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# Website Quality Analysis Using Webqual 4.0 Method and Importance Performance Analysis (IPA) for Improving the Service Quality

## *Analisis Kualiti Laman Web Menggunakan Kaedah Webqual 4.0 dan Importance Performance Analysis (IPA) untuk Meningkatkan Kualiti Perkhidmatan*

**Kuncorosidi**
Sekolah Tinggi Ilmu Ekonomi Sutaatmadja, Subang, West Java
kuncorosidi@stiesa.ac.id

**Muhamad Al Rafi**
Sekolah Tinggi Ilmu Ekonomi Sutaatmadja, Subang, West Java
alrafi.8c@gmail.com

**Estu Widarwati**
Sekolah Tinggi Ilmu Ekonomi Sutaatmadja, Subang, West Java
wie2tdz@gmail.com

**E. Wityasminingsih**
Politeknik Piksi Ganesha, Bandung, West Java, Indonesia
rnee_tyas@yahoo.com

## ABSTRACT

The rapid development of technology has made website quality an important factor to consider in an organization. To find out the quality of a website, it is necessary to do a website quality analysis to evaluate whether it meets website standards and user expectations. The sample is the users of the kotasubang.com website analyzed using the WebQual 4.0 method, which measured by some instruments are usability quality, information quality, and service interaction quality that consists of 20 indicators and we used the importance-performance analysis (IPA) method regarding determined indicators/attributes that need improvement and maintenance. We use the Likert scale to get respondents' responses to the questionnaire. The results of the web equal index show that the website quality is categorized as good

level, which means there is a good quality of kotasubang.com website. Nevertheless, the management should focus on the negative value of gaps in results that lead to some service quality still needing to be improved, such as clear interaction and relevant information. Meanwhile, the importance-performance analysis (IPA) results show that the prioritized indicators/attributes for quality improvement are easy navigation, interest layout, accurate and detailed information, and user data security. The finding implications could be used by website management as evaluation material in improving and maintaining the quality of its services and providing satisfactory service to users.

*Keywords: Website Quality; Webqual 4.0; Importance-Performance Analysis; Service Quality; Website Standard*

## INTRODUCTION

The development of technology and information in the 21st century is developing very rapidly. The role of technology as being very important and not separated from every aspect of society's life; of course, the role of technology will significantly facilitate everyday life; one example is the presence of the Internet. With the presence of the Internet, society can obtain desired information quickly; with the Internet also, society can exchange information without having to face-to-face, so, facilitating the work of someone.

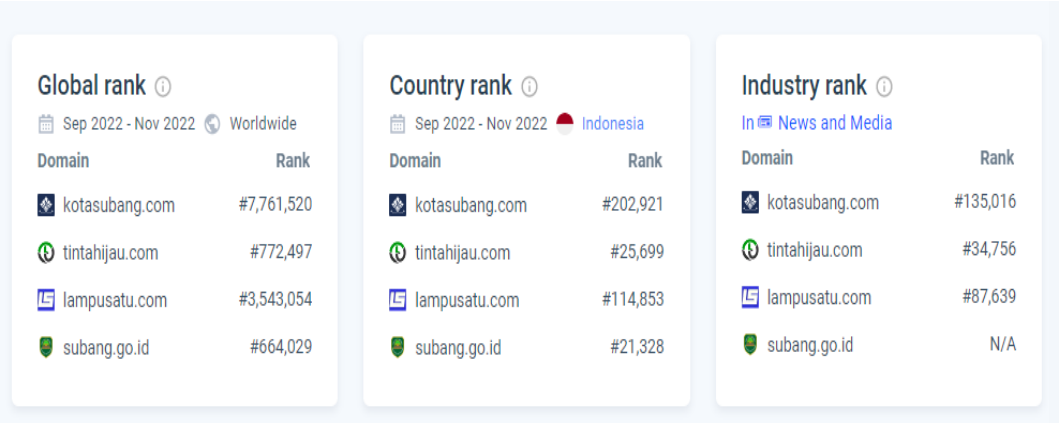
The rapid technological development of today must be addressed. Fast, accurate, and accurate information is imperative for any agency, organization, or company. The Internet stores much information that can be useful for the life of the public, both to communicate, to find entertainment, business needs, employment, and education, as well as to find various information.

One of the facilities for accessing this information is the website's presence. The website is a medium used to store text, images, animation, and audio data, which can be displayed on the Internet and accessed by computers connected to the Internet worldwide. The rapid development in computing can increase efficiency and effectiveness in any job. A website is essential for an organization because it can provide benefits such as providing online services to users. One organization that utilizes the website is a media company that provides information, such as news, in a web portal.

A good quality website is responsive and can respond and be accessed on various user devices well and smoothly. Of course, a quality website, seen from the website's content, starts from a website design that is easy to use and presents exciting and relevant content for the user.

Kotasubang.com is a local news website in particular Subang district that provides a wide range of information in its web portal, such as news, history and culture, photos & videos, stories, directories, music, culinary and travel in Subang.

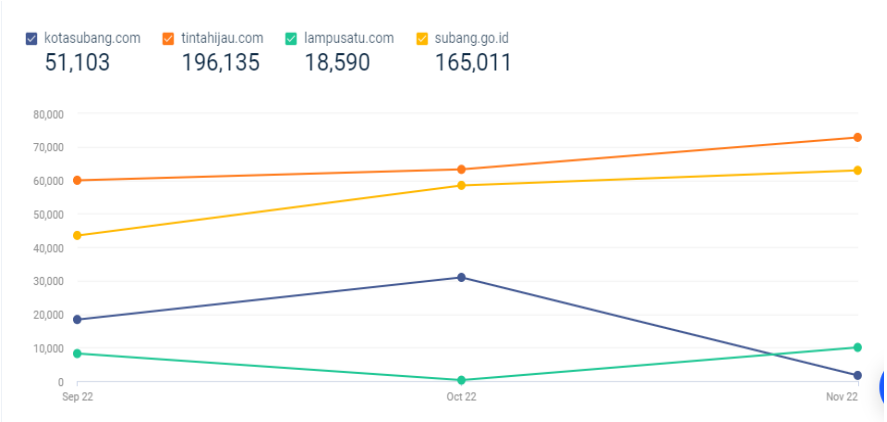
**Figure 1: Web Portal Rating Data**




*Source: similarweb, 2022*

Based on Figure 1, the global rank position of kotasubang.com had been far below globally than *Tintahijau*, Subang.go.id and *lampusatu* and needs to catch up based on the quality of its website. Furthermore, the visitor data's of Kotasubang.com visitors to the web portal www.cams.com and other web portals show the decreasing of its number, while visitor traffic to other web portals experienced an increase in visitors. It indicates that Kotasubang.com needs to improve quality in meeting expectations and attracting visitor interest.

**Figure 2: Kotasubang.com Visitor Data for September-November 2022**




For clearly phenomenon, a survey was conducted to find out which local news websites are the reference for the people of the city of Subang as follows:


*Source: researcher data, 2023*

**Graph 1: Local Website of Subang Community Reference**

Based on the results of a survey regarding which local websites are references for the people of Subang in seeking information, Graph 1 showed that 53.1% respondents made kotasubang.com for a reference in seeking information. It means the Subang community have trust to kotasubang.com as a reference medium for finding information.

It is necessary to measure the quality website based on user perceptions and expectations to maintain the existence and success of the website on the Internet, namely WebQual's method that focus on three dimensions of website quality are

usability (quality of use), information (information quality), and service interaction (service quality). For Asseing the website quality, WebQual used because its consisted of usability, information quality, and services interaction quality (.WebQual's approach is an evolution of ServQual based on the concept of quality function implementation (QFD), a "voice of customer" based process (Barnes & Vidgen, 2002; Rahmawati et al , 2023). Furthermore, this study also uses the Importance Performance Analysis (IPA) method which supports data processing. Importance-Performance Analysis (IPA) combines importance and performance factor measurement in a two-dimensional graph that facilitates data distribution and actionable recommendations for accurate objects. Then analyzed using Matrix Importance Performance Analysis. The x-axis represents importance, and the y-axis represents performance.

Apriliani et al. (2020) conducted research about the Webqual 4.0 Method Analysis and Importance-Performance Analysis (IPA) of Detik.com Site Quality that performance level of the Detik.com website was still minimal and has yet to fulfill the expectations of its users. This study focus on analyzing the kotasubang.com website's quality using the WebQual 4.0 method and the Importance Performance Analysis (IPA) method. In the long run, website service quality analysis can help increase user satisfaction, customer loyalty, brand reputation, and business profitability. By periodically analyzing the quality of website services, developers can correct deficiencies and increase the advantages of their website services to meet users' needs and expectations. The findings are important in providing some recommendations to kotasubang.com website owners in order to improve the quality of their services and better meet users' needs.

**PROBLEM STATEMENT**

A high-quality website can provide a better user experience. Users will find it easier to navigate and find the information they are looking for, increasing their level of satisfaction and allowing them to revisit the site. According to Andry et al (2019) if a company wants to build loyalty from their customer to get customer retention, one of much aspect that has to be noticed is the service quality from website.

The analyzing of website quality needs measurement based on user perceptions and expectations in order to maintain the website existence and its success on the Internet. Then this study focusses to analyzing the relationship of website's quality using the WebQual 4.0 method and the Importance Performance Analysis (IPA) method (Simanjuntak et al, 2023) Specifically, we explore a gap website user in their need and expectation.

## METHODOLOGY

The study focuses on analyzing the website's quality of kotasubang.com measured by the level of its service quality level. This analysis allows developers to determine the level matching of their website services with user needs. The analysis of website service quality includes various aspects, such as access speed, ease of navigation, content quality, information availability, security, and so on. The data used in this study are primary and secondary with purposive sampling method. We distributed questionnaires to the respondents who were residents of Subang and have visited the kotasubang.com website as well as had been 18 years and over.

**Table 1: Variable Measurement**

| No | Variable | Dimension | Indicator |
|---|---|---|---|
| 1 | Website quality uses the WebQual 4.0 method (Barnes & Vidgen, 2002) | *Usability* | 1. Easy to operate<br>2. Interaction with the website is easy to understand<br>3. Easy to navigate<br>4. The website is easy to use<br>5. The website has an attractive look<br>6. Website design according to website type<br>7. Competitiveness<br>8. Positive experience |
| 2 | | *Information Quality* | 1. Accurate information<br>2. Reliable information<br>3. Timely information<br>4. Relevant information<br>5. Detailed information<br>6. Appropriate information |
| 3 | | *Interaction Quality* | 1. Good Reputation<br>2. Transaction/interaction security<br>3. Personal information security<br>4. Space personalization<br>5. Ease of communicating with the organization<br>6. Service information as promised |

The questionnaire was designed on a Likert scale and distributed to 100 respondents. Respondents' data was analyzed, processed, and tested for data quality through validity and reliability tests. Multiple regression is used to test the hypothesis formed in this study.

## FINDINGS AND DISCUSSIONS

### Respondent Response Index

This research aims to analyzing the website's quality of the kotasubang.com and the result of the respondent's response index namely for usability quality, information quality statement (information quality), and service interaction quality are in good category that means that the website's quality of kotasubang.com looks good in users opinion.

**Table 2: Respondents' Responses about the Website Quality of kotasubang.com**

| Dimension | Total Skor | Statement |
|---|---|---|
| **Usability Quality** | 3255 | Good |
| **Information Quality** | 2439 | Good |
| **Service Interaction Quality** | 2458 | Good |

*Source: Data processed 2023*

In the context of WebQual Index (WQI) results, some weight score data and maximum score are needed. The first step in finding the WebQual index is determining the weight score. The next step determines the maximum score. After the weight and maximum scores are known, the next step is determining the WebQual index.

**Table 3: Measuring of WebQual Index WQI of Kotasubang.com Website**

| Statement | Mean Of Importance (MOI) | Maximum Score (MS) | Weight Score (WS) | WebQual Index (WQI) |
|---|---|---|---|---|
| (1) Easy to operate | 3.67 | 18.33 | 13.43 | 0.73 |
| (2) Interaction with the website is easy to understand | 3.67 | 18.33 | 11.98 | 0.65 |
| (3) Easy to navigate | 3.67 | 18.33 | 10.94 | 0.60 |
| (4) The website is easy to use | 2.92 | 14.59 | 10.70 | 0.73 |
| (5) The website has an attractive look | 3.67 | 18.33 | 13.43 | 0.73 |
| (6) Website design according to website type | 3.67 | 18.33 | 13.43 | 0.73 |
| (7) Competitiveness | 3.67 | 18.33 | 12.54 | 0.68 |
| (8) Positive experience | 3.42 | 17.10 | 12.54 | 0.73 |
| **The Average Score of Usability Quality** | **3.54** | **141.65** | **98.99** | **0.70** |
| (9) Accurate information | 2.86 | 14.29 | 9.34 | 0.65 |
| (10) Reliable information | 2.92 | 14.59 | 8.71 | 0.60 |
| (11) Timely information | 2.75 | 13.77 | 10.10 | 0.73 |

| Statement | Mean Of Importance (MOI) | Maximum Score (MS) | Weight Score (WS) | WebQual Index (WQI) |
|---|---|---|---|---|
| (12) Relevant information | 3.67 | 18.33 | 12.54 | 0.68 |
| (13) Detailed information | 3.67 | 18.33 | 11.98 | 0.65 |
| (14) Appropriate information | 3.67 | 18.33 | 11.23 | 0.61 |
| **The Average Score of Information Quality** | **3.25** | **97.64** | **63.89** | **0.65** |
| (15) Good Reputation | 3.67 | 18.33 | 13.43 | 0.73 |
| (16) Transaction/interaction security | 2.75 | 13.77 | 9.42 | 0.68 |
| (17) Personal information security | 2.75 | 13.77 | 10.10 | 0.73 |
| (18) Space personalization | 2.99 | 14.93 | 10.94 | 0.73 |
| (19) Ease of communicating with the organization | 3.67 | 18.33 | 13.43 | 0.73 |
| (20) Service information as promised | 2.86 | 14.29 | 10.48 | 0.73 |
| **The Average Score of Service Interaction Quality** | **3.11** | **93.42** | **67.81** | **0.73** |

*Source: Data processed 2023*

Based on Table 3, Mean Of Importance (MOI) is obtained from respondents' average importance/expectation value for each indicator and the finding of MOI Usability quality show the most important is statement exceeds the quartile value, namely (3,60) are (1) Easy to operate; (2) Interaction with the website is easy to understand; (3) Easy to navigate; (5) The website has an attractive look; (6) Website design according to website type; and (7) Competitiveness. In contrast, the statements that are the least important based on a value that is less than the quartile value (3.60) are statements number (4) The website is easy to use; and (8) Positive experience.

The MOI information quality calculation results state that statements considered necessary are statements (10) Reliable information; (12) Relevant information; (13) Detailed information; and (14) Appropriate because they exceed the quartile value (2.87). At the same time, the value of the statement that is considered less critical is (9) Accurate information and (11) Timely information which have quartile value less than 2.87.

Furthermore, in the results of the calculation of service interaction quality, it can be seen that the results of statements considered necessary are in statements number (15) Good Reputation; (18) Space personalization; (19) Ease of communicating with the organization; and (20) Service information as promised because they exceed the quartile value (2.78). In comparison, statements considered less important are statements (16) Transaction/interaction security; and (17) Personal

information security, where the MOI value is lower than the quartile value, namely (2.78).

Then, the Maximum Score (MS) is obtained from the importance value multiplied by 5 (the enormous scale in the assessment). The result of calculating the statement maximum score is 141.65 from the usability quality variable, 97.64 from the information quality variable, and 93.42 from the service interaction quality variable. It can be concluded that the highest maximum score is 141.65 on the usability quality variable, while the lowest maximum score is 93.42 on the service interaction quality variable. On the other side, the Weight Score (WS) value is obtained from the multiplication of the mean of importance with the average value obtained from the respondents' assessment of the quality of the website. The results of the weight score calculation show that the highest statement is the usability quality variable (98.99), followed by service interaction quality information quality (67.81), and the lowest weight score value is the information quality variable, with a result of 63.89.

Furthermore, Table 3 shows that the WebQual index (WQI) is obtained from the division between the weight score and the maximum score obtained from each indicator; the interval value states that if the WQI value is at 0.80-1.00, then the quality level category is very good, the interval is 0.60-0.7 then the quality level category is good if the interval is 0.40-0.59 the quality level category is quite good if the interval is 0.20-0.39 the quality level category is not good, and if the interval is 0.00-0.19 then the quality level category is very unfavorable. From the table above, most of each indicator has a good quality category because the WebQual index (WQI) value is at intervals of 0.60-0.7 or. Besides that, the WQI results can be interpreted based on the dimensions, namely as follows:

**Table 4: Interpretation of WebQual Index Results Based on WebQual 4.0 Dimensions**

| Dimension | WQI Score | Interval | Quality Category |
|---|---|---|---|
| ***Usability Quality*** | 0,70 | 0,60-0,7 | Good |
| ***Information Quality*** | 0,65 | 0,60-0,7 | Good |
| ***Service Interaction Quality*** | 0,73 | 0,60-0,7 | Good |

*Source: Data processed 2023*

Based on the average WQI value of the three dimensions of usability quality, information quality, and service interaction quality, the kotasubang.com website is included in the excellent quality category. With a result of 0.70 WQI on the usability dimension and 0.65 WQI on the information dimension, the highest result is found on the dimension of service interaction quality with a result of (0.73).

**GAP Data Processing Results**

Gap analysis or GAP is done by calculating the average value of assessing user perceptions and expectations of the website's quality. The following is a table of the gap values on the Kotasubang.com website:

**Table 5. The kotasubang.com Website Gap Score**

| Statement Indicator | Perceptual average | Expected Average | GAPs Average |
|---|---|---|---|
| (1) Easy to operate | 3.67 | 3.67 | 0.00 |
| (2) Interaction with the website is easy to understand | 3.27 | 3.67 | -0.40 |
| (3) Easy to navigate | 2.99 | 3.67 | -0.68 |
| (4) The website is easy to use | 3.67 | 2.92 | 0.75 |
| (5) The website has an attractive look | 3.67 | 3.67 | 0.00 |
| (6) Website design according to website type | 3.67 | 3.67 | 0.00 |
| (7) Competitiveness | 3.42 | 3.67 | -0.24 |
| (8) Positive experience | 3.67 | 3.42 | 0.24 |
| **The Average Score of Usability Quality** | 3.50 | 3.54 | -0.04 |
| (9) Accurate information | 3.27 | 2.86 | 0.41 |
| (10) Reliable information | 2.99 | 2.92 | 0.07 |
| (11) Timely information | 3.67 | 2.75 | 0.91 |
| (12) Relevant information | 3.42 | 3.67 | -0.24 |
| (13) Detailed information | 3.27 | 3.67 | -0.40 |
| (14) Appropriate information | 3.06 | 3.67 | -0.60 |
| **The Average Score of Information Quality** | 3.28 | 3.25 | 0.02 |
| (15) Good Reputation | 3.67 | 3.67 | 0.00 |
| (16) Transaction/interaction security | 3.42 | 2.75 | 0.67 |
| (17) Personal information security | 3.67 | 2.75 | 0.91 |
| (18) Space personalization | 3.67 | 2.99 | 0.68 |
| (19) Ease of communicating with the organization | 3.67 | 3.67 | 0.00 |
| (20) Service information as promised | 3.67 | 2.86 | 0.81 |
| **The Average Score of Service Interaction Quality** | 3.62 | 3.11 | 0.51 |

The table above shows the average gap of each indicator of the three variables/dimensions. Judging from the results, it can be identified that the majority of the value of the gap (gap) indicator is positive. It showed that the quality of the kotasubang.com website is in line with the expectations of its users especially about easy operating, an attractive appearance, minimized error. However, there are six indicators that are found still in a negative value are information searching, easy using the menu and having information managed by competent people.

The gap value for the information quality dimension that does not meet user expectations is providing information but the respondents agree there is trusted, updated, and accurate information of kotasubang.com website. Then the gap value for the dimension of service interaction quality, which is appropriate and meets user expectations, are reputation in delivering information, user data security, and protection of user personal information. The gap value result shows that the service interaction quality dimension on the kotasubang.com website has fully met user expectations. This is not in line with Husni et al (2020) that found the performance level of website did not meet user satisfaction and expectations, especially in Service Interaction Quality.

Furthermore, the gap analysis of the assessment of user perceptions and expectations of the quality of kotasubang.com website is classified based on the respondent's profession. Then the results of the gap value are obtained as follows:

**Table 6: Indicators That Have Not Fulfilled Expectations Based on Respondent's Profession**

| Occupation | *Usability Quality* | *Information Quality* | *Service Interaction Quality* |
|---|---|---|---|
| **Student** | U2 (Interaction with the website is easy to understand)<br>U3 (Easy to navigate)<br>U4 (The website is easy to use)<br>U7 (Competitiveness) | I1(Accurate information)<br>I2(Reliable information)<br>I5(Detailed information)<br>I6(Appropriate information) | S2 (Transaction/interaction security)<br>S3 (Personal information security) |
| **Private Employee** | U4 (The website is easy to use) | I2 (Reliable information)<br>I3 (Timely information) | |
| **Others** | U1 (Easy to operate)<br>U2 (Interaction with the website is easy to understand)<br>U4 (The website is easy to use)<br>U5The website has an attractive look<br>U6 Website design according to | I1(Accurate information)<br>I3 (Timely information) | S2 (Transaction/interaction security) |

| | | | |
|---|---|---|---|
| | website type<br>U8Positive experience | | |
| **Civil Servant** | U1 (Easy to operate)<br>U2 (Interaction with the website is easy to understand)<br>U4(The website is easy to use)<br>U5The website has an attractive look<br>U6 Website design according to website type<br>U8Positive experience | I1 (Accurate information)<br>I3(Timely information) | S2 (Transaction/interaction security) |
| **Professional** | | I1 (Accurate information)<br>I3(Timely information)<br>I4 Relevant information<br>I5 (Detailed information) | S1(Good Reputation)<br>S2 (Transaction/interaction security)<br>S3 (Personal information security)<br>S4Space personalization |
| **Entrepreneur** | | I1 (Accurate information) | |

*Source: Data processed 2023*

The finding of the gap analysis based on table 6 shows there are identified several indicators still need to meet user expectations; this is a priority for improvement in order to improve the quality of kotasubang.com website services.

**Results of the Importance Performance Analysis (IPA) Method**

The importance-performance analysis (IPA) method is used to obtain attributes based on their level of importance, which is obtained from the WebQual 4.0 dimension. Table 7 contains the perceptions and expectations of users of the kotasubang.com website, which are used to make a Cartesian diagram regarding the position of importance-performance analysis. Namely as follows:

**Table 7: Perceptions and Expectations Data**

| No | Attribute | Perception | Expectation |
|---|---|---|---|
| 1 | Easy to operate | 3.67 | 3.67 |
| 2 | Interactions are straightforward to understand | 3.27 | 3.67 |

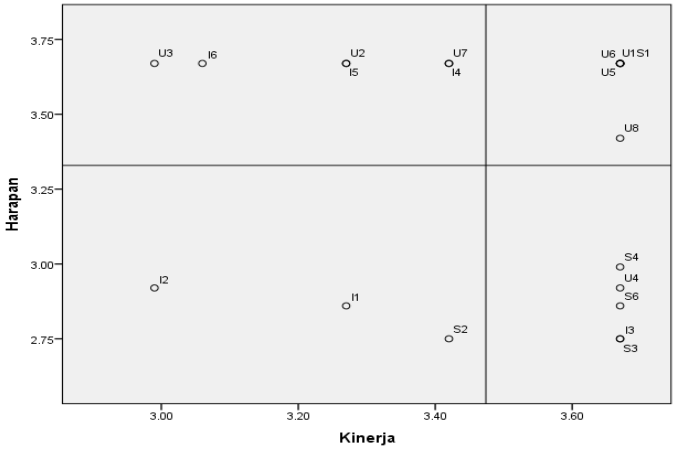
| No | Attribute | Perception | Expectation |
|---|---|---|---|
| 3 | Easy to navigate | 2.99 | 3.67 |
| 4 | Easy to use | 3.67 | 2.92 |
| 5 | Interesting view | 3.67 | 3.67 |
| 6 | Design accordingly | 3.67 | 3.67 |
| 7 | Competitiveness | 3.42 | 3.67 |
| 8 | Positive experience | 3.67 | 3.42 |
| 9 | Accurate information | 3.27 | 2.86 |
| 10 | Reliable information | 2.99 | 2.92 |
| 11 | Timely information | 3.67 | 2.75 |
| 12 | Relevant Information | 3.42 | 3.67 |
| 13 | Detailed information | 3.27 | 3.67 |
| 14 | Appropriate information | 3.06 | 3.67 |
| 15 | Good Reputation | 3.67 | 3.67 |
| 16 | Interaction safety | 3.42 | 2.75 |
| 17 | User information security | 3.67 | 2.75 |
| 18 | Personalization space | 3.67 | 2.99 |
| 19 | Ease of communicating with the organization | 3.67 | 3.67 |
| 20 | Information services, as promised | 3.67 | 2.86 |

*Source: Data processed 2023*

**Results of Cartesian Diagram Importance Performance Analysis (IPA) Kotasubang.com Website**

The Cartesian Diagram IPA includes the quadrants of the importance-performance analysis results from all respondents' responses and the results show there are five indicators in quadrant I where the quality of these attributes must be maintained because they meet user expectations, namely in statements number 1, 5, 6, 8 and 15 which are regarding easy operation, attractive appearance, appropriate design, positive experience, and good reputation.

**Figure 4: Cartesian Importance Performance Analysis (IPA) Diagram Kotasubang.com Website**




*Source: Data processed 2023*

Whereas in quadrant II, 6 indicators are a priority for improvement because the user's expectations for these attributes are high while the reality has not met the user's expectations, namely in statements numbers 2,3,7,12,13, and 14, which are straightforward to understand interactions, easy to navigate, competitiveness, relevant information, detailed information, and appropriate information. In quadrant III, there are 3 indicators, namely statements 9, 10, and 16, regarding accurate information, reliable information, and safe interaction. This attribute is considered not too essential but has good quality, so attention to this attribute can be diverted to other more needed attributes. Moreover, finally, in quadrant IV, there are 5 indicators where the attributes in this quadrant are considered excessive, namely in statements numbers 4,11,17,18, and 20 regarding easy-to-use websites, timely information, user information security, personalization space, and information services as promised. These attributes show that this attribute does not need attention because the user's expectations are low.

Then the classification of the results of the Cartesian diagram using the Importance Performance Analysis (IPA) method was carried out based on the occupation of each respondent. The following results were obtained:

**Table 8. Results of Cartesian Diagram Importance Performance Analysis Based on Respondent's Occupation**

| Occupation | Quadrant I | Quadrant II | Quadrant III | Quadrant IV |
|---|---|---|---|---|
| **Student** | 5, 9 | 8,18,19 | 1,6,11,12,15, 20 | 2,3,4,7,10,13,14,16, 17 |
| **Private Employees** | 3,6,8,14 | 1,2,7,9,13, 16 | 5,12 | 4,10,11 |
| **Others** | 1,2,4,5,7 | 3,10,12,13,14,17,19,2018 | | 6,8,11 |
| **Civil Servant** | 1,2,4,5,7 | 3,10,12,13,14,17,19,2018 | | 6,8,11 |
| **Professional** | 1,3,5,7 | 4,6,14 | 2,8 | 9,11,13 |
| **Entrepreneur** | 1,4,8, 10 | 2,6,7,18 | 3,15 | 9 |

*Source: Data Processed, 2023*

There are several recommendations for improvements that can be made to improve the quality of kotasubang.com website services based on the results of the importance-performance analysis of all respondents' responses, namely:

a. In quadrant I, the quality of the attributes that have met user expectations must be maintained to maintain user satisfaction. Perform regular maintenance and upgrades to maintain high performance. Pay attention to user feedback to continuously improve these features and ensure that users remain satisfied.
b. In quadrant II, it is necessary to improve the priority indicators to improve the quality of website services. It can be done by improving the website's quality in interaction, navigation, competitiveness, relevant information, detailed information, and appropriate information.
c. In quadrant III, such as numbers 9,10, and 16 regarding accurate information, reliable information, and safe interactions. Even though these attributes are considered unimportant because they have good quality, they need to maintain their quality to satisfy users with website services.
d. In quadrant IV, the attributes considered excessive, as in numbers 4,11,17,18, and 20 regarding the website, are easy to use, timely information, user information security, personalization space, and information services according to promises. These attributes show that this attribute does not need attention because the user's expectations are low. It needs to be re-evaluated, and if it is not too important, attention can be diverted to other, more essential attributes.

## CONCLUSION

This study analyzes website's quality of kotasubang.com and the results show that Webqual index (WQI) has an average value which leads to a good website quality. Each dimension of usability quality, information quality, and service interaction quality refers an exceeded the quality standards of the kotasubang.com website.

The result of the gap value (GAP) obtained from the responses of each respondent based on his work from the three dimensions Webqual 4.0 website kotasubang.com. That is, some indicators have a negative value meaning the quality of the website Kotasubangi.com still needs to meet the expectations of its users. However, from the overall response analysis of respondents, there are 11 (one-one) indicators that have a positive value meaning that they have met the user's expectations, and 9 (nine) indicators that are still negative, meaning that the user has not met the expectations. It is understood that the quality of the website www.cams.com has met the expectations of its users.

Based on the calculation of the importance-performance analysis (IPA) of various groups of respondents, several attributes have already met users' expectations to maintain their quality. However, some attributes make it a priority to improve its quality. Based on the overall calculation results, the respondents' responses showed that the website has indicators/attributes that require quality improvement priority on indicators namely easy navigation, competitiveness, relevant information, detailed information, and information accordingly. It is expected that the administrator of the website www.cams.com meets users' expectations by taking the following steps to improve the website's quality are 1) Improve the user interface by ensuring transparent and understandable interactions. 2). Improve ease of use through intuitive navigation and attractive views. 3). Improve the accuracy and timeliness of information provided to users. 4). Improve the security of user interactions through strong encryption and data protection. 5). Ensure the information provided is relevant, detailed, and to the user's needs. In addition, regularly monitor the quality of the website in order to provide better service and meet user expectations.

This research focuses on the analysis of the quality of the website www.cams.com, which may not be directly generalized to other websites. If the conclusion is based solely on the acquisition of data analytics, further research on the website's quality is expected to improve service quality with different methods, broader samples, and different and more comprehensive research objects.

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**REFERENCES**

Andre, Y., & Tileng, K. G. (2019). Analisis kualitas website Perpustakaan Universitas Ciputra Surabaya menggunakan metode Webqual 4.0 dan Importance Performance Analysis (IPA). 16(1), 49–64.

Andry, J. F., Christianto, K., & Wilujeng, F. R. (2019). Using Webqual 4.0 and Importance Performance Analysis to evaluate e-commerce website. *Journal of Information Systems Engineering and Business Intelligence*, 5(1), 23–31. https://doi.org/10.20473/jisebi.5.1.23-31

Andry, J. F., Christianto, K., & Wilujeng, F. R. (2019). Using Webqual 4.0 and Importance Performance Analysis to evaluate e-commerce website. 5(1), 23–31.

Apriliani, D., Fikry, M., & Hutajulu, M. J. (2020). Analisa metode Webqual 4.0 dan Importance- Performance Analysis (IPA) pada kualitas situs. 8(1), 34–45.

Faqih, H., Warjiyono, Kuhon, F., Aji, S., & Ardiansyah, A. (2020). An analysis and measurement of Website Quality Using WebQual 4.0 and Importance Performance Analysis (IPA) method (A case study of Kemiriamba Village Brebes), *Journal of Physics: Conference Series*, 1641, 012096

Rahayu, P., Rozimela, Y., & Jufrizal. (2023). The practicality of PIPA (Persuasive Informative Presentation Assessment) Model application by using WebQual, *Proceedings of the 20th AsiaTEFL-68th TEFLIN-5th iNELTAL Conference (ASIATEFL 2022)*, 524-538

S. Ratnawati, A. Zamhari, N. Hasanati., & R. N. Muktabar. (2023). Analysis of website quality using Webqual 4.0 method and Importance Performance Analysis (IPA), 11th International Conference on Cyber and IT Service Management (CITSM), Makassar, Indonesia, 2023, 1-6, doi: 10.1109/CITSM60085.2023.10455539.

Simanjuntak, T., Wijaya, B., Agustinasari, E., Yusri, Y., & Li, Q. (2023). The use of Webqual 4.0 and Importance Performance Analysis (IPA) method for Sriwijaya State Polytechnic International Office Website Quality, *Proceedings of 6th FIRST T3 2022 International Conference* (FIRST-SS 2022), 76-84.

https://www.similarweb.com/website/