JIPS 6 (2) (2025)

Jurnal Inovasi Pendidikan dan Sains

E-ISSN 2721-9119

https://ejournal.unwmataram.ac.id/index.php/JIPS

A Multi-Method Approach to Assessing Teacher Satisfaction Regarding the Ruang GTK Platform: A Study Using the EGOVQUAL Method, Importance-Performance Analysis, Customer Satisfaction Index, and Technology Acceptance Model

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Accepted: April 28th 2025. Approved: June 03th 2025. Published: June 09th 2025

ABSTRACT

This study aimed to evaluate the level of teacher satisfaction regarding the Ruang GTK digital service by integrating four analytical approaches, namely Electronic Government Quality (EGOVQUAL), Importance-Performance Analysis (IPA), Customer Satisfaction Index (CSI), and the Technology Acceptance Model (TAM). EGOVQUAL was used to assess the quality of digital government services based on public service dimensions, while IPA mapped the importance and performance levels of service attributes. CSI was used to quantitatively measure the level of satisfaction, and TAM was used to examine the effect of perceived usefulness and ease of use on teachers' intention to continue using the Ruang GTK platform. This study used a quantitative method by distributing questionnaires to teachers who use the Ruang GTK platform. The results of the study showed that, in general, Ruang GTK provides a satisfactory service. However, several service attributes need to be prioritized for improvement based on the results of the IPA analysis. The CSI score placed this service in the "satisfied" category. In addition, the TAM analysis indicated that perceived usefulness and ease of use had a significant effect on teachers' intention to continue using the platform. This study contributes to efforts to improve the quality of digital government services in the education sector, particularly in supporting the role of educators.

Keywords: service evaluation, user satisfaction, technology acceptance, digital government, ruang GTK

INTRODUCTION

Digital transformation through the implementation of e-government is essential for improving the efficiency of public services [1] and has become an urgent need across various sectors, including the education sector. The Indonesian government promotes the use of technology as part of bureaucratic reform and efforts to enhance the quality of public services. One of the flagship initiatives in the education sector is the launch of the *Platform Merdeka Mengajar* (PMM) by the Ministry of Education, Culture, Research, and Technology (Kemendikbudristek). This platform was launched on February 11, 2022, as part of efforts to support the implementation of the *Merdeka Curriculum*, aiming to facilitate access for teachers and school principals to learning resources, implement student-centered learning, and manage learning administration digitally [2].

The *Platform Merdeka Mengajar* (PMM) is a hypermedia-based digital learning platform that provides various features, such as inspirational videos, self-paced training, student assessments, teaching resources, educational articles, and instructional videos. Teachers can access this platform for free through the Android application available on the Google Play Store or via a web browser, thus supporting flexible access both online and offline. PMM is expected to assist teachers, including *Guru Penggerak* (Education Pioneers), in teaching, learning, and working independently, as well as in implementing the *Merdeka Curriculum* in accordance with the context of their respective educational institutions [3].

However, although it had been used by more than 3.5 million teachers in Indonesia in 2024, an increase of 3.85% from 3.37 million teachers in the previous academic year, the use of the *Platform Merdeka Mengajar* (PMM) still did not meet the target set by the Ministry of Education, Culture, Research, and Technology (Kemendikbudristek). In a circular letter dated April 19, 2022, the ministry encouraged all teachers in Indonesia to download and use PMM [4], but its implementation faced various obstacles. Several factors influencing the low adoption rate include the platform's effectiveness in improving teacher

competencies, the ease of use of its features, technical and navigational issues, accessibility for teachers in 3T areas (disadvantaged, frontier, and outermost regions), and the platform's relevance to the actual needs of teachers in the field [5].

In line with changes in government policy and internal restructuring within the ministry, this platform was transformed into Ruang GTK in 2025. This integrated system not only supports the implementation of the *Merdeka Curriculum* but also manages teacher administration and performance appraisal [6]. This change aims to consolidate various service functions into a single e-government-based digital platform. However, this transition presents new challenges that also have an effect on user satisfaction levels.

One of the main challenges in the implementation of Ruang GTK is the limitation in access and technological infrastructure, particularly in remote areas that do not yet have adequate internet connectivity [7]. In addition, the varying levels of digital literacy among teachers also serve as a barrier to optimizing the use of this platform [8]. Many teachers are still unfamiliar with digital technology and require more time to learn and operate the available features. Digital skills are an essential element in the effective implementation of e-Government services [9].

Another frequently reported issue is the burden of double administration, in which teachers are required to manually input data into Ruang GTK while still preparing physical reports. The suboptimal integration between Ruang GTK and other systems, such as Dapodik, results in redundant data entry [10], ultimately increasing teachers' workload. Technical problems such as server downtime, slow loading processes, and the lack of easily accessible technical guidelines also frequently hinder the optimal use of the platform.

This study aims to address that gap by conducting a comprehensive evaluation of the service quality of the Ruang GTK platform based on teachers' perceptions as the primary users. The focus of the study covers four main aspects: service quality, feature improvement priorities, satisfaction level, and technology acceptance. Unlike previous studies that used only one or two approaches, this research integrates four evaluation models simultaneously. The EGOVQUAL model is used to measure efficiency, reliability, service functionality, and user support [11]. The Importance-Performance Analysis (IPA) model is applied to map which attributes should be prioritized for improvement [12]. Furthermore, the Customer Satisfaction Index (CSI) model is used to quantitatively calculate the level of teacher satisfaction with the services received [13]. The Technology Acceptance Model (TAM) is used to assess the perceived usefulness of the technology [14], to measure the perceived ease of use of the system [15], to evaluate factors affecting technology acceptance [16], and to understand the relationship between intention and actual technology use behavior [17]. By integrating these four approaches, this study offers a more comprehensive and distinct approach compared to previous research, and is expected to provide data-driven strategic recommendations for the optimal development of the Ruang GTK service.

RESEARCH METHOD

This study used a descriptive quantitative method with an online survey approach as the primary data collection technique. This method was chosen to obtain an objective overview of users' perceptions regarding service quality, satisfaction level, and acceptance of the system in use. To produce more comprehensive information and serve as a basis for decision-making, this approach was combined with inferential statistical analysis using several evaluation models, namely EGOVQUAL, Importance-Performance Analysis (IPA), Customer Satisfaction Index (CSI), and Technology Acceptance Model (TAM).

The EGOVQUAL model is used to assess the quality of digital services based on several dimensions, such as reliability, ease of use, security, responsiveness, and interactivity [18]. Importance-Performance Analysis (IPA) is used to identify which service attributes should be prioritized for improvement by mapping the level of importance against the level of performance [19]. The Customer Satisfaction Index (CSI) is used to measure the overall level of user satisfaction with the services received [20]. Meanwhile, the Technology Acceptance Model (TAM) is used to understand the level of user acceptance of the system based on perceived usefulness and ease of use [21].

The research process was carried out through several stages, namely: problem formulation, determination of location and sample, data collection through an online survey, development and testing of research instruments, data processing, data analysis using the four aforementioned models, and interpretation of results to draw appropriate conclusions and recommendations.

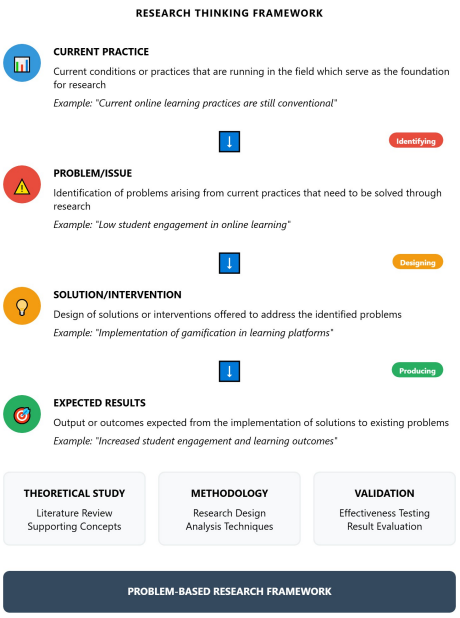

Figure 1. Research Diagram

a. Determination of Location and Sample

This study was conducted at SMP Negeri 3 Ungaran, Semarang Regency, with a focus on teachers who had been actively using the Ruang GTK platform. Data collection was carried out between October 2024 and February 2025, in accordance with the transition period and the active implementation of Ruang GTK, which replaced the *Merdeka Mengajar* platform.

b. Data Collection

Data collection was conducted by distributing questionnaires online [22], as shown in Table 1, through Google Forms containing closed-ended statements using a 5-point Likert scale. Each statement was designed based on the variables within the four evaluation models, namely:

1. EGOVQUAL: efficiency, reliability, service functionality, and user support.
2. IPA (Importance-Performance Analysis): the level of importance and performance of user perceptions of Ruang GTK service features.
3. CSI (Customer Satisfaction Index): measures the overall level of satisfaction with the service.
4. TAM (Technology Acceptance Model): perceived usefulness and ease of use.

Table 1. Data Collection Process

Evaluation Model	Measured Variables	Number of Indicators	Resulting Output
EGOVQUAL	Efficiency, Reliability, Service Functionality, User Support	20 indicators [23]	Digital service quality
IPA	Importance and performance of feature attributes	20 indicators [24]	Service improvement priority matrix
CSI	Overall satisfaction level	6–10 indicators [25]	User satisfaction index value
TAM	Perceived Usefulness and Perceived Ease of Use	8–10 indicators [26]	Technology acceptance level

c. Instrument Preparation and Data Processing

At the instrument preparation stage, the researcher developed a questionnaire using a 5-point Likert scale consisting of 33 statement items. Subsequently, the researcher conducted an empirical validity test on the instrument using Pearson Product-Moment correlation analysis to measure the relationship between each statement item and the total score of the construct it represents [27], each corresponding to indicators from three models, namely EGOVQUAL (20 items), CSI (5 items), and TAM (8 items). After the data were collected, the processing stage involved coding, validation, and descriptive statistical calculations to obtain a general overview of the collected data.

d. Data Analysis

The data analysis process in this study was carried out through several stages based on the predetermined evaluation models, namely:

1. Using EGOVQUAL to evaluate service quality, which includes aspects of efficiency, reliability, service functionality, and user support.
2. Using the IPA (Importance-Performance Analysis) method to map various service attributes into priority quadrants, to determine which aspects need to be improved or maintained.
3. Using the CSI (Customer Satisfaction Index) as a measurement tool to determine the overall level of user satisfaction, calculated based on Equation (1) as follows:

$$CSI = \frac{\sum(Weight * Score)}{Maximum\ Score} x100\%$$

The Customer Satisfaction Index (CSI) was calculated by summing the product of the weight and score for each indicator, then dividing it by the maximum score and multiplying the result by 100 percent, as shown in Equation (1). The final value of the CSI index was then used to classify the level of user satisfaction into the following categories [25]:

Table 2. CSI Table

CSI Value (%)	CSI Description
0–34	Not Satisfied
35–50	Less Satisfied
51–65	Moderately Satisfied
66–80	Satisfied
81–100	Very Satisfied

This classification was used as a guideline in interpreting the CSI value and served as the basis for concluding the level of teacher satisfaction with the use of the Ruang GTK platform.

4. The TAM model was used to evaluate how well teachers accepted the use of Ruang GTK. The two main variables measured were:
   - Perceived Usefulness (PU)
   - Perceived Ease of Use (PEU)

   Both variables were measured using a Likert scale, and their relationship with behavioral intention was analyzed through simple and multiple linear regression. The purpose of this analysis was to determine how well PU and PEU affect teachers' tendency to use Ruang GTK continuously. The results of this analysis provided recommendations for system development aligned with user needs.

RESULTS AND DISCUSSION

1. Data Collection

Data collection was carried out by distributing questionnaires using a combination of three approaches: TAM, CSI, and e-GovQual. This approach was used to assess the service quality of the e-Government platform. Collectively, these three models provide a comprehensive perspective on the service, with the following details:

a. User acceptance of technology was evaluated through the Technology Acceptance Model (TAM)
b. User satisfaction with system performance was measured using the Customer Satisfaction Index (CSI)
c. Perceptions of digital public service quality were assessed using the e-GovQual model
d. Data analysis was carried out using the Importance-Performance Analysis (IPA) method to identify the gap between expectations and actual service performance.

The e-Government quality model used in this study, namely e-GovQual, consists of four main dimensions that serve as service evaluation indicators, as described below:

a. Efficiency (EF): The variable value is determined by the ease of accessing the service. This dimension consists of six attributes.
b. Trust (TR): The variable value is determined by the level of user trust in using the service. This dimension consists of four attributes.
c. Reliability (RE): The variable value is assessed based on the usefulness or capability of the service (accessibility, availability, and accuracy) provided. This dimension consists of five attributes.
d. Citizen Support (CS): The variable value is determined by how well the service helps users resolve their problems. This dimension consists of five attributes.

The e-GovQual scale consists of 20 attributes distributed across four main dimensions to measure the quality of e-Government services, as shown in Table 1. These attributes were used as variables in the research questionnaire, as presented in the table below.

Table 3. Research Questionnaire

No.	Item
1	The e-Government website address is easy to remember (EF1)
2	The displayed information is regularly updated (EF2)
3	The site map structure is well-organized (EF3)
4	The site structure is easy to follow (EF4)
5	The search engine on this site is effective (EF5)
6	The displayed information contains appropriate details (EF6)
7	User-submitted data is securely stored (TR1)
8	The process of obtaining a username and password is secure (TR2)
9	Data is used only for the stated purposes (TR3)
10	The confidentiality of users' personal data is maintained (TR4)
11	The site is available and accessible at all times (RE1)
12	The site provides timely services (RE2)
13	The site pages load quickly (RE3)
14	The site is accessible via standard browsers (RE4)
15	The ability to deliver services as promised accurately (RE5)
16	Staff show concern in resolving problems (CS1)
17	Staff have the knowledge to answer users' questions (CS2)
18	Staff provide quick responses to user inquiries (CS3)
19	Staff can instill confidence and trust (CS4)
20	Contact information is clearly provided and accessible (CS5)

Table 3 shows that this study used 20 variables to assess the quality of e-government services. These attributes are essential elements in evaluating how well public service users perceive the quality of e-government services. In other words, the objective of this study is to determine the extent of user satisfaction with e-government services and the alignment between service performance and the level of public interest in using them.

The Importance-Performance Analysis (IPA) method was used in the data analysis process of this study. Importance-Performance Analysis (IPA) was a

method applied to identify which attributes needed to be improved to increase the average value of public satisfaction in accordance with expectations. The basis of this method consisted of two main indicators, namely performance level and importance level. These two indicators illustrated the degree to which public satisfaction corresponded to the public services provided through the Ruang GTK application. To address the problem in this study, an analysis was conducted to evaluate the level of alignment between user expectations and the performance of public services, using the Importance-Performance Analysis (IPA) method. The questionnaire data collected using the e-GovQual approach were analyzed using the IPA method to measure the quality of e-Government services from the perspective of service users. The analysis in the IPA method included:

- Conformity level analysis.
- Gap level analysis.
- Quadrant analysis by mapping priority scales into each quadrant based on the resulting levels of importance and performance.

After that, recommendations were formulated for the attributes that most required improvement. The results of the IPA analysis were obtained by calculating the mean value of each attribute within every e-GovQual dimension.

The gap analysis between service performance and its level of importance generally describes the actual performance of public services as perceived by the community. This study also used the TAM model, which consists of two main components as indicators: Perceived Usefulness (PU) and Perceived Ease of Use (PEOU). Meanwhile, the CSI model was used to measure user satisfaction with various technical and functional aspects of the service platform.

The following indicators were used in the development of the questionnaire, which was then analyzed using the Importance-Performance Analysis (IPA) method to determine which attributes should be prioritized for quality improvement, as shown in the table below.

Table 4. Questionnaire Indicator Requirements

Category	Indicator	Statement
TAM – Perceived Usefulness	PU1	The platform helps complete tasks
	PU2	The platform improves teachers' work efficiency
	PU3	Provides tangible benefits in administration and assessment
TAM – Perceived Ease of Use	PEOU1	The platform is easy to use
	PEOU2	The interface is simple and not confusing
	PEOU3	Does not require extensive technical assistance
CSI – Satisfaction	CSI1	Satisfaction with access speed
	CSI2	Satisfaction with the user interface appearance

Based on Table 4, it can be seen that the questionnaire indicator requirements are divided into three main categories: TAM – Perceived Usefulness, TAM – Perceived Ease of Use, and CSI – Satisfaction (Customer Satisfaction Index).

The Perceived Usefulness category includes three indicators (PU1, PU2, PU3) that assess how well the platform helps complete tasks, improves teachers' work efficiency, and provides benefits in administration and assessment. The Perceived Ease of Use category consists of three indicators (PEOU1, PEOU2, PEOU3) that measure the ease of using the platform, the simplicity of its interface, and the need for technical assistance. Meanwhile, the CSI – Satisfaction category contains two indicators (CSI1, CSI2) that evaluate user satisfaction with response speed and the appearance of the platform interface.

These eight indicators served as the basis for respondents' assessments in the survey to identify the importance and performance levels of each attribute, thus, the most effective improvement priorities could be determined through IPA analysis. The results of the respondent analysis are presented in the figure below.

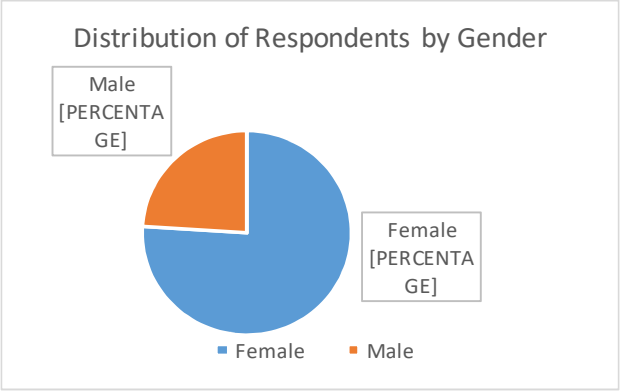

Figure 2. Distribution of Respondents by Gender

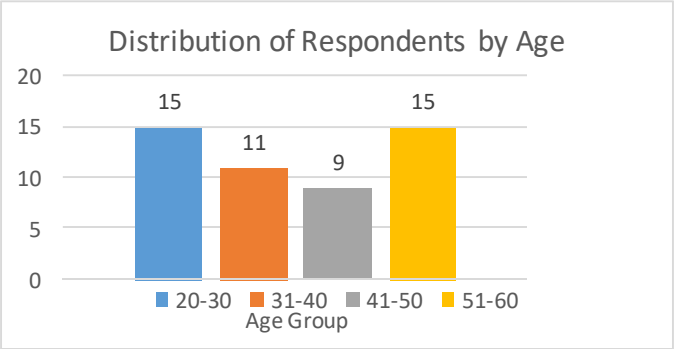

Figure 3. Distribution of Respondents by Age

Based on Figures 2 and 3, the questionnaire was distributed to 54 respondents who had used the Ruang GTK service. The selected respondents met the criteria as users of the e-government website for obtaining information or services. Data collection was conducted from November 2024 to April 2025. A total of 50 questionnaires were eligible for analysis, as incomplete data were excluded from the analysis. Figures 2 and 3 present respondent statistics based on gender, age, and education level. Before processing and analyzing the questionnaire data, tests were conducted to assess the validity and reliability of the questionnaire instrument. An instrument is considered valid and reliable if it can measure data accurately and produce consistent results when measured repeatedly. An instrument can be regarded as appropriate if it meets these two main criteria.

There are three types of validity: content validity, construct validity, and empirical validity. To determine whether an item is valid or not, a comparison is made between the r-table value and the calculated r-value. The results of the validity test are presented in the table below:

Table 5. Validity Test Results

Variable	r-value
Efficiency Dimension	
The website address is easy to remember (EF1)	0.591
Information is updated and current (EF2)	0.544
The website sitemap is well-structured (EF3)	0.676
The website structure is easy to follow (EF4)	0.590
The search feature is effective (EF5)	0.594
Information is sufficiently detailed (EF6)	0.792
Trust Dimension	
User data is securely stored (TR1)	0.718
Username and password access is secure (TR2)	0.738
Data is used according to its stated purpose (TR3)	0.696
Personal data confidentiality is maintained (TR4)	0.780
Reliability Dimension	
The site is accessible at all times (RE1)	0.696
Services are provided on time (RE2)	0.612
Web pages load quickly (RE3)	0.722
The site performs well on browsers (RE4)	0.647
Services are delivered as promised (RE5)	0.772

As shown in Table 5, each dimension of the questionnaire instrument resulted in a Cronbach's alpha value exceeding 0.8, indicating a high level of reliability. The validity of each item was assessed using Spearman correlation analysis (corrected item-total correlation). The analysis results indicated that all items obtained correlation coefficients greater than 0.3 with significance levels below 0.05, confirming that all items were valid. The results of the reliability test are presented in the following table.

Table 6. Reliability Test Results

Dimension	Cronbach's Alpha	Amount of Variables
Efficiency	0.832	6
Trust	0.896	4
Reliability	0.846	5
Citizen Support	0.878	5

Based on Table 6, each dimension in the questionnaire instrument shows an alpha value greater than 0.8, indicating that the instrument has very good reliability. To test validity, Spearman correlation (corrected item-total correlation) was used for each item in the questionnaire. The results show that all items have correlation values greater than 0.3 and significance levels less than 0.05, indicating that the items are valid.

In addition, the reliability of the instrument was also tested using the Cronbach's Alpha method. The calculation resulted in an alpha value of 0.988, indicating very high reliability. This indicates that all items in the questionnaire consistently measured the perceived quality of services by Ruang GTK users.

2. Instrument Feasibility and Further Analysis

Based on the validity test results presented in Table 4 and the reliability test results in Table 5, all items in the instrument were declared valid and reliable. The Corrected Item-Total Correlation values for each item were greater than 0.3, and the Cronbach's Alpha values for each dimension exceeded 0.8, indicating excellent internal consistency. Therefore, the questionnaire used in this study met the requirements to be used for further analysis. After the instrument was declared feasible, the data obtained from the questionnaire could be further analyzed using the Importance-Performance Analysis (IPA) method. The IPA method was used to determine the level of e-Government service quality of the Ruang GTK platform, as viewed from the users' perception, in this case, the teachers.

The purpose of this analysis was to measure the degree of alignment between the actual performance of the platform and the public's expectations regarding e-Government services. In other words, IPA was used to identify which attributes had negative gaps, referring to conditions where service performance did not meet user expectations. The analysis was conducted by calculating the mean of each service item within the e-GovQual dimensions. The calculated mean values of performance and importance were then compared to obtain the gap value, which is the difference between the importance score and the performance score.

Table 7 presents the overall analysis results, where all items show negative gap values ranging from -0.049 to 0.000. This indicates that respondents' perceptions of the service quality of the Ruang GTK platform did not fully meet their expectations, thus providing an opportunity for further service quality improvement.

The next step is to map the results into the IPA quadrant, which identifies improvement priorities based on the performance level and importance level of each service attribute. This mapping is useful for formulating service improvement strategies, such as focusing on the attributes located in Quadrant I (Top Priority) as the first step in platform enhancement.

Table 7. EGOVQUAL Scores and Gap Values

Statement	Mean Score	Gap
Responses from the admin/operator to user inquiries	3.602	-1.398
Ruang GTK increases my productivity in completing administrative tasks	3.701	-1.299
The admin/operator has adequate knowledge to answer user questions	3.702	-1.298
I did not encounter technical difficulties when using this platform	3.714	-1.286
The search feature in Ruang GTK works effectively	3.719	-1.281
Services in Ruang GTK function as promised	3.722	-1.278
The Ruang GTK platform helps improve my work efficiency	3.741	-1.259
Pages in Ruang GTK load quickly	3.741	-1.259
The user interface in Ruang GTK is intuitive and user-friendly	3.741	-1.259
The admin/operator can instill confidence and trust in users	3.742	-1.258
This platform significantly supports my duties as a teacher	3.760	-1.240
Staff show concern in resolving problems	3.803	-1.197
The website provides timely services	3.820	-1.180
Staff can be contacted through the available contact information	3.823	-1.177
The information displayed in Ruang GTK is always updated	3.841	-1.159
The menu structure and navigation in Ruang GTK are well-organized	3.841	-1.159
The Ruang GTK platform is easy to learn and use	3.860	-1.140
The Ruang GTK interface is easy to understand and follow	3.880	-1.120
The Ruang GTK site/platform is accessible at any time	3.900	-1.100
The address of the Ruang GTK site/platform is easy to remember	3.920	-1.080

3. Quadrant Mapping Analysis of IPA

Based on the IPA analysis of user perception data regarding the service quality of Ruang GTK, the mapping was conducted into four quadrants by considering the importance and performance levels of each service attribute, as illustrated in the figure below.

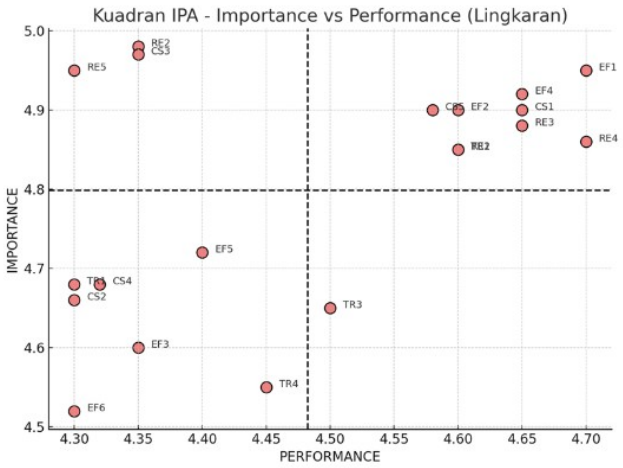

Figure 4. IPA Quadrant Grouping

Figure 4 illustrates that the purpose of this analysis is to identify which service aspects should be prioritized for improvement and which aspects need to be maintained or reconsidered. The following is an explanation of each quadrant:

a. Quadrant I: Top Priority (Focus Here)

The attributes in this quadrant have a high level of importance but low performance. This indicates that these attributes have not yet met user expectations and therefore require immediate improvement. In this study, the attributes classified under Quadrant I are:

CS3 : Staff provide quick responses to user inquiries
RE2 : Services provided by the site are timely
RE5 : The ability to deliver services accurately as promised

This finding is consistent with the results of the study by Wijatmoko and Siregar (2019), which stated that speed and timeliness of service are critical aspects in e-Government systems [26]. Therefore, enhancing staff competence and optimizing the system in terms of service speed and accuracy should be prioritized in the development of Ruang GTK.

b. Quadrant II: Keep Up the Good Work

This quadrant represents attributes that are considered important by users and demonstrate good performance. To maintain user satisfaction, these attributes need to be preserved. The characteristics found in this quadrant are:

EF1 : The website address is easy to remember
EF2 : The information provided is always up to date
EF4 : The site structure is easy to understand
RE1 : The site is accessible at any time
RE3 : The site loads quickly
RE4 : The site functions well on standard browsers
CS1: Staff show concern in resolving problems
CS5: Contact information is easy to find

The strong performance of these attributes indicates that users are benefiting from the efficiency and support provided by the Ruang GTK service. To maintain this quality, staff training and regular system maintenance are required.

c. Quadrant III: Low Priority

The attributes in this quadrant have both low importance and low performance. Although the quality is lacking, users do not consider these attributes as major factors influencing their satisfaction. The attributes included in this quadrant are:

TR1 : User data is securely stored
TR3 : Data is used appropriately
CS2 : Employees have the skills to answer questions
CS4 : Staff can instill a sense of confidence

Although not a top priority, gradual improvements should be made to enhance user trust in the platform, following the principles of e-GovQual.

d. Quadrant IV: Potential Resource Waste

The attributes in this quadrant show good performance but are considered less important by users. Resources allocated to these attributes should be evaluated and potentially redirected to the attributes in Quadrant I. The attributes in this quadrant include:

EF3 : The site map on the website is well-structured
EF5 : The search feature is effective
TR2 : Username and password access is secure
TR4 : Personal data confidentiality is maintained
EF6 : Information is presented in sufficient detail

This indicates the potential for inefficient resource allocation. Based on the recommendations from Wijatmoko & Siregar (2019), development efforts should be more focused on attributes that hold strategic value and have a direct impact on user satisfaction [26].

4. Satisfaction and Technology Acceptance Analysis

a. Customer Satisfaction Index (CSI) Analysis

To measure the level of user satisfaction with the Ruang GTK service, the Customer Satisfaction

Index (CSI) method was used. This technique calculates the satisfaction score based on the average rating given by respondents to all the questions in the questionnaire. The steps for calculating the CSI are as follows:

1) Determine the maximum total score: With 20 statements using a 5-point Likert scale, the maximum total score is 100.
2) Calculate the average actual score given by respondents for each statement: the obtained average score is 75.80.
3) Calculate the CSI index:
   CSI = (Average actual score / Maximum score) × 100
   = (75.80 / 100) × 100
   = 75.80%.
   Thus, a CSI score of 75.80% falls into the moderate satisfaction category

Thus, the CSI score of 75.80% falls into the moderate satisfaction category. This finding is consistent with the study by Eivazzadeh et al. (2018), which stated that system effectiveness and efficiency are the main factors influencing user satisfaction in digital-based public information systems [27]. Although the Ruang GTK service is reasonably satisfactory, strategic efforts are still required to enhance service features to achieve a higher level of user satisfaction.

b. Technology Acceptance Model (TAM) Analysis

The Technology Acceptance Model (TAM) approach was used to assess how users accepted the technology implemented in Ruang GTK. This model focuses on two main factors: Perceived Usefulness (PU) and Perceived Ease of Use (PEOU):

1) Perceived Usefulness (PU)

   This was measured through four statements that reflect the extent to which the platform assists users in completing their tasks:

   a) Ruang GTK helps improve work efficiency.
   b) The platform significantly supports teachers' tasks.
   c) Ruang GTK enhances productivity in administrative work..
   d) Assists in managing the learning process.

   The PU score was calculated by averaging the responses to the four statements for each respondent, followed by computing the overall mean, which was 3.74.

2) Perceived Ease of Use (PEU)

   This was measured using four statements that describe the ease of using the platform:

   a) The platform is easy to learn and use.
   b) No technical difficulties occurred during use.
   c) The interface is user-friendly and intuitive.
   d) It is convenient to access the available features.

   The PEU score was calculated using the same method, by averaging the four indicators for each respondent, and then computing the overall average, which resulted in a score of 3.83.

With PU and PEU scores both exceeding 3.5 on a maximum scale of 5, it can be concluded that users perceive the Ruang GTK platform as useful and easy to use. This supports the TAM principle described by Hong et al. (2011), which states that perceived usefulness and perceived ease of use are the two main factors driving technology acceptance, particularly in digital education [28]. Therefore, the continued use of the Ruang GTK platform will largely depend on efforts to enhance user experience (UX) and provide adequate training on the use of the technology.

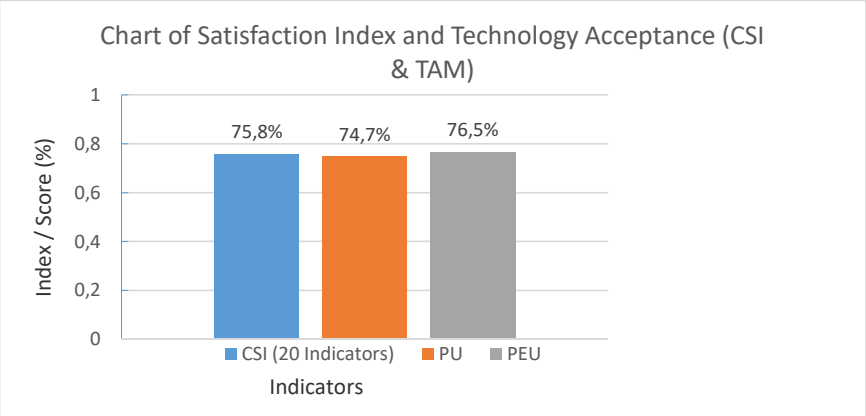

Figure 5. CSI and TAM Index Chart

This is further supported by the results shown in Figure 5, where the satisfaction index (CSI) reached 75.8 percent, and the technology acceptance indicators, Perceived Usefulness (PU) and Perceived

Ease of Use (PEU), received scores of 74.7 percent and 76.5 percent, respectively. These percentages reflect high levels of user satisfaction and acceptance, reinforcing the importance of maintaining and enhancing user-focused features in the platform's development roadmap.

The analysis results show that the Perceived Usefulness (PU) and Perceived Ease of Use (PEU) scores for the Ruang GTK platform were both above 3.5 on a maximum scale of 5. This finding indicates that the Ruang GTK platform was well accepted by users in terms of both usefulness and ease of use. This aligns with the Technology Acceptance Model (TAM) framework as described by Gratiela Dana Boca, which states that perceptions of benefit and convenience are the two primary factors driving technology adoption and acceptance, particularly in digital education [29]. Therefore, the continued use of the Ruang GTK platform in the future depends on improving the quality of the user experience and implementing appropriate technology education strategies to support the expansion of adoption.

The discussion of this study shows that although the Ruang GTK platform was considered satisfactory by teachers, with a Customer Satisfaction Index (CSI) score of 75.80%, there are several important points that require further examination. The negative gap values found in nearly all EGOVQUAL indicators indicate that user expectations have not been fully met, particularly in terms of service speed, timeliness, and staff responsiveness. These findings lead to the conclusion that the quality of digital services does not solely depend on technical features, but also on operational performance and the reliability of human resources. The gap between expectations and reality may be attributed to insufficient technical training, weak technological infrastructure, and the suboptimal design of user interfaces and system integration, such as with Dapodik, as mentioned in the introduction.

One of the strengths of this study is the comprehensive use of a multi-method approach (EGOVQUAL, IPA, CSI, and TAM), which provides a holistic overview from multiple perspectives, unlike previous studies that tend to rely on a single model. However, this study also has limitations, including a sample scope that focuses solely on one school (SMP Negeri 3 Ungaran), which means the findings may not fully represent conditions in other areas, particularly in underdeveloped, frontier, and outermost regions (Indonesian: *Tertinggal, Terdepan, dan Terluar*; 3T areas).

When compared to previous research, such as the study by Marisana et al. in 2023, which emphasized the importance of accessibility and the enhancement of teachers' competencies through PMM, the findings of this study tend to support that view. It suggests that digital educational technology is well accepted as long as the platform is easy to use and provides tangible benefits [30]. However, the findings of negative gaps and service attributes placed in Quadrant I of the IPA also reinforce the results of Mbaidin's 2020 study, which stated that speed and accuracy of service are crucial factors in the success of e-Government [31].

In terms of contribution, this study provides important input for the Ministry of Education, Culture, Research, and Technology in developing a more adaptive and user-centered digital education platform. The implication is that the future development of the Ruang GTK platform should take into account evaluation results based on user perceptions, with an emphasis on improving services that are perceived as important but still weak in terms of performance. In addition, continuous training for teachers and technical optimization of the platform are strategic measures that can address the gaps identified in this study.

CONCLUSION

Based on the research findings, all indicators used in the evaluation instrument are proven to be valid and reliable. The IPA analysis indicates that several service elements, particularly efficiency and citizen support, require special attention for improvement. Although the level of user satisfaction is relatively high, with a CSI score of 75.88%, it does not yet reach the category of very satisfied. In addition, the high scores of PU and PEU reflect positive acceptance of the Ruang GTK platform. The integration of the EGOVQUAL, IPA, CSI, and TAM models provides a comprehensive overview of the quality of this digital service, the level of user satisfaction, and the degree of user acceptance.

ACKNOWLEDGMENT

The authors would like to express their gratitude to UNISBANK Semarang and SMP Negeri 3 Ungaran for their cooperation and participation in this research. The authors also appreciate the valuable feedback and suggestions from the peer reviewers, which have contributed to improving the quality of this article.

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