Measuring User Assessments and Expectations: The Use of WebQual 4.0 Method and Importance-Performance Analysis (IPA) to Evaluate the Quality of School Websites

Subandi[1], Aulia Akhrian Syahidi[2], Arifin Noor Asyikin[3]

[1,2,3]Department of Informatics Engineering, State of Polytechnic Banjarmasin
Brig. Jend. H. Hasan Basri Road. 70124 Banjarmasin, South Kalimantan, Indonesia
[2]Master of Computer Science, Faculty of Computer Science, Brawijaya University
Veteran Road. 8, 65145 Malang, East Java, Indonesia

[1]subandi@poliban.ac.id, [2]aakhriansyahidi@student.ub.ac.id, [3]arifin@poliban.ac.id

Abstract. As time goes by and technology advances, any information can be easily obtained from many media, both from various print media or digital electronic media. One of the fastest growing digital media and the main choice for individuals or agencies to get fast and accurate information is the website. One of the benefits of the website is that it can be used as an effective promotional media because it can be accessed by anyone and at any time. This study discusses the evaluation of school websites with a case study at the SMK Muhammadiyah 1 Banjarmasin using the WebQual 4.0 and Importance-Performance Analysis (IPA) methods. This study aims to measure user ratings of performance and expectations of users/visitors to the website of the SMK Muhammadiyah 1 Banjarmasin. The data in this study were obtained from the questionnaire using a sample of web visitors themselves, both through online based questionnaires and offline questionnaires with paper. This study uses data processing software, namely Structural Equation Modeling (SEM) 2.0. It can be concluded that in this study the results are measured by the level of performance (actual) and the level of importance (expectations) which shows that there is an overall gap for all dimensions -0.38 ie the website needs improvement and tends to still not be as expected. The biggest gap is in the Usability dimension with the largest value being -1.07 on USE5 variables, which means that the appearance of this website tends to be unattractive, not in line with expectations, and needs improvement. Then the acquisition of the value of R Square for the variable user satisfaction is 0.61, which means that the value indicates that the variable user satisfaction can be explained by usability, information quality, and service interaction with a value of 67.7%, while the remaining 32.3% is influenced by variables others not found in the research model.

Keywords: website, webqual, importance-performance analysis, user satisfaction, academic information system

1 Introduction

Information technology is a very important factor in the progress of all fields, including in the field of education. In the world of education, fast information is needed because

all information can now be obtained from anywhere and anytime. The rapid movement of information requires that every agency in all fields that need the latest information or news must have supporting facilities to overcome this. The internet is one of the most appropriate protocols to realize rapid information flows. Website is one of the easiest media to retrieve information by utilizing internet network technology using either computer devices or mobile devices. At a secondary education institution, the website is used to provide information for stakeholders both from management, teachers, employees, students, parents of students or prospective new students. Information needed for stakeholders includes information on schooling, learning materials, special job market information and information on school's cooperation.

Based on data from the website of the Ministry of Communication and Information of the Republic of Indonesia [1] internet users in Indonesia are ranked sixth in the world, according to e-Marketer market research institute, the country's net population reaches 83.7 million people in 2014. In 2017, Indonesia's net e-Marketer estimates will reach 112 million people, surpassing Japan in the fifth rank of internet users.

Then from the results of a recent survey from the Indonesian Internet Service Providers Association (APJII) [2] that the population of Indonesia currently reaches 262 million people. More than 50% or around 143 million people have been connected to the internet throughout 2017 (See Figure 1). The majority of 72.41% of internet users are still from the urban community. Its utilization has gone further, not only to communicate but also to buy goods, order transportation, to do business and work. Based on its geographical area, the Javanese people are most exposed to the internet at 57.70%. Furthermore, Sumatra 19.09%, Kalimantan 7.97%, Sulawesi 6.73%, Bali-Nusa 5.63%, and Maluku-Papua 2.49%. The internet cannot be separated from the daily lives of today's young people. As many as 49.52% of internet users in the country are those aged 19 to 34 years. The data obtained by APJII uses a multi-stage cluster sampling methodology, namely urban, rural-urban, and rural. The survey with this methodology is claimed to be able to find out the problems faced regarding internet penetration in Indonesia.
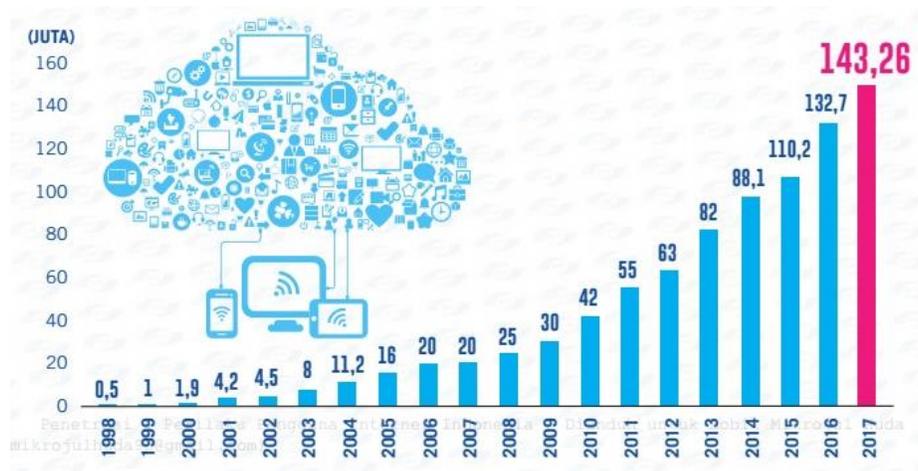
Fig. 1. The growth of internet users in Indonesia
(Source: [2])

At SMK Muhammadiyah 1 Banjarmasin is one of the largest private vocational high schools in the city of Banjarmasin based on the number of approximately 450 students

recorded in 2018, with more than 1200 alumni. At SMK Muhammadiyah 1 Banjarmasin there are 3 programs of expertise, including Accounting, Commerce, and Computer Network Engineering. With a large number of students, making a school website is one element for the dissemination of information from the school, especially for stakeholders who every day need information from the web. The information contained on the school website is in the form of information for the school community or outside the school community such as prospective new students. With the existence of the school website, it is expected that stakeholders who want to find the information needed can be fulfilled quickly by using an online network.

Furthermore, based on findings in the field that there are several complaints from several stakeholders, among them are students, teachers, employees, and the general public. Among them when students in a computer laboratory complain about the performance of a website when accessed tend to feel slow. Then complaints from several teachers about the features available on the website are incomplete, such as the absence of user member facilities and discussion forums and from the principal about the problem of the number of website visitors (web statistics) that are considered not maximum or as expected due to the number of visits per new day around 100 visitors, the principal hopes that a visit to the website can reach 250 visitors per day.. From the number that is considered not maximum by the headmaster of the SMK Muhammadiyah 1 Banjarmasin, it can be assumed whether the school website has not been fully socialized by the stakeholders or indeed the quality of the website is not good or maximum, so there are not many visitors who want to visit the school website. Then from the general public complained that the school website information was not up to date.

Based on the findings of some of the problems the evaluation of the quality of the website of the SMK Muhammadiyah 1 Banjarmasin is very necessary. Because the information that is conveyed must use a good container or packaging, in this case, the information on a website must be packaged properly from the appearance of the website itself. Therefore this study proposes to evaluate the school site with a case study at SMK Muhammadiyah 1 Banjarmasin using the WebQual 4.0 method and Importance-Performance Analysis (IPA). Then also aims to measure the rating of users from the performance and expectations of users/visitors to the website of the SMK Muhammadiyah 1 Banjarmasin.

2   Related Work

Several studies have discussed the same topics and methods as the case studies on the school or university website, namely research from [3] using the WebQual method with supporting software SmartPLS 3.0, with the result that the variables that affect user satisfaction or affect the quality of the website of SMA Negeri 1 Semende Darat Laut are Interaction Quality variables while Usability and Information Quality variables are variables that need to be improved to improve website quality.

Furthermore, research from [4] uses a research method in the form of a survey with WebQual 4.0 based questionnaire which was analyzed by IPA (Importance-Performance Analysis) to determine the level of customer satisfaction which is a gap between interest and performance. The results of the validity and reliability test show that the entire questionnaire items are valid and reliable because they meet the requirements. The results of the study showed that of the 22 items analyzed by the IPA method grouped into quadrant I (3 items), quadrant II (9 items), quadrant III (7 items) and quadrant IV (3 items). Items that are considered important and need to be improved

are located in quadrant I, which is the ease of communication through the web, the availability of sufficiently detailed information and a sense of security in delivering personal data. The results of multiple correlation analysis also indicate a very strong relationship between the independent and dependent variables in this study.

Then research from [5] which began the research by conveying the problem, namely the website of SMA Negeri 4 Lubuklinggau, it was necessary to evaluate quality in the delivery of information and services based on the user's perspective by using an assessment of the variables in the WebQual method. The method used in his research is data collection, by making observations directly at the place of research (observation), interviewing methods, distributing questionnaires to respondents, documentation methods and library methods. The results showed that of the 4 WebQual variables, only 2 variables had a significant effect on student satisfaction with the website, namely usability variables and overall. The conclusion is that students are less amenable to the variable quality information and service information so that the SERVQUAL variable needs to be improved in further development, namely the variable quality information and service information

Based on some of the relevant studies, for this study, we propose to evaluate the school website with a case study at Banjarmasin Muhammadiyah 1 Vocational School using the WebQual 4.0 method and Importance-Performance Analysis (IPA). Then also aims to measure the rating of users from the performance and expectations of users/visitors to the website of the Muhammadiyah 1 SMK in Banjarmasin. Current research is also a continuation of recommendations for future work that has been done by [1].

3 WebQual 4.0 Theory

WebQual is one method or technique for measuring the quality of a website based on the perception of the end user. This method is a development of SERVQUAL which is widely used previously in measuring service quality. WebQual has been developed since 1998 and has experienced several interactions in the formulation of the dimensions and items of the question. Three dimensions that represent the quality of a website, namely usability, information quality, and service interaction quality [9] (see Figure 2).
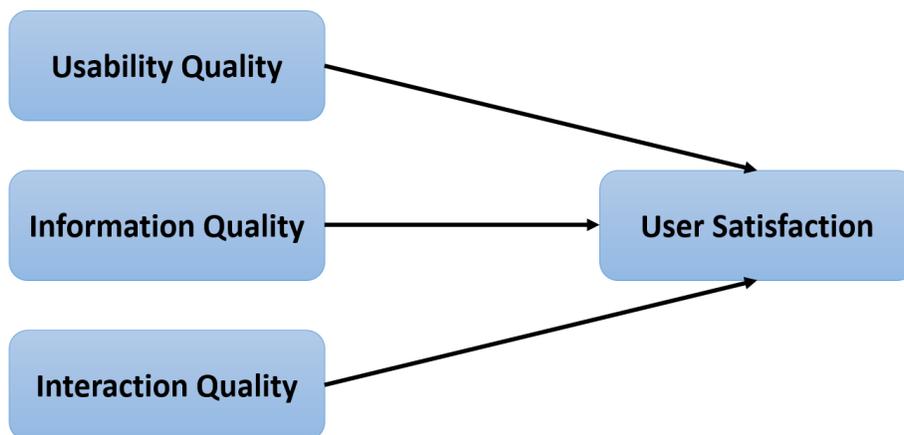

Fig. 2. WebQual 4.0 model

The user's perception of a "good" information system will be a system where users are satisfied with the quality of a website. These qualities represent in three dimensions from WebQual version 4.0. Previous research shows the WebQual dimension is a prediction of user satisfaction and user intention to reuse a website [6][7]. WebQual is based on the Quality Functions Deployment (QFD) – "a structured and disciplined process that provides a means to identify and bring the voice of the customer through each stage of the development and implementation of products and/or services." The QFD application starts with capturing "customer voice" - articulation of quality requirements using meaningful words for customers. These qualities then become feedback to customers and form the basis of evaluating the quality of a product or service [8].

WebQual 4.0 is based on three quality (dimensions) fields as listed in Table 1, Table 2, and Table 3.

Table 1. Variable Ease of Use (Usability)

Statement Number	Description of Indicators
1	Users find it easy to learn the operation of the website.
2	The interaction between the website and the user is clear and easy to understand.
3	Users find it easy to navigate the website.
4	Users feel the website is easy to use.
5	The website has an attractive appearance.
6	Design according to the type of school website.
7	The website contains competencies (clear instructions or references).
8	The website creates a positive experience for users.

(source: adapted from [7][9])

Based on Table 1 reviews the quality areas related to site design, for example, appearance, ease of use, navigation, and images conveyed to users.

Table 2. Information Quality Variables

Statement Number	Description of Indicators
1	The website presents accurate information.
2	The website presents reliable information.
3	The website presents information in a timely manner.
4	The website presents relevant information.
5	The website presents information that is easy to understand.
6	The website presents information at the right level.
7	The website presents information in the appropriate format.

(source: adapted from [7][9])

In Table 2 describes the quality of the content contained in the site, the appropriateness of the information for useful purposes such as accuracy, format, and relevance.

Table 3. Variable Quality Interaction

Statement Number	Description of Indicators
1	The website has a good reputation.
2	Users feel safe to access this website.
3	The user feels safe about his personal information.
4	The website provides space for personalization.
5	The website provides space for the community (teacher/student).
6	The website makes it easy to communicate with organizations (teachers, staff/employees, students, and other stakeholders).

(source: adapted from [7][9])

Next in Table 3 describes the area of quality of service interactions experienced by users when they investigate deeper sites, which are realized with trust and empathy, as examples of issues of transaction and information security, product delivery, personalization and communication with site owners.

4 Importance-Performance Analysis (IPA) Method

IPA method can be used to rank various elements of a collection of services and identify the actions needed. Then according to Martilla and James in [10] suggest the use of the IPA method in measuring the level of service satisfaction. In this method, a measurement of the level of suitability is needed to find out how much the customer is satisfied with the performance of the company, and how much the service provider understands what the customer wants for the services they provide. In the IPA, a mapping is carried out into 4 quadrants for all variables that affect service quality. The quadrant division in the IPA can be seen in Figure 3.
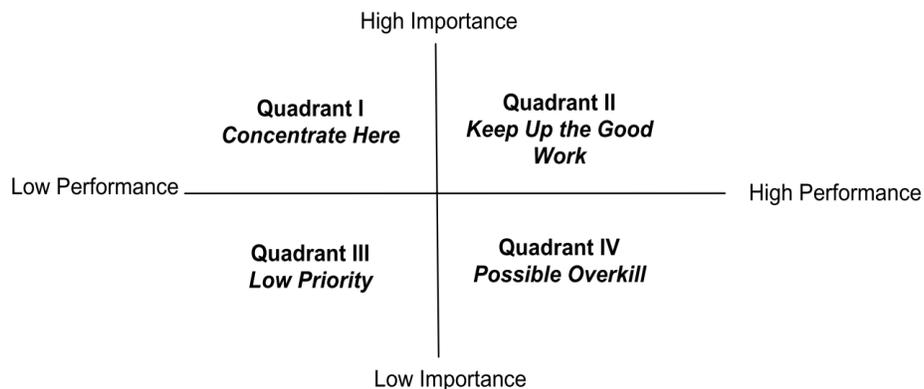
Fig. 3. Map of importance-performance analysis

Adapted research from [11] for strategies that can be carried out regarding the position of each variable in the four quadrants can be explained as follows:
1. Quadrant 1 (Concentrate Here) This is an area that contains factors that are considered important by the customer, but in reality, these factors are not yet in line with customer expectations (the level of satisfaction obtained is still low). The variables included in this quadrant must be increased.

2. Quadrant 2 (Keep Up The Good Work) This is an area that contains the factors that are considered important by the customer and the factors considered by the customer are in accordance with what he feels so that the level of satisfaction is relatively higher. The variables included in this quadrant must be maintained because all of these variables make the product or service superior in the eyes of the customer.
3. Quadrant 3 (Low Priority) This is an area that contains factors that are considered less important by the customer, and in reality, the performance is not too special. The increase in variables included in this quadrant can be reconsidered because the effect on the benefits felt by customers is very small.
4. Quadrant 4 (Possible Overkill) This is an area that contains factors that are considered less important by customers, and are felt to be too excessive. The variables included in this quadrant can be reduced so that the company can save costs.

5   Research Methodology

The first step carried out in this study was to conduct observations and interviews about the use of the school's web facilities at the SMK Muhamadiyah 1 Banjarmasin, then take data from a sample of 130 web users.

5.1 Method of Collecting Data

The method that will be used in this study is quantitative research methods where researchers also use the WebQual method and Importance-Performance Analysis (IPA). In this section contains an explanation of the ways used in the process of collecting data for the type of data needed. For example through observation, interviews, experiments, or questionnaires. If the questionnaire method is used. For each method of data collection, it must be explained about the type of data collected by the related methods. This section also contains an explanation of the types of data needed for analysis in the discussion.

5.2 Data Analysis Method

In this study, analysis mode can be described in the form of relationships to be analyzed. While the measurement scale used in this study is a 5 point Likert scale with (1) Strongly Disagree; (2) Disagree; (3) Neutral; (4) Agree; (5) Strongly Agree. The reasons for choosing a Likert scale with these five levels include conformity with various previous studies, enlarging the variation of the answers compared to the four scales, and so that the tendency to choose respondents to the variables is seen.

Sampling in this study was conducted using Purposive Sampling, namely the technique of determining the sample by considering certain conditions. This technique can be interpreted as a sampling process by determining in advance the number of samples to be taken. This study uses 130 samples from students and teachers as users or visitors to the website of SMK Muhammadiyah 1 Banjarmasin. The data processing technique used in this study uses the Structural Equation Model (SEM) which has the ability to test a complex set of relationships. The software used is SmartPLS 3.0 for data tabulation purposes.

The sample size that must be met in this modeling is to use the sample size using

the Maximum Likelihood Estimation technique. According to [12] recommends that the sample size between 100 and 200 must use the Maximum Likelihood Estimation Method, so that the sample size in this study has met the minimum sample size.

6 Results and Discussion

The following is a website display owned by SMK Muhammadiyah 1 Banjarmasin which is shown by Figure 4 with the website address, http://smkmutubjm.sch.id/. This website was created starting in 2016, then continues to evaluate and improve until 2018.

Fig. 4. Official website of SMK Muhammadiyah 1 Banjarmasin

Below describes the indicator dimensions used in this study after validity testing and reliability testing along with the value of each performance and importance, which are presented in Table 4, Table 5, Table 6, Table 7, and Table 8.

Table 4. Indicator Value

Variable	Indicator	Performance	Importance
USE1	Users find it easy to learn the operation of the website.	3.66	3.85
USE2	The interaction between the website and the user is clear and easy to understand.	3.48	3.80
USE3	Users find it easy to navigate the website.	3.40	3.55
USE4	Users feel the website is easy to use.	3.29	3.61
USE5	The website has an attractive appearance.	3.02	4.09
USE6	Design according to the type of school website.	3.20	3.69
USE7	The website contains competencies (clear instructions or references).	3.07	3.65
USE8	The website creates a positive experience for users.	3.29	3.72
INF1	The website presents accurate information.	3.54	3.76

Variable	Indicator	Performance	Importance
INF2	The website presents reliable information.	3.62	3.73
INF3	The website presents information in a timely manner.	3.28	3.76
INF4	The website presents relevant information.	3.16	4.07
INF5	The website presents information that is easy to understand.	3.47	3.59
INF6	The website presents information at the right level.	3.27	3.58
INF7	The website presents information in the appropriate format.	3.48	3.63
INT1	The website has a good reputation.	3.47	3.70
INT2	Users feel safe to access this website.	3.44	3.75
INT3	The user feels safe about his personal information.	3.32	3.72
INT4	The website provides space for personalization.	3.18	3.64
INT5	The website provides space for the community (teacher/student).	3.15	3.77
INT6	The website makes it easy to communicate with organizations (teachers, staff/employees, students, and other stakeholders).	3.09	3.24
	Mean	3.33	3.70

From Table 5, all indicators are assessed, variables are used, statements in indicators, performance values, and values of importance. Where the value that has been obtained is used to measure the gap in each quality in the WebQual 4.0 dimension.

Gap analysis is applied to see the gap between perceived quality (actual) and expected quality (ideal). The actual quality is indicated by respondents 'assessment of performance attribute indicators that shape the web-based dimensions of web-based indicator quality, while ideal quality is indicated by respondents' assessment of expectations (importance) of quality indicator attributes. The process for determining the gap value can be calculated from the difference in the value of actual quality (performance) and the value of ideal quality (Importance). For the calculation process, adapt from research [13].

$$Gap = Performance - Importance \qquad (1)$$

Description:
Gap = Quality gap level
Performance = Current perceived value or actual quality (performance)
Importance = The value of quality or ideal expectations and needs to be developed (important)

A good level of quality is indicated by a positive value or $Q \geq 0$. This indicates the actual quality has met the ideal quality expected by the respondent. Conversely, if the result of $Q < 0$ or negative, the level of quality cannot meet the wishes of the user. The values for the gap table from each dimension (usability, information quality, and quality

interaction) use calculations with equation (1).

Table 5. Value of Gaps Performance and Importance for Usability

Variable	Indicator	Performance	Importance	Gap
USE1	Users find it easy to learn the operation of the website.	3.66	3.85	-0.19
USE2	The interaction between the website and the user is clear and easy to understand.	3.48	3.80	-0.32
USE3	Users find it easy to navigate the website.	3.40	3.55	-0.15
USE4	Users feel the website is easy to use.	3.29	3.61	-0.32
USE5	The website has an attractive appearance.	3.02	4.09	-1.07
USE6	Design according to the type of school website.	3.20	3.69	-0,49
USE7	The website contains competencies (clear instructions or references).	3.07	3.65	-0.58
USE8	The website creates a positive experience for users.	3.29	3.72	-0.43
	Mean	3.30	3.75	-0.44

In Table 5 above shows, the value of the gap between performance and expectations in Usability variables, all of them are negative. The average value of the gap is (-0.44). The indicator that has the smallest gap difference value is in the USE1 variable with the indicator statement "The user finds it easy to operate the website" with a gap value of -0.19. From the statement on the USE1 variable, when visitors access the website it tends to be very easy to operate, we assume that the possibility of this website is arranged in a simple manner, the available menu is also easy to access and display. Then the biggest difference value is the USE5 variable with the indicator statement "The website has an attractive appearance" with a gap -1.07. In the results of USE5 variable values that have the largest difference in value we absolutely state that the appearance of the website is not as attractive as what the user wants, the website appearance is still too rigid, not yet adhering to a responsive design website, so users tend to feel bored to use the website.

Table 6. Value of Gaps Performance and Importance for Information Quality

Variable	Indicator	Performance	Importance	Gap
INF1	The website presents accurate information.	3.54	3.76	-0.22
INF2	The website presents reliable information.	3.62	3.73	-0.11
INF3	The website presents information in a timely manner.	3.28	3.76	-0.48
INF4	The website presents relevant information.	3.16	4.07	-0.91

Variable	Indicator	Performance	Importance	Gap
INF5	The website presents information that is easy to understand.	3.47	3.59	-0.12
INF6	The website presents information at the right level.	3.27	3.58	-0.31
INF7	The website presents information in the appropriate format.	3.48	3.63	-0.15
	Mean	3.40	3.73	-0.33

Based on Table 6 above shows the gap value between performance (expectation) and expectations (importance) in the Information Quality variable, all produce a negative value gap. The average value of the gap is -0.33. The indicator that has the largest gap difference value is the INF4 variable, namely the indicator statement that "The website presents relevant information" with a gap of -0.91. From the results of the INF4 variable it is recognized that website managers tend to provide information that is not too relevant to schooling activities, possibly because there are not much information obtained by managers, it is necessary to collaborate between school people to convey information related to the school agenda, so that information can be more relevant. Then for the smallest gap difference value is the INF2 variable with the statement "The website presents reliable information" with a difference of -0.11. From the beginning of making this website, website managers tried to gather all information, then carefully select information, so that information received by the general public could be valid and reliable, but returned to the obstacle that there was a need for cooperation between school people, to communicate information to each other, so that the website contains more useful information.

Table 7. Value of Gaps Performance and Importance for Quality Interaction

Variable	Indicator	Performance	Importance	Gap
INT1	The website has a good reputation.	3.47	3.70	-0.23
INT2	Users feel safe to access this website.	3.44	3.75	-0.31
INT3	The user feels safe about his personal information.	3.32	3.72	-0.40
INT4	The website provides space for personalization.	3.18	3.64	-0.46
INT5	The website provides space for the community (teacher/student).	3.15	3.77	-0.62
INT6	The website makes it easy to communicate with organizations (teachers, staff/employees, students, and other stakeholders).	3.09	3.24	-0.15
	Mean	3.28	3.64	-0.36

From the data in Table 7, it shows the gap value between performance and expectations in the Interaction Quality variable, all of which also have negative values. The average

value of the gap is -0.36. The indicator that has the biggest gap difference value is variable INT5 with the indicator statement that "The website provides space for the community (teacher/student)" with a gap of -0.62. The smallest gap difference value in INT6 variable with a statement indicator "The website makes it easy to communicate with organizations (teachers, staff/employees, students, and other stakeholders)" with a difference of -0.15. From the findings in the field that this website has not activated the forum directly so that teachers, students, employees, and the wider community can interact. But with this website indirectly providing convenience to communicate, communication here we assume from the facts on the ground that with this online-based website indirectly the communication process has been carried out to the general public, even though the expected open forum has not been made in its entirety.

Table 8. Gap Value All Indicators

Dimensions	Performance	Importance	Gap
Usability	3.30	3.75	-0.44
Information Quality	3.40	3.73	-0.33
Quality Interaction	3.28	3.64	-0.36
Mean	3.33	3.70	-0.38

Based on the values obtained in Table 8, it is stated that the gap value between the quality of actual performance (performance) and quality expectations (importance) all have negative values. The average value of the difference is -0.38. The dimension that has the biggest gap is usability. This result shows a negative value or Q <0, which means that the value of current quality performance is not in accordance with the quality of expectations of the user, so the quality is stated to need improvement.

From the values shown in Table 5, Table 6, and Table 7, it can be seen the location of each indicator in the IPA matrix which consists of four process quadrants, where the coordinates for each indicator are known based on the acquisition of the value.

Based on Figure 5, the quadrant matrix can be seen the coordinates of each indicator in the IPA matrix. Each quadrant field has its own specific interpretation that can explain what strategic actions each indicator can use. Based on the indicator position, it is known that USE5, USE8, INF3, INF4, INT3, and INT5 are included in quadrant 1, which means the indicators are not yet in line with the expectations of website visitors, because in this quadrant the expectations or interests are high while the performance is low. this is a top priority for improvement.

For indicators USE1, USE2, INF1, INF2, INT1, and INT2, it is located in quadrant 2 which is considered as an indicator that has a high level of expectations/interests and has high performance. Indicators in this quadrant are in line with the expectations of website visitors and their performance must be maintained.

Whereas for USE4, USE6, USE7, INF6, INT4, and INT6 indicators are included in quadrant 3 which have a low level of expectation/interest but their performance is also low. Indicators that enter this quadrant are quite sufficient and are not the main priority for improvement. For USE3, INF5, and INF7 indicators are included in quadrant 4, where this quadrant has a low level of expectation/interest, but its performance level is relatively high. The indicators in this quadrant include being able to meet visitor expectations and can be ruled out.
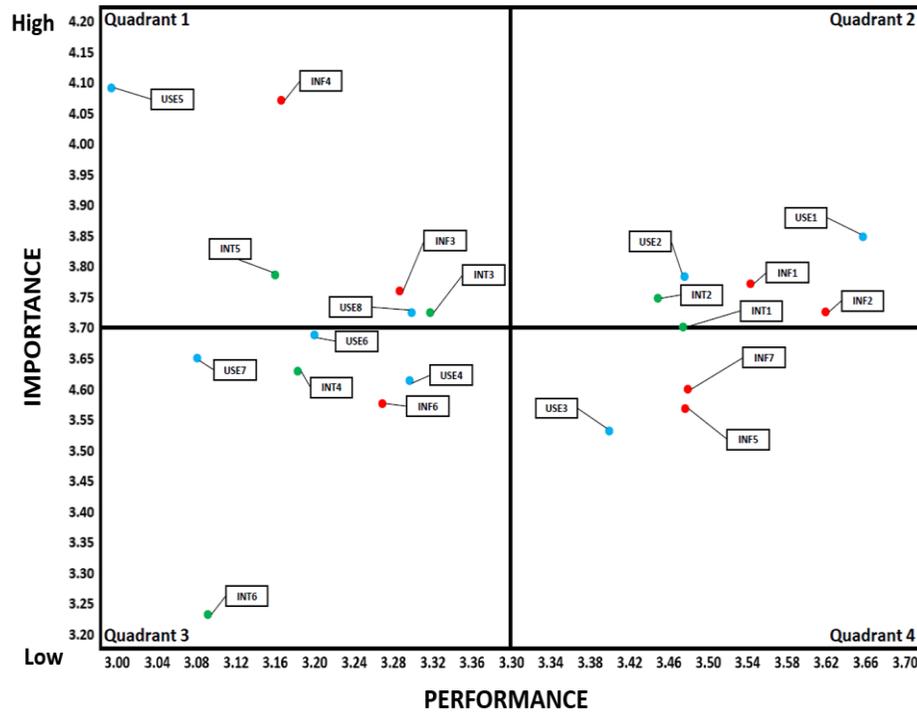
Fig. 5. Importance-performance analysis diagram

7   Conclusion and Future Work

Of all the variables contained in WebQual, the variables that affect the quality assessment of the website of the SMK Muhammadiyah 1 Banjarmasin are the Information Quality and Interaction Quality variables, while the variables that do not significantly influence the assessment or quality of the website are Usability variables. We conclude that in this study the results are measured by the level of performance (actual) and the level of importance (expectations) which shows that there is an overall gap for all dimensions -0.38, namely the average performance of the website tends to still not be as expected and needed repair. The biggest gap is in the Usability dimension with the largest value of -1.07 on USE5 variables, which means that the appearance of this website tends to be unattractive, not in line with expectations, and needs improvement. Then the acquisition of the value of R Square for the variable user satisfaction is 0.61, which means that the value indicates that the variable user satisfaction can be explained by usability, quality of information, and service interaction with a value of 67.7%, while the remaining 32.3% is influenced by other variables not found in the research model.

In accordance with the variables that influence the quality assessment of the website of SMK Muhammadiyah 1 Banjarmasin, the recommendations and future work are for school website administrators to post information or news on time, concluding that the information presented is obsolete information. The information presented on the website must be relevant, which means that every news posted on the website is as far as possible still related to school activities. Administrators are more active in up to date information as quickly as possible so that information can be received by website

visitors with the latest news. The website must be able to maintain or minimize personal information so that users can be minimized to find out data from other users. In this case, it can be in the form of information including private, including student grades and student data. The website provides a special space/forum for visitors to interact with each other, can be a discussion forum between students, between employee teachers or between students and teachers. In order to pay more attention, the official website of this school is one of the most vital promotional media, because of the ease of access, considering that international users are increasing every year.

References

1. Subandi, Syahidi, A. A., Asyikin, A. N.: Strategic Planning and Implementation of Academic Information System (AIS) Based on Website with D & M Model Approach. IOP Conference Series: Materials Science and Engineering, vol. 407, issue 1, https://doi.org/10.1088/1757-899X/407/1/012101 (2018)

2. Buletin APJII.: Potret Zaman Now Pengguna & Perilaku Internet Indonesia!. Asosiasi Penyelenggara Jasa Internet Indonesia, Edisi 23 – April, Jakarta (2018)

3. Trimarsiah, Y.: Evaluasi Website Sekolah SMA Negeri 1 Semende Darat Laut Menggunakan Metode WebQual. JIK, vol. 8, no. 2, pp. 1-8, December (2017)

4. Napitupulu, D. B.: Evaluation of XYZ University Website Quality Based on WebQual Approach. Buletin Pos dan Telekomunikasi, vol. 14, no. 1, pp. 51-64, https://doi.org/10.17933/bpostel.2016.140105 (2016)

5. Elmayati, Wulandari, C.: Evaluasi Kualitas Website SMA Negeri 4 Lubuklinggau menggunakan Metode WebQual. Jurnal Sistem Informasi Musirawas, vol. 3, no. 2, pp. 102-111, December (2018)

6. Barnes, S. J., Vidgen, R. T.: An Integrative Approach to The Assessment of E-Commerce Quality. Journal of Electronic Commerce Research, vol. 3, no. 3, pp. 114-217 (2002)

7. Loiacono, E. T., Chen, D. Q., Goodhue, D. L.: WebQual Revisited: Predicting The Intent to Reuse a Website. Eighth Americas Conference on Information Systems, Association for Information Systems AIS Electronic Library, pp. 301-309 (2002)

8. Barnes, S. J., Liu, K., Vidgen, R. T.: Evaluating WAP News Sites: The WebQual Approach. Proceedings of The Ninth European Conference on Information Systems, Bled, Slovenia, June 27-29 (2001)

9. Tarigan, J.: User Satisfaction Using WebQual Instrument: A Research on Stock Exchange of Thailand (SET). Jurnal Akuntansi dan Keuangan, vol. 10, no. 1, pp. 34-47, May (2008)

10. Zeithaml, V. A, Parasuraman, A., Berry, L. L.: Delivering Quality Service: Balancing Customer Perceptions and Expectations. ISBN: 0029357012, Free Press, New York (1990)

11. Wong, M. S., Hideki, N., George, P.: The Use of Importance-Performance Analysis (IPA) in Evaluating Japan's E-Government Services. Journal of Theoretical and Applied Electronic Commerce Research, vol. 6, issue 2, pp. 17-30, https://doi.org/10.4067/S0718-18762011000200003 (2011)

12. Ghozali, I.: Structural Equation Modeling Metode Alternatif dengan Partial Least Square Edisi 2. Badan Penerbit Universitas Diponegoro, Semarang (2008)

13. Shia, B. C., Chen, M., Ramdansyah, A. D., Wang, S.: Measuring Customer Satisfaction Toward Localization Website by WebQual and Importance-Performance Analysis (Case Study on AliexPress Site in Indonesia). American Journal of Industrial and Business Management, vo. 6, pp. 117-128, http://dx.doi.org/10.4236/ajibm.2016.62012 (2016)