Analysis of The Implementation of Priority Services of The Ministry of ATR/BPN As an Effort To Modernize Land Services (Study At The Bungo Regency Land Office)

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Abstract.
Modernization of land services is an important part of bureaucratic reform in improving the quality of public services that are faster, more transparent, and digital-based. This study aims to analyze the level of community interest and performance on the implementation of the seven priority services of the Ministry of Agrarian and Spatial Planning/National Land Agency (ATR/BPN), determine the strategic position of services using Importance–Performance Analysis (IPA), and identify factors that affect community satisfaction through multiple linear regression. This study uses a quantitative approach with a survey method of 100 respondents selected using purposive sampling techniques. Data was collected through a Likert scale questionnaire and analyzed using descriptive analysis, Customer Satisfaction Index (CSI), IPA, and multiple linear regression. The results of the study showed that the average level of interest was 4.32 and the performance level was 3.89 in the good category. The CSI value of 77.80% shows that the community is in the satisfied category. The IPA analysis shows that transparency, speed of service, and professionalism of officers are in the quadrant of maintaining achievements, while the use of digital technology is the top priority for improvement. The regression results showed that the variables of transparency, speed, professionalism, and technology had a significant effect on public satisfaction with an R^2 value of 0.728. This study concludes that the implementation of ATR/BPN priority services has gone quite well, but it still needs improvements in digitalization and ease of procedures to achieve optimal services.
Keywords: *public services, land services, public satisfaction, natural sciences and service modernization.*

I. INTRODUCTION

Modernization of public services is the main pillar in bureaucratic reform which aims to improve the quality of services to be more effective, efficient, transparent, and accountable. This transformation not only focuses on improving organizational performance, but also on increasing public satisfaction as service users. In the context of land services, modernization has a strategic role because it is directly related to legal certainty, protection of property rights, and socio-economic stability. Therefore, the Ministry of Agrarian and Spatial Planning/National Land Agency (ATR/BPN) develops service innovations through the implementation of seven priority services as part of the digitalization of public services [1]–[4].

Digital transformation in land services reflects the application of *the concept of e-government* which aims to improve accessibility, transparency, and service efficiency. However, its implementation still faces various obstacles, especially in areas that have limited technology infrastructure and human resources. Obstacles such as limited internet networks, low digital literacy, and non-optimal integration of information systems between institutions are the main challenges in the digitization of public services [5]–[7]. This condition shows that the success of service modernization does not only depend on technology, but also on the readiness of organizations and society to adapt to change.

Public services are essentially the government's efforts to meet the needs of the community through the provision of quality services. In the perspective of modern public administration, the quality of service is not only measured by speed, but also includes transparency, accountability, responsiveness, and fairness. This is in line with the *New Public Service* paradigm which places the community as the center of service [8]–[10]. In addition, Law Number 25 of 2009 emphasizes that public services must be oriented to the interests of the community and ensure the rights of service users fairly [11].

In measuring the quality of service, community satisfaction is the main indicator of the success of policy implementation. Satisfaction is the result of a comparison between expectations and performance of the services received. To measure this, various methods such as *Customer Satisfaction Index* (CSI) and *Importance–Performance Analysis* (IPA) are used, which are able to identify service attributes and determine improvement priorities systematically [12]–[14]. In addition, multiple linear regression analysis is used to

identify dominant factors that influence community satisfaction empirically, such as transparency, speed of service, professionalism of officers, utilization of technology, and ease of procedure [15], [16].

The urgency of this research lies in the limited study that integrates all seven priority services of ATR/BPN in one comprehensive analysis framework, especially at the district level. Most of the previous research is still partial and focused on urban areas, so it has not provided a complete picture of policy implementation in resource-constrained areas [17]–[19]. In addition, the gap between central policies and implementation in the field demonstrates the need for data-driven evaluations to improve the effectiveness of services [20], [21]. Therefore, this research is important to make an empirical contribution to the development of a digital-based public service evaluation model as well as a basis for policy-making to improve the quality of land services in a sustainable manner [22].

II. METHODS

The data analysis technique in this study is carried out in stages to produce a comprehensive analysis. The initial stage was carried out through descriptive analysis to describe the characteristics of respondents and the distribution of answers to the research variables. Furthermore, the level of community satisfaction is measured using the *Customer Satisfaction Index* (CSI), which is calculated by the formula:

$$CSI = \frac{\sum WS_i}{HS} \times 100\%$$

Description:

- WS_i= *Weighted Score* (the average value of importance multiplied by the average value of performance for each attribute)
- HS= *Highest Score*

This method is used to find out the overall level of community satisfaction in the form of a percentage, so that it can be categorized into certain levels of satisfaction.

Furthermore, to determine the priority of service improvement, the *Importance–Performance Analysis* (IPA) method was used, which maps service attributes based on the level of importance and performance into a four-quadrant cartesian diagram. The calculation of the average is carried out with the formula:

$$\bar{X} = \frac{\sum X_i}{n}, \bar{Y} = \frac{\sum Y_i}{n}$$

Description:

- $\bar{X}$= average performance
- $\bar{Y}$= average importance
- X_i= performance value of the i-i attribute
- Y_i= value of the importance of the i-i attribute
- n= number of respondents

The results of this calculation are used to determine the position of attributes in four quadrants, namely top priority, maintain achievement, low priority, and redundancy.

Before further analysis, the data was tested using a classical assumption test which included normality, multicollinearity, and heteroscedasticity tests to ensure that the data met the regression analysis requirements. Furthermore, multiple linear regression analysis was used to determine the influence of independent variables on community satisfaction with the following model:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \cdots + \beta_n X_n + \varepsilon$$

Description:

- Y= community satisfaction
- $X_1, X_2, \ldots, X_n$= priority service variables (transparency, speed, professionalism, technology, etc.)
- β_0= constant
- $\beta_1, \beta_2, \ldots, \beta_n$= regression coefficient
- ε= Error (Disruptive Error)

This model is used to identify the direction and magnitude of the influence of each variable on community satisfaction and determine the most dominant variable in improving the quality of land services.

III. RESULTS AND DISCUSSION

Description of Research Object

Bungo Regency is one of the strategic areas in Jambi Province which has the characteristics of being a cross-border area with quite dynamic economic activities. These geographical and socio-economic conditions make the need for land services quite high, especially in terms of legal certainty and land ownership administration. The Bungo Regency Land Office as the technical implementation unit of ATR/BPN has an important role in providing fast, transparent, and accountable services to the community.

In its implementation, land services are supported by an organizational structure that includes a counter section as a controller of the service flow and a file verifier that ensures the completeness of documents. Service systems have also begun to adopt a digital approach through online queues and land service applications, although the implementation still faces various challenges, especially in terms of technology utilization.

Description of Respondent Demographics

Based on the results of the study of 100 respondents, the characteristics of the respondents showed quite representative variations. The majority of respondents were female at 56%, while men were at 44%. In addition, the age group is dominated by the productive age (<50 years) by 95%, which shows that land service users are dominated by economically active people.

Table 1. Respondent Distribution

Categories	Quantity	Percentage
Male	44	44%
Women	56	56%
Age < 50	95	95%
Age > 50	5	5%

In terms of education, the majority of respondents have high school and S1 education levels (38% each), which shows that respondents have a fairly good capacity to understand public services. In terms of employment, the majority of respondents are entrepreneurs (54%), which shows that land services are very relevant for people's economic activities.

Descriptive Statistical Analysis

The results of descriptive statistical analysis showed that all research variables were in the category of good to good. The officer professionalism variable had the highest average score, while the accountability and technology utilization variable had a relatively lower score.

- Table 2. Descriptive Statistics of Variables

Variable	Red	Std. Dev
Satisfaction	67.85	2.88
Transparency	69.15	6.29
Speed	69.42	6.46
Professional	70.81	5.73
Technology	65.41	5.68

Based on Table 2, the results of descriptive statistical analysis show that all research variables are in the category of good to good, which is shown by the relatively high average value of each variable. The officer professionalism variable has the highest average score (70.81), which indicates that aspects of human resource quality, such as competence, attitude, and responsiveness of officers, are the main strength in land services. Furthermore, the variables of service speed (69.42) and transparency (69.15) also showed good performance, which means that the public considers the service process to be relatively fast and the information provided is quite clear. Meanwhile, the technology utilization variable had the lowest average score (65.41), followed by accountability (not shown in the table but mentioned lower), which shows that the aspects of service digitalization and service accountability still need to be improved. The relatively small

standard deviation value in all variables also shows that respondents' perceptions tend to be homogeneous, so these results can be considered quite representative in describing the condition of land services at the research site.

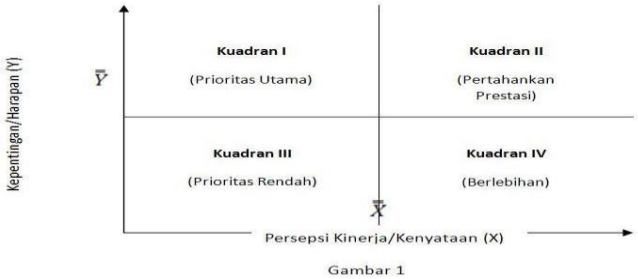
Importance–Performance Analysis (IPA) is used to identify the level of interest and satisfaction of the community with each dimension of services, so that the conformity between expectations and performance of the services provided can be known. Through this analysis, each service dimension is mapped into specific quadrants based on the average value of interest and satisfaction, which in turn becomes the basis for determining improvement priorities and service quality improvement strategies, as shown in Table 3.

Table 3. Science Results

Dimensions	Importance	Satisfaction	Quadrant
Transparency	3.38	3.49	II
Speed	3.43	3.55	II
Professional	3.51	3.82	II
Technology	3.40	3.25	I

The results of the IPA analysis show that most of the service dimensions are in the good category, which is shown by their position in Quadrant II (maintain performance), namely transparency, speed of service, and professionalism of officers. This indicates that these three aspects have an equally high level of importance and satisfaction, so that service performance is in accordance with community expectations and needs to be maintained consistently. On the other hand, the dimension of technology utilization is in Quadrant I (top priority), which shows that this aspect has a high level of importance but the level of satisfaction is still relatively low. This condition reflects the gap between expectations and performance of digital-based services, so improvement efforts are needed that focus more on optimizing technology in land services. Overall, these results confirm that although the quality of service has been in the good category, improving the digitalization aspect is a strategic step to increase community satisfaction more optimally.

Based on the results of the analysis *Importance–Performance Analysis* (IPA) that has been presented in Table 3, the position of each service dimension is then visualized in the form of a cartesian diagram as shown in Figure 1



Gambar 1

This diagram visually shows the relationship between importance and satisfaction/performance levels, making it easier to identify the strategic position of each service dimension. The mapping results show that the dimension of technology utilization is in Quadrant I (main priority), which means that it has a high level of importance but a relatively low level of satisfaction. This is consistent with the results of the previous analysis which shows that the technological aspect is still a major weakness in the service and requires immediate attention and improvement.

Meanwhile, the dimensions of transparency, speed of service, and professionalism of officers are in Quadrant II (maintain achievements), which shows that service performance in these aspects has been in accordance with community expectations. This position reinforces previous findings that these three dimensions are key strengths in land services and need to be maintained consistently. Thus, the IPA diagram in Figure 1 not only clarifies the results of the table analysis, but also emphasizes that the strategy to improve

service quality must be focused on strengthening the digitalization aspect, without neglecting efforts to maintain optimal service performance.

Community Satisfaction Analysis

The analysis of community satisfaction was carried out to identify the level of conformity between importance and satisfaction (performance) with the indicators of services provided. This measurement aims to find out the extent to which service performance has met community expectations and identify service aspects that still need improvement. The results of the comparison between interest levels and satisfaction in each service indicator are presented in detail in Table 4, which shows the average value of respondents' perception of the quality of land services.

Table 4. Satisfaction Indicators

Indicator	Importance	Satisfaction
Service time	3.54	4.00
Offline access	3.29	4.29
Clear information	3.53	3.75

Based on Table 4, it can be seen that most of the service indicators have a higher or relatively balanced level of satisfaction than their level of importance, which indicates that the performance of the service has been able to meet and even exceed the expectations of the community. The offline service access indicator has the highest satisfaction score (4.29), which shows that the ease of direct access is the main strength in land services. In addition, the service time also showed good performance with a satisfaction level of 4.00, which indicates that the service process is considered quite fast and efficient. However, in the online-based service indicator, although it has a fairly high level of importance, the satisfaction level is relatively lower, indicating a gap between expectations and performance of digital services. This indicates that improving the quality of technology-based services still needs to be a major concern in an effort to increase overall public satisfaction.

Classic Assumption Test

The test results show that the regression model meets all classical assumptions. There was no multicollinearity (VIF < 10), no heteroscedasticity (Sig > 0.05), and normal distributed data (Sig > 0.05). This shows that the regression model used is valid and feasible for further analysis.

Multiple Linear Regression Analysis

Multiple linear regression analysis was used to determine the influence of independent variables on community satisfaction as a dependent variable. Based on the results of data processing, the regression equation model was obtained as follows:

$$Y = 9.703 + 0.169X_1 + 0.124X_2 + 0.168X_3 + 0.028X_4 + 0.115X_5 + 0.139X_6 + 0.109X_7 + \varepsilon$$

Description:

- Y= Community satisfaction
- X_1= Transparency
- X_2= Accountability
- X_3= Service speed
- X_4= Data security
- X_5= Professional officer
- X_6= Utilization of technology
- X_7= Ease of procedure
- ε= error

Based on the model, all regression coefficients have a positive value, which indicates that an increase in each independent variable will be followed by an increase in community satisfaction. The variables of transparency (0.169) and service speed (0.168) have the largest coefficients, making them the dominant factors in increasing public satisfaction.

T test (Partial)

The t-test was used to analyze the influence of each partially independent variable on public satisfaction. Based on the test results shown in Table 5, it is known that the variables of transparency, accountability, speed of service, professional officers, technology utilization, and ease of procedure have a significance value of less than 0.05, so that it can be declared to have a significant effect on public satisfaction. In contrast, the data security variable had a significance value greater than 0.05, which indicates that it did not partially affect public satisfaction.

Table 5. Multiple Linear Regression t-test results (partial)

Variable	**Coefficient (β)**	**t Count**	**Sig.**	**Conclusion**
Constant	9.703	1.574	0.119	Insignificant
Transparency	0.169	5.021	0.000	Significant
Accountability	0.124	3.517	0.001	Significant
Service Speed	0.168	5.134	0.000	Significant
Data Security	0.028	0.814	0.418	Insignificant
Professional Officer	0.115	3.149	0.002	Significant
Technology Utilization	0.139	3.734	0.000	Significant
Ease of Procedure	0.109	3.036	0.003	Significant

Based on Table 5, most independent variables have a significance value of < 0.05, thus having a significant effect on public satisfaction. The variables of transparency and speed of service had the highest t-calculated values, which shows that these two variables are the most dominant factors in increasing public satisfaction. Meanwhile, the data security variable has no significant effect because it has a significance value of > 0.05, so it has not become the main factor in determining public satisfaction.

F test or Simultaneous test

The F test is used to find out whether all independent variables simultaneously have an influence on the dependent variable, namely community satisfaction. This test is carried out by comparing the value of the F calculation with the F of the table and looking at the significance value (Sig.). The decision-making criterion is that if the value of F is calculated > F of the table and the significance value is < 0.05, then the regression model is declared significant and feasible to use. The results of the F test test in this study are presented in Table 6 below.

Table 6. Test F Results (Simultaneous)

Source of Variation	F Calculate	F Table	Sig.	Conclusion
Regression	14.159	2.11	0.000	Significant

Based on Table 6, the F value of the calculation was obtained of 14.159 which is greater than the F value of the table of 2.11, and the significance value of 0.000 which is smaller than 0.05. This shows that the regression model used in this study is statistically significant. Thus, all independent variables, namely transparency, accountability, speed of service, data security, professional officers, technology utilization, and ease of procedures, together affect public satisfaction. These results confirm that community satisfaction is not only influenced by one factor, but is the result of a combination of various aspects of service quality that contribute to each other in shaping public perception of land services.

The results of this study show that the implementation of ATR/BPN priority services has a positive impact on community satisfaction. The high level of interest shown by respondents reflects high expectations for the quality of land services, while the level of satisfaction that is in the category of quite good indicates that the services provided have been able to meet most of the community's expectations. These findings are in line with research [23] which states that public satisfaction in public services is greatly influenced by the compatibility between expectations and service performance. In addition, research [24] also found that good service quality will increase public trust and satisfaction with public institutions.

Important findings in this study show that the use of technology is still a major challenge in the modernization of land services. This indicates that digital transformation has not been running optimally,

especially in the aspects of infrastructure and digital literacy of the community. This condition is consistent with research [25] which states that the implementation of *e-government* in the regions often faces technical constraints such as network limitations and system readiness. In addition, studies [26] show that the low digital literacy of the community is an inhibiting factor in the use of technology-based services. Thus, the results of this study reinforce previous findings that the success of digitizing public services requires infrastructure support and overall user readiness.

On the other hand, the dimensions of transparency, speed of service, and professionalism of officers show excellent performance and are dominant factors in increasing public satisfaction. This shows that the quality of human resources and service management remains a major factor in public services, even though it has been supported by digital technology. These findings are in line with research [27] which states that transparency and speed of service are the main determinants of community satisfaction. In addition, research [28] also confirms that the professionalism of the apparatus has a significant influence on the perception of the quality of public services.

Overall, the results of this study confirm that the success of land service modernization does not only depend on the use of technology, but also on the balance between digital systems, the quality of human resources, and the needs of the community. This is in line with research [29] which states that effective public service transformation must integrate aspects of technology, organizational governance, and orientation to service users. Therefore, the strategy to improve the quality of land services needs to be focused on strengthening digital infrastructure, improving the competence of the apparatus, and simplifying service procedures in order to increase community satisfaction in a sustainable manner.

IV. CONCLUSION

Based on the results of research on the implementation of seven priority services of the Ministry of Agrarian and Spatial Planning/National Land Agency (ATR/BPN) at the Bungo Regency Land Office, it can be concluded that in general, the level of community importance to land services is in the high category, while the level of service performance is in the category of quite good to good. This shows that the services provided have been able to meet most of the people's expectations, although there is still a gap between expectations and service realization. Based on the Importance–Performance Analysis (IPA), it is known that the dimensions of transparency, speed of service, and professionalism of officers are in a strategic position that needs to be maintained because they are in accordance with public expectations. Meanwhile, the use of technology is in the top priority quadrant, which shows that this aspect has a high level of importance but performance is still low, so it needs immediate attention and improvement. The dimensions of accountability, data security, and ease of procedures are at a low priority, although it still needs to be considered to maintain the quality of service as a whole.

Furthermore, based on the results of multiple linear regression analysis, it was found that the variables of transparency, speed of service, professionalism of officers, technology utilization, accountability, and ease of procedures significantly affected public satisfaction, both partially and simultaneously. Among these variables, transparency and speed of service are the most dominant factors in increasing public satisfaction. This shows that the community prioritizes fast, clear, and open services in the land administration process. Thus, it can be concluded that the implementation of the seven priority services of ATR/BPN at the Bungo Regency Land Office has gone quite well and has made a positive contribution to improving the quality of public services, but it still needs optimization, especially in the aspect of the use of digital technology.

Based on this conclusion, it is recommended that the Bungo Regency Land Office improve the quality of infrastructure and digital-based service systems to optimize the use of technology in land services. In addition, it is necessary to improve the competence of human resources through continuous training to be able to adapt to technological developments and provide more professional services. Agencies also need to simplify service procedures and increase socialization to the public regarding the use of digital services so that they are more accessible and understood. On the other hand, the aspects of transparency and speed of services that have run well need to be maintained and improved consistently. For further research, it is

recommended to add other variables outside this research model in order to explain community satisfaction more comprehensively.

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