ANALYSIS OF FIELD WORK PRACTICE INFORMATION SYSTEM SERVICE QUALITY USING THE WEBQUAL 4.0 METHOD AND IMPORTANCE PERFORMANCE ANALYSIS

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Abstract
In the current digital era, the quality of website services is a crucial factor in supporting the effectiveness and efficiency of information systems, including the Information Systems Study Program Field Work Information System (SIPKL) at Universitas Terbuka. However, currently there is no in-depth evaluation of the quality of SIPKL services from a user perspective. This research aims to review the service quality of the SIPKL website as a whole and measure the level of user satisfaction with the services provided. To achieve this goal, the WebQual 4.0 method is used which measures three main dimensions of service quality, namely usability, information quality, and interaction quality. In addition, the Importance Performance Analysis (IPA) method is applied to evaluate the importance and performance of each service attribute being measured, so as to identify areas that require improvement. Data was collected through a survey with 100 respondents from Information Systems study program students who had used the SIPKL website. The research results show a value of 101.6% for the level of conformity, which indicates that the SIPKL website service performance has met or even exceeded user expectations and interests. Meanwhile, the gap value is categorized as "Good" with a positive value of 0.08 or >0. Indicators that require improvement are in quadrants II and III. Overall, this research provides strategic recommendations for SIPKL website managers to improve service quality so that it is more optimal in supporting students' needs in undergoing PKL.

Keywords: Information Systems, Field Work Practices, Universitas Terbuka, WebQual 4.0, Importance Performance Analysis (IPA)

INTRODUCTION

In the ever-growing digital era, the role of information technology in education is getting greater attention [1], [2]. Information technology is not only a tool, but also the main foundation in supporting various educational activities, especially in higher education [3], [4]. One crucial form of information technology implementation is in supporting the implementation of Field Work Practices (PKL) for students [5].

PKL is a learning phase in which students apply the theories obtained during college to the real world [6]. The purpose of PKL activities is for students to develop practical skills in solving challenges faced in the context of business and management organizations [7], [8]. With the implementation of PKL, students are expected to gain a deeper understanding of the needs of the business world or the industrial world (DUDI) and apply the curriculum obtained in higher education [9].

Universitas Terbuka, as one of the leading higher education institutions in Indonesia, not only provides open and distance education access but has also integrated the implementation of PKL into its curriculum, specifically in the Information Systems Study Program. The internships in the Information Systems Study Program at Universitas Terbuka are conducted through the MSIM4314 Field Work Practice course in the 5th semester [10]. Through the open and distance learning system implemented by Universitas Terbuka, students from various regions in UT Indonesia can participate in the internships according to their respective domiciles [11].

The implementation of PKL in the Information Systems Study Program at Universitas Terbuka is supported by the Field Work Practice Information System (SIPKL). SIPKL is a web-based platform that allows students to find information about internship locations, apply for internships, and report

internship results online. However, the implementation of PKL within the Information Systems Study Program at Universitas Terbuka encounters several challenges that need to be addressed. One of these challenges is related to the quality of the SIPKL website services used by students and supervisors during the PKL process. Other challenges faced include unclear website quality attributes, limited user experience, difficulty in measuring attribute performance, and the complexity of the user interface.

SIPKL plays a crucial role in supporting the implementation of PKL for students. However, the quality of SIPKL services does not solely depend on the availability of information. It is very important for Universitas Terbuka to pay attention to the quality of services provided by the SIPKL website. Based on the analysis and identification of the problems presented above, the researchers deem it necessary to conduct this study. This research aims to measure whether the quality of the SIPKL website services meets the needs and expectations of Universitas Terbuka students as system users undergoing the PKL process.

Several previous studies have been conducted to evaluate the quality of a website such as research conducted by [9] which shows the fact that the performance of the IST Akprind website service system needs to be evaluated regularly. There are other findings in the study, namely the usability and quality of information from the website has met most user expectations. [10] also highlighted the evaluation of the Universitas Terbuka Academic Information System website which resulted in a mean score of "good" using four usability measurement parameters. This evaluation reflects the importance of measurement in ensuring the quality and effectiveness of a website, especially in an educational context such as the SIPKL website.

Meanwhile, the quality test results of the Pondok Pesantren Al-Hidayah website need to be evaluated to improve the information available. The WebQual method is used to assess quality based on user perceptions, while IPA is used to identify aspects that need improvement. Thus, the research conducted by [11] provides direction for Pondok Pesantren Al-Hidayah to increase user satisfaction by improving the quality of information and service interaction on their website. In contrast to the results of research conducted by Pamungkas and Subhan in 2023 which resulted in findings that the Customer Satisfaction Index (CSI) value was 76.4%, which indicates that respondents are generally satisfied with the performance of the Elena e-learning website. However, the average gap value of -0.64 indicates that website performance does not fully meet user expectations [15].

The implications of the differences in findings between previous studies indicate that some websites have successfully met user expectations, but there is still room for improvement in service quality and user satisfaction. The novelty offered by this research lies in the holistic approach that combines different evaluation methods, thus providing a more comprehensive understanding of website quality and providing concrete directions for future development and improvement. Thus, this research not only provides an overview of the quality of website services in various contexts, but also provides valuable insights for relevant parties to improve the user experience and effectiveness of their websites, especially stakeholders in the Information Systems Study Program at Universitas Terbuka.

This study primarily focuses on assessing the quality of SIPKL website services by employing the WebQual 4.0 method and Importance Performance Analysis (IPA). WebQual is a method designed to evaluate website quality based on the perceptions of end users or the general public. This method is an extension of the widely used ServQual approach for measuring service quality. WebQual 4.0, specifically, is based on research involving three key variables: usability, information quality, and service interaction quality. The WebQual 4.0 method was selected in this research to gain insights into user perceptions regarding various aspects of service quality, such as reliability, responsiveness, security, and ease of use of the SIPKL website.

Meanwhile, the Importance Performance Analysis (IPA) method was first introduced by John A. Martilla and John C. James in 1997 as a descriptive technique [16]. This method is used to identify factors that need to be improved in order to meet user satisfaction in an organization or company [17]. Initially IPA was only used in marketing, now this method has penetrated into various sectors such as government, education, and tourism [18]. The use of the IPA method will focus on identifying service attributes that are considered important by users, but have not been fully fulfilled by the SIPKL website. By combining these two methods, this research will produce concrete recommendations for the improvement and development of the SIPKL website so that it can be more effective in meeting user needs and expectations, as well as improving the overall user experience.

WebQual 4.0

WebQual is a method for evaluating website quality from the perspective of end users [19]. It builds upon the ServQual framework, which has been extensively used to measure service quality. WebQual is grounded in Quality Function Deployment (QFD) principles. WebQual 4.0, in particular, was developed based on research in three core areas: information quality of information systems, interaction quality, and the usability of human-computer interaction. The user perspective in this method encompasses two key aspects: the perception of the actual service received and the level of expected (ideal) service [20]. A quality website is characterized by a high level of actual service perception and a minimal gap between actual and ideal perceptions [17], [21].

While WebQual 4.0 offers a comprehensive approach to assessing website quality based on user perception, it should be noted that the main focus of the method is on aspects that can be directly measured by end users. This may overlook technical and operational factors that are not always directly perceived by users, but are nonetheless critical to overall website performance. Further research is needed to explore how WebQual 4.0 can be integrated with other evaluation methods that consider technical dimensions, such as page loading speed or website security, to provide a more holistic picture of website quality.

Importance Performance Analysis (IPA)

According to [22], Importance Performance Analysis (IPA) is a technique employed to determine the attributes of a product or service that are most crucial for enhancement or development, as well as those that could be optimized for cost efficiency without compromising overall quality. IPA involves three analytical approaches: suitability level analysis, gap level analysis, and quadrant analysis [23].

1.1 Conformity Analysis

Conformity analysis is the outcome of comparing the performance level assessment with the expectation level assessment, expressed as a percentage. The purpose of the suitability analysis is to evaluate the extent to which the performance of a website meets the expectations or needs of users. The results of this suitability analysis will then be used as a priority in the improvement scale in the IPA quadrant analysis (cartesian quadrant) using the formula in Equation 1, which is formulated as follows [22].

$$Tki = \frac{\sum xi}{\sum yi} \times 100\% \qquad (1)$$

However, suitability analyses may not fully reflect the more complex aspects of user satisfaction. For example, aspects that are considered important by most users but have low satisfaction levels may be overlooked in this analysis. Therefore, it is important to integrate the results of the suitability analysis with qualitative feedback from users to gain a deeper understanding of their perceptions.

1.2 Gap Analysis

Gap analysis measures the difference between the performance value of an element and its importance value. Its purpose is to assess how well a website's quality aligns with the expectations or targets that have been previously established. The results of this gap analysis become the basis for evaluating what steps need to be taken to reduce gaps or improve expected performance in the future.

The level of quality that is considered good for a website or system is indicated by a Qi (gap) value greater than or equal to 0. This indicates that the expectations or desires of users are in accordance with the current quality. Conversely, if $Qi < 0$, then the system or website is considered insufficient or has not met the expectations or desires of users. Gap analysis is calculated using equation 2 according to the following formula [24].

$$Qi\,(Gap) = Perf(i) - Imp(i) \qquad (2)$$

While gap analysis provides insights into areas in need of improvement, this approach can be less effective in contexts where changes in user expectations are rapid or poorly detected. Additional research is needed to understand how gap analysis can be combined with dynamic analysis methods capable of capturing real-time changes in user expectations.

1.3 Quadrant Analysis

IPA Quadrant Analysis uses a Cartesian diagram to identify attributes that require improvements to their performance. The following is an explanation for each quadrant as shown in Figure 1.

The Importance Performance Analysis (IPA) method involves four quadrants that help identify priorities for improvement or development in the evaluation. These quadrants provide guidance for determining the required action based on a comparison between the level of importance and performance of a variable. The following is a further explanation of the four IPA quadrants.
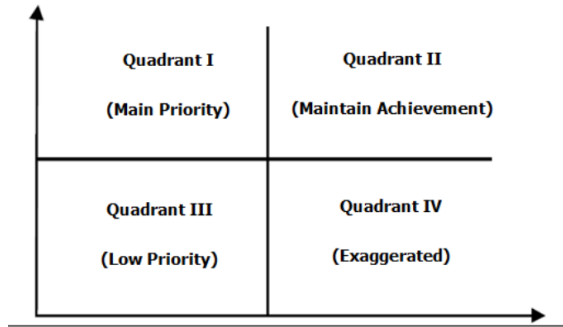
Figure 1. IPA Quadrant [24]

Quadrant I is an area with high priority (Priorities for Improvement), where attributes have a high level of importance but low performance. Attributes contained in this quadrant affect users but do not meet their expectations, which can lead to dissatisfaction. Quadrant II includes areas that require maintenance of achievement (Keep It the Good Work), with high performance values and already high expectations. Attributes in this quadrant are considered good and need to be maintained because they have met or even exceeded user expectations. Quadrant III is a low priority, where attributes have low performance and low importance. Factors in this quadrant are considered less important to users and are often ignored due to their mediocre existence. Finally, Quadrant IV is the Possible Overkill area, with high performance but low importance. Despite their excellent performance, the presence of attributes in this quadrant is often ignored because they are considered unimportant by users.

Although IPA quadrant analysis provides useful guidance for prioritisation of improvements, this method often ignores contexts beyond the assessed variables. For example, attributes that are in quadrant IV (Possible Overkill) may still have important strategic value in certain contexts or may influence user decisions indirectly. Therefore, IPA quadrant analysis needs to be balanced with a broader strategic assessment to determine the long-term impact of the assessed attributes.

METHOD
2.1 Type of Research
This research adopts a quantitative approach combined with descriptive analysis. A survey method was utilized by distributing questionnaires to 100 respondents, as predetermined, with the goal of assessing the quality of SIPKL website services. This approach aligns with the research objectives, which aim to evaluate the service quality level of the SIPKL website.

2.2 Stages of Research Implementation
The flow of research implementation will refer to Figure 2 below. The initial stage starts from the literature study to the preparation of the final research report.
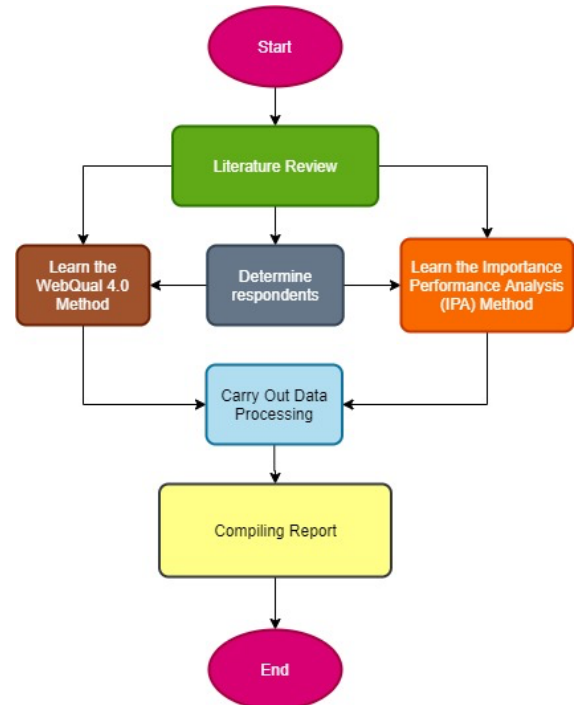

Figure 2. Flow of Research Implementation

2.2.1 Literature Study
The initial step in this research includes a literature study related to the research subject, which involves collecting, investigating, and analyzing information related to the SIPKL website. The main objective is to gain an in-depth understanding of the research object and identify weaknesses in previous research to find research gaps. The literature study will focus on reliable sources, such as reputable national and international journals, books, and other relevant sources.

2.2.2 Data Collection Techniques
This research employs various data collection methods. The first method is observation, involving direct observation of the research object to gather relevant facts. The second method involves distributing a questionnaire to respondents via a Google Form link shared through WhatsApp and Telegram social media, targeting students in the Information Systems Study Program. The third method is a literature study, where data is gathered from various reference sources such as scientific journals, books, and previous final assignments. The 16 questions used in the questionnaire are detailed in Table 1 below.

Table 1. The 16 Questions

Variable	Code	Questions
Information Quality	KIF1	To what extent do you consider the information provided on the SIPKL website to be in accordance with your needs?
	KIF2	How accurate do you perceive the information provided on the SIPKL website to be?
	KIF3	How relevant is the information provided on the SIPKL website to the topic of fieldwork practice?
	KIF4	How easy is it to understand the information available on the SIPKL website?".
	KIF5	How complete is the information about field work practice procedures that you find on the SIPKL website?
Interaction Quality	KIN1	How easily can you communicate with related parties through the SIPKL website?
	KIN2	How safe do you feel when interacting with the SIPKL website?
	KIN3	How effective is the guidance and assistance provided when using the SIPKL website?
	KIN4	To what extent can you interact with other members of the SIPKL website community?
	KIN5	How responsive are the parties involved in answering questions or providing support on the SIPKL website?
Usability	UBT1	How easy is it to navigate and find information on the SIPKL website?
	UBT2	How well is the SIPKL website interface designed to be easy to use?
	UBT3	How attractive do you think the SIPKL website design is?
	UBT4	How fast does the SIPKL website page load when you access it?
	UBT5	How comfortable is your user experience when using the SIPKL website?
	UBT6	How often do you experience technical difficulties when using the SIPKL website?

2.2.3 Population and Sample
2.2.3.1 Population

Population refers to certain individuals or units that are members or collections in a particular class or group, have characteristics and qualities that can represent in assessing a study [25]. The population of active students of Information Systems Study Program at Universitas Terbuka is currently 15,643, the data collected was obtained from the official Universitas Terbuka website page https://www.ut.ac.id/ut-dalam-angka/ which was accessed on May 19, 2024.

2.2.3.2 Sample

The sample is part of a population that is selected to represent the entire population. Samples taken from the population are individuals who will become respondents in the study [26]. The approach used is the Slovin formula, which allows researchers to calculate the number of samples needed objectively based on the population studied [27].

The sample determination was carried out using purposive sampling method, which is a non-random technique where the sample is selected based on certain characteristics [28].Respondent criteria involve Information Systems study program students who have reached 5th semester or higher, actively use the SIPKL website for the purposes of PKL activities, are a maximum of 55 years old, and are or have taken the MSIM4313 Field Work Practice course. MSIM4313 is the course code of the field work practice provided by Universitas Terbuka. Referring to the previously mentioned population, a sample calculation will be carried out using the Slovin formula with an error rate of 10% significance, as described below.

$$n = \frac{15,643}{1 + 15,643(0.1^2)} = \frac{15,643}{157,43} = 99.3648 \approx \mathbf{100}$$

Thus, the minimum sample number is 100 respondents. Therefore, researchers will distribute questionnaires to 100 respondents of Information Systems Study Program students spread throughout UT Regions in Indonesia.

2.2.4 Potential Biases and Limitations

Although this research has used standardised methods, such as WebQual 4.0 and Importance-Performance Analysis (IPA), there are still potential biases and limitations that need to be considered in the data collection process. *Firstly*, sampling bias may be an issue in this study. The purposive sample selection may not be fully representative of the SIPKL user population as a whole. The use of certain samples that are easier to reach or more active in using the website may result in less representative data, so the generalisability of the findings of this study may be limited.

Second, respondent bias also needs to be considered. Respondents may tend to give more positive or negative answers depending on their personal experience with the website. This may affect the objectivity of the data collected, especially if the respondent has a particular interest or strong relationship with the institution hosting the website.

Third, the timing and context of data collection can also potentially affect the results. If data is collected during a specific period that is not representative of general website usage (for example, during a special campaign or specific event), the results may not reflect website performance under normal conditions. By being aware of these potential biases and limitations, it is hoped that the research results can be interpreted more cautiously, and future researchers can take steps to minimise the effects of such biases and limitations in their studies.

RESULT AND DISCUSSION

The data obtained from research on the quality of the PKL information system website will be processed using Microsoft Excel and IBM SPSS software.

3.1 Demographic Analysis of Research Respondents

This demographic analysis provides important insights into the profile of the respondents involved in the research on the quality of theSIPKL website. Demographic information includes various aspects such as age and gender. The selection of this particular respondent demographic was based on the need to obtain a representative sample that accurately reflects the target user population of the SIPKL website. Demographic information, including age and gender, was specifically chosen because these factors significantly influence how users interact with and perceive website quality. Based on the data collected in the field, the characteristics of the respondents from the 100 samples studied in this research will be described as follows.

a. Based on Age

According to the data processing results summarized in Table 2, the majority of the 100 respondents were aged 15-25 years, accounting for 77 individuals (77%). Respondents aged 26-35 years numbered 21 (21%), while only 2 individuals (2%) were in the 36-45 age range.

Table 2. Distribution of Respondents by Age

No.	Age	Total Respondents	Percentage (%)
1	15-25	77	77%
2	26-35	21	21%
3	36-45	2	2%

This data shows that the age group of 15-25 years is the majority in this study. This indicates that the Field Work Practice information system website is most widely used by individuals who are in early adulthood, who are most likely students or individuals who have just entered the workforce.

b. Based on Gender

Based on the results of data processing summarized in Table 3, it can be seen that of the 100 respondents who participated in this study, 45 people (45%) were female and 55 people (55%) were male.

Table 3. Distribution of Respondents by Gender

No	Gender	Total Respondents	Percentage (%)
1	Male	55	55%
2	Female	45	45%

This data shows that the majority of students sampled in this study are male. This small imbalance could reflect the gender distribution in the Information Systems study program, or it could indicate a different level of participation between the two genders in filling out the questionnaire.

3.2 Validity and Reliability Testing of Questionnaire Instruments

The questionnaire used in this study consists of 16 questions, categorized into two main groups: performance and importance.

These questions were designed to evaluate both the functional aspects of the SIPKL website (performance) and the perceived significance of these aspects from the user's perspective (importance). Furthermore, the 16 questions underwent validity and reliability testing to ensure the accuracy and consistency of the responses uses a likert scale [29], [30], [31].

a. Validity Testing

In this study, the quality of instruments is tested in two parts: based on WebQual's performance aspect and WebQual's importance aspect. With 100 respondents (n) and three variables analyzed, the degree of freedom (df) is calculated as $n - 2$, which equals 98. At a significance level of 0.05, the r table value is 0.196. The validity test values for the importance variable are detailed in Table 4 below.

Table 4. Validity Testing Results on Importance Variables

Atribute	Variable	Validity Coefficient	R Tabel	Description
1	Information Quality	0.582	0.196	Valid
2		0.708	0.196	Valid
3		0.764	0.196	Valid
4		0.715	0.196	Valid
5		0.794	0.196	Valid
6	Interaction Quality	0.773	0.196	Valid
7		0.745	0.196	Valid
8		0.634	0.196	Valid
9		0.769	0.196	Valid
10		0.805	0.196	Valid
11	Usability	0.753	0.196	Valid
12		0.744	0.196	Valid
13		0.781	0.196	Valid
14		0.741	0.196	Valid
15		0.814	0.196	Valid
16		0.641	0.196	Valid

Based on Table 4, each indicator of the WebQual research instrument related to the level of importance of the website is declared valid. This indicates that all items used in the questionnaire have met the validity criteria, so they can be relied upon to measure the level of importance felt by users towards various aspects of website services. Meanwhile, Table 5 is the result of validity testing for the performance variable on the question instrument in this study.

Based on Table 5, each statement in the research instrument related to each WebQual variable to the performance level is declared valid. This is in accordance with the validity test criteria which stipulates that if the calculated correlation (r) value is greater than the specified r table value, then the statement is considered valid or significant.

Table 5. Validity Testing Results on Performance Variables

Atribute	Variable	Validity Coefficient	R Tabel	Description
1	Information Quality	0.663	0.196	Valid
2		0.709	0.196	Valid
3		0.692	0.196	Valid
4		0.691	0.196	Valid
5		0.752	0.196	Valid
6	Interaction Quality	0.683	0.196	Valid
7		0.745	0.196	Valid
8		0.805	0.196	Valid
9		0.644	0.196	Valid
10		0.741	0.196	Valid
11	Usability	0.723	0.196	Valid
12		0.668	0.196	Valid
13		0.720	0.196	Valid
14		0.621	0.196	Valid
15		0.723	0.196	Valid
16		0.658	0.196	Valid

b. Reliability Testing

The reliability test was conducted to assess the level of reliability and consistency of the data collection instrument used in this study. The criterion for determining reliability is the r value (Cronbach's alpha). If the Cronbach's alpha value exceeds 0.60, the instrument is deemed reliable, indicating that it measures the concept under study with adequate consistency. Conversely, if it is below this threshold, the instrument is considered less reliable. The results of the reliability test for the importance and performance variables are summarized in Table 6 below.

Table 6. Reliability Testing Results

WebQual variable	Cronbach's alpha value	Criteria	Description
Importance	0.942	0.60	Reliabel
Performance	0.930	0.60	Reliabel

Based on the reliability test results presented in Table 6, it can be concluded that the instrument used in this study is considered reliable. The results of this reliability test will provide an overview of the extent to which the instruments used in this study can be relied upon to collect data with high consistency.

3.3 Percentage results of all variables in WebQual 4.0

By using descriptive statistical analysis to process data, the values of respondents' answers to each indicator in the WebQual 4.0 variable need to be known. The results of these calculations can be seen in Table 7.

Table 7. Overall Percentage of WebQual Variable Answers for Importance

Answer	Likert Scale	Frequency	Percentage (%)
Strongly Disagree	1	12	0.75%
Disagree	2	48	3%
Neutral	3	220	13.75%
Agree	4	637	39.81%
Strongly Agree	5	683	42.69%
Total		**1600**	**100%**

The results from Table 7 show a clear pattern in respondents' perceptions of the importance of the SIPKL website based on a Likert scale. The majority of respondents, 42.69%, strongly agreed with the importance of the website, followed by 39.81% who agreed. However, 0.75% strongly disagreed and 3% disagreed. In addition, a small number of respondents stated neutral as much as 13.75%. Meanwhile, the overall results of respondents' answers to the WebQual variable on performance can be seen in Table 8.

Table 8. Overall Percentage of WebQual Variable Answers for Performance

Answer	Likert Scale	Frequency	Percentage (%)
Strongly Disagree	1	7	0.4%
Disagree	2	8	0.5%
Neutral	3	211	13.2%
Agree	4	658	41.1%
Strongly Agree	5	716	44.8%
Total		**1600**	**100%**

Table 8 presents the overall percentage results of respondents' answers to the WebQual variable for the performance level of the SIPKL website based on a Likert scale. From this table, it can be interpreted that the majority of respondents, 44.8%, strongly agreed with the website performance, followed by 41.1% who agreed. A total of 0.4% of respondents stated strongly disagree, and 0.5% stated disagree. Furthermore, around 13.2% of respondents stated neutral.

3.4 Results of Conformity Level Assessment

The analysis of the level of conformity is used to determine the priority value will be the main focus in determining which indicators in each variable require recommendations for improvement, as well as indicators that need to be maintained. The results of the measurement of the level of conformity are shown in Table 9.

Table 9. Results of Conformity Level Analysis

Importance		Performance		Conformity Level
Total	Mean	Total	Mean	
540	5.4	541	5.41	100.2%
540	5.4	542	5.42	100.4%
540	5.4	546	5.46	101.1%
538	5.38	540	5.4	100.4%
517	5.17	525	5.25	101.5%
505	5.05	521	5.21	103.2%
527	5.27	532	5.32	100.9%
518	5.18	526	5.26	101.5%
509	5.09	524	5.24	102.9%
515	5.15	522	5.22	101.4%
535	5.35	537	5.37	100.4%
523	5.23	534	5.34	102.1%
506	5.06	520	5.2	102.8%
511	5.11	512	5.12	100.2%
507	5.07	527	5.27	103.9%
500	5	517	5.17	103.4%
Average Level of Conformity				**101.6%**

Table 9 presents the level of conformity between the level of importance and performance of various dimensions and attributes in website services. If the average level of conformity is above 100%, it indicates that the service performance exceeds users' expectations and interests, and vice versa. From the data shown in Table 8, it can be seen that the average level of conformity is 101.6%, which indicates that the performance of web services has met or even exceeded the expectations and interests of users.

3.5 Gap Analysis Results

Gap analysis is an analytical approach used to assess the difference between actual performance and the level of importance perceived by users. The results of the gap level (GAP) can be seen in Table 10.

Table 10. Results of GAP

Dimention	Importance	Performance	GAP
Information Quality	5.4	5.41	0.01
	5.4	5.42	0.02
	5.4	5.46	0.06
	5.38	5.4	0.02
	5.17	5.25	0.08
Interaction Quality	5.05	5.21	0.16
	5.27	5.32	0.05
	5.18	5.26	0.08
	5.09	5.24	0.15
	5.15	5.22	0.07
Usability	5.35	5.37	0.02
	5.23	5.34	0.11
	5.06	5.2	0.14
	5.11	5.12	0.01
	5.07	5.27	0.2
	5	5.17	0.17

Table 10 displays the GAP level results between the importance and performance of various dimensions and attributes in website services. A mean GAP value above 0 suggests that website performance meets or even exceeds user expectations and interests, indicating good performance. According to Table 10, the overall mean GAP is 0.08, which indicates that the website performance meets or slightly exceeds user expectations and interests.

3.6 Quadrant Analysis Results for Importance Performance Analysis (IPA) Diagram
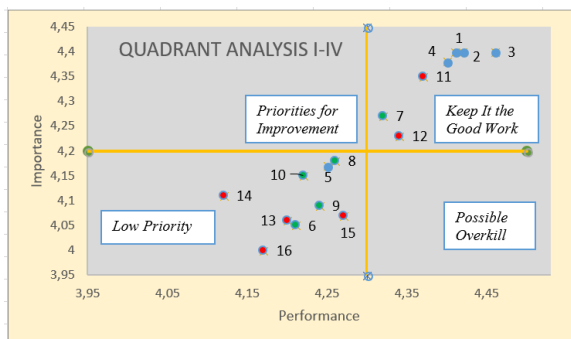
Figure 3. The Result of IPA Quadrant

Description:
🔵 Information Quality
🔴 Usability
🟢 Interaction Quality

IPA is an evaluation tool used to assess service quality based on both importance and performance. This method divides the analysis into four quadrants, defined by two lines intersecting at the point (X,Y). Here, X represents the average performance scores divided by the number of respondents, and Y represents the average importance scores. Each indicator is plotted at the relevant coordinates in the quadrant, illustrating the relationship between interests and performance. Figure 3 displays the IPA diagram results for the three WebQual variables examined in this study.

From the results of quadrant mapping in Figure 3 Importance Performance Analysis Diagram, the following is an explanation of the indicators included in each quadrant.

a. **First Quadrant (Priorities for Improvement)**

Indicators in quadrant I describe aspects that are important to website users, but website managers have not succeeded in implementing them in accordance with user expectations, so users feel they have not received the desired satisfaction. Based on Figure 3 above, it can be seen that none of the indicators are in this first quadrant, which indicates that there are no aspects that are considered important by users but have not been fulfilled by the website manager. This indicates that there are no aspects considered important by users that have not been fulfilled by the website manager.

This absence of indicators in the first quadrant suggests that the website managers have successfully met the expectations of users in all aspects deemed important. In other words, there is no significant gap between what users expect and what the website delivers in terms of critical features or services. The fact that no indicators fall into this quadrant can be interpreted as a positive outcome, indicating that the website's performance aligns well with the priorities of its users.

Furthermore, it is important to address the absence of indicators in the fourth quadrant as well. The fourth quadrant typically represents aspects that are not highly important to users but are well-implemented by the website managers. The lack of indicators here suggests that the website managers have not over-invested in features or services that users do not prioritize. Instead, resources have been effectively allocated to areas that truly matter to the users, ensuring that the focus remains on delivering value where it is most needed.

In summary, the absence of indicators in both the first and fourth quadrants is indicative of a well-balanced approach to website management. The website effectively meets user expectations in critical areas without overextending efforts in less important aspects,

reflecting a strategic and user-centered approach to website design and management.

b. Second Quadrant (Keep It the Good Work)

Quadrant II identifies service attributes on the website that have an impact on user satisfaction and require maintenance. These attributes are considered important by users and have been successfully implemented well by website managers, so they need to be maintained to maintain user satisfaction that has been achieved. The indicators located in quadrant II include the code KIF1, KIF2, KIF3, KIF4, KIN2, UBT1, UBT2 as seen in Table 1.

c. Third Quadrant (Low Priority)

Quadrant III indicates aspects that are considered less important by users and are implemented less satisfactorily. Although improvements can still be made in this quadrant, the priority is considered low. The indicators located in quadrant B include the code KIF5, KIN1, KIN3, KIN4, KIN5, UBT3, UBT4, UBT5, UBT6 as seen in Table 1.

d. Fourth Quadrant (Possible Overkill)

Indicators in quadrant IV indicate a situation where website performance has been considered very good, but their importance is rated low by users so they are often ignored. Based on Figure 3, it can be seen that there are no indicators in quadrant IV. This indicates that in the analysis, there are no aspects of website performance that are considered very good but neglected in terms of importance by users. Therefore, there is no need to reallocate resources from indicators in quadrant IV to other indicators that require performance improvement.

3.7 Improvement Recommendations for the SIPKL Website

The IPA quadrant analysis results reveal that indicators in Quadrant II and Quadrant III are those that require quality improvement. These indicators show low performance levels, indicating the need for enhancements to improve overall service quality. The following are recommendations for improvement for indicators located in quadrant II.

a. Indicator KIF1: Improve content relevance by conducting surveys or questionnaires to users to understand their needs more deeply.
b. Indicator KIF2: Conduct regular audits of website content to ensure information accuracy.
c. Indicator KIF3: Collaborate with field practitioners to ensure that the information provided is in line with current needs and practices.
d. Indicator KIF4: Simplify the layout and structure of information to improve readability.
e. Indicator KIN2: Improve website security by implementing appropriate security protocols, such as data encryption and protection against cyber attacks.
f. Indicator UBT1: Simplify menu structure and website navigation to reduce the number of clicks required to find information.
g. UBT2 Indicator: Adopt good UI/UX design principles to improve usability and alignment of the website interface, conduct regular user testing.

Meanwhile, recommendations for improvements that can be given for indicators included in quadrant III are as follows.

a. Indicator KIF5: Develop a more comprehensive and detailed guide to fieldwork procedures, including steps, requirements, and contacts, and add supporting documents such as FAQs, video tutorials, and infographics that make it easier to understand the procedures.
b. KIN1 Indicator: Provide a responsive and easily accessible chat feature or chatbot to answer user questions.
c. KIN3 Indicator: Improve guidance and assistance by providing more detailed content.
d. KIN4 Indicator: Develop community features such as discussion forums, user groups to increase interaction between users.
e. KIN5 Indicator: Improve the response management system by establishing SLAs (Service Level Agreement) for quick response to user queries.
f. Indicator UBT3: Use feedback from users to determine which design elements need to be improved or updated.
g. UBT4 Indicator: Optimizing website performance by reducing file sizes and using faster servers, as well as conducting regular speed tests and fixing areas that slow down load times.
h. UBT5 Indicator: Improve website navigation and layout to make the user experience more intuitive and convenient.
i. UBT6 Indicator: Improve the technical stability and reliability of the website by updating the system and conducting regular maintenance.

The following recommendations were derived based on the Importance-Performance Analysis (IPA), which highlights potential areas for improvement despite the overall positive performance of the SIPKL website. Although the evaluation indicated that the performance of web services has generally met or even exceeded user expectations and interests, specific indicators identified in quadrant III suggest areas where enhancements can be made. These recommendations are aimed at refining and optimizing aspects that, while performing adequately, have the potential for further improvement to maintain and enhance user satisfaction.

CONCLUSION

Based on the research and data analysis conducted on the Field Work Practice Information System (SIPKL) website using the WebQual 4.0 method and Importance Performance Analysis, several important findings have been made. One of them is the result of measuring the level of conformity showing a value of 101.6% (above the normal level of 100%) which indicates that the performance of the SIPKL website service has met or even exceeded the expectations and interests of users. This shows that the SIPKL website service has provided a satisfying experience for users in terms of quality, interaction, and usability. However, it is important to consider that these results may have a potential error margin of up to 10%, given the sample size of 100 respondents. Therefore, while the findings are indicative of positive user experiences, there may be slight variations in the actual performance.

Meanwhile, in terms of the results of the level of conformity analysis, the indicator with the highest rank is indicator number 15 with a value of 103.9%. In contrast, the lowest ranked indicators are indicators number 1 and 14 which both have a value of 100.2%. Based on the results of the average value of the gap on the SIPKL website, a positive result (>0) is obtained, which is 0.08. Thus, it can be concluded that the performance quality of the SIPKL website has been able to meet the interests or expectations of its users.

Based on quadrant analysis, indicators that require improvement are found in Quadrant II and Quadrant III. Indicators in Quadrant II represent service attributes that users consider important and which currently perform well, but they still need to be maintained and enhanced to ensure continued user satisfaction. On the other hand, indicators in quadrant III show attributes that are considered less important by users with performance that tends to be mediocre. For

further research development, it is recommended to use more diverse research methodologies, such as qualitative studies with in-depth interviews or focus group discussions to gain deeper insights into user experience. In addition, conducting comparative research with other websites that have similar functions can help identify relative advantages and disadvantages.

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