of the Running System

In this study, the researcher used a data collection method, namely a questionnaire, this questionnaire used the E-Govqual dimension attribute as a variable. The concept of measuring service quality in the form of electronic services focused on government websites or portals is called E-Government Quality (E-Govqual). E-Govqual is more suitable for measuring the quality of electronic services, especially for government domains.

Before the E-Govqual method was introduced, the most common way to evaluate service quality was to use the Servqual or service quality method. Servqual sees consumer ratings as gaps in what consumers expect from services that are perceived as quality ratings by consumers based on the services they actually experience.

### Alternative Troubleshooting

To solve the existing problems the method used is E-Government Quality (E-Govqual) which will be used in this study has 4 (four) dimensional scales that are used as factors to measure the quality of E-Government services, there are 4 dimensions owned by E-Govqual, namely:

1. Efficiency (Efficiency) The value of the variable is seen from the level of ease of using the service.

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2. Trust (Trust) The value of the variable seen from the level of consumer confidence to use the service.
3. Reliability (Advantage) The value of the variable is seen in terms of usability or service capability (accessibility, availability, and accuracy) provided.
4. Citizen Support (User Support) The value of the variable is seen from how service capabilities can help consumers to solve their problems.



Source : D. T. Nautami *et al*, 2019

*Figure 1 E-Govqual Dimension*

Importance Performance Analysis (IPA) has three evaluation analyzes. That are, the level of conformity analysis is used to measure how well the services provided are in accordance with user expectations, the analysis of the level of gaps is used to measure the expected service performance. Quadrant analysis to identify attributes that need to be prioritized for improvement in order to improve the performance provided to users and the quality of the services provided. The quadrant in question is the Cartesian quadrant where the X and Y axes intersect, so that there are four quadrants in it.

Importance	<p>Quadrant A</p> <p>Concentrate Here</p> <p>High Job Expectations/Low Performance</p>	<p>Quadrant B</p> <p>Keep Up The Good</p> <p>High Job Expectations/High Performance</p>
	<p>Quadrant C</p> <p>Low Priority</p> <p>Low Job Expectations/Low Performance</p>	<p>Quadrant D</p> <p>Possible Overkill</p> <p>Low Job Expectations/High Performance</p>
Performance		

Source : F. Septa, A. Yudhana, dan A. Fadlil , 2019

*Figure 2 Diagram kartesius Importance Performance Analysis (IPA)*

The Cartesian Importance Performance Analysis (IPA) diagram in Figure 3.2 consists of four quadrants, namely:

1. Quadrant A has a high level of importance but the perceived performance of users is low, so the attributes in this quadrant are a top priority for website improvement and/or development.
2. Quadrant B has a high level of importance and performance, so the attributes in this quadrant have been successfully implemented in accordance with user expectations.

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3. Quadrant C has the same low level of importance and performance, so the attributes in this quadrant are of low priority for improvement and/or development.
4. Quadrant D has a low level of importance while the perceived performance is high, so the attributes in this quadrant are said to be redundant

### **Data Collection Techniques**

#### **a) Primary data**

Collect data directly from the object under study. The methods used to collect the data are as follows:

##### **1) Literature Study (Library search)**

The literature study method is in the form of collecting secondary data and information based on reading or studying various literatures related to issues that are considered relevant to the current situation.

##### **2) Observation Method**

Make observations in the management of employee data, collect employee data by making direct observations on the part that uses the E-Kinerja service system.

##### **3) Interview Method**

Is a data collection technique by conducting interviews or direct questions and answers to staff and structural officials regarding the system in the section that uses the E-Kinerja service system.

##### **4) Documentation Method**

Is a method of data collection which is done by looking for documents such as organizational structure that has to do with discussing problems and completing the data needed in writing this research report.

#### **b) Secondary Data**

Namely the data obtained and used in the form of theoretical knowledge obtained by the author so far, both from lecture materials, relevant reference guidelines, as well as from browsing results (serching) on the internet.

## **RESULT**

Results Based on the instrument test by testing the validity and reliability of the researcher, the researcher interprets and discusses the results of the instrument test as follows:

### **Validity**

The final result of the instrument validity analysis shows that all indicators used are declared valid. Valid means the instrument that has been used for data collection in the form of a questionnaire.

### **Reliability**

The final result of the instrument reliability analysis shows that the instrument used in distributing the questionnaire meets the requirements to be considered reliable where the value of Cronbach's alpha for all variables is greater than 0.40.

### **Conformity level**

Based on the final results, the calculation shows the average level of conformity of each indicator in the four E-Govqual variables. From the table, it can be seen that all the average values of the suitability level of the 4 dimensions are 101%. These results indicate that the performance of each attribute in the E-Kinerja application can meet the expectations of the user, meaning that it is in accordance with what is expected by the users of the application. E-Performance.

If the percentage is <80%, it is said that the suitability of each performance cannot meet the respondent's expectations, if the percentage is 80-100% then the suitability can meet the expectations of the user but still needs to be improved, and if the presentation is >100% it can be said that the performance indicator has exceeded user expectations or is very satisfactory.

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### Gap level

Based on the final result of the variable calculation, the biggest gap occurs in the Efficiency variable with an average value of -0.05, then followed by the User Support (Citizen Support) variable with an average value of -0.13, then the Trust variable. ) with an average value of 0.05, and Reliability with an average value of -0.05.

- Efficiency variable with an average value of -0.05 or higher than the 4-dimensional average. this states that expectations are greater than the reality felt by the user so that it needs to be a concern for application development.
- User Support Variable (Citizen Support) with an average value of -0.13 or higher than the 4-dimensional average, this means that expectations are greater than the reality felt by users so that it needs to be a concern for application development.
- Trust variable (Trust) with an average value of 0.05 or greater than the average of the other 4 dimensions, especially on the TRS2 indicator with an average value of 0.20 or the same as the previous conformity analysis which identified the need for improvement in this indicator.
- Reliability variable with an average value of -0.05, the attribute level shows that the smallest gap or gap occurs in the reliability variable on the RLB5 indicator with an average value of -0.02 which is closest to expectations based on performance that the user feels.

### Quadrant Analysis

Based on the final results, it can be explained that service factors based on user satisfaction are seen from the results of the perception and expectation values using Importance Performance Analysis (IPA) or quadrants are as follows:

- Quadrant A (Top Priority)**  
There are 3 indicators that are included in quadrant A or which are the main priority for improvement where 1 indicator comes from the Efficiency (EF4) variable (EF4) this E-Kinerja service system is adjusted to the needs of each user and 2 indicators comes from the User Support variable (Citizen Support) (CS1) maintainers are responsive in solving user problems and (CS2) maintainers provide prompt replies to user inquiries.
- Quadrant B (Maintain Achievement)**  
There are 8 indicators that need to be maintained which are located in quadrant B where 3 indicators come from the Efficiency (EF1) variable (EF1) the structure of the E-Kinerja service system is clear and easy to follow, (EF3) the map of the E-Kinerja service system is well organized and (EF5) the information displayed in this E-Kinerja service system is the appropriate detail. 1 indicator comes from the Trust variable, the data provided in the E-Kinerja system is only used as needed. The 3 variables come from the Reliability variable (RLB2) this E-Kinerja service system is available and can be accessed whenever you need it, (RLB4) this E-Kinerja service system provides timely service, and This E-Kinerja service system functions with fine with your default browser. 1 indicator comes from the User Support (Citizen Support) variable, the manager has the ability to convey trust and confidence.
- Quadrant C (Low Priority)**  
There are 6 indicators of low improvement being maintained where 1 indicator comes from the Efficiency (EF7) variable, information about inputting data in the E-Kinerja system is already effective, 1 indicator comes from the Trust variable (TRS3) data provided by users in this E-Kinerja service system is archived safely, 3 indicators come from the Reliability variable (RLB1) the form in this E-Kinerja service system is downloaded in a short time, (RLB3) this E-Kinerja system can respond to my request with one click, and (RLB5) the E-Kinerja service system page is accessed quite quickly.
- Quadrant D (less important)**  
There are 4 indicators that are considered not so important where 2 indicators come from the Efficiency variable (EF2) the search engine for the E-Kinerja service system is effective and (EF6) the information displayed in the E-Kinerja service system is the latest, 2 indicators come from from the Trust variable (TRS1) the user trusts the username and password in the E-

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Kinerja system is secure and (TRS2) only the necessary personal data is provided for authentication on the E-Kinerja service system.

## DISCUSSION

Dividing the E-Govqual scale into 21 attributes in 4 main dimension scales for measuring the quality of E-Government services as shown in Table 1 below. These attributes are used as variables in this research questionnaire.

**Table 1. Indicators in E-Govqual Variable**

Variable	Indicators
<i>(Efficiency)</i>	<ol style="list-style-type: none"> <li>1. The structure of the E-Kinerja service system is clear and easy to follow.</li> <li>2. The search engine of this E-Kinerja service system is effective.</li> <li>3. The map of E-Kinerja service system is well organized.</li> <li>4. The E-Kinerja service system is tailored to the needs of each user.</li> <li>5. The information displayed in this E-Kinerja service system is an appropriate detail.</li> <li>6. The information displayed in E-Kinerja service system is up-to-date. Information about field completion in the E-Kinerja service system is sufficient.</li> </ol>
<i>(Trust)</i>	<ol style="list-style-type: none"> <li>1. The acquisition of username and password in this E-Kinerja service system is secure.</li> <li>2. Only the necessary personal data is provided for authentication on this E-Kinerja service system.</li> <li>3. Data provided by users in E-Kinerja service system is archived securely.</li> <li>4. The data provided in this E-Kinerja service system is only used for the reasons stated.</li> </ol>
<i>(Reliability)</i>	<ol style="list-style-type: none"> <li>1. The form in E-Kinerja service system is downloaded in no time.</li> <li>2. This E-Kinerja service system is available and accessible whenever you need it.</li> <li>3. E-Kinerja service system has successfully performed service based on the first request.</li> <li>4. This E-Kinerja service system provides timely service.</li> <li>5. E-Kinerja service system page is accessed quite quickly.</li> <li>6. This E-Kinerja service system works fine with your default browser.</li> </ol>

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<i>(User Support)</i>	<ol style="list-style-type: none"> <li>1. Responsive manager in solving user problems.</li> <li>2. The manager provides prompt replies to user inquiries.</li> <li>3. The manager has knowledge to answer user questions.</li> <li>4. Managers have the ability to convey trust and confidence.</li> </ol>
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Source : Service Quality ofE-Government  
(An Analysis at Government X With E-Govqual And Science Approach)  
D. B. Napitupulu, 2016

The attributes in Table 1 are the keys used to evaluate how much. Quality of E-Kinerja service at Agency for Personnel and Human Resources Development (BKPSDM) Lubuklinggau. In terms, this study will determine the extent of user satisfaction using the E-Kinerja service system and how the responses between E-Kinerja performance use the level of performance importance in using E-Kinerja services.

The researcher uses a score calculation to test the results of the analysis of the E-Kinerja service system at the BKPSDM Lubuklinggau City from the results of distributing questionnaires to system users. The results of the questionnaire were processed using Microsoft Excel and SPSS software. This study uses a five-point Likert Scale for measuring the questionnaire in this study. The reason for using a five-point scale is because it refers to previous research. In this study, two Likert Scale models were made to distinguish the assessment of user perceptions and expectations, which can be seen in Table 2.

Table 2. Likert Scale

Score	Importance		Performance	
	Answer	Abbreviation	Jawaban	Abbreviation
1	STS	Strongly Disagree	STP	Strongly Disagree
2	TS	Disagree	TP	Not Important
3	TT	Don't Know	TT	Don't Know
4	S	Agree	S	Agree
5	SS	Strongly Agree	SS	Strongly Agree

Source : Service Quality ofE-Government  
(An Analysis at Government X With E-Govqual And Science Approach)  
D. B. Napitupulu, 2016

## Population

The population is a generalization area consisting of objects/subjects that have certain quantities and characteristics determined by the researcher to be studied and then it can be concluded that the population is the entire research subject (Zakaria et al., 2017). The population in this study was 49 Employees, namely this population was taken from all employees at BKPSDM in Lubuklinggau.

## Sample

The sample is part of the number and characteristics possessed by the population so that it can represent the population. The sample is also part of the affordable population that can be used as research subjects.

Sampling technique is a sampling technique to determine the sample to be used in research. The sampling method used in this study is the saturated sample method. The saturated sample method is a sampling technique when all members of the population are used as samples.

Measurements using the E-Performance service system questionnaire were carried out online by providing a Google form questionnaire link to respondents. Measurements were carried out for 1

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month in Lubuklinggau BKPSDM office as many as 44 respondents who were employees at BKPSDM office in Lubuklinggau

### Questionnaire

The questionnaire is a data collection technique that is carried out by communicating with data sources (Risanty & Sopiyan, 2017). In this study, there were 21 questions based on the research method. The questions are adjusted to the variables contained in the method. Measurements using the E-Kinerja service system questionnaire were carried out online by providing a google form questionnaire link to respondents. Measurements were carried out for 1 month in Lubuklinggau at BKPSDM office, as many as 44 respondents who were employees in Lubuklinggau at BKPSDM office.

The data analysis method used in this study was Importance Performance Analysis (IPA) analysis technique to measure the quality of a service based on the level of importance and the level of performance (performance) perceived by the user.

In this analysis, a discussion of How to Analyze using the E-Govqual and Importance Performance Analysis (IPA) methods is carried out which consists of four criteria of Reliability, Efficiency, Trust, and Citizen Support based on user perceptions, which was carried out on 44 respondents, where all respondents answered the questionnaire. been shared by researchers.

As for the measurement, in this study using a Likert scale with the lowest level (1) to the highest level, namely (5), as follows:

- 5 = Strongly Agree
- 4 = Agree
- 3 = Don't Know
- 2 = Disagree
- 1 = Strongly Disagree

Through this measurement, the research can divide the respondents into ranking order or the basis of their attitude on certain objects. For more details regarding the respondent's personal data, it can be seen in the following characteristics in percentage numbers. The following is the presentation of respondent data by gender and latest education:

Table 3 Respondent Profile based on Gender

		Gender			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	20	43.2	43.2	43.2
	Female	24	56.8	56.8	100.0
	Amount	44	100.0	100.0	

From the table above, it can be seen that there were 20 respondents who were male as users of the E-Kinerja service system. While as many as 24 respondents were female as the user of E-Kinerja service system. This indicates that the largest response comes from female as the users of E-Kinerja service system.

Table 4. Respondent Profile Based on Education

		Last Education			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SMA	6	13.6	13.6	13.6
	S1	22	50.0	50.0	63.6
	S2	12	27.3	27.3	90.9
	D4	2	4.5	4.5	95.5
	D3	1	2.3	2.3	97.7
	SMK	1	2.3	2.3	100.0
	Amount	44	100.0	100.0	

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Based on the table above, it can be seen that the largest number of respondents were respondents with education STRATA 1 (S1) with the number of respondents was 22 (50.0%). Then respondents with education STRATA 2 (S2) with the number of respondents was 12 (27.3%). Respondents with a high school education was 6 respondents (13,6%). Respondents with education Diploma IV (D4) was 2 respondents (4.5%). Respondents with education Diploma III (D3) and SMK with the number of respondents was 1 (2.3%).

### CONCLUSION

Based on the final results, the calculation shows the average level of conformity of each indicator in the four E-Govqual variables. From the table, it can be seen that all the average values of the suitability level of the 4 dimensions are 101%. These results indicate that the performance of each attribute in the E-Kinerja application can meet the expectations of the user, meaning that it is in accordance with what is expected by the users of the application. E-Performance. Based on the final results, it can be explained that service factors based on user satisfaction are seen from the results of the perception and expectation values using Importance Performance Analysis (IPA) or quadrant. There are 3 indicators that are included in quadrant A or which are the main priority for improvement where 1 indicator comes from the Efficiency (EF4) variable (EF4) this E-Kinerja service system is adjusted to the needs of each user and 2 indicators comes from the User Support variable (Citizen Support) (CS1) maintainers are responsive in solving user problems and (CS2) maintainers provide prompt replies to user.

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